

Master thesis

PrEP-care in the General Practice

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Abstract

Background – Since 2016, pre-exposure prophylaxis (PrEP)-care in the Netherlands has been mostly provided by the Sexual Health Centre (SHC) and the general practitioner (GP). A pilot PrEP program has been started in 2019, in which the government reimburses part of the costs for approximately 6,500 high-risk HIV people at the SHC. Nevertheless, many PrEP-users are excluded from this and must have their PrEP-care with the GP, as well as PrEP-users who prefer their PrEP-care with the GP. The majority of the GPs is positive about prescribing PrEP, however personal norms, values and prejudices play a part, and this PrEP-related stigma is also felt by the PrEP-users.

Objectives – This study investigated which perceived aspects of Quality of Care (QoC) play a role in the choice and evaluation of PrEP-care at the GP and SHC. Thereby, we aimed to gain insight in PrEP-users' barriers, the potential feeling of stigma from the healthcare provider and the PrEP-users' wishes of improving their PrEP-care. We therefore hope to improve the quality of PrEP-care and to give the GP insight into what PrEP-users consider important in their PrEP-care.

Methods – This is a cross-sectional study, between November 2019 and February 2020, among PrEP-users at the GP or SHC in the Netherlands, who completed a questionnaire about the perceived quality of their PrEP-care, subdivided into the QoC domains 'Accessibility', 'Structure & Facilities', 'Clinical care' and 'Personal- and Interpersonal care'. Sociodemographic, sexual behaviour (including chemsex) and PrEP-use characteristics were described, as well as the barriers to start PrEP including the feeling of stigma from the healthcare provider, the Factual Quality of Care and the wishes of improvement from PrEP-users' perspective.

Results – We included 66 PrEP-users of which 97% was MSM with a mean 42 years old, mostly Dutch (80%) and living in Amsterdam (75%); N=37 with their PrEP-care at the GP, N=26 at the SHC. Barriers to start PrEP in particular were costs (56%) and availability of PrEP-care (42%). Twenty-four percent expected their GP to judge because of using PrEP. The majority of the GP-group (73%) chose the GP because they had no other choice (e.g. SHC full or long waiting lists), 24% because their GP feels familiar and supported. The reason to choose the SHC and to switch to the SHC as main PrEP-HCP was mostly because of a more efficient and time-saving PrEP-care (31%) and lower costs (27%) at the SHC. We found no significant association between chemsex and risky sex behaviour and the choice of HCP. The perceived QoC in all domains, except 'Accessibility' was scored statistically significant higher at the SHC compared to the GP with respectively a final mean satisfaction of 9.2 vs. 7.8. 'Structure & Facilities' and 'Clinical care' correlated best with the final satisfaction ($p=0.003$, $p=0.05$), after adjusting for confounders this effect disappeared. Within the GP group, the GP was rated best for 'Personal and Interpersonal care' and worst for 'Clinical care'. 65% of our total sample considered PrEP-care belongs in general practice.

Conclusion – Our findings suggest that the GP provides acceptable PrEP-care with an average final grade of 7.8, whereby the majority of the PrEP-users considered PrEP-care belongs in the GPs office and in particular because of the personal, familiar, nondiscriminatory and long-term care. However, there is still room for improvement in the Quality of Care, especially in the field of the competences of the GP and organizational factors. In addition, there will always be a small group who do not want their PrEP-care from their GP. Further research about the Quality of Care at the GP is warranted to generalize the findings.

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1. Introduction

1.1 Pre-exposure prophylaxis

To decrease the incidence of HIV, pre-exposure prophylaxis (PrEP) was since 2016 proven to be cost-effective and used in the Netherlands as antiretroviral medication to prevent a HIV-infection to HIV-negative individuals with high risk exposures to HIV⁽¹⁾. This high-risk group include men who have sex with men (MSM) or transgender persons who have had unprotected anal sex in the past 6 months, who have been diagnosed with a sexual transmitted infection (anal STI or syphilis) in the past six months or who have had post-exposure prophylaxis (PEP) in the last six months⁽³⁾. Chemsex, sex under the influence of GHB/GBL, Mephedrone and Crystal Meth, nowadays is popular among high risk exposure people to HIV and they seems to report more high-risk sexual behaviour. It influences the awareness and sense of an individual what might diminish the intake of PrEP^(2, 3). Appendix 4 shows more information about HIV and PrEP.

1.2 PrEP-related barriers

Since the emergence of PrEP, PrEP-related stigma and shaming among PrEP-users are potential obstacles for PrEP-uptake, acceptability, adherence and persistence⁽⁴⁻⁶⁾. According to Dubov et al. ⁽⁴⁾ this stigma manifests itself in three different ways. Firstly, labeling of the patient ("they call me Truvada-whore, slut, dirty") and of the medication (e.g. gay drug, bareback pill, recreational pill). Secondly, PrEP-users feel stereotyped and are often associated with promiscuity, condomless sex, chemsex and sex work. And last, PrEP-users often feel rejected, especially in relationships but also in dating apps. This PrEP-related stigma is also expressed in the consultation room, because PrEP-users sometimes experience stigmatizing reactions by healthcare providers (HCP) such as general practitioners(GPs)⁽⁷⁾. Besides the fear of stigmatizing, PrEP-users are also worried about potential side effects, feel aversive to take medication in a healthy body, the cost of medication and the obligated screenings of HIV, STIs and kidney function⁽⁴⁻⁶⁾.

The attitudes towards prescribing PrEP among GPs are diverse, although the majority is positive⁽⁸⁻¹⁵⁾. However, personal norms, values, prejudices and gut feelings also play a part in the idea of how GP's think about PrEP. GPs report a lack of knowledge. They also seem to have reservations about the expected compliance to therapy among the high-risk exposure group. Also there is the fear of stimulating unprotected condom less sex and therefore increasing the risk of other sexually transmitted infections, such as gonorrhea, syphilis and chlamydia. Thereby general practitioners feel PrEP-care as a logistical challenge, in connection with time, continuous screening and costs. And finally, medicalization is a point of view of general practitioners; they are against prescribing medication toxins to healthy people⁽⁸⁻¹⁵⁾.

1.3 PrEP-care in The Netherlands

In the Netherlands, PrEP can be prescribed by the Sexual Health Centre (SHC), which is the department of the Municipal Public Health Service, the GP and, to a lesser extent, at the medical specialist (MS). From august 2019, the government started a PrEP-pilot in which they reimburse almost the full costs of PrEP-care for 6.500 high-risk HIV individuals and will be exclusively run by the SHC^(1, 16). This means the GP will take care of the low exposure HIV individuals, those who do not want to have their PrEP-care at the SHC or simply the ones that don't get a place at the SHC⁽¹⁷⁾. Stichting Farmaceutische Kengetallen (SFK) had shown that in 2018 72 percent of all PrEP-

prescriptions at the public pharmacies was provided by the GP⁽¹⁸⁾, however the SHC prescribes the pills themselves. According to NHG Expert group SeksHAG⁽¹⁹⁾ the GP plays a crucial role in sexual health and therefore in preventing HIV by the drug PrEP. The GP is the primary care provider where patients are the first to come with their questions, the GP has knowledge about other healthcare problems and medication of the patient. Thereby, the GP often has short waiting times, is easy to find and can provide chronic sustainable care. These are all factors that make a positive contribution to the Quality of Care (QoC)⁽²⁰⁾. However there is still discussion about the role of the GP in PrEP-care as the Dutch National GP Association (LHV) claimed that the provision of PrEP and the accompanying guidance is not basic GP-care⁽²¹⁾.

1.4 Quality of Care

According to the WHO⁽²²⁾, QoC is defined as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge". To achieve beneficial HIV-care, quality HIV-services must be effective, safe and people-centered. Besides, to realize these benefits, health services must be timely, equitable, integrated and efficient. To measure the QoC on the basis of these aims, the Donabedian model divides the healthcare system into three categories, namely the structure of the healthcare, the factual given care (process) and the outcome^(23, 24). The structure of the system mentions the organizational factors which includes physical characteristics, such as geographical/physical access, affordability and availability of service and facilities and staff characteristics, such as skill-mix and team working. The process of care includes the interactions between the patient and the health care provider, divided into clinical care such as provider knowledge and experiences and the providing of information, and the personal and interpersonal skills of the provider, such as the communication, trust, respect, equity and patients' involvement in decisions. The outcome is an evaluation of the service experience, included the structure and process of the service, and is achieved by patients' expectations and perceptions of the service⁽²⁴⁻²⁶⁾.

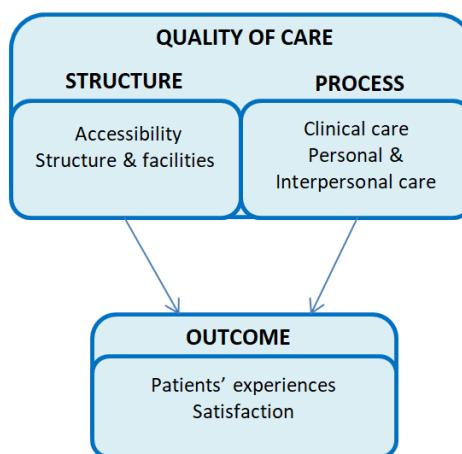


Figure 1. QoC framework, based on the Donabedian model

1.5 Research objective

The aim of this research project is to investigate which aspects of QoC play a role in the choice and evaluation of PrEP-care in general practice and SHC. Thereby there will be investigated if stigma and discrimination felt from their HCP still plays a role in the decision whether or not to use PrEP, in the choice for HCP and eventually the final satisfaction. It will also be examined whether chemsex and

risky sex behaviour play a role. The clinical relevance is twofold; it has potential to improve the PrEP-care in general related on the QoC factors and it might give the GP and/or SHC doctor knowledge and tools to discuss PrEP-related barriers and sexual related issues with the PrEP-user in the consulting room.

The main research question of this study is: ***Which perceived aspects of QoC play a role in the choice and evaluation of PrEP-care at the general practitioner or Sexual Health centre respectively?***

In order to answer this question, we defined several sub-questions:

1. What are PrEP-users' barriers to start PrEP?
2. What are PrEP-users' considerations where they prefer their PrEP-care? In general practice or SHC?
3. Does chemsex and risky sex behaviour predict the decision where PrEP-users prefer their PrEP-care? In general practice or SHC?
4. What is the perceived QoC as well as the final satisfaction of PrEP-users in the GPs office compared to the SHC?
5. What are PrEP-users' wishes and expectations for improving the PrEP-care in GPs office as well as the SHC?

2. Methods

2.1 Setting

This study took place from the Oude Turfmarkt General Practitioners/Student Doctors'Office (HOT/BS), a multicenter general practice located in the centre of Amsterdam.

2.2 Sample

First, all 102 PrEP-users who were enlisted at the practice Oude Turfmarkt were eligible and were selected from the electronic files in HIS (Huisartsen Informatie Systeem). Secondly, PrEP-users in The Netherlands who were enlisted through social media of PrEPnu.nl were included. Prepnu.nl is a foundation group who aims to ensure easily available PrEP and PrEP-related care for anyone in the Netherlands. All PrEP-users at least are older than 17 years and are able to read and write in Dutch or English.

Account is taken of the fact that response and non-response bias could occur as patients who are very satisfied or patients who are very unsatisfied are more likely to respond compared to the in-between satisfied patients. Besides, selection bias is present in this cross-sectional study since randomization is not possible in this study.

2.3 Procedure

This is a cross-sectional study that used data from combined structured and unstructured questionnaires. The study was performed over a 16-week period between November 2019 and February 2020.

Questionnaire

The questionnaire was developed in Qualtrics. A link to the anonymous questionnaire was send by E-mail to all eligible PrEP-users of the GPs practice and placed on Social Media of prepnu.nl. They could choose between a English or Dutch questionnaire after giving their informed consent. A reminder was send one week after and all outcomes were stocked and processed anonymously. The survey period was set on two weeks.

2.4 Variables

All variables are obtained by the questionnaires with the following items: sociodemographic characteristics, sexual behaviour characteristics, decision to use PrEP, decision of HCP, the perceived quality of PrEP-care and final satisfaction of their HCP, and wishes towards health care provider. The questionnaire in English and Dutch are respectively added in Appendix 5 and 6.

Sociodemographic characteristics

Characteristics included age, gender identity (male, female, transgender female to male, transgender male to female, other), sexual preference (men, women, men + women, pansexual, other), ethnic background (Dutch, Turkish, Moroccan, Surinamese, Antillean, Eastern European, Sub-Saharan African, Middle/South-American, Asian, Other) based on country of birth of participant and parents⁽²⁷⁾, highest obtained level of educational (primary school, high school, vocational education, higher vocational education (University of applied sciences), bachelor's degree University, master's degree University, doctorate PhD), current employment status (not working, working and how many of working hours), net monthly income (low: ≤1500 Euro/medium: 1500-2500 Euro/high: ≥2500 Euro)⁽²⁸⁾, relationship status (partner and living together, partner and living separately, multiple partners, no partner)⁽²⁹⁾, marital status.

High socioeconomic status (SES) was defined as having a University of applied sciences degree or higher, being employed and having a net monthly income of medium or high⁽³⁰⁾.

Sexual behaviour characteristics

Sexual behaviour included number of sexual partners in the preceding 6 months, partner HIV status in the last 6 months (any HIV-positive, any HIV-negative, any unknown status partners), type of sexual practices (vaginal, insertive/receptive oral and anal sex), post-exposure prophylaxis (PEP)-prescription in the preceding 6 months, condomless anal sex (CAS) in the preceding 6 months and if PrEP-users use condoms during sex less often since using PrEP, STI-diagnosed in the preceding 6 months and if PrEP-users were diagnosed more often compared to before PrEP-treatment. At last, PrEP-users were asked if they have ever engaged in chemsex, if they ever felt judged and treated with less respect by their HCP and in what way it affects their PrEP-use. The questions were based on different studies^(2, 6, 31).

PrEP-users were classified into HIV-risk infection group based on the PrEP-guideline criteria⁽³²⁾; MSM or transgender who had unprotected anal sex with some unknown or positive HIV-partner in the past 6 months, who have been diagnosed with a STI (anal STI or syphilis) in the past six months or who have had a PEP-prescription in the last six months. If they met these criteria, they were labeled as having high risky sex behaviour. Thereby, PrEP-users were asked if they met these criteria at the start of their PrEP treatment. CAS was described as people who don't (always) use a condom during anal sex. Condom use during PrEP-use was compared to condom use before PrEP-use as well as STI

incidence, and in both cases it was asked if PrEP-users could explain it. Chemsex was defined as having sex under the influence of GHB/GBL, Mephedrone (meow, meow) or Crystal Meth(Tina).

Decision to use PrEP

PrEP-users were asked what barriers played a role in making the decision to use PrEP, such as the costs, the obligated screenings as well as the stigmatizing barriers felt or expected from the HCP and surrounding. Thereby, the expectation to be stigmatized, which included being judged and treated with less respect, by their GP or SHC-doctor regarding their PrEP-question was asked. PrEP-users were asked with which HCP in the Netherlands they have decided to start PrEP and if he/she gave enough counseling. The final satisfaction with the decision-making process has been measured with a score ranging from 1 to 10 and we looked at a difference in final satisfaction among PrEP-users who switched providers. The questions were based on different studies ^(4-7, 33) and answers were measured by 'yes' and 'no' and by open questions.

Decision of HCP

In this variable all facts about users PrEP-care were measured, such as how users use PrEP (daily, event driven or 'other'), since when they have used PrEP, which HCP is prescribing PrEP and why they have chosen their HCP, which HCP conducts the screenings and whether they fall within the PrEP-pilot. The factual QoC according to the PrEP-guideline⁽³²⁾ was a total sum of the presence of counseling during the first consultation with their doctor, if they received the obligated three-monthly doctor visits and screenings in the past year and if they were vaccinated against hepatitis A and B. Answers were measured by 'yes' and 'no' and by open questions.

Perceived PrEP-care and final satisfaction

The perceived QoC was measured among the HCP which is prescribing PrEP. QoC was divided according to the Donabedian model into the structure and process of the service^(23, 24).

Structure of service

Structure of service was subdivided into the domains (1) accessibility and (2) structure & facilities. (1) Accessibility includes the availability of the service and if the service is geographically approachable, affordable and convenient^(34, 35). (2) Structure & facilities includes the availability of facilities, the privacy and anonymity of facilities, the waiting time to see the doctor, time management, continuity of care and staff-skills^(24, 34-37). The questions were based on different studies^(34, 35, 37).

Process of the service

Process of service was subdivided into (3) clinical care and (4) personal and interpersonal care^(24, 37). (3) Clinical care includes the providers' competence of knowledge, teamwork and collaboration, evidence-based practice, quality improvement and provision of informatics⁽³⁸⁾. (4) Personal and interpersonal care includes if care is personal, respectful, trustful, equitable as well as the communication skills of the provider and involvement in decision making^(24, 34). The Clinician-Client centeredness scale⁽³⁴⁾ was used with a Cronbach's alpha coefficient of 0.92, adapted with additions from Katarina et al.⁽³⁵⁾. Besides, questions about equity and nondiscriminatory care were added^(20, 37, 39), as well as questions about openly talking about sex⁽⁴⁰⁾ and shared decision making^(34, 35).

All answers regarding the QoC were measured on a 5-point Likert scale varied from 'strongly disagree' to 'strongly agree'. All outcomes were compared between both groups, GP vs. SHC.

Overall satisfaction of their PrEP-care

A final score of their current PrEP-care ranged from 1 to 10, as well as patients most important aspect of good care.

Wishes toward health care provider

Finally, PrEP-users' wishes and points for improvement regarding beneficial PrEP-care from their view was asked through two open questions. The question was also asked as to whether they think that PrEP-care should belong in GPs practice.

2.5 Statistical analysis

Quantitative analysis

Data analysis is performed by using SPSS version 25. For the statistical significance $p < 0.05$ was used. The reliability of the QoC domains were analysed with Cronbach's alpha and a confirmatory factor analysis (Principal Component Analysis) was performed⁽⁴¹⁾.

The distributions of sociodemographic characteristics, sexual behaviour characteristics, PrEP-barriers, PrEP-use, PrEP-care, the factual QoC, the perceived QoC and the final satisfaction of the PrEP-users at the GPs practice and SHC were described and compared by using descriptive analysis. All categorical variables were compared by using chi-square tests and described as number (n) and percentage (%). All continuous normally distributed data were analyzed with unpaired independent T-tests, all not-normally distributed data with Mann-Whitney U tests and both were described as mean and standard deviation (SD) or median and interquartile range (IQR). Since the perceived QoC was measured on a 5-point Likert-scale and the ordinal distribution is proportional and continuous, it was decided to use the independent-sample T-test to compare both groups^(41, 42).

To determine all potential correlations between the different variables, a Pearson's correlation table was made. A binary logistic regression was performed to answer the question whether chemsex and risky sex behaviour play a role in the choice of HCP⁽⁴¹⁾. It was decided to correct for all confounders that has a correlation with the choice of HCP such as 'sex with HIV-positive or –unknown partners', 'expecting the GP to judge', 'PrEP-use frequency' and 'PrEP-use duration'. It was decided to not include 'income' since it gave an unexplainable error, and 'expecting the SHC to judge' since it has a strong correlation with 'expecting the GP to judge'. A multivariable regression analysis was performed to determine the final satisfaction of the GP and SHC, corrected for confounders, and to determine which QoC domain(s) had a relationship with the final satisfaction⁽⁴¹⁾. It was decided to correct for 'SES', 'high-risk to HIV', 'screening waste of time' and 'counseling about compliance to therapy'.

Qualitative analysis

All qualitative questions about chemsex, PrEP-barriers, the expectation of being judged and treated with less respect by HCP, the experiences with the decision-making process with their HCP, the reasons of choosing their HCP, and the questions regarding PrEP-users' wishes and points of improvement were described by coding the answers and then summarizing it. The answers about chemsex and PrEP-barriers were cited as well.

3. Results

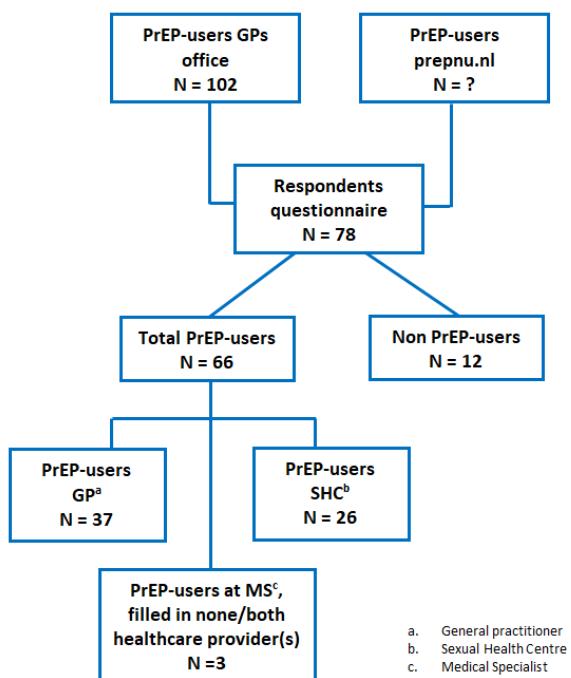
3.1 PrEP-user characteristics

Inclusions

Of the 102 PrEP-users at the GPs office and all people who responded through Social Media of prepnu.nl, a total of 78 responded to the questionnaire of which 66 respondents filled in they use PrEP currently, which means that they participated in the study results (see Figure 2). Of the excluded 12 non-PrEP-users eight filled in they ever thought about using PrEP, but the reason of not yet using it is because of the high costs (N=3), still on the waiting list of the SHC (N=2), the lack of supplementary guidance (N=1), and the medicalization of healthy people and normalizing unsafe sex (N=1). Besides, one of them thinks his GP will judge him for engaging in unsafe sex if he asks for PrEP, and another considered his GP homophobic.

Of the total 66 PrEP-users in this study, 37 PrEP-users have been prescribed PrEP by their GP, 26 by the SHC, one PrEP-user had his PrEP-care with the medical specialist (MS), one did not fill in which HCP he is with and one user filled in both HCPs because he just had a break of using PrEP.

Figure 2. Number of respondents to questionnaire



Sociodemographic characteristics

Table 1 shows the sociodemographic characteristics of the sample, of which no statistical significant differences were seen between both groups. The mean age of the total sample was 42 years old. The majority, namely 96 percent (N=63), of the sample was MSM and only one PrEP-user of the sample was a woman. Eighty percent were fully Dutch and the remaining 20 percent was 1st or 2nd generation, such as German, Turkish, American, British and Asian. Of the total sample 75 percent is living in Amsterdam and 71 percent (N=47) was having a high SES, whereof 78 percent (N=29) in the GP group and 58 percent (N=15) in the SHC group, which was not statistical significant ($p=0.078$). Only 20 percent of the sample was married.

Table 1. Sociodemographic characteristics

Sociodemographic characteristics	Total sample (N=66)	GP (N=37)	SHC (N=26)	P-value
Age in years, mean (SD)	42.1 (11.8)	40.5 (11)	44.4 (12.6)	0.203 ^a
18-25 (N, %)	3 (4.5)	1 (2.7)	2 (7.7)	
26-35 (N, %)	21 (31.8)	15 (40.5)	5 (19.2)	
36-45 (N, %)	15 (22.7)	7 (18.9)	7 (26.9)	
46-55 (N, %)	19 (28.8)	11 (29.7)	7 (26.9)	
56-65 (N, %)	7 (10.6)	3 (8.1)	4 (15.4)	
66+ (N, %)	1 (1.5)	0 (0.0)	1 (3.8)	
Gender identity, N (%)				0.166 ^b
Male	63 (95.5)	36 (97.3)	24 (92.3)	
Female	1 (1.5)	1 (2.7)	0 (0.0)	
Transgender (female-male)	0 (0.0)	0 (0.0)	0 (0.0)	
Transgender (male-female)	0 (0.0)	0 (0.0)	0 (0.0)	
Other (genderqueer)	2 (3.0)	0 (0.0)	2 (7.7)	
Sexual preference, N (%)				0.799 ^b
Men	64 (97)	36 (97.3)	25 (96.2)	
Women	0 (0.0)	0 (0.0)	0 (0.0)	
Bisexual	0 (0.0)	0 (0.0)	0 (0.0)	
Pansexual	2 (3.0)	1 (2.7)	1 (3.8)	
MSM, N (%)	63 (95.5)	36 (97.3)	24 (92.3)	0.360 ^b
Ethnicity, N (%)				0.825 ^b
Dutch	53 (80.3)	29 (78.4)	22 (84.6)	
1 st generation	9 (13.6)	6 (16.2)	3 (11.5)	
2 nd generation	4 (6.1)	2 (5.4)	1 (3.8)	
Educational level, N (%)				
Primary school	0 (0.0)	0 (0.0)	0 (0.0)	
High school (or equivalent)	4 (6.1)	1 (2.7)	3 (11.5)	
Vocational education (or equiv.)	9 (13.6)	6 (16.2)	3 (11.5)	
Higher vocational education (UAS)	12 (18.2)	8 (21.6)	3 (11.5)	
Bachelor's degree University	4 (6.1)	3 (8.1)	1 (3.8)	
Master's degree University	33 (50.0)	17 (45.9)	15 (57.7)	
Doctorate PhD	4 (6.1)	2 (5.4)	1 (3.8)	
Highly educated ^d	53 (80.3)	30 (81.1)	20 (76.9)	0.688 ^b
Employed, N (%)	62 (93.9)	36 (97.3)	23 (88.5)	0.157 ^b
Net monthly income, N (%)				
Low (<1500 euro)	4 (6.1)	0 (0.0)	4 (15.4)	
Middle (1500-2500 euro)	21 (31.8)	12 (32.4)	8 (30.8)	
High (>2500)	41 (62.1)	25 (67.6)	14 (53.8)	
Medium/high	62 (93.9)	37 (100)	22 (84.6)	0.014 ^b
Socioeconomic status (SES)^e, N (%)	47 (71.2)	29 (78.4)	15 (57.7)	0.078 ^b
Relation status, N (%)				0.473 ^b
Steady partner, living together	28 (43.1) ^c	16 (44.3) ^c	11 (42.3)	
Steady partner, living separately	5 (7.7) ^c	4 (11.1) ^c	1 (3.8)	
Multiple steady partners	6 (9.2) ^c	2 (5.6) ^c	4 (15.4)	
No steady partner	26 (40.0) ^c	14 (38.9) ^c	10 (38.5)	
Married, N (%)	13 (19.7)	7 (18.9)	5 (19.2)	0.975 ^b
Residence, N (%)				0.190 ^b
Amsterdam	49 (75.4) ^c	30 (83.3) ^c	18 (69.2)	
Outside of Amsterdam	16 (24.6) ^c	6 (16.7) ^c	8 (30.8)	

a. Differences compared between GP and SHC by using T-test

b. Differences compared between GP and SHC by using Chi-square tests

c. Cumulative percentage: one data missing

d. Higher vocational education or higher

e. Combination of highly educated, being employed and a medium/high net monthly income

Sexual behaviour characteristics

Table 2 shows the sexual behaviour characteristics of the sample. Seventy-nine percent (N=52) of the total sample was high at risk for HIV in the preceding six months, according to the criteria of the PrEP-guideline, which was 89 percent (N=23) of the SHC-group and 70 percent (N=26) of the GP group however not statistically significant. Eighty-six percent of the total sample was high at risk for HIV at the start of their treatment, according to the PrEP-guideline criteria, which was statistically significant higher in the SHC-group (96%) compared to the GP-group (78%) with $p = 0.047$. Of the 14 non-high-risk PrEP-users of the total sample eight of them were high-risk at the start of their PrEP-use. Seventy six percent of the total sample reported they have used a condom less often since they started using PrEP compared to before and 24 percent of the sample reported more STIs since using PrEP, without statistical differences between the groups.

Fifty-three percent (N=35) of the total sample declared they have ever engaged in chemsex, which was slightly more in the SHC-group (54%) compared to the GP-group (51%), however this was not statistically significant ($p=0.845$). A significantly higher incidence of STIs (anal/syphilis) was found in the chemsex group (52% vs. 10%, $p = 0.000$), see Appendix 13. In addition, 18 percent (N=14) of the chemsex group would not tell their GP they have ever engaged in chemsex, because they are afraid to get judged or treated with less respect by their GP. “*I was already convicted of using PrEP, let alone chemsex.*” Five of them do not feel the setting to discuss this with their GP. “*The GP is there for more things than just my sexual health and chemsex, I think this is independent of this.*” The remaining part (82%) would tell, of which three of them said it was not worth mentioning at the moment because of the one-time use of a small amount of GHB. Asked whether chemsex influences their PrEP use, 26 percent (N=9) replied forgetting the condom during chemsex. None of them mentioned forgetting their PrEP-pill during the chemsex or the unsafe use of drug needles.

Table 2. Sexual behaviour characteristics

Sexual behaviour characteristics	Total sample (N=66)	GP (N=37)	SHC (N=26)	P-value
Number of sex partners in preceding 6 months (mean, SD)	20 (10-30) ^a	25.2 (37.1) ^a	32 (21.4)	0.200 ^b
Sex with HIV-positive/unknown in preceding 6 months, N (%)	52 (78.8)	24 (64.9)	25 (96.2)	0.003 ^c
Type of sexual practices, N (%)				-
<i>Vaginal</i>	2 (3.0)	1 (2.7)	1 (3.8)	
<i>Oral insertive</i>	65 (98.5)	36 (97.3)	26 (100)	
<i>Oral receptive</i>	64 (7.0)	35 (94.6)	26 (100)	
<i>Anal insertive</i>	60 (90.9)	32 (86.5)	25 (96.2)	
<i>Anal receptive</i>	57 (86.4)	31 (83.8)	23 (88.5)	
Condomless anal sex in preceding 6 months, N (%)				
<i>No</i>	2 (3.0)	2 (5.4)	0 (0.0)	
<i>Yes, with steady partner(s)</i>	7 (10.6)	5 (13.5)	2 (7.7)	
<i>Yes, with non-steady partner(s)</i>	26 (39.4)	13 (35.1)	10 (38.5)	
<i>Yes, with steady and non-steady partner(s)</i>	31 (47.0)	17 (45.9)	14 (53.8)	
<i>Yes</i>	64 (97.0)	35 (94.6)	26 (100.0)	0.228 ^c
STI diagnosis in preceding 6 months, N (%)				
<i>None</i>	34 (51.5)	21 (56.8)	12 (46.2)	
<i>HIV</i>	0 (0.0)	0 (0.0)	0 (0.0)	
<i>Oral chlamydia/gonorrhoea</i>	15 (22.7)	9 (24.3)	6 (23.1)	
<i>Urethral/penis chlamydia/gonorrhoea</i>	12 (18.2)	7 (18.9)	4 (15.4)	
<i>Anal chlamydia/gonorrhoea</i>	17 (25.8)	7 (18.9)	8 (30.8)	
<i>Syphilis</i>	7 (10.6)	4 (10.8)	3 (11.5)	

Other (hep.B, mycoplasma, genital warts)	3 (4.5)	2 (5.4)	1 (3.8)	
High risk STI (anal/syphilis)	20 (30.3)	10 (27.0)	10 (38.5)	0.33 ^c
PEP-prescription in preceding 6 months, N (%)	5 (7.6)	5 (13.5)	0 (0.0)	0.05 ^c
High risk HIV in preceding 6 months^d, N (%)	49 (77.8)	26 (70.3)	23 (88.5)	0.08 ^c
High risk HIV at start treatment^d, N (%)	54 (85.7)	29 (78.4)	25 (96.2)	0.04 ^c
Less condom use since PrEP-use, N (%)	50 (75.8)	27 (73.0)	20 (76.9)	0.72 ^c
More STIs since PrEP-use, N (%)	16 (24.2)	8 (21.6)	8 (30.8)	0.41 ^c
Ever engaged in chemsex, N (%)				
No	31 (47.0)	18 (48.6)	12 (46.2)	
With one partner	10 (15.2)	7 (18.9)	3 (11.5)	
With multiple partners	25 (37.9)	12 (32.4)	11 (42.3)	
Yes, with one or multiple partner(s)	35 (53.0)	19 (51.4)	14 (53.8)	0.84 ^c

a. Cumulative percentage: one data missing

b. Differences compared between GP and SHC by using T-test

c. Differences compared between GP and SHC by using Chi-square tests

d. Combination of MSM/transgender + CAS with HIV+/unknown partner(s) or anal STI/syphilis or PEP-prescription in preceding 6 months

3.2 Decision to use PrEP

Barriers felt by PrEP-users when starting PrEP

The barriers experienced by the PrEP-users of the sample are summarized in Table 3. According to the PrEP-users, the most common barrier to start PrEP were the costs (56%), followed by the availability of PrEP-care (42%) which was entered by the PrEP-users as no availability in the Netherlands at the time, not being aware of treatment because of unclear information, no cooperation or knowledge from the GP or no availability at the SHC because of long or full waiting lists.

Table 3. Barriers felt by PrEP-users considering starting PrEP

Barriers	Total sample (N=66)	GP (N=37)	SHC (N=26)	P-value	Explanation
None (N, (%))	12 (18.2)	7 (18.9)	5 (19.2)	0.975 ^a	"After being fully informed by the GP and previously also the SHC, there was no threshold" (GP)
Costs (N, (%))	37 (56.1)	22 (59.5)	15 (57.7)	0.457 ^a	"I used to pay 100 euros per jar of PrEP." (SHC) "I only considered using PrEP when it became affordable (around 50 euros per month)" (GP)
Effectiveness of pill (N, (%))	11 (16.7)	8 (21.6)	2 (7.7)	0.136 ^a	"The first half year I had a lot of problems with side effects. Strongly considered stopping." (GP) "The fear of side-effects on stomach and sleep (lucid dreams)." (SHC) "Taking preventive medication is good of course. However, against which disadvantages do the benefits outweigh? HIV prevention or risk of kidney damage? Difficult considerations." (GP)
Time effort (N, (%))	14 (21.2)	8 (21.6)	5 (19.2)	0.817 ^a	"It is very complicated to get an appointment with the SHC." (GP)
Availability of PrEP-care in the Netherlands (N, (%))	28 (42.4)	12 (32.4)	14 (53.8)	0.089 ^a	Availability in the Netherlands: "It took a long time before it became available in the Netherlands." (SHC) No cooperation or knowledge from the GP: "My GP did not want to cooperate with PrEP because, according to the Dutch GP association, this is not a concern for the GPs but for the SHC. However, there was no room at the SHC since I have a job and partner." (GP)

					Unclear information: "I was not yet aware of how the treatment could be started." (GP) "I was sent from SHC to the GP and sent back." (GP) SHC was full: "It was only possible at the SHC and they admitted nobody anymore." (GP)
Stigmatizing reactions from surrounding (N, (%))	10 (15.2)	4 (10.8)	6 (23.1)	0.190 ^a	"People did not know at the beginning what PrEP was and had decided that I had HIV." (SHC) 'When I started with PrEP this was not yet negotiable in the circle of friends.' (GP)
Stigmatizing reactions from HCP (N, (%))	8 (12.1)	4 (10.8)	4 (15.4)	0.591 ^a	"At the start, I was unpleasantly asked about my reasons." (GP) "My GP did not want to cooperate." (GP) "I was afraid of it, but it was minimal" (SHC)
Other (N, (%))	11 (16.7)	7 (18.9)	4 (15.4)	0.716 ^a	"The question of whether I really need PrEP when many people use it. But you have to protect yourself, so the answer is yes." (GP) "The fear of more STIs." (GP) "Little is known about PrEP among women, I would prefer to use PrEP periodically." (GP)

a. Differences compared between GP and SHC by using Chi-square tests

Expectation of stigmatizing by HCP

Twenty-four percent (N=16) of all included PrEP-users expected their GP to judge and treat them with less respect with regard to their PrEP-question during the first consultation (see Table 4), which was a statistically significant higher incidence in the SHC group (39%) compared to the GP group (16%) with p = 0.046. Thirty-five percent (N=23) expected the SHC doctor to treat them with more respect and less judging compared to their GP. Only five percent (N=3) expected the SHC doctor to treat them with less respect of which two do have their PrEP-care with the GP and one of them switched his PrEP-care from the SHC in Rotterdam to the SHC in Amsterdam. The remainder thought they would be treated with the same respect by the GP as by the SHC doctor.

Table 4. Expectation to feel stigmatized by HCP

Stigma HCP	Total (N=66)	GP (N=37)	SHC (N=26)	Additional explanation, in order of most mentioned
I expect my GP to judge me and treat me with less respect:				
Yes	16 (24.2)	6 (16.2)*	10 (38.5)*	- Judging about lifestyle and sexual behaviour (afraid of/already experienced) - No willingness of prescribing PrEP (e.g. because of GPs' religion, no experience with PrEP) - No knowledge of PrEP
No	50 (75.8)	31 (83.8)	16 (61.5)	- Open-minded and liberal GP - Good relationship with GP - Professional doctor
I expect the SHC-doctor to treat me with compared to my GP:				
Less judging/more respect	23 (34.8)	8 (22.9)	14 (53.8)	- More professional and competent - More open-minded - More respectful and understanding
Equally	37 (56.1)	25 (67.6)	10 (38.5)	- No experience with less judging in both groups - Never been to SHC-doctor
More judging/less respect	3 (4.5)	2 (5.4)	1 (3.8)	- No trust relationship with SHC employees

*Differences compared between GP and SHC by using Chi-square tests with p = 0.046.

Satisfaction with decision-making process

A total of 52 PrEP-users went for the first time to the GP with their PrEP-question and 11 PrEP-users to the SHC. Both scored their experience with a mean total score of 7.8 (respectively SD 2.3 and SD 2.2). Of the 52 PrEP-users who went for the first time to the GP with their PrEP-question, 15 users switched to the SHC as main HCP and 36 stayed with his GP. Those 'switchers' scored their satisfaction with the decision-making process lower compared to the 'stayers', respectively 6.7 (SD 2.4) and 7.9 (SD 2.2) with p=0.082.

The most mentioned (21%) strength of the GP in the decision-making process was the good knowledge and providing of information with the accompanying advice and agreements. In addition, 10 percent of the PrEP-users felt understood, supported and treated with respect by their GP. Another 10 percent of the PrEP-users appreciated the open attitude and willingness of their GP. However, in contradiction with the good knowledge as mentioned earlier, 23 percent found that there was a lack of knowledge, competence and information provision at the first consultation. Ten percent of the PrEP-users was not satisfied with the screening regulations, for example, not all tests at one location, not being called up for tests, or the tests were messy organized and imposed. Furthermore, it was mentioned that PrEP-users did not feel understand, supported and treated with respect during the consultation, and two PrEP-users had to convince their GP.

The majority of the PrEP-users at the SHC was very positive about the decision-making process and almost all of them mentioned the good professional competence such as knowledge and information providing, together with the fact that the doctor being friendly and takes time for them. One of them mentioned that his doctor opened the conversation about sexual risk behaviour and morality. One PrEP-users was not satisfied about the decision-making process since he had to sort it out all by himself.

3.3 Decision of healthcare provider

PrEP-use

The mean duration of PrEP-use of the total sample is 18 months (SD 10.7) and was significant longer in the SHC-group compared to the GP-group (p=0.002) (see Table 5). The majority of the SHC-group used PrEP on a daily basis (73%), whereby PrEP-users at the GP used PrEP event driven with a slight majority (51%). This difference has been seen statistically significant with p = 0.039. Six percent of the total sample used PrEP variously, such as sometimes on a daily basis and sometimes event driven, or currently not anymore.

Table 5. PrEP-use and -care characteristics

	Total sample (N=66)	GP (N=37)	SHC (N=26)	P-value
PrEP-use in months, mean (SD)	18.3 (10.7) ^a	14.6 (8.3) ^a	23.2 (12.0)	0.002 ^b
Frequency, N (%)				0.039 ^c
Daily	35 (53.0)	15 (40.5)	19 (73.1)	
Event driven	27 (40.9)	19 (51.4)	6 (23.1)	
Other	4 (6.1)	3 (8.1)	1 (3.8)	
PrEP-pilot, N (%)	23 (34.8)	0 (0.0)	23 (88.5)	0.000 ^c

a. Two data missing

b. Differences compared between GP and SHC by using T-test

c. Differences compared between GP and SHC by using chi-square tests

PrEP-care

As mentioned before, 56 percent (N=37) of the sample chose the GP as main HCP, which is the prescriber of PrEP, and 39 percent (N=26) chose the SHC. From the SHC-group 89 percent (N=23) belongs to the PrEP-pilot. 38 percent (N=14) of the PrEP-users at the GP do have their screenings with both the GP and the SHC, the remainder only with the GP. From all the PrEP-users at the SHC only one person also has his screenings with the GP. The majority (94%) of the total sample considered the obligated screenings part of their health checkup, and therefore no waste of their time.

Factual Quality of care

The factual Quality of Care is shown in Table 6. Of the total 66 PrEP-users 52 went to the GP and 11 to the SHC with their PrEP-question at the start of their treatment. According to the PrEP-users at the SHC they received sufficient information during their first consultation with percentages all above 80 percent. However, they found the information provided by the GP was less sufficient. The GP well-informed the users about the frequent screening (85%) and the risk of HIV and STIs (88%), although the information about drug use (49%), condom use (72%) and compliance to therapy (69%) was below the level of expectation of the PrEP-users.

The screenings and doctor visits were calculated on the basis of the PrEP-users main HCP who treated them for at least one year (N=44). According to these PrEP-users, the SHC scored better in providing screenings regarding the PrEP-guideline since the percentages are all higher compared to the GP. Kidney function test, hepatitis C test and counseling about adherence to therapy and risky sex behaviour scored the lowest among both groups. Out of the GP-group one PrEP-user received zero HIV-tests in the preceding year, two PrEP-users received zero Hepatitis-C tests and 10 PrEP-users received no counseling at all, whereas only two people out of the SHC-group received no counseling at all (see Appendix 12). In contrast to the screenings, 92 percent of the 37 GP PrEP-users were vaccinated against hepatitis A and B or only hepatitis A, vs. 77 percent of the 26 SHC PrEP-users.

Table 6. Factual Quality of care

Counseling first consult (N, % yes)	Regarding PrEP-guideline	Total (N=66)	GP at start (N=52)*	SHC at start (N=11)*
Potential side effects	Yes	49 (75.4) ^a	36 (69.2)	11 (100)
Compliance to therapy	Yes	44 (68.8) ^b	32 (62.7) ^a	10 (90.9)
Condom use	Yes	46 (71.9) ^b	34 (66.7) ^a	10 (90.9)
HIV/STI-risk	Yes	56 (87.5) ^b	43 (82.7)	11 (100)
Drug use during sex	Yes	31 (49.2) ^c	20 (40.0) ^b	9 (81.8)
Frequency of screenings	yes	56 (84.8) ^a	44 (84.6)	10 (90.9)
How many screenings last year (N, % yes)	Regarding PrEP-guideline per year	Total (N=44) [^]	GP currently (N=28) [^]	SHC currently (N=14) [^]
HIV-test	4	29 (65.9)	15 (53.6)	13 (92.9)
Kidney function	4	22 (50.0)	12 (42.9)	9 (64.3)
Anal swab	4	27 (61.4)	14 (50.0)	13 (92.9)
Pharyngeal test	4	27 (61.4)	14 (50.0)	13 (92.9)
Hepatitis C test	4	22 (50.0)	12 (42.9)	9 (64.3)
Counseling	4	12 (27.3)	5 (17.9)	7 (50.0)
How many doctor visits last year:	4 or more	29 (82.8) ^e	18 (75.0)	10 (100) ^d

*Based on the HCP at the start of their PrEP-treatment

[^] Based on all PrEP-users who have been under care with their current HCP for at least 1 year.

- a. Cumulative percentage: one data missing
- b. Cumulative percentage: two data missing
- c. Cumulative percentage: three data missing

- d. Cumulative percentage: four data missing
- e. Cumulative percentage: 9 data missing

Decision of GP

In most cases, namely 73 percent (N=27), the reason PrEP-users chose the GP as their main HCP was because they had no other choice. This was often due to long or full waiting lists of the SHC, not complying to the PrEP-pilot criteria of the SHC⁽⁴³⁾, due to no availability of treatment at the SHC in the past, no SHC available at the place of residence or purely due to the lack of information, not knowing the SHC also provides PrEP-care. Twenty-four percent chose the GP (N=9) as main HCP because he feels familiar and supported by his GP, whereby the doctor takes the time for him. One PrEP-user also mentioned that he finds it important that his PrEP experiences are included in his medical file and one user chose the GP because it was closer to his home address.

Decision of SHC

In most cases, namely 31 percent (N=8), PrEP-users named the reason why they chose the SHC as their main HCP because of the efficient arranged PrEP-care within the SHC, such as all care in one place and a tighter call policy, which is labeled as time-saving and easy. Twenty-seven percent (N = 7) cite the low costs as a reason. Twenty-three percent (N = 6) mentioned they have chosen the SHC because of the competences of the doctors, which includes the knowledge, the professional attitude and the experiences of the doctor. Another 23 percent (N = 6) mentioned as a reason for their PrEP-care with the SHC because e.g. they were eligible or there was no other party available at that time. Nineteen percent (N = 5) give the reason that the SHC doctors are open-minded, non-judgmental and they feel more understood because the doctors are also gay. Two people chose the SHC as part of the AmPrEP study and two people because the GP did not want to cooperate.

As mentioned earlier, 15 PrEP-users switched to the SHC as main HCP. Their reasons for switching were in particular the efficiency of the arrangement of the PrEP-care within the SHC (30%) and the costs (26%). Further, they mentioned the better knowledge and experience (17%) and the open-minded and non-judgmental attitude of the SHC doctor (17%).

Chemsex and risky sex behaviour and the choice of main HCP

Table 2 shows no statistical significant difference ($p=0.845$) between the GP and SHC in PrEP-users who have ever engaged in chemsex and the choice of HCP, and the binary logistic regression (see Appendix 9) did not show a significant relationship either. However, a statistically significant higher incidence of PrEP-users being high-risk at the start of their treatment was found in the SHC-group ($p=0.047$), namely 97 percent in the SHC-group versus 78 percent in the GP-group. After adjusting for confounders ‘sex with HIV-positive or -unknown partners’, ‘expecting the GP to judge’, ‘PrEP-use frequency’ and ‘PrEP-duration’ in the binary logistic regression (see Appendix 9), the significant relationship between high risk behaviour and the choice of HCP also disappeared. A significant relationship was found for PrEP-users (also non-MSM/transgenders) having sex with or without condom with HIV-positive or HIV-unknown people and the choice for the SHC ($p=0.05$).

3.4 Perceived Quality of Care and final satisfaction

Perceived Quality of Care

The confirmative factor analysis showed that in each domain the items belong to the correct domain, except for the first domain ‘Accessibility’ in which the affordability has a factor of 0.108

which led this item to be removed from the domain. Reliability coefficients were respectively 0.67, 0.92, 0.96 and 0.97 (see Appendix 7).

The mean scores were calculated for each QoC domain (see table 7). The 'Personal- and Interpersonal care' domain scored highest among both the GP and SHC. The domain 'Clinical care' scored lowest for the GP and the domain 'Accessibility' scored lowest for the SHC. In all domains, the SHC received the highest score for QoC, with the exception of 'Accessibility'. In all domains, except for the domain 'Accessibility', a statistically significant difference ($P=0.000$) was measured among both groups. Appendix 11 shows the means per item in each domain.

Table 7. Perceived Quality of care per domain

QoC domain	Total (N=63)	GP (N=37)	SHC (N=26)	P-value
Accessibility	3.86 (SD 0.63) ^b	3.89 (SD 0.72) ^b	3.82 (SD 0.48) ^b	0.662 ^a
Structure & Facilities	4.15 (SD 0.66)	3.91 (SD 0.69)	4.50 (SD 0.44)	0.000 ^a
Clinical care	4.10 (SD 0.83) ^c	3.70 (SD 0.75) ^c	4.65 (SD 0.59)	0.000 ^a
Personal – and interpersonal care	4.35 (SD 0.63) ^c	4.10 (SD 0.63) ^c	4.71 (SD 0.40)	0.000 ^a

a. Means compared by T-test

b. Means excluded by item 1 'affordability'

c. One data missing

The ranking question revealed that PrEP-users considered 'Accessibility', with a mean rank of 2.21 out of 7 (see Table 8), as the most important factor for the quality of their PrEP-care, which did include 'affordability' since this was admitted to the 'Accessibility' domain in the questionnaire. Our PrEP-users considered the doctor's competences to be the second most important with a mean rank of 3.28 out of 7. Shared decision making was considered as least important, with a mean rank of 5.57.

Table 8. Quality of care importance per subdomain

Rank ^a per subdomain	QoC-domain	Total (N=58)	GP (N=31)	SHC (N=24)
(1) Accessibility ^b	Accessibility ^b	2.21	2.16 (1)	2.38 (1)
(2) Competence	Clinical care	3.28	3.32 (2)	3.21 (2)
(3) Continuity	Structure & Facilities	4.12	4.81 (6)	3.33 (3)
(4) Trust & Respect	Personal & Interpersonal care	4.14	3.94 (3)	4.29 (5)
(5) Facilities	Structure & Facilities	4.28	4.42 (5)	4.13 (4)
(6) Communication	Personal & Interpersonal care	4.41	4.23 (4)	4.54 (6)
(7) Decision making	Personal & Interpersonal care	5.57	5.13 (7)	6.13 (7)

a. Mean ranks by using Friedman test

b. Including 'affordability'

Final satisfaction

The final satisfaction of the PrEP-care at the SHC was significantly higher as compared to the PrEP-care at the GP, respectively 9.3 (SD 0.83) versus 7.8 (SD 1.89) with $p=0.000$. However, Pearson's correlation table (see Appendix 8) showed some confounders which are correlated with the final satisfaction. Having a high SES, being non-high-risk to HIV at the start, thinking screening is a waste of time, getting no counseling about compliance to therapy and a low mean score of all QoC domains results in a lower satisfaction (see Table 9). A multivariable regression analysis (see Appendix 10) was performed to correct for those confounders, and found that the SHC still scored significantly higher ($p=0.004$).

Table 9. Confounders final satisfaction

Confounding factors		Mean satisfaction (SD)	P-value
Screening a waste of time	Yes	6.5 (1.7)	0.020 ^a
	No	8.5 (1.6)	
Counseling: compliance to therapy	Yes	8.7 (1.4)	0.022 ^a
	No	7.6 (2.1)	
Socioeconomic status (SES)	Low	9.1 (1.1)	0.028 ^a
	High	8.1 (1.8)	
Risk to HIV at start treatment	Non-high risk	7 (2.5)	0.007 ^a
	High-risk	8.6 (1.4)	

a. Means compared by T-test

All the QoC domains (see Appendix 8) had a significant relationship with the final satisfaction. Multivariable regression analysis showed that 'Structure & Facilities' ($\beta=0.547$, $p=0.003$) is the QoC domain which correlated best with satisfaction, followed by 'Clinical care' ($\beta=0.300$, $p=0.050$). When correcting satisfaction for all confounders in the multivariable regression analysis all significant correlations disappeared.

Wishes for future PrEP-care in general practice

Sixty-five percent (N=42) of all PrEP-users thinks PrEP-care belongs in GPs practice. Table 10 summarizes the strengths and limitations of PrEP-care in GPs practice according to the PrEP-users, along with points of improvement for the future. The majority of the SHC-group wished to make the PrEP-care at the SHC accessible for everyone.

Table 10. PrEP-users' perspective on strengths, limitations and points of improvement of PrEP-care in general practice

Domain	Strengths	Limitations	Improvements/wishes
Costs*	-	- High costs	- Make costs equal to the SHC - Include in basic health insurance package
Accessibility*	- Accessible - Availability of PrEP-care - Short distance and convenient opening hours	-	- All PrEP-care to SHC
Structure & Facilities	- Continuity	- Insufficient time for PrEP-care - Messy organized screenings (no calling policy)	- Availability of all PrEP-facilities (including PrEP-tablets) - Everything in one appointment - Tighter calling policy screenings
Competence	- Prevention belongs to the task of a GP	- No specialized knowledge of PrEP/HIV/STIs/sexual behaviour - Not experienced enough with PrEP/HIV/STIs/sexual behaviour	- More education about PrEP/HIV/STIs and sexual behaviour - Appoint one GP as experience expert in PrEP-care - That it becomes a regular part of healthcare (e.g. contraceptives and HPV vaccines) - Proactively offering PrEP-care
Personal & Interpersonal care	- Knows (background of) patients well - Familiar - Long lasting personal care	- Communication techniques about sexuality - No anonymity (shame to talk about sexuality with GP) - More judging on sexual behaviour and condom use	- Improvement sexual conversation techniques - Less judging, especially around condom use and sexual behaviour - Open attitude and willingness to prescribe

* It has been decided to discuss 'costs' separately from 'Accessibility'-domain, since the factor analysis showed that 'costs' did not belong to that domain.

4. Discussion

4.1 Main results

To our knowledge this is the first study focusing on the perceived aspects of QoC from a PrEP-users' perspective that play a role in the choice and evaluation of PrEP-care in the GPs office compared to the SHC. Overall, the PrEP-care at the SHC was scored best among our PrEP-users. However, the PrEP-users at the GP also were generally very satisfied with a total score of 7.8. In the following section we will discuss the results per domain of QoC.

Costs, availability and accessibility of PrEP-care

The costs and availability of PrEP care still play a major role in whether or not to use PrEP, since those were the biggest barriers to start PrEP, and also in choosing the PrEP-HCP, since the majority of our GP PrEP-users had to choose the GP because there was no more room at the SHC as a result of long or full waiting lists. We consider the latter a problem if we have to believe the advice of the LHV Association saying "prescribing PrEP is not the task of a GP"⁽²¹⁾. However, the GP PrEP-users did not mention why they preferred their PrEP-care at the SHC. The PrEP-users who were switched from the GP to the SHC after their first consultation also did this because of the lower costs at the SHC. This can be explained by the fact that PrEP-users at the SHC had lower incomes as compared to those consulting the GP. Although the majority of our sample had a medium or high income costs still play a role, which is in line with previous research ^(4, 6, 7, 44). According to our PrEP-users and confirmed by van Dijk et al.⁽⁷⁾, the barrier of high costs to use PrEP particularly played a role at the time that PrEP-costs were much higher than nowadays. Van Dijk et al.⁽⁷⁾ observed an increase in the PrEP-uptake at the time the prices of PrEP dropped. Given the fact that the PrEP pill now only costs around 30 euros per jar of 30 PrEP-pills, we no longer consider this the biggest problem. The largest costs nowadays are the screenings at the GP being paid out of one's deductible excess of their health insurance, which is why PrEP-users prefer the cheaper PrEP-care with the SHC where they reimburse the PrEP-costs of the screenings and they only have to pay €7.50 per jar. The wishes of our PrEP-users are therefore that the costs at the GP are made equal to the SHC by also reimbursing and/or including it in the basic health insurance package.

The perceived 'Accessibility', which did not include affordability of PrEP-care since the factor analysis excluded this item, was scored slightly better at the GP, which means the GP can be reached easily (e.g. by telephone or transport), the waiting lists are shorter compared to the SHC and the opening times are convenient.

Structure & facilities

The efficiency of PrEP-care arrangement within the relevant HCP was the most important factor of their PrEP-care according to our PrEP-users, with all PrEP-care in one place, meaning that all doctors' visits, screenings and blood tests take place simultaneously during one consultation, and having a strict calling policy for screenings. They felt this time-saving and easy. It was the main reason for choosing the SHC, and because the switchers who had switched from the GP to SHC also named this as main reason, we suspect it to be the main reason to choose a PrEP-HCP. In addition, from all QoC domains, the QoC domain 'Structure & Facilities' correlated significantly the best with satisfaction, which means the higher they perceived efficient arranged PrEP-care, the higher their satisfaction. However, after correcting for SES the significance disappeared. The perceived 'Structure & Facilities' domain was scored the second highest among the GP PrEP-users. In particular the two items "if the

HCP provides all PrEP facilities and if the HCP has enough time for PrEP-care", were scored the lowest among the GP with the greatest difference as compared to the SHC. The descriptive factual QoC also shows that the GP does not comply with all screenings in accordance with the guideline⁽³²⁾, about 50% of PrEP-users at the GP received all screenings every 3 months. In our opinion, this is the result of the fact that GPs do not work with a strict calling policy, such as at the SHC, but put the responsibility with the PrEP-users themselves. We might wonder whether we should place this responsibility with the doctor or with the PrEP-user himself. According to the RIVM, the healthcare provider must be able to organize and perform these checks⁽⁴⁵⁾. This logistic challenge of PrEP-care in the GPs office was also a concern among GPs themselves⁽⁸⁻¹⁵⁾. We believe that there is still room for improvement here, since PrEP-care is still in its infancy. The PrEP-users wished the availability of all PrEP facilities (e.g. STI-tests and PrEP-tablets) at one place and a tighter calling policy.

Clinical care

The domain that played a lesser role in the choice of PrEP-HCP, but scored the lowest among GP attendants, was the 'Clinical Care' domain, which includes the competences of the HCP. It turned out to be important, since they ranked the competences as the second highest of importance of their PrEP-care. The criticism about the competences of the GP already started during the first consultation, in which 23% found the GP did not have sufficient knowledge about PrEP and sexual risk behaviour, was not experienced enough working with PrEP-users or did not provide the correct information. The latter also emerged from moderate counseling during the first consultation, which ultimately resulted in lower satisfaction. Seventeen percent of the switchers to the SHC mentioned the moderate GPs competences as reason of switching. In contrast to the criticism, 21 percent of the PrEP-users were enthusiastic about their GPs competences. Still, they were also critical since the those who stayed at the GP rated the GP less well on their perceived competencies. In particular, the lack of specialized knowledge of HIV and PrEP, of sexual behaviour and STIs and the lack of experiences working with LGBTQ. This was also reported in the study of Van Bellingen et al.⁽¹¹⁾ in 2017 and Bil et al.⁽³⁶⁾ in 2016, but this was before the introduction of the PrEP-guideline. We therefore expected that PrEP-users who started their PrEP-treatment after the introduction of the PrEP-guideline will rate the GPs competences as higher.

Personal- & Interpersonal care, including stigma

According to our PrEP-users, the GP scored the best in his personal care. The second reason PrEP-users did want their PrEP-care from their GP was because their GP feels familiar, reliable and supportive. This was also reflected in the perceived personal care, since this was the best scored domain of QoC. Striking was the fact that the GP did very well on equity and non-discriminatory care, since those items scored highest in this domain. This is a confirmation of their expectation, since the majority also did not expect their GP to judge them. However, of the PrEP-users who did expect their GP to judge some have had a negative experience with their GP who convicted them of using PrEP. The majority of that group had ultimately opted for his PrEP-care with the SHC, since in general our PrEP-users estimated the SHC-doctor to judge less compared to the GP. The worries of judgements by their GP was mainly because of lifestyle and the fear of engaging in more risky sex behaviour such as not using a condom, but also the willingness of the GP to prescribe PrEP, which was conform several previous studies.^(4, 5, 7, 46) These fears are also mentioned by GPs themselves, which could block the acceptability, uptake, adherence and persistence of PrEP⁽⁸⁻¹¹⁾. Dubov et al. considered this interesting since PrEP-use is preventive behaviour and PrEP-users thereby automatically having less

risky sex compared to non-PrEP-users⁽⁴⁾. The fact that norms and values play a role was also seen when the contraceptive pill was introduced in the 60s, however after a few years 98% of the GPs had changed to a positive attitude and prescribed the pill⁽⁴⁷⁾, which was in most cases the result of experience and good education⁽⁴⁸⁾. We believe, also because of the fact that the overwhelming majority of our PrEP-users have not experienced the sense of stigma from their GPs (several mentioned that many GPs were open to it since the emerge of the guideline and since it becomes more known with long lasting experience), that PrEP-stigma plays a lesser role now, and even less in the future. Thereby, it is to be expected from GPs that norms and values do not impede professional GP-care.

4.2 Additional results

Chemsex

Fifty-three percent of our PrEP-users ever has been engaged in chemsex, which was more than we found in previous studies^(2, 49, 50). The studies however inquired the subjects' experiences in recent months while we asked about their experience in the past. In addition, we found no preference for HCP in our chemsex-group. The fact that the GP plays a major role in the prevention of chemsex and an even greater role in the future is apparent from the study from Ma and Perera⁽⁵¹⁾. They claimed GPs need to walk through a conversation about harmful drug use and appeal to changing their behaviour without being judgmental. Our study showed that stigma from the GP does not play a large role since 82 percent of our chemsex-group want to share their chemsex experience with the GP without being afraid to get judged for this. However, five PrEP-users did not feel the setting to discuss their chemsex experience with GP and four PrEP-users already experienced a sense of judging, while SeksHAG considered talking about sex and drugs as a task of the GP⁽¹⁹⁾. Thereby, we found that GPs are moderate in providing information about drugs, since only 50 percent of the PrEP-users received counseling about the topic of drug-use during sex.

Our PrEP-users mentioned not to forget the pill during chemsex, which is in line with the substudy of the ANRS-IPERGAY Trial⁽²⁾ and could be an answer to the study by Maxwell et al.⁽³⁾. However, 26 percent of our chemsex-group indicated that they sometimes forget the condom during chemsex, which is also apparent from previous studies^(2, 3, 50, 52). In addition, our chemsex-group showed a significantly five times higher incidence of STIs, whereas Achterbergh et al. reported a 15 times higher rate of STI's compared to MSM who are not using drugs during sex⁽⁵²⁾. This confirms, in our opinion, that the GP plays a major role in the awareness and making discussable the risks of chemsex. Since our study shows a lack of counseling on drug use during sex, this might be a challenge for GPs in the future.

Risk behaviour

The majority of our PrEP-users mentioned using a condom less often since using PrEP compared to before treatment, which is in line with the Amsterdam Cohort Study⁽⁵³⁾. Remarkably, only three percent of our PrEP-users used a condom during anal sex in the preceding six months. The Amsterdam Cohort Study also implied an increase in STI incidence since PrEP-use and 24 percent of our PrEP-users confirmed this STI increase⁽⁵³⁾.

In our study the SHC mainly treated the high-risk group, according to the PrEP-guideline criteria⁽³²⁾, whereas the GP also treated lower-risk individuals in 20-30% of the cases, which is not in line with the PrEP-guideline criteria⁽³²⁾. This subdivision in our opinion is due to the PrEP-pilot at the SHC,

which only allowed high-risk HIV PrEP-users, in particular the vulnerable MSM or transgender persons and not those with a job or partner⁽⁴³⁾. The lower-risk group were probably PrEP-users who were using a condom or had sex with HIV-negative individuals, and there was even one heterosexual woman at the GP-group. Thereby, our results showed that being non-high-risk to HIV resulted in a significant lower satisfaction, which was a confounder and could also explain the lower satisfaction of the PrEP-users with the GP. In order to better satisfy this group, it is still possible to catch up on profits such as more awareness and willingness in prescribing PrEP to lower-risk HIV individuals, in particular on giving the right information and deciding together with the patient what suits him or her.

4.3 Strengths

One of the greatest strengths of this study is that to our knowledge this is the only study measuring the perceived quality of the PrEP-care in the Netherlands. Also, this is the only study that compared the quality of PrEP-care in general practice and SHC through the eyes of PrEP-users. Thereby, the quantitative results of the perceived QoC is based on validated scales of which the final reliability of the scales were extremely high. In addition, besides the quantitative results, to our opinion a strength is that we also analyzed some qualitative results. This might give a more detailed picture of the experiences and observations of PrEP-users at the GP and SHC. At last, we have covered many PrEP-topics, which has generated a lot of information.

4.4 Limitations

This study has several forms of bias since it is a survey and cross-sectional study⁽⁵⁴⁻⁵⁶⁾. Firstly, selection bias was present because randomization was not possible in our study, so we had to select our cases. There might be a sample selection when only the PrEP-users respond to our questionnaire who are very satisfied or not satisfied at all, and not the in-between satisfied PrEP-users. Since we invited all PrEP-users of our GPs practice, we assume that most PrEP-users in the GP group were affiliated with our GPs' practice, and because our GPs are proponents of PrEP we expect that the final satisfaction of QoC of the GP group in this study is higher than when we would have done this research across various GPs practices. Also, because our sample mainly comes from Amsterdam region, the results cannot be extrapolated to other areas.

Secondly, information bias occurred from response and non-response bias. Response bias may occur when PrEP-users want to give socially acceptable answers, which we expect since this study concerns a minority group that often experiences taboos, and our questionnaire consisted of many personal questions about sex and. Some PrEP-users appeared to stop the questionnaire when the personal questions showed up. However, we were not able to find out the characteristics of the non-responders, since we do not have the data from the non-responders. It would not surprise us if the non-responders are a group with more risky sex behaviour and different sociodemographic characteristics than our sample. We also do not know the number of non-responders, since we have also distributed the questionnaires via Social media. Response and non-response bias can then lead to distorted information.

Thirdly, we unfortunately had to deal with a small sample size which can be caused by various reasons. For example, there was a limited timeframe of two weeks to fill in the questionnaire. Thereby, of all returned questionnaires, 10 percent was incomplete which can be explained by the

personal questions or by the fact that the questionnaire was quite long. The small sample size might decrease the representativeness toward the over-all population.

At last, we could not include the factual QoC as a confounder in the final satisfaction, since it turned out afterwards that our question was not entirely clearly formulated. We should have asked if the HCP had done the tests every 3 months, but instead we asked how many screenings the PrEP-users had in the past year. To prevent incorrect results, we only did a descriptive analysis on the factual QoC.

4.5 Implications for clinical practice and further research

Although the LHV GP Association stated that PrEP-prescription is not considered as primarily basic GP care⁽²¹⁾, on the basis of this study we actually do believe that PrEP-care fits within the GPs practice. This is also supported by our PrEP-users themselves, since 65% believed PrEP-care belongs in the GPs practice and PrEP-users at the GPs practice were generally very satisfied with a final satisfaction of 7.8. Prevention of HIV is one of the duties of a GP, just like prevention of pregnancy and human papillomavirus infection (HPV). Thereby, the GP is the physician most familiar with all aspects of the patients' life (e.g. other health problems, social context and medication use) and therefore most capable of providing sustainable and long-lasting personal care and where PrEP-users feel familiar and supportive. Judging and discrimination seems to be less nowadays, probably due to the familiarity and experiences since the introduction of the PrEP-guideline and the educational program 'We are Prepared', funded by the AIDSfonds⁽⁵⁷⁾. This was in line with the situation once of the introduction of the contraceptive pill in the 60s, in which experiences and education played a major role in the uptake and acceptability among GPs. In addition, the GP is accessible, is located nearby and has short waiting lists, in contrast to the SHC where the waiting lists are full and the GP is therefore required to receive PrEP-users who are not placed at the SHC.

Nevertheless, there is still profit to be gained for the GP in various areas, most particularly in the field of the competences of the GP. With the introduction of the PrEP-guideline and the educational program the awareness, knowledge and experience have already been improved and just as with the contraceptive pill, we expect that time plays a role in which experience can be gained. However, education skills can still be improved by e.g. introducing this to the training of general practitioner medicine and/or by entitling one GP in a general practice who is specialized into the field of PrEP. Furthermore, the GP should offer PrEP even more proactively to HIV-negative individuals, especially to the vulnerable (e.g. lower educated) population since the GP is the doctor being able to reach that group, which means asking more openly about the sex life of the patient. However, this also might be a problem, since some are ashamed to talk to their doctor about sex. This can be partly solved by better training in sex conversation techniques. In addition, GPs may improve their skills in bring up about the issue of drug-use during sex since half of our PrEP-users ever engaged in chemsex and a higher incidence of STIs among the chemsex-group was found. To improve efficiency of the organization, the GP practice could hire a practice support worker who can take over some of the tasks from the GP such as counseling and call up the PrEP-users for their mandatory 3-monthly screenings. That costs, in particular the deductible excess, is still a barrier for PrEP-users, is in our opinion unavoidable since other chronic illnesses such as diabetic patients also have to pay their deductible excess.

Last but not least, since this study did not have a large sample size and the sample is particularly Amsterdam-minded, we cannot generalize the outcomes. Further research should be achieved about the quality of PrEP-care in larger samples throughout the Netherlands (including rural areas), whereby we advise to make the response time longer and to also include data about the non-responders. In addition, we would recommend to measure the QoC two times with PrEP-users who have had their PrEP-care at both the SHC and the GP, since then a fair comparison could be made. We also suggest to include the Factual QoC as a confounder in the future. Besides, since we found in our study that 20-30% of PrEP-users at the GP did not fit the PrEP-guideline criteria for PrEP-description, we believe that the prescription of PrEP may not be limited to this strictly described high-risk group. And since the GP is most familiar with the social and medical context of the patient, further research is needed to investigate the wishes and concerns of the lower-risk HIV patient group that may lead to a new prescription area under the responsibility of the GP. Furthermore, a questionnaire about the quality of PrEP-care at the GP and SHC should be constructed for GPs, since this was last performed in 2016 before the introduction of the PrEP-guideline.

4.6 Conclusion

This study provides insights into PrEP-users' perspectives about the aspects of QoC that play a role in the choice of HCP and evaluation of their PrEP-care at the relevant HCP. Our findings suggest that the GP provides acceptable PrEP-care with an average final grade of 7.8, whereby the majority of the PrEP-users considered PrEP-care belongs in the GPs office and in particular because of the personal, reliable, nondiscriminatory and long-lasting care. However, there is still room for improvement in the QoC, especially in the field of the competences of the GP and in organizational factors. In addition, there will always be a small group who do not want their PrEP-care from their GP. Further research about the QoC at the GP should be performed on a larger number of PrEP-users throughout the Netherlands.

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Appendix 1. Abbreviation list

CAS	Condomless anal sex
GP	General practitioner
HCP	Healthcare provider
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer
MS	Medical specialist
MSM	Men who have sex with men
PEP	Post-exposure prophylaxis
PrEP	Pre-exposure prophylaxis
QoC	Quality of care
STI	Sexual Transmitted Infection
SES	Socioeconomic status
SHC	Sexual Health Centre

Appendix 2. Accomplishment of learning goals

The student has met all the conditions to complete the internship. After completing the scientific proposal she started writing the introduction and writing the methods and therefore she finished the E-learning biostatistics which was offered by the University. She started preparing the questionnaire by making her own validated questionnaires, which took a lot of time. Thereby, she tried to make connections with various PrEP online platforms to distribute the questionnaires. After finishing the validated questions in the questionnaire, she developed the online questionnaire in Qualtrics. She send the link of the questionnaire to all PrEP-users of the general practice and to the online platform of prepnu.nl. The questionnaire was online for two weeks in which she gathered all respondents, whereupon she started analyzing the results. Since she has never had experiences with statistics, this was a huge challenge. But she accepted this challenge and learned a lot about the different types of analyses and how to define them. The e-learning, YouTube videos and a Statistic book helped her to build a syntax to perform all the analysis that were necessary. She completed all of the SPSS analysis herself, with guidance of the daily tutor when required. In addition, she wrote a critical discussion and conclusion, in which she compared the results with the existing literature.

What is clear above is that she has learned a lot about the content of doing a research. Therefore she improved her scientific English and she conquered multiple challenges. She learned how to work with deadlines and how to manage her time. In addition, she attended a research meeting in English together with her daily tutor with international students from Radboud University to change information concerning each other's research. She presented her research and the results for the department in her final week.

Appendix 3. Approved project plan

Name student: Marlies de Bruin	Student number: 10326685
<p><u>Project title:</u> Patients' expectations and evaluations of quality of care regarding PrEP-treatment: general practice vs. Public Health Service</p> <p><u>Details of internship and supervisor:</u> Location: Huisartsen Oude Turfmarkt/Bureau Studentenartsen Daily supervisor: Dr. C.M. van der Heijde Director GP HOT/BS: Dhr. P. Vonk, MD Senior tutor: Prof. Dr. J.E.A.M. van Bergen, MD Duration of internship: 16 weeks</p>	

Researchline:

The research group hosting this internship project, is a research department of the Oude Turfmarkt General Practitioners/Student Doctors' Office (HOT/BSA). The general practice is located in the centre of Amsterdam. In 1938 the practice was established as a primary care setting for students only. In 1981 the practice turned into a primary care practice where all sorts of patients were welcome. Nowadays it's a multicentre practice with nine general practitioners working. In total there are 12.000 patients enrolled and the majority are still students (7000 out of 12.000 patients). The remaining patients are former students or people who live in the care area of this practice and have all sorts of education levels.

The practice of the Oude Turfmarkt has a department of Research, Development & Prevention, where students can do an internship. These projects focus on problems from daily practice and have been resulted in several publications (see references). This study is led by dhr. P. Vonk, the director of the GP HOT/BSA, and the daily supervisor is dr. C.M. van der Heijde, senior researcher. The senior tutor from the Amsterdam UMC, prof. dr. J.E.A.M. van Bergen, also general practitioner, will supervise the project as well.

Recent publications:

Verhoog S, Dopmeijer JM, De Jonge JM, Van der Heijde CM, Vonk P. The Use of the Alcohol Use Disorders Identification Test - Consumption as an Indicator of Hazardous Alcohol Use among University Students. Eur Addict Res. 2019 Sep 27:1-9.

Karyotaki E, Van der Heijde CM, Vonk P, et al. Examining the effectiveness of a web-based intervention for symptoms of depression and anxiety in college students: study protocol of a randomised controlled trial. BMJ Open. 2019 May 14;9(5)

Hooiveld T, Molenaar JM, Van der Heijde CM, Meijman FJ, Groen TP, Vonk P. End-user involvement in developing and field testing an online contraceptive decision aid. SAGE Open Med. 2018 Nov 2; 6:2050312118809462.

Van der Heijde CM, Collard PR, Vonk P, Meijman FJ. Better informed is better decided: Addressing the risks of delaying childbearing for female higher educational students. Int J Adolesc Med Health. 2018 Feb 13.

Background and problem definition:

HIV is a worldwide problem with a total of 37,9 million infected people and 1.7 million new cases a year.⁽⁵⁸⁾ In The Netherlands it's been a problem too with a total of 27,352 HIV-positive people and a yearly number of 700 to 900 new cases in the previous years.⁽⁵⁹⁾ This incidence has been decreased in the last years and the expectation this will further decrease in the next years only happens if treatment is used earlier and if there is more supply of low-threshold testing. Most HIV infections are caused by unprotected sex and the highest proportion of 69% among all known HIV-infected persons is among men who have sex with men (MSM).⁽⁵⁹⁾

Pre-exposure prophylaxis (PrEP) was since the European Medicines Agency (EMA) gave approval in 2016, used in the Netherlands as antiretroviral medication to prevent a HIV-infection to HIV negative individuals with high

risk exposures to HIV. This high-risk group include MSM or transgender persons who have had unprotected anal sex in the past 6 months, who have been diagnosed with a STI (anal STI or syphilis) in the past six months or who have had PEP in the last six months.⁽³²⁾ PrEP usually consists of a combination of tenofovir disoproxil fumarate (TDF) and emtricitabine, popularly called Truvada. The combined PrEP pill can be taken on daily dose or intermittent base and the efficacy and safety of this combination is proven in multiple studies since 2012.^(29, 60-62) It is even more effective in combatting HIV than the use of a condom consistently.^(63, 64) However, the efficacy is highly associated with the degree of compliance to therapy.^(29, 60-62) Chemsex, sex under the influence of GHB/GBL, Mephedrone and Crystal Meth, has been in the rise and chemsexers seems to report more high-risk sexual behaviour. It influence the awareness and sense of an individual what might diminish the intake of PrEP.^(2, 3) The costs of daily use PrEP has been high, but after the patent had fallen away in 2018, the costs decreased from 500 euro to about 30-50 euro a month. With that fact, PrEP proved to be cost-effective and might even be cost-saving if it is prescribed to people with a high risk of HIV.⁽¹⁾ Patients who use PrEP have to do periodical check-ups eg a three-monthly screening in renal function as well as their STI status including HIV. The rarest but most dangerous side effect is renal failure.⁽⁶⁵⁾ As regarding STI status, recent systematic review and a demonstration study from The Netherlands have shown that there is no increased risk of STI incidence while using PrEP, but the use of condoms has been reduced while using PrEP.^(66, 67) Other studies^(31, 68, 69) compared the STI incidence before and during PrEP-use and only found an increased incidence of STI between 3 and 9 months of PrEP use.

Since the emergence of PrEP, PrEP-related stigma and shaming among PrEP-users are potential obstacles for PrEP-uptake, acceptability, adherence and persistence.⁽⁴⁻⁶⁾ According to Dubov et al.⁽⁴⁾ this stigma manifests itself in three different ways. Firstly, labeling of the patient ("they call me Truvada-whore, slut, dirty") and of the medication (f.i gay drug, bareback pill, recreational pill). Secondly, PrEP-users feel stereotyped and are often associated with promiscuity, condomless sex, chemsex and sex work. And last, PrEP-users often feel rejected, especially in relationships but also in dating apps. This PrEP-related stigma is also expressed in the consultation room, because PrEP-users sometimes experience stigmatizing and cautious reactions by HCPs such as general practitioners.⁽⁷⁾ Besides the fear of stigmatizing, PrEP-users are also worries about potential side effects, be averse to take medication, the cost of medication and the obligated screenings of HIV, STI and kidney function.⁽⁴⁻⁶⁾

The attitudes towards prescribing PrEP among general practitioners are diverse, although the majority are positive. However, personal norms, values, prejudices and gut feelings play also a part in the idea of how GP's think about PrEP. General practitioners report a lack of knowledge. They also seems to have reservations about the expected compliance to therapy among the high risk exposure group. Also there is the fear of stimulating unprotected condomless sex and therefore increasing the risk of other sexually transmitted infections, such as gonorrhea, syphilis and chlamydia. Thereby general practitioners feel PrEP-care as a logistical challenge, in connection with time, continuous screening and costs. And finally, medicalization is a point of view of general practitioners; they are against prescribing medication toxins to healthy people.⁽⁸⁻¹⁵⁾ Those barriers among general practitioners has many similarities with the introduction of the contraceptive pill in the 60s, where safety, cost, the possible influence on sexual behaviour and the fear of lack of compliance to therapy also were concerns by HCPs.⁽⁷⁰⁾

In the Netherlands, PrEP can be prescribed by the Public Health Service (PHS) or the general practitioner (GP). Since the Health council from the Netherlands gave in 2018 the conclusion PrEP is an efficient and cost effective agent, the Minister of Health decided to start a PrEP-pilot program. In this pilot program, started from august 2019, the government will reimburse the costs of the PrEP-pill only to high risk exposure groups and will be exclusively run by the Public Health Services.^(1, 16) This could mean that there will be a distribution in the patients and for instance only the low exposure people and some high risk exposure people will be taken care of the General practice.⁽¹⁷⁾ Stichting Farmaceutische Kengetallen (SFK) announced in 2018 that the PrEP pill, before the start of the PrEP-program, was provided around 3000 times by public pharmacies and in 72 percent of cases on prescription from the general practitioner.⁽¹⁸⁾ This might conclude the general practitioner is most wanted in providing the PrEP-pill. According to NHG Expert group SeksHAG⁽¹⁹⁾ the general practitioner plays a crucial role in sexual health and therefore in preventing HIV by the drug PrEP. The GP is the primary care provider where patients are the first to come with their questions. Also, the General practitioner has insight into other health problems of the patient, such as any other diseases, use of medication, etc. Besides that, the GP often has short waiting times, is easy to find and can provide chronic sustainable care. These are all factors that make a positive contribution to the quality of care.⁽²⁰⁾

The aim of this research project is to investigate the aspects of quality of care that play a role in the decision to choose a health care provider for patients' PrEP-treatment and thereby evaluate the treatment provided by this health care provider. Besides we will investigate which patient factors influence the adherence, such as unprotected sex and chemsex. This will give the GP knowledge and tools to discuss this with the patient in the consulting room.

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Question and/or hypothesis:

Primary question

Which perceived aspects of quality of care play a role in the selection and evaluation of PrEP-treatment at the general practitioner or Public Health Service respectively?

Sub questions:

- What are patients' characteristics of PrEP-patients in General Practices and Public Health Services? Is there a difference between both?
- What are patients' perceptions about PrEP-treatment in general and what are the considerations about whether or not to take a PrEP-treatment?
- Do stigma and prejudice against PrEP still play a role in the decision to use PrEP?
- What are the patients' considerations regarding the quality of care where they prefer their PrEP-treatment? In general practice or Public Health Service?
- Are the PrEP-patients satisfied with their PrEP-therapy in the General Practice or Public Health Service?
- Have patients felt resistance or prejudice from their health care provider when they wanted to start their PrEP-treatment?
- What are patients' wishes and expectations for a better PrEP-treatment towards their GP as compared to the Public Health Service?
- In what way does chemsex affect PrEP-treatment and do patients feel restraint or stigmatizing from their health care provider?

Research design:

Setting

This project will take place from the Oude Turfmarkt General Practitioners/Student Doctors'Office (HOT/BS). It's a multicentre general practice that's located in the centre of Amsterdam. The project will run from November 2019 – February 2020.

Sample

All patients using PrEP in the Huisartsen Oude Turfmarkt practice who are older than 17 years and who are able to write and read in Dutch or English are included. They will be selected from data that is extracted from the electronic files in HIS (Huisartsen Informatie Systeem).

Second of all, all possible PrEP-users in Amsterdam who are older than 17 years and who are able to write and read in Dutch or English are included as well. They will be reached through www.prepnu.nl. This is a foundation group who aims to ensure easily available PrEP and PrEP-related care for anyone in the Netherlands. This foundation has a lot of PrEP-user members who are treated by a General practitioner or Public Health Service and can be compared to each other.

Procedure

This project will be a cross-sectional study that will use data from structured questionnaires.

Questionnaire

All included patients will receive a questionnaire. Items on the questionnaire are:

1. Sociodemographic characteristics (GP vs PHS)
2. PrEP-treatment facts including PrEP-use, side effects and adherence (GP vs PHS)
3. Sexual behaviour including chemsex, risky behaviour (GP vs PHS)
4. Perceptions and expectations regarding the different aspects of QoC that will lead to a decision to choose a PrEP-treatment (GP vs PHS)
5. Experienced satisfaction regarding the different aspects of QoC during or after PrEP-treatment (GP vs PHS)
6. Patients' wishes toward health care provider

There is a general email address the practice is working with, that can be used to send the questionnaire to the included patients from the General practice. The PrEP-patients in general will be reached through www.prepnu.nl and can fill in the questionnaire by using a link on the website. A reminder will be send one week after.

Scale construction

To build the questionnaire, different scales will be used. For patient quality of care and satisfaction, two concepts will be combined.^{1,2} For expectations, a questionnaire will be developed. The answers will be categorized according to the 5-point Likert scale.³

Bias

Bias can occur by using questionnaires.⁴ For example, response and non-response bias can occur when patients who are very satisfied or patients who are very unsatisfied are more likely to respond compared to the in-between satisfied patients. Also, selection bias is present in cross-sectional studies since randomization is not possible. Besides, confounding bias will also be present.

Variables

The independent variables (predictors) will be the domains of quality of care, such as (1) access to care, (2) structure & facilities, (3) efficient & effective care, (4) client & staff interactions, (5) communication & information, (6) patient-centered care, (7) sexual health package, (8) continuity of care and (9) competence.^{1,2}

The three dependent variables will be (1) decision to choose either the general practitioner or the Public Health Service, (2) adherence and (3) satisfaction about the PrEP-treatment. So we will measure if or which factors of Quality of care influence the decision to choose a HCP, the adherence and the final satisfaction.

Possible confounders might be chemsex, risky behaviour and sociodemographic characteristics such as age,

ethnicity, educational level, net monthly income level, marital state and sexual orientation.^{5,6}

Statistical analyse

Because this will be a quantitative study, data analysis will be performed by using SPSS. To measure the scale reliabilities, Cronbach's alpha will be used. Chi-square will be used for inferential statistics. For the statistical significance the 95% confidence interval will be used. Patients who are not able to reach or patients who have not filled in the questionnaire or return an incomplete questionnaire, will not be used in the analysis. All the results will be analysed and compared. We will adjust for potential confounders.

References:

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Work plan and Internship-specific learning objectives:

Week	Activity	Learning goals
1	Get permission to all the available databases/documents Online e-learning Biostatistics course Read the document on English writing (BB) Start writing introduction	Where can I find all the information needed for this research report? Improve my knowledge on statistics Scientific English reading and writing
2	Including patients Start making questionnaires Continue writing introduction	Using the different questionnaires and which theories are behind it Scientific English reading and writing
3	Start writing method Continue questionnaires	Using the different questionnaires and which theories are behind it Scientific English reading and writing
4	Collect data from patients files Continue questionnaires Finish writing methods	Using the different questionnaires and which theories are behind it Scientific English reading and writing
5	Continue questionnaires Ethical Commission approval	Using the different questionnaires and which theories are behind it Scientific English reading and writing
6	First interim evaluation with daily supervisor/senior tutor Start making online questionnaire database	Receive and process feedback Learn how to make an online questionnaire database Scientific English reading and writing
7	Send questionnaire via email to responders Data analysis in SPSS	Learn how to reach responders Learn about the different statistical techniques Learn how to work with SPSS Scientific English reading and writing
8	Data analysis in SPSS Send reminder to responders	Learn how to work with SPSS Scientific English reading and writing
9	Start writing results	Practice writing results using tables/figures Scientific English reading and writing

10	Continue writing results	Learn about the different statistical techniques and how to apply them to the collected data Scientific English reading and writing
11	Finish results	Scientific English reading and writing Time management for upcoming deadline
12	Start writing discussion Finish and submit provisional research report (introduction, method, results)	Look critically to own results and compare with other researches Scientific English reading and writing Time management
13	Processing the feedback of my provisional research Continue writing discussion	Look critically to own results and compare with other researches Scientific English reading and writing
14	Finish discussion and conclusion Request feedback on discussion and conclusion Preparation of presentation	Look critically at own research to formulate points for discussion How to summarize the research report in a clear presentation Scientific English reading and writing
15	Process feedback Give a presentation of the research project Write abstract Request feedback for final report	How to give a presentation How to summarize the research report for a short abstract Scientific English reading and writing
16	Finalize the research report Submit final document on canvas at the end of the week	Time management Aesthetics of the report Scientific English reading and writing

Facilities:

To perform and complete this project successfully, I will need a workplace with a desk and a computer. In the general practice there are several workplaces with computers available that I can use. They all have SPSS and access to pubmed and other literature search engines. My supervisors will be working in the same practice, so they will be easy to approach for questions and consultation.

METC, DEC, GGO:

METC-approval is not required for this project.

Professional development student:

The main goal of this project is to learn how to do a scientific research. When I was writing this research proposal I already learned how to do a background research and find the gaps in the knowledge nowadays, determine a clear research question with the corresponding subquestions and set up the research design and workplan. During this project I want to learn more how to search for relevant literature, to read critically and use the literature to interpret and clarify questions and results. I hope to learn more about making questionnaires, which theories are behind it, and how to do a statistical analysis in SPSS which include how to analyze the data and to compare and interpret the results. This will be a challenge, since we have never experienced statistics during our Medical study.

Furthermore, since the project will be written in English, my English will improve. I want to learn more about writing a paper in academic English during this project.

Last, I want to learn more how to work with deadlines and how to manage my time. Also how to deal with criticism and to have critical self-reflection on my own functioning and movement during this project.

In the future I want to become a GP myself and that's the reason I will do my research project in the General practice. I think this subject will give me more information and insight into the patient satisfaction in general practice. The psychological side of the patient has always been my interest. This research will be helpful to me in my future career.

Appendix 4. HIV- and PrEP-facts

HIV is a worldwide problem with a total of 37,9 million infected people and 1.7 million new cases a year⁽⁵⁸⁾. In The Netherlands it's been a problem too with a total of 27.352 HIV-positive people and a yearly number of 700 to 900 new cases in the previous years⁽⁵⁹⁾. This incidence has been decreased in the last years and the expectation this will further decrease in the next years only happens if treatment is used earlier and if there is more supply of low-threshold testing. Most HIV infections are caused by unprotected sex and the highest proportion of 69% among all known HIV-infected persons is among men who have sex with men (MSM)⁽⁵⁹⁾.

To decrease the incidence of HIV, pre-exposure prophylaxis (PrEP) was since 2016 used in the Netherlands as antiretroviral medication to prevent a HIV-infection to HIV negative individuals with high risk exposures to HIV. This high-risk group include MSM or transgender persons who have had unprotected anal sex in the past six months, who have been diagnosed with a sexual transmitted infection (anal STI or syphilis) in the past six months or who have had post-exposure prophylaxis (PEP) in the last six months⁽³²⁾. PrEP usually consists of a combination of tenofovir disoproxil fumarate (TDF) and emtricitabine, popularly called Truvada. The combined PrEP pill can be taken on daily dose or on an intermittent base and the efficacy and safety of this combination is proven in multiple studies since 2012^(29, 60-62). It is even more effective in combatting HIV than the use of a condom consistently^(63, 64). However, the efficacy is highly associated with the degree of compliance to therapy^(29, 60-62). Chemsex, sex under the influence of GHB/GBL, Mephedrone and Crystal Meth, nowadays is popular among high risk exposure people to HIV and they seems to report more high-risk sexual behaviour. It influences the awareness and sense of an individual what might diminish the intake of PrEP^(2, 3). The costs of daily use PrEP has been high, but after the patent had fallen away in 2018, the costs decreased from 500 euro to about 30-50 euro a month. With that fact, PrEP has proven to be cost-effective and might even be cost-saving if it is prescribed to people with a high risk of HIV⁽¹⁾. Patients who use PrEP have to do periodical check-ups e.g. a three-monthly screening in renal function as well as their STI status including HIV. The rarest but most dangerous side effect is renal failure⁽⁶⁵⁾. As regarding to STI status, a recent systematic review and a demonstration study from The Netherlands have shown that there is no increased risk of STI incidence while using PrEP, but the use of condoms has been reduced while using PrEP^(66, 67). However, Coyer et al. reported a significant higher incidence of STI's among PrEP-users compared to non-PrEP-users⁽⁵⁰⁾. Other studies have compared the STI incidence before and during PrEP-use and only found an increased incidence of STI between 3 and 9 months of PrEP-use^(31, 68, 69).

Appendix 5. Information letter, informed consent & questionnaire English

Dear sir/madam,

Oude Turfmarkt GP Practice / Student Doctors Office is involved in scientific research in addition to patient care. Currently we investigate the experiences of PrEP-users who have their PrEP-care at the GP practice and at the Public Health Service (SHC) respectively. This research is being conducted by Marlies de Bruin as part of her medical studies. Because you can make a major contribution to this research, we hereby invite you to participate by completing a questionnaire.

Purpose of the research

Currently, PrEP-care is given at the SHC as well as at the GPs office. Since last year, a pilot PrEP program has been started, in which the government reimburses part of the costs for approximately 6,500 high-risk HIV people at the SHC. However, many PrEP-users are excluded from this and have their PrEP-care with the general practitioner, as well as patients who prefer their PrEP-care with the general practitioner. With this research we want to investigate what PrEP-users' considerations are when making their choice for a GP or SHC and how satisfied they are with the quality of care. Depending on the results, we hope to improve the quality of care in this way and to give the general practitioner and/or SHC doctor insight into what PrEP-users consider important in their PrEP-care.

Items on the questionnaire

This questionnaire contains questions about personal background information, sexual behaviour, how your PrEP-care is managed and how you perceive the Quality of care from your HCP, as well as your final satisfaction with your PrEP-care. Completing the questionnaire takes about 10-15 minutes.

Voluntary participation and withdrawal

You can choose whether you want to participate in this questionnaire or not. Participation is voluntary and one-time. You are also free to cancel your participation at any time, without explanation.

Possible benefits and risks

With your participation you contribute to a possible improvement of PrEP-care in general practice, as well as the SHC. We hope that we can provide the doctors tools for dealing better with a PrEP-question.

This research might also give you insights into your own expectations and satisfaction with PrEP-care. It is possible that some questions will lead to mild discomfort. However, this is not likely.

Confidentiality

Your answers will be processed anonymously and on a group level. The data will be kept for the next 10 years and can only be accessed by researchers directly involved in the research. Anonymous data can be used for publications or follow-up research. The researchers did not have access to your file.

Publications of the results

A report with the results of this study will be posted in due time on the website of Huisartsen Oude Turfmarkt (www.huisartsenamsterdam.nl - section "Science", subpage "Articles and reports").

If you have any questions about this research, about completing the questionnaire, or other questions, please email to m.debruin2@uva.nl or call 020-5252954.

Multiple Bol.com gift cards worth € 20 will be raffled among the participants. If you would like one of these, you can enter your e-mail address at the end of the questionnaire.

Thanks in advance for your cooperation and best regards,

Marlies de Bruin
Trainee researcher GPs Oude Turfmarkt | Student Doctors Office

Partly on behalf of

Claudia van der Heijde senior researcher and Peter Vink, director

Informed consent

"I hereby declare that I have been informed in a clear manner about the nature and method of this research, as explained in the description.

I voluntarily agree to participate in this study. I thereby retain the right to withdraw this consent without having to give a reason and I am aware that I may stop the questionnaire at any time. If the results of the questionnaire will be used in scientific publications or made public in any other way, this will be done completely anonymously.

- I have read the information above and have understood it to my satisfaction. I hereby co-operate with this study and hereby give permission to use my entered data for research purposes***
- I do not give permission and do not want to participate in this study***

Sociodemographic characteristics

The following questions are about your personal background. Do you want to answer every question by entering your answer or by checking the correct box?

	Question	Answers
1.	Do you use PrEP?	a. Yes → start questionnaire b. No → go to the next question
	Have you ever thought about using PrEP?	Yes → go to the next question No → stop questionnaire
	What is holding you back from using PrEP?	Open question → go to the next question
	Do you think your doctor will judge you or treat you with less respect when you ask for PrEP?	Yes, namely... No, namely... → stop questionnaire
2.	What is your age?	Open question
3.	Wat is your gender identity?	a. Male b. Female c. Transgender (female to male) d. Transgender (male to female) e. Other (please specify)
4.	What is your sexual preference?	a. Men b. Women c. Men + women d. Pansexual (attracted to personality)
5.	What is the country of birth of your parent (s) / caregiver (s), of yourself and to which population do you count yourself? Tick the corresponding answers.	- The Netherlands - Turkey - Morocco - Suriname - Antilles - Eastern Europe - Sub-Saharan Africa - Middle/South America - Asia - Other, namely:
6.	What is your highest obtained level of education?	a. Primary school b. High school (or equivalent) c. Vocational education (or equivalent) d. Higher vocational education (University of applied sciences) e. Bachelor's degree University f. Master's degree University g. Doctorate PhD
7.	What is your employment status?	a. I don't work, because..... b. I work, number of working hours.....
8.	What is your net monthly income?	a. ≤1500 euro b. 1500-2500 euro

		c. c. ≥ 2500 euro
9.	What is your relationship status?	a. Steady partner, living together b. Steady partner, living separately c. Multiple steady partners d. No steady partner
10.	Are you married?	a. Yes b. No
11.	What is your zip code (only 4 numbers)?	Open question

Characteristics of sexual behaviour

The following questions are about sexual behaviour, condom use and sexually transmitted infections (STIs).

	Question	Answers
	<u>Sexual practices</u>	
12.	What is the number of sexual partners you had in the preceding 6 months?	Open question
13.	What is your partner HIV status in the last 6 months? Check the corresponding answer options.	a. I had no sex b. One or few HIV-positive partners c. One or few HIV-negative partners d. One or few unknown status partners
14.	What type of sexual practices have you had in the past 6 months? Check the answers.	- I had no sex - Vaginal sex - Insertive (giving) oral sex - Receptive (taking) oral sex - Insertive ("top") anal sex - Receptive ("bottom") anal sex
15.	Have you had a post-exposure prophylaxis (PEP)-prescription in the past 6 months?	a. Yes b. No
	<u>Condom use:</u>	
16.	Have you had condomless anal sex in the preceding 6 months ("top" and/or "bottom")?	a. No, currently not engaging in condomless anal sex b. Yes, with steady partner c. Yes, with casual partner d. Yes, with steady and casual partner
17.	Since using PrEP, I have been using condoms during vaginal and/or anal sex less often compared to before using PrEP	a. Yes b. No
	<u>STI:</u>	
18.	Did you have a sexually transmitted infection (STI) in the preceding 6 months? Check the answers.	- No - Yes, HIV - Yes, an oral chlamydia/gonorrhea - Yes, a penis/vaginal/urethral chlamydia/gonorrhea - Yes, an anal chlamydia/gonorrhea - Yes, syphilis - Yes, other, namely: ...
19.	Since I use PrEP I have been diagnosed with STIs more often than before using PrEP	a. Yes b. No
	<u>Chemsex:</u>	
20.	Do you ever have engaged in chemsex? Chemsex is sex under the influence of at least GHB/GBL, Mephedrone (meow, meow) or Crystal Meth (Tina), possibly in combination with other drugs.	a. No → go to question 21 b. Yes, with one partner → go to next questions c. Yes, with multiple partners → go to next questions
	I dare not tell my HCP that I engaged in chemsex because I'm afraid he/she will judge me and treat me with less respect. Explain your answer if necessary.	a. Yes, ... b. No, ...

	In what way does chemsex affect the following? Check the answer options that apply to you.	<ul style="list-style-type: none"> - Forgetting / not taking the PrEP pill on time - Forgetting / careless handling of a condom - Careless handling of drug needles - Other, namely:
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Decision to use PrEP

The following questions are about the possible resistance that you felt when you were considering using PrEP, and which HCP you approached regarding your PrEP-care question.

	Question	Answers
	<u>Decision to use PrEP</u>	
21.	What worries played a role in making the decision to use PrEP? Check the ones that apply to you and explain.	<ul style="list-style-type: none"> - None: ... - Costs: --- - Effectiveness of pill (safety, potential side effects, etc): ... - Time effort (obligated screenings and doctorvisits): ... - Availability of PrEP-care in the Netherlands: ... - Stigmatizing reactions from surrounding: ... - Stigmatizing reactions from HCP: ... - Other, namely: ...
22.	Was your expectation that your GP would judge you or treat you with less respect with regard to your PrEP question? Explain your answer.	<ul style="list-style-type: none"> a. Yes, namely: ... b. No, namely: ...
23.	Was your expectation that the SHC employees would judge you or treat you with less respect with regard to your PrEP-question compared to your general practitioner? Explain your answer.	<ul style="list-style-type: none"> a. SHC will treat me with more respect compared to GP b. SHC will treat me equally compared to GP/Medical specialist in hospital/clinic c. SHC will treat me with less respect compared to GP
24.	Which HCP in the Netherlands prescribed PrEP for you for the first time?	<ul style="list-style-type: none"> d. General practitioner e. SHC doctor f. Medical specialist in hospital/clinic
25.	The first time I was prescribed PrEP by a Dutch HCP, I had enough information/counseling about: - potential side effects of PrEP use - compliance to therapy - condomuse while using PrEP - HIV and STI-risk - Risk of drugsuse during sex - Frequent screenings	Yes, No Yes, No Yes, No Yes, No Yes, No Yes, No
26.	Has this guidance from your HCP been satisfactory? Give a score from 1 to 10 and explain your score.	1 2 3 4 5 6 7 8 9 10 Please explain:

PrEP-care facts and decision of HCP

The following questions are about your PrEP-use and -care and what HCP you have chosen.

	Question	Answers
	<u>PrEP-use</u>	
27.	How long ago did you use PrEP for the first time? - Number of years: - Number of months:	Open question Open question
28.	Which health care providers have prescribed you PrEP since you started using PrEP? Check the answers.	<ul style="list-style-type: none"> - SHC - General practitioner - Medical specialist in hospital/clinic
29.	Where does your current PrEP-care takes place? One answer option possible with "prescribing PrEP".	<ul style="list-style-type: none"> • Prescribing PrEP - GP

	Multiple answer options possible with "screenings". Tick the box.	<ul style="list-style-type: none"> - SHC - Medical specialist in hospital/clinic • Screenings <ul style="list-style-type: none"> - GP - SHC - Medical specialist in hospital/clinic
30.	Approximately since when do have PrEP prescribed by your main HCP and how many doctorsvisits have you had? - Number of years: - Number of months: - How many doctor visits:	Open question Open question Open question
31.	Complete the following sentence: <i>I made the choice to have PrEP prescribed by my GP/SHC/medical specialist because of.....</i>	Open question
32.	Is your PrEP-provision covered by the PrEP-pilot? This means that you pay €7,50 per 30 PrEP-pills via the SHC.	a. Yes b. No
33.	When starting PrEP I fell into the high risk HIV category, which includes: <i>I am a man who has sex with men (MSM), a transgender or a female prostitute, with:</i> - OR: anal condomless sex ("bottom" or "top") with unknown partner HIV-status in the preceding 6 months - OR: rectal STI or syphilis in preceding 6 months - OR: PEP (post-exposure prophylaxis)-prescription in preceding 6 months	a. Yes b. No
34.	How often do you use PrEP?	a. Daily b. Event driven c. Other, namely: ...
Factual Quality of Care:		
35.	How many of the following screenings have you got last year with your current PrEP-HCP? - HIV-tests? - Kidney function tests? - Anal swab STI-tests? - Faryngeal STI-tests? - Hepatitis C tests? - Counseling with regard to therapy compliance and risk-reducing strategies	0 1 2 3 4 0 1 2 3 4
36.	Are you vaccinated against hepatitis A and B?	a. Yes, only hepatitis A b. Yes, only hepatitis B c. Yes, hepatitis A + B d. Don't know e. No
37.	The 3-monthly check-ups are a waste of my time	a. Yes, because... b. No, because...

Perceived PrEP-care regarding different aspect of Quality of Care

You have made a choice for your general practitioner to prescribe you PrEP. He / she is the main practitioner of your PrEP-care.

The following questions are about the perceived quality of care regarding your PrEP-care at your general practitioner. The quality of care is subdivided into different domains.

Indicate for each statement how you experienced this at your general practitioner on a scale from "totally disagree" to "totally agree."

Questions	Answers
DOMEIN: ACCESSIBILITY	
<i>This domain is about the accessibility of your practice/centre; is the practice/centre easy to reach, is your PrEP-care affordable for you and how easy is it to make appointments.</i>	
<i>Complete the following sentence:</i>	
<i>The practice/SHC centre/hospital or clinic.....:</i>	
38. Offers affordable PrEP-care	SD – PD – N – PA – SA
39. Is located near to where I live	SD – PD – N – PA – SA
40. Is easy to reach (e.g. by car, by public transport, parking possibilities, etc)	
41. Is easy to reach by telephone, mail or online for getting appointments or questions	SD – PD – N – PA – SA
42. Has a short waiting time to get appointments	SD – PD – N – PA – SA
43. Has convenient opening hours (e.g. availability of evening hours)	SD – PD – N – PA – SA
DOMAIN: STRUCTURE & FACILITIES	
<i>This domain is about the facilities available for your PrEP-care and how this is arranged, the treatment of staff and the continuity and cooperation of care.</i>	
<i>Complete the following sentence:</i>	
<i>The practice/SHC centre/hospital or clinic.....:</i>	
44. Provides a waiting room that is not too crowded	SD – PD – N – PA – SA
45. Has a waiting room in where I feel comfortable to wait with the other people who go there	SD – PD – N – PA – SA
46. Offers all the facilities for my PrEP-checkups (lab, HIV/STI-tests, etc)	SD – PD – N – PA – SA
47. Provides enough time for my PrEP-care	
48. Makes sure the provider sees me at the agreed time	SD – PD – N – PA – SA
49. Has friendly staff who treat me with respect	SD – PD – N – PA – SA
50. Provides prescriptions and doctor's notes when needed	SD – PD – N – PA – SA
51. Provides the possibility to see the same caregiver most of the time at my checkups	SD – PD – N – PA – SA
52. Provides a good collaboration with other HCPs (general practitioner/SHC/medical specialist/pharmacist)	SD – PD – N – PA – SA
DOMAIN: CLINICAL CARE	
<i>This domain is about the knowledge and experiences of your HCP in the field of HIV, PrEP, sexual behaviour, STIs and various gender identities.</i>	
<i>Complete the following sentence:</i>	
<i>The HCP....:</i>	
53. Is competent (i.e., has good medical skills)	SD – PD – N – PA – SA
54. Makes sure that I receive the best care possible (to my knowledge)	SD – PD – N – PA – SA
55. Has specialized knowledge of HIV and prevention strategies (i.e. PrEP)	SD – PD – N – PA – SA
56. Has specialized knowledge of sexual behaviour and STIs	SD – PD – N – PA – SA
57. Has knowledge of personal medical background and the use of current (medical) drugs	SD – PD – N – PA – SA
58. Is experienced working with gay, lesbian, bisexual and transgenders	SD – PD – N – PA – SA
59. Works according to the PrEP-guideline (to my knowledge)	SD – PD – N – PA – SA
60. Knows when to consult with colleagues or refer me to a specialist	SD – PD – N – PA – SA
61. Gives me enough information about my care plan (i.e. agreements regarding your PrEP-care)	SD – PD – N – PA – SA
62. Gives me information at the right time of my trajectory	SD – PD – N – PA – SA
DOMAIN: PERSONAL AND INTERPERSONAL CARE	
<i>This domain is about how your health care provider treats you; does he/she has good communication skills, does he/she treats you in a personal, respectful, equal and non-discriminatory way and are you involved in the decision-making process.</i>	
<i>Complete the following sentence:</i>	
<i>The HCP....:</i>	
63. Explains medical words so that I can understand them	SD – PD – N – PA – SA
64. Encourage me to ask questions	SD – PD – N – PA – SA
65. Really respects me	SD – PD – N – PA – SA
66. Gives me enough time to say what I think is important	SD – PD – N – PA – SA

67. Listens carefully to what I have to say	SD – PD – N – PA – SA
68. Explains why tests are being done	SD – PD – N – PA – SA
69. Makes me feel comfortable talking about personal things	SD – PD – N – PA – SA
70. Is really interested in me as a person	SD – PD – N – PA – SA
71. Respects my privacy	SD – PD – N – PA – SA
72. Seems to understand how I perceive my situation	SD – PD – N – PA – SA
73. Acknowledges my individual care needs	SD – PD – N – PA – SA
74. Treats me in a confidence-inspiring manner	SD – PD – N – PA – SA
75. Has a respectful attitude towards my PrEP-use, sexual orientation and/or sexual behaviour	SD – PD – N – PA – SA
76. Is non-judgmental because of my PrEP-use, sexual orientation and/or sexual behaviour	SD – PD – N – PA – SA
77. Is not mistreating me because of my PrEP-use, sexual orientation and/or sexual behaviour	SD – PD – N – PA – SA
78. Is making me comfortable talking about sex, sexual risk behaviour and safe sex practices	SD – PD – N – PA – SA
79. Values my opinion and wishes, with regard to the decisions about my care	SD – PD – N – PA – SA
80. Let me participate in the decisionmaking regarding my care	SD – PD – N – PA – SA

Final satisfaction

Question	Answers
81. State in ascending order the most important aspects of good care for you in the context of your PrEP-care.	<ol style="list-style-type: none"> 1. Access to care 2. Availability of facilities 3. Continuity of care 4. Clinical competence of HCP (knowledge/experiences/provision of information) 5. Communication skills of HCP (incl. talking about sexual related things) 6. Involvement in decision making 7. Trust and respect from HCP, regardless of sexual preference
82. Give a score for your current PrEP-care in GPs office or SHC from 1 to 10.	1 2 3 4 5 6 7 8 9 10 Please Explain: ...

Wishes toward general practitioner in the future

Question	Answers
83. Do you think PrEP-care belongs in general practice?	<ol style="list-style-type: none"> a. Yes, because: ... b. No, because: ...
84. What would be your most important wish/expectation for your future PrEP-care?	Open question
85. What do you think your GP should change to have your PrEP-care with him/her?	Open question

This is the end of the questionnaire. Thank you for completing!

If you want to stand a chance of winning one of the Bol.com vouchers worth € 20, you can enter your e-mail address below. This is not mandatory. Anonymity is then no longer guaranteed.

Appendix 6. Information letter, informed consent & questionnaire Dutch

Beste meneer/mevrouw,

Huisartsenpraktijk Oude Turfmarkt / Bureau Studentenartsen houdt zich naast de patiëntenzorg onder andere bezig met wetenschappelijk onderzoek. Momenteel wordt er onderzoek gedaan naar de ervaringen van PrEP-gebruikers die hun PrEP-zorg bij de huisartsenpraktijk en respectievelijk bij de SHC hebben. Dit onderzoek wordt uitgevoerd door Marlies de Bruin in het kader van haar studie geneeskunde. Omdat u een grote bijdrage kunt leveren aan dit onderzoek, nodigen wij u hierbij graag uit om deel te nemen door middel van het invullen van een vragenlijst.

Doel van het onderzoek

Momenteel wordt een PrEP-behandeling bij de SHC alsook bij de huisarts gegeven. Sinds vorig jaar is er een pilot PrEP-programma gestart, waarbij de overheid een deel van de kosten vergoed voor ongeveer 6500 hoog risico HIV-patiënten bij de SHC. Echter veel patiënten vallen hierbuiten en worden behandeld bij de huisarts, als mede patiënten die liever hun behandeling bij de huisarts willen. Met dit onderzoek willen wij onderzoeken wat de overwegingen zijn van patiënten om hun keuze te maken voor de huisarts of SHC en hoe tevreden zij dan uiteindelijk over de kwaliteit van zorg zijn. Afhankelijk van de resultaten hopen wij op deze manier de kwaliteit van zorg te verbeteren en de huisarts en/of SHC-arts inzicht te geven in wat patiënten belangrijk vinden in hun PrEP-zorg.

Inhoud van de vragenlijst

Deze vragenlijst bevat vragen over persoonlijke achtergrondinformatie, seksueel gedrag, hoe uw PrEP-zorg is geregeld en hoe u de PrEP-zorg bij uw zorgverlener ervaart, alsmede de uiteindelijke tevredenheid. Het invullen zal ongeveer 10 tot 15 minuten duren.

Vrijwillige deelname en terugtrekking

Het invullen van de vragenlijst is geheel vrijwillig, indien u zich onprettig voelt bij het invullen van de vragen mag u dan ook te allen tijde de deelname afbreken, zonder opgaaf van redenen.

Mogelijke voordelen en risico's

Met uw deelname draagt u bij aan een mogelijke verbetering van de PrEP-zorg in de huisartsenpraktijk, alsook de SHC. Wij hopen dat wij de artsen handvatten kunnen geven om beter om te gaan met een PrEP-vraag.

Dit onderzoek kan u ook inzicht geven in uw eigen verwachtingen en tevredenheid over de PrEP-zorg. Het kan zijn dat sommige vragen leiden tot milde discomfort. Dit is echter niet waarschijnlijk.

Vertrouwelijkheid

Er wordt vertrouwelijk met uw gegevens omgegaan en uw antwoorden worden anoniem en op groepsniveau verwerkt. De gegevens zullen voor de komende 10 jaar worden bewaard en zijn alleen toegankelijk voor onderzoekers die direct betrokken zijn bij het onderzoek. Geanonimiseerde gegevens kunnen worden gebruikt voor publicaties of vervolgonderzoek. De onderzoeker heeft geen inzage in uw medische dossier.

Publicatie van de resultaten

Over de resultaten van deze studie zal te zijner tijd worden bericht op de website van de Huisartsen Oude Turfmarkt (www.huisartsenamsterdam.nl – sectie ‘Wetenschap’, subpagina ‘Artikelen en rapporten’).

Indien u vragen heeft over dit onderzoek, over het invullen van de vragenlijst, of andere vragen kunt u mailen naar m.debruin2@uva.nl of kunt u bellen naar 020-5252954.

Onder de deelnemers worden meerdere Bol.com cadeaukaarten verloot ter waarde van €20,-.
Als u hierop kans wilt maken, kunt u aan het einde van de vragenlijst uw e-mailadres invullen.

Alvast bedankt voor uw medewerking en hartelijke groeten,

Marlies de Bruin

Wetenschappelijke stagiaire Huisartsen Oude Turfmarkt | Bureau Studentenartsen

Mede namens,

Claudia van der Heijde sr. wetenschappelijk onderzoeker en Peter Vonk, directeur

Informed consent

'Ik verklaar hierbij op voor mij duidelijke wijze te zijn ingelicht over de aard en de methode van dit onderzoek, zoals is uitgelegd in de beschrijving. Ik heb de mogelijkheid gekregen vragen te stellen en deze zijn naar tevredenheid beantwoord.'

'Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud daarbij het recht deze instemming weer in te trekken zonder dat ik daarvoor een reden behoeft te geven en ik ben mij ervan bewust dat ik elk moment mag stoppen met de vragenlijsten. Indien de resultaten van de vragenlijst gebruikt zullen worden in wetenschappelijke publicaties, dan wel op een andere manier openbaar worden gemaakt, zal dit volledig ganonimiseerd gebeuren.'

Sociodemografische karakteristieken

De volgende vragen gaan over uw persoonlijke achtergrond. Wilt u elke vraag beantwoorden door uw antwoord in te vullen of door het juiste hokje aan te kruisen.

Vraag	Antwoordopties
1. Gebruikt u PrEP?	Ja → start vragenlijst Nee → volgende vraag
Indien 'nee': → Heeft u ooit gedacht om PrEP te gebruiken?	Ja → volgende vraag Nee → stop vragenlijst
→ Wat houdt u tegen?	Open vraag
→ Denkt u dat uw huisarts u veroordelend of met minder respect zal bejegenen als u vraagt naar PrEP?	Ja, namelijk: ... Nee, namelijk: ... → stop vragenlijst
2. Wat is uw leeftijd?	Open vraag
3. Wat is uw gender identiteit?	Man Vrouw Transgender (vrouw naar man) Transgender (man naar vrouw) Anders, namelijk: ...
4. Wat is uw seksuele voorkeur?	Mannen Vrouwen Mannen + vrouwen Panseksueel (op een persoonlijkheid)
5. Wat is het geboorteland van uw ouder(s)/verzorger(s), van uzelf en tot welke bevolkingsgroep rekent u zichzelf? Kruis de bijbehorende antwoorden aan.	Nederland Turkije Marokko Suriname Antillen Oost-Europa Sub-Sahara Afrika Midden/Zuid-Amerika Azië

	Anders, namelijk: ...
6. Wat is uw hoogst behaalde afgeronde opleiding?	Basisschool / lagere school Middelbare school MBO HBO Bachelor WO Master WO Doctoraat (PhD)
7. Wat is uw huidige werksituatie?	Ik werk niet, want:... Ik werk, aantal uur:...
8. Wat is uw maandelijkse netto inkomen?	<1500 euro 1500-2500 euro >2500 euro
9. Wat is uw relatie status?	Vaste partner, samenwonend Vaste partner, apart wonend Meerdere vaste partners Geen vaste partner
10. Bent u getrouwd?	Ja Nee
11. Wat is uw postcode? Geef alleen de eerste 4 cijfers.	Open vraag

Seksueel gedrag karakteristieken

De volgende vragen gaan over seksueel gedrag, condoomgebruik en SOA's.

Vraag	Antwoordopties
12. Hoeveel sekspartners had u in de afgelopen 6 maanden?	Open vraag
13. Wat was de HIV-status van uw sekspartner(s) in de afgelopen 6 maanden? Vink de bijbehorende antwoordopties aan (meerdere antwoordopties mogelijk)	Geen seks gehad Één of enkele HIV-positieve partners Één of enkele HIV-negatieve partners Één of enkele partners met een onbekende HIV-status
14. Welk type seks heeft u gehad in de afgelopen 6 maanden? Vink de bijbehorende antwoordopties aan (meerdere antwoorden mogelijk)	Geen seks gehad Vaginale seks Insertieve (gevende) orale seks Receptieve (ontvangende) orale seks Insertieve (gevende) anale seks ("top") Receptieve (ontvangende) anale seks ("bottom")
15. Heeft u een post-expositie profylaxe (PEP)-kuur gehad in de afgelopen 6 maanden?	Ja Nee
16. Heeft u anale seks zonder condoom gehad in de afgelopen 6 maanden (insertieve (=geven) en/of receptieve (=ontvangen))?	Ik doe momenteel niet aan anale seks zonder condoom Ja, met vaste partner(s) Ja, met losse partner(s) Ja, met vaste en losse partner(s)
17. Ik gebruik minder condooms tijdens de seks (vaginaal en/of anal) sinds ik PrEP gebruik in vergelijking met daarvoor.	Ja Nee
18. Heeft u een SOA gehad in de afgelopen 6 maanden? Vink de antwoordopties aan (meerder antwoorden mogelijk).	Nee Ja, HIV Ja, een orale chlamydia/gonorroe Ja, een chlamydia/gonorroe aan penis/vagina of plasbuis Ja, een anale chlamydia/gonorroe Ja, syfilis Ja, anders, namelijk: ...
19. Sinds ik PrEP gebruik heb ik relatief vaker een SOA gekregen dan voordat ik PrEP gebruikte.	Ja Nee
20. Heeft u ooit aan chemseks gedaan? Chemseks is seks hebben onder invloed van GHB/GBL, Mephedrone (miauw, miauw) of Crystal Meth (Tina).	Nee → ga naar vraag 21 Ja, met 1 partner → ga door Ja, met meerdere partners → ga door

➔ Ik durf mijn huisarts niet te vertellen dat ik aan chemseks doe, omdat ik bang ben dat hij/zij mij zal veroordelen en met minder respect zal behandelen.	Ja, namelijk: ... Nee, namelijk: ...
➔ Op wat voor manier beïnvloedt het hebben van chemseks de volgende zaken? Kruis de antwoordopties aan die bij u van toepassing zijn.	- Het vergeten/niet op tijd innemen van de PrEP-pil - Het vergeten van/onzorgvuldig omgaan met condoom - Het onzorgvuldig omgaan met drugsnaalden - Anders, namelijk:

Besluit PrEP-gebruiken

De volgende vragen gaan over de eventuele drempels die u ervoer toen u overwoog om PrEP te gebruiken, en naar welke zorgverlener u met uw zorgvraag bent toegestapt.

21. Wat voor drempels ervoer u voordat u met PrEP ging starten? Vink de antwoorden die bij u van toepassing waren aan in de verschillende categorieën en leg uw antwoord(en) uit.	Geen: ... Kosten: ... Effectiviteit middel (betrouwbaarheid, mogelijke bijwerkingen, etc): ... Tijd (verplichte screenings en doktersbezoeken): ... Beschikbaarheid behandeling in Nederland: ... Stigmatiserende reacties vanuit omgeving: ... Stigmatiserende reacties vanuit zorgverlener: ... Anders, namelijk: ...
22. Was uw verwachting dat uw huisarts u veroordelend of met minder respect zou bejegenen met betrekking tot uw PrEP-vraag?	Ja, namelijk: ... Nee, namelijk: ...
23. Was uw verwachting dat de SHC-medewerkers in vergelijking met uw huisarts u veroordelend of met minder respect zouden bejegenen met betrekking tot uw PrEP-vraag? Leg uw antwoord eventueel uit.	SHC zal mij met meer respect dan mijn huisarts bejegenen SHC zal mij met evenveel respect als mijn huisarts bejegenen SHC zal mij met minder respect dan mijn huisarts bejegenen
24. Welke zorgverlener in Nederland heeft PrEP voor het eerst aan u voorgescreven?	Huisarts SHC arts Medisch specialist
25. De eerste keer dat ik PrEP door een Nederlandse zorgverlener voorgescreven kreeg, gaf deze mij genoeg voorlichting over: - Potentiële bijwerkingen - Therapietrouw - Condoomgebruik tijdens PrEP-gebruik - HIV en SOA risico - Risico van drugsgebruik tijdens de (chem)seks - Frequentie screenings	Ja, Nee Ja, Nee Ja, Nee Ja, Nee Ja, Nee Ja, Nee
26. Is deze begeleiding door uw zorgverlener naar tevredenheid verlopen? Geef een score van 1 tot 10 en leg uw score uit.	1 2 3 4 5 6 7 8 9 10 Leg uw score uit: ...

PrEP-zorg feiten

De volgende vragen gaan over uw PrEP-gebruik en -zorg en welke zorgverlener u heeft gekozen.

Vraag	Antwoordopties
27. Hoe lang geleden gebruikte u voor het eerst PrEP? Geef aan in jaren en/of maanden. Aantal jaren: Aantal maanden:	Open vraag Open vraag
28. Welke zorgverleners hebben PrEP voorgescreven sinds u bent gestart met PrEP? Vink aan.	Huisarts SHC Medisch specialist in ziekenhuis/kliniek
29. Waar vindt uw huidige behandeling plaats? Vink het vakje aan.	Het voorschrijven van PrEP (uw hoofdbehandelaar): - Huisarts

	<ul style="list-style-type: none"> - SHC - Medisch specialist in ziekenhuis/kliniek <p>De screenings (HIV/SOA's/nierfunctie)</p> <ul style="list-style-type: none"> - Huisarts - SHC - Medisch specialist in ziekenhuis/kliniek
30. Sinds hoe lang zit u bij uw huidige hoofdbehandelaar (PrEP voorschrijver) en hoeveel doktersbezoeken heeft u ongeveer gehad? Aantal jaren: Aantal maanden: Hoeveel doktersbezoeken:	<p>Open vraag Open vraag Open vraag</p>
31. Ik maakte de keus voor mijn huisarts / SHC / medisch specialist in ziekenhuis of kliniek als hoofdbehandelaar (PrEP-voorschrijver), omdat....	Open vraag
32. Valt uw PrEP-verstrekking onder de PrEP-pilot? Dit houdt in dat u voor €7,50 per 30 pillen via de SHC PrEP verstrekt krijgt.	Ja Nee
33. Wanneer ik met PrEP startte viel ik onder de hoog risico groep, wat inhoudt: <i>Ik ben een man die seks heeft met mannen, een transgender of een vrouwelijke prostituee, met:</i> <ul style="list-style-type: none"> - OF: anale seks zonder condoom in de voorgaande 6 maanden - OF: anale SOA of syfilis in de voorgaande 6 maanden - OF: PEP-kuur in de voorgaande 6 maanden 	Ja Nee
34. Hoe gebruikt u PrEP?	Dagelijks Rondom de seks Anders, namelijk..
35. Hoeveel van de volgende screenings heeft u gehad het laatste jaar bij uw huidige PrEP-zorgverlener? <ul style="list-style-type: none"> - HIV-test? - Nierfunctie test? - Anale swab SOA test? - Keelswap SOA test? - Hepatitis C test? - Voorlichting over therapietrouw en (risico) seksueel gedrag? 	0 – 1 – 2 – 3 – 4 0 – 1 – 2 – 3 – 4
36. Bent u gevaccineerd tegen hepatitis A en B?	Ja, alleen hepatitis A Ja, alleen hepatitis B Ja, hepatitis A + B Weet ik niet Nee
37. De 3-maandelijkse screenings/controles zijn zonde van mijn tijd	Ja, want: ... Nee, want: ...

Uw ervaren PrEP-zorg

U heeft een keuze gemaakt voor uw huisarts om u PrEP voor te schrijven. Hij/zij is de hoofdbehandelaar van uw PrEP-zorg.

De volgende vragen gaan over de ervaren kwaliteit van zorg met betrekking tot uw PrEP-zorg bij uw huisarts.

De kwaliteit van zorg is onderverdeeld in verschillende domeinen.

Geef bij elke stelling aan hoe u deze heeft ervaren bij uw huisarts op een schaal van 'helemaal oneens' tot 'helemaal eens'.

Vraag	Antwoordopties
Domein: toegankelijkheid De volgende vragen gaan over de toegankelijkheid van uw praktijk; is de praktijk goed te bereiken, is de PrEP-zorg voor u betaalbaar en hoe gemakkelijk is het om afspraken te maken. Maak de volgende zin af:	

<i>Mijn huisartsenpraktijk/SHC-centrum/ziekenhuis of kliniek.....:</i>	
38. biedt betaalbare PrEP-zorg	Helemaal oneens – oneens – neutraal – eens – helemaal eens
39. ligt in de buurt van waar ik woon	Helemaal oneens – oneens – neutraal – eens – helemaal eens
40. is gemakkelijk te bereiken (bv. met de auto, OV, parkeergelegenheden, etc)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
41. is gemakkelijk te bereiken voor het maken van afspraken of stellen van vragen (aan de telefoon, online, mail, etc)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
42. heeft een korte wachttijd om afspraken te krijgen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
43. heeft handige openingstijden (bijv. de eventuele beschikbaarheid van avondspreekuur)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
Domein: structuur & faciliteiten	
<i>De volgende vragen gaan over de beschikbare faciliteiten voor uw PrEP-zorg en hoe dit is geregeld, de bejegening door personeel en de continuïteit en samenwerking van de zorg. Maak de volgende zin af:</i>	
<i>Mijn huisartsenpraktijk/SHC-centrum/ziekenhuis of kliniek.....:</i>	
44. biedt een wachtkamer die niet te druk is	Helemaal oneens – oneens – neutraal – eens – helemaal eens
45. biedt een wachtkamer waar ik me op mijn gemak voel om te wachten met de andere mensen die daarheen gaan	Helemaal oneens – oneens – neutraal – eens – helemaal eens
46. biedt alle faciliteiten voor mijn PrEP-checkups (lab/HIV/STI-testen, etc)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
47. biedt voldoende tijd voor mijn PrEP-zorg	Helemaal oneens – oneens – neutraal – eens – helemaal eens
48. zorgt ervoor dat de zorgverlener mij op de afgesproken tijd ziet	Helemaal oneens – oneens – neutraal – eens – helemaal eens
49. heeft vriendelijk personeel die mij met respect behandelen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
50. biedt recepten, verwijsbrieven en aantekeningen van de arts wanneer nodig	Helemaal oneens – oneens – neutraal – eens – helemaal eens
51. biedt de mogelijkheid om bij mijn controles meestal dezelfde zorgverlener te zien	Helemaal oneens – oneens – neutraal – eens – helemaal eens
52. zorgt voor een goede samenwerking met andere zorgaanbieders (huisarts / SHC / medisch specialist / apotheek)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
Domein: klinische zorg	
<i>De volgende vragen gaan over de kennis en ervaringen van uw zorgverlener op het gebied van HIV, PrEP, seksueel gedrag, SOA's en verschillende gender identiteiten, en de informatieverstrekking. Maak de volgende zin af:</i>	
<i>Mijn zorgverlener....:</i>	
53. is competent (d.w.z. heeft goede medische vaardigheden)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
54. zorgt er voor dat ik de best mogelijke zorg ontvang (voor zover ik weet)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
55. heeft gespecialiseerde kennis van HIV en preventieve zorg (zoals PrEP)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
56. heeft gespecialiseerde kennis van seksueel gedrag en SOA's	Helemaal oneens – oneens – neutraal – eens – helemaal eens
57. heeft kennis van persoonlijke medische achtergrond en het gebruik van huidige medicijnen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
58. is ervaren in het werken met homoseksuele mannen, lesbinnen, biseksuelen en transgenderen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
59. werkt volgens de PrEP-richtlijn (voor zover ik weet)	Helemaal oneens – oneens – neutraal – eens – helemaal eens
60. weet wanneer te overleggen met collega's of door te verwijzen naar een medisch specialist in het ziekenhuis	Helemaal oneens – oneens – neutraal – eens – helemaal eens
61. geeft mij voldoende informatie over mijn zorgplan (d.w.z. afspraken mb.t. uw PrEP-zorg)	Helemaal oneens – oneens – neutraal – eens – helemaal eens

62. geeft mij de juiste informatie op het juiste moment van mijn traject	Helemaal oneens – oneens – neutraal – eens – helemaal eens
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Domein: persoonlijke en interpersoonlijke zorg

De volgende vragen gaan over hoe uw zorgverlener u bejegend; heeft hij/zij goede communicatie vaardigheden, behandelt hij u persoonlijk, respectvol, gelijkwaardig en zonder discriminatie en wordt u meegenomen in de besluitvorming. Maak de volgende zin af:

Mijn zorgverlener....:

63. legt medische woorden uit zodat ik ze kan begrijpen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
64. moedigt mij aan om vragen te stellen	Helemaal oneens – oneens – neutraal – eens – helemaal eens
65. respecteert mij echt	Helemaal oneens – oneens – neutraal – eens – helemaal eens
66. geeft mij voldoende tijd om te zeggen wat ik echt belangrijk vind	Helemaal oneens – oneens – neutraal – eens – helemaal eens
67. luistert aandachtig naar wat ik te zeggen heb	Helemaal oneens – oneens – neutraal – eens – helemaal eens
68. legt uit waarom bepaalde testen worden gedaan	Helemaal oneens – oneens – neutraal – eens – helemaal eens
69. zorgt ervoor dat ik me op mijn gemak voel om over persoonlijke dingen te praten	Helemaal oneens – oneens – neutraal – eens – helemaal eens
70. is echt geïnteresseerd in mij als persoon	Helemaal oneens – oneens – neutraal – eens – helemaal eens
71. respecteert mijn privacy	Helemaal oneens – oneens – neutraal – eens – helemaal eens
72. leeft zich in in mijn situatie	Helemaal oneens – oneens – neutraal – eens – helemaal eens
73. erkent mijn individuele zorgbehoeften	Helemaal oneens – oneens – neutraal – eens – helemaal eens
74. behandelt mij op een vertrouwenwekkende manier	Helemaal oneens – oneens – neutraal – eens – helemaal eens
75. heeft een respectvolle houding tegenover mijn PrEP-gebruik, seksuele geaardheid en/of seksueel gedrag	Helemaal oneens – oneens – neutraal – eens – helemaal eens
76. is niet-veroordeelend vanwege mijn PrEP-gebruik, seksuele geaardheid en/of seksueel gedrag	Helemaal oneens – oneens – neutraal – eens – helemaal eens
77. behandelt mij niet anders dan anderen vanwege mijn PrEP-gebruik, seksuele geaardheid en/of seksueel gedrag	Helemaal oneens – oneens – neutraal – eens – helemaal eens
78. maakt mij comfortabel om over seks, seksueel risico gedrag en veilige seks handelingen te praten	Helemaal oneens – oneens – neutraal – eens – helemaal eens
79. waardeert mijn mening en wensen met betrekking tot de beslissingen over mijn zorg	Helemaal oneens – oneens – neutraal – eens – helemaal eens
80. laat mij deelnemen aan de besluitvorming over mijn zorg	Helemaal oneens – oneens – neutraal – eens – helemaal eens

Uiteindelijke tevredenheid

Vraag	Antwoordopties
81. Rangorder de belangrijkste aspecten van goede zorg in het kader van uw PrEP-zorg naar belangrijkheid voor u.	Toegang tot zorg Beschikbaarheid van faciliteiten Continuïteit van zorg Klinische competentie van zorgverlener (kennis/ervaringen/informatieverstrekking) Communicatie vaardigheden van zorgverlener (incl. praten over seks) Betrokkenheid bij besluitvorming Vertrouwen en respectvolle bejegening vanuit zorgverlener, ongeacht seksuele voorkeur

82. Geef een score van 1 tot 10 voor uw huidige PrEP-zorg in de huisartsenpraktijk / SHC / ziekenhuis of kliniek.	1 2 3 4 5 6 7 8 9 10 Leg uw score uit: ...
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Wensen en verbeterpunten t.a.v. uw zorgverlener

Vraag	Antwoordopties
83. Vindt u dat de PrEP-zorg in de huisartsenpraktijk thuis hoort?	Ja, want: ... Nee, want: ...
84. Wat zou uw belangrijkste wens / verwachting zijn voor uw toekomstige PrEP-zorg?	Open vraag
Voor SHC hoofdbehandelaar: 85. Wat moet volgens u uw huisarts veranderen om je PrEP-zorg bij hem/haar te hebben?	Open vraag

Dit is het einde van de vragenlijst. Bedankt voor het invullen!

Als u kans wilt maken op één van de Bol.com bonnen ter waarden van €20,-, kunt u hieronder uw e-mail adres invullen. Dit is niet verplicht. Anonimiteit is dan niet meer gegarandeerd.

Appendix 7. Confirmative factor analysis and reliability coefficients

Component Matrix^a

Items	Dimension 1
Domain: Accessibility	
Cronbach's alpha: 0.67, minus Item 1: 0.72	
Item 1: affordability	,108
Item 2: distance	,522
Item 3: accessibility of transport	,732
Item 4: accessibility of making appointments	,827
Item 5: waitingtime to get appointments	,749
Item 6: opening hours	,619
Domain: Structure & Facilities	
Cronbach's alpha: 0.92	
Item 1: waiting room crowd	,780
Item 2: waiting room feeling	,794
Item 3: PrEP-facilities	,771
Item 4: time for PrEP-care	,857
Item 5: appointment at scheduled time	,846
Item 6: respectful treatment staff	,830
Item 7: prescriptions and doctors notes	,776
Item 8: continuity of care	,645
Item 9: cooperation with HCPs	,719
Domain: Clinical Care	
Cronbach's alpha: 0.96	
Item 1: competent	,863
Item 2: best care possible	,840
Item 3: knowledge HIV & PrEP	,880
Item 4: knowledge STIs & sexual behaviour	,865
Item 5: knowledge medical background	,724
Item 6: experiences with LGBTQ	,878
Item 7: works according to guideline	,874
Item 8: consultation with colleagues	,780
Item 9: information care plan	,852
Item 10: information at right time	,933
Domain: Personal- and Interpersonal care	
Cronbach's alpha: 0.97	
Item 1: explains medical words	,761
Item 2: encourage to ask questions	,761
Item 3: respectful	,864
Item 4: gives time to say what's important	,770
Item 5: listens	,852
Item 6: explains tests	,813
Item 7: makes PrEP-user comfortable to talk	,870
Item 8: interested	,786
Item 9: respects privacy	,754
Item 10: understand personal situation	,814
Item 11: individual care needs	,841
Item 12: trustful	,913
Item 13: respectful to PrEP-use, sexual orientation	,857
Item 14: non-judgmental to PrEP-use, sexual orientation	,835
Item 15: same treatment as others	,840
Item 16: comfortable to talk about sex	,806
Item 17: appreciate PrEP-user' opinion and wishes	,856
Item 18: participating in decision making	,832

Extraction Method: Principal Component Analysis

a. 1 components extracted: item 1 (affordability)

Appendix 8. Pearson's correlation table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1. Age	1	-0,11	-0,22	-0,14	0,05	0,02	-0,09	-0,15	-,28*	0,18	0,07	,29*	0,18	-0,03	-0,16	0,05	0,02	0,03	-0,04	-0,19	0,24	-,37**	-0,15	-0,20	-0,07
2. MSM	-0,10	1	0,10	-0,10	,25*	0,25*	0,18	-0,09	-0,10	0,12	0,030	-0,11	-0,03	0,06	-0,21	0,00	-0,12	-0,06	,28*	-0,11	0,10	,24*	0,09	0,11	-0,10
3. Ethnicity (non-dutch vs dutch)	-0,21	0,10	1	,22	-,33**	-0,11	0,05	-0,11	-0,04	0,00	0,13	0,10	0,08	0,07	-0,07	0,07	0,13	-0,21	0,16	0,03	-0,14	0,18	-0,13	0,09	0,20
4. Education (low vs high)	-0,14	-0,10	0,22	1	-0,12	0,03	,7**	-0,21	-0,05	-0,16	-0,20	0,02	0,13	0,14	-0,07	-0,05	0,07	-0,16	0,02	0,10	0,13	-0,13	-,29*	0,07	-0,03
5. Employed	0,06	,24*	-,33**	-0,12	1	0,20	,39**	-0,00	-0,12	0,14	-0,20	0,02	-0,04	-0,16	0,14	-0,09	0,00	0,01	-0,23	-0,07	0,12	-0,09	-0,05	-0,02	-0,03
6. Income (low vs medium/high)	0,02	,24*	-0,11	0,03	0,20	1	,39**	0,03	0,03	0,14	0,08	-0,13	-0,04	0,07	-0,00	-0,09	0,00	0,01	0,02	0,10	-0,04	0,03	0,11	0,13	-0,03
7. SES	-0,09	0,18	0,05	,77**	,39**	,39*	1	-0,16	-0,06	-0,02	-,25*	-0,00	0,08	0,05	-0,03	-0,11	0,03	-0,12	-0,01	0,08	0,12	-0,09	-,25*	0,08	-0,06
8. Relation	-0,15	-0,08	-0,11	-,21	-0,00	0,03	-0,16	1	,50**	0,02	0,01	-0,05	-0,00	-0,13	-0,19	0,16	-,24*	-0,06	0,05	0,01	-0,15	0,18	0,13	-0,01	-0,16
9. Married	-,27*	-0,10	-0,04	-0,05	-0,12	0,03	-0,06	,50**	1	-,25*	0,16	-0,07	-0,08	-0,00	0,19	0,18	-,28*	-0,08	0,02	-0,00	-0,06	0,17	0,01	0,07	-0,11
10. Residence	0,18	0,12	0,00	-0,16	0,14	0,14	-0,02	0,02	-,25*	1	0,04	0,10	0,10	-0,16	0,088	-0,10	0,14	0,17	-0,01	-0,02	-0,18	-0,06	-,25*	-0,12	0,22
11. Sex partners	0,06	0,03	0,13	-0,20	-0,20	0,08	-,25*	0,01	0,165	0,04	1	0,21	0,14	0,00	-0,11	0,15	-,33**	0,11	,25*	-0,15	-0,06	0,16	0,15	0,07	0,02
12. Sex with HIV+/?	,28*	-0,11	0,10	0,02	0,02	-0,1	-0,00	-0,05	-0,07	0,10	0,21	1	,34**	-,27*	-0,05	,36**	-0,12	0,18	,50**	-,40**	-0,04	-0,01	-,26*	-0,00	0,22
13. CAS	0,18	-0,03	0,08	0,13	-0,04	-0,04	0,08	-0,00	-0,08	0,10	0,14	,34**	1	0,05	-,31*	0,12	-0,10	0,18	0,22	-,41**	-0,14	0,02	-0,15	0,09	0,15
14. PEP	-0,03	0,06	0,07	0,14	-0,16	0,07	0,05	-0,13	-0,00	-0,16	0,00	-,27*	0,05	1	-0,16	-0,08	0,16	-0,07	0,05	0,03	,31*	-0,09	0,02	0,13	-,24*
15. Less condom use	-0,15	-0,21	-0,07	-0,07	0,14	-0,00	-0,03	-0,19	0,19	0,08	-0,11	-0,05	-,31*	-0,16	1	-,25*	,32**	-0,17	-0,20	0,15	-0,08	-0,14	-0,06	-0,20	0,08
16. STI - anal/syphilis	0,04	0,00	0,07	-0,05	-0,09	-0,09	-0,11	0,16	0,18	-0,10	0,15	,36**	0,12	-0,08	-,25*	1	-,35**	,40**	,35**	-,29*	0,16	-0,02	-0,05	-0,05	-0,15
17. More STIs	0,01	-0,12	0,13	0,07	0,00	0,00	0,03	-,24*	-,28*	0,14	-,33**	-0,12	-0,10	0,16	,32**	-,35**	1	-0,03	-,30*	0,14	-0,00	-0,07	-0,03	0,03	0,19
18. Chemsex	0,03	-0,06	-0,21	-0,16	0,01	0,0	-0,12	-0,06	-0,08	0,17	0,11	0,18	0,18	-0,07	-0,17	,40**	-0,03	1	0,14	-0,02	0,12	0,08	-0,14	-0,03	0,07
19. High risk HIV < 6 months	-0,04	,28*	0,16	0,02	-0,23	0,02	-0,01	0,05	0,02	-0,01	,25*	,50**	0,22	0,05	-0,20	,35**	-,30*	0,14	1	-,295*	-0,03	0,06	0,02	0,03	0,06
20. High risk HIV at start	-0,18	-0,11	0,03	0,10	-0,07	0,10	0,08	0,01	-0,00	-0,02	-0,15	-,40**	-,41**	0,03	0,15	-,29*	0,14	-0,02	-,29*	1	-0,09	0,03	0,15	0,09	-0,19
21. PrEP barriers - none	0,24	0,10	-0,14	0,13	0,12	-0,04	0,12	-0,15	-0,06	-0,18	-0,06	-0,04	-0,14	,31*	-0,08	0,167	-0,00	0,12	-0,03	-0,09	1	-,53**	-0,21	-,24*	-,40**
22. PrEP barriers - costs	-,36**	,24*	0,18	-0,13	-0,09	0,03	-0,09	0,18	0,17	-0,06	0,16	-0,01	0,02	-0,09	-0,14	-0,02	-0,07	0,08	0,06	0,03	-,53**	1	0,06	,31*	0,20
23. PrEP barriers - effectiveness	-0,15	0,09	-0,13	-,29*	-0,05	0,11	-,25*	0,13	0,01	-,25*	0,15	-,26*	-0,15	0,02	-0,06	-0,05	-0,03	-0,14	0,02	0,15	-0,21	0,06	1	0,16	-0,05
24. PrEP barriers - time effort	-0,20	0,11	0,09	0,07	-0,02	0,13	0,08	-0,01	0,07	-0,12	0,07	-0,00	0,09	0,13	-0,20	-0,05	0,03	-0,03	0,03	0,09	-,24*	,31*	0,16	1	0,15
25. PrEP barriers - availability treatment	-0,07	-0,10	0,20	-0,03	-0,03	-0,03	-0,06	-0,16	-0,11	0,22	0,02	0,22	0,15	-,24*	0,08	-0,15	0,19	0,07	0,06	-0,19	-,40**	0,20	-0,05	0,15	1
26. PrEP barriers - stigma surrounding	-0,04	-0,11	-0,20	-0,10	0,11	-0,07	-0,09	-0,04	-0,01	-0,13	0,09	0,02	0,08	0,03	0,05	-0,20	0,15	-,28*	0,02	-0,05	-0,21	0,04	,41**	,32*	0,08
27. PrEP barriers - stigma HCP	-0,09	0,09	0,01	-0,05	0,10	0,09	0,04	-,26*	0,06	0,14	,31*	0,09	0,07	0,06	0,11	0,15	0,00	0,08	0,20	-0,16	-0,18	0,25	0,10	,28*	0,07
28. PrEP barriers - other	0,10	-0,09	-0,13	0,11	0,12	0,11	0,21	-0,05	-0,20	0,15	0,06	0,25	0,08	-0,14	-0,08	-0,13	-0,12	0,10	0,15	0,05	-0,22	-0,09	-0,09	0,08	-0,05
29. GP expect judging	-0,01	-0,13	0,13	,25*	-0,15	0,00	0,09	0,13	0,00	-,30*	-0,15	-0,05	-0,11	0,04	0,01	-0,15	0,16	-0,19	-0,14	0,13	0,19	-0,15	0,15	0,03	-0,10
30. SHC expect judging	-0,02	0,01	-0,01	0,20	-0,03	-0,03	0,13	-0,07	0,07	0,04	-0,18	-0,24	-0,10	,27*	0,21	-,29*	,26*	-0,25	-0,10	0,24	0,19	-0,15	0,01	-0,14	-0,23
31. Satisfaction decision	0,14	0,11	-0,07	0,08	0,07	-0,04	0,05	-0,03	-0,22	0,04	-0,10	-0,22	-0,10	0,21	-0,23	-0,22	,29*	-0,20	-0,10	-0,07	0,21	-0,19	0,21	0,10	-0,09
32. Use frequency	0,00	0,07	-0,14	0,05	0,12	0,11	0,11	-0,09	0,02	-,26*	-,29*	-,29*	-,29*	0,13	-0,02	-0,08	0,14	-0,07	-0,17	0,10	0,18	-0,02	-0,02	-0,05	0,02
33. Use duration	0,16	0,10	-0,18	-0,08	0,01	0,214	0,01	0,08	0,02	0,21	,27*	0,24	0,14	-0,12	-0,22	0,18	-0,24	0,09	0,24	-,44**	-0,05	0,04	-0,05	,27*	0,11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
34. Main HCP	-0,16	0,12	0,07	-0,05	0,18	0,311*	0,22	-0,04	0,00	-0,17	-0,11	,37**	-0,15	0,25	0,04	-0,12	0,10	-0,02	-0,22	,25*	0,00	0,09	0,19	0,03	-0,21
35. Screening waste of time?	0,06	-0,06	-0,01	-0,12	-0,07	-0,065	-0,17	0,18	-0,13	0,14	0,12	0,02	-0,05	-0,16	0,15	-0,10	0,00	-0,12	-0,14	0,11	-0,04	-0,10	0,11	-0,35**	-0,05
36. Counseling - side effects	0,14	-0,04	-0,06	-0,07	0,00	-0,151	-0,09	0,05	0,00	-0,03	-0,06	0,14	-0,10	-0,17	0,16	0,07	-0,16	0,05	0,05	0,07	0,00	0,08	-0,15	-0,21	-0,19
37. Counseling - adherence	-0,05	-0,01	-0,04	0,00	-0,11	0,035	-0,01	0,11	0,22	-0,10	-0,02	-0,06	-0,08	-0,03	0,17	0,07	-0,25	0,08	-0,06	0,22	-0,03	0,16	-0,10	0,09	-0,21
38. Counseling - condom	0,18	0,14	-0,21	-0,11	0,01	-0,126	-0,14	0,09	0,10	0,01	0,07	0,25	0,11	-0,16	0,13	,35**	-,30*	0,23	0,25	-,25*	0,19	-0,12	-0,17	-0,14	-0,16
39. Counseling - HIV/STI	0,18	0,09	-0,09	-0,16	-0,09	-0,098	-0,16	0,08	0,05	0,13	0,09	0,21	0,07	-0,10	0,10	0,15	-0,21	-0,01	0,21	-0,16	-0,05	-0,05	-0,17	-0,20	-0,13
40. Counseling - drugs	0,17	-0,07	-0,16	-0,11	0,00	-	-0,17	-0,03	0,05	-0,02	-0,12	0,24	0,19	-0,14	0,06	0,13	-0,21	0,05	0,16	,33**	0,12	-0,02	-,27*	-0,21	-0,01
41. Counseling - screenings	0,09	0,09	0,07	-0,13	-0,08	-0,083	-0,13	0,24	0,08	0,14	0,08	0,11	0,07	-0,12	-0,03	0,01	-0,18	-0,06	0,11	-0,04	-0,20	,27*	-0,05	-0,10	0,03
42. Screening - HIV	0,23	-0,05	0,04	0,12	-0,04	0,084	0,15	0,01	0,01	0,09	0,08	0,15	0,18	-0,03	-0,08	0,16	0,05	0,00	0,08	-0,24	-0,08	0,08	-0,16	-0,04	-0,10
43. Screening - kidney	0,10	,26*	0,15	0,02	0,04	-0,072	0,05	0,01	0,00	-0,02	,28*	0,14	0,18	-0,02	,27*	0,11	-0,17	-0,03	0,21	,39**	0,00	0,07	0,12	-0,02	0,05
44. Screening - anal	0,17	-0,01	-0,01	-0,01	-0,01	0,092	0,09	0,12	0,08	0,08	0,17	0,16	0,21	-0,04	,27*	0,22	-0,05	0,17	0,10	,28*	-0,01	0,12	-0,16	-0,01	-0,05
45. Screening - pharyngeal	0,19	-0,02	-0,04	0,02	0,03	0,111	0,14	0,09	0,06	0,03	0,12	0,14	0,20	-0,02	-0,24	0,23	-0,01	0,15	0,08	,25*	0,00	0,08	-0,14	0,01	-0,09
46. Screening - HepC	0,12	0,11	0,05	0,08	0,02	-0,032	0,12	-0,06	-0,12	0,01	0,14	0,16	0,16	-0,09	-0,16	0,00	-0,13	-0,02	0,10	-0,23	-0,07	0,02	0,07	-0,18	0,01
47. Screening - counseling	0,24	-0,05	0,01	0,03	-0,01	-0,017	0,05	-0,03	-0,04	-0,05	0,17	0,15	0,09	-0,14	-0,23	0,16	0,05	0,13	0,02	-0,10	0,02	-0,10	,27*	0,11	,28*
48. Vaccination hepatitis AB	-0,18	-0,01	0,12	-0,02	-0,01	-0,013	0,02	-0,04	0,17	-0,20	-0,02	0,10	-0,01	0,11	0,09	-0,13	0,09	-0,10	0,10	-0,05	-0,04	-0,05	0,02	0,09	0,10
49. Doctor visits	-0,16	0,12	0,07	-0,00	0,18	0,080	0,22	-0,04	0,00	-0,17	-0,11	,37**	-0,15	0,25	0,04	-0,12	0,10	-0,02	-0,22	,25*	0,00	0,09	0,19	0,03	-0,21
50. QoC - Accessibility	0,06	0,10	-0,10	-0,08	-0,02	-0,039	-0,12	0,03	0,00	0,00	0,03	-0,17	,30*	0,17	-0,02	-0,21	0,09	-0,18	-0,11	0,00	0,20	-0,13	0,16	,25*	-0,09
51. QoC - Accessibility (minus affordable)	-0,02	0,12	-0,03	-0,06	-0,02	0,037	-0,07	0,02	-0,02	-0,02	0,03	,27*	,33**	0,22	0,02	-0,28*	0,16	-0,18	-0,17	0,09	0,15	-0,07	0,24	-0,24	-0,11
52. QoC - Structure & Fac	0,17	0,04	-0,05	-0,09	-0,07	-0,103	-0,24	0,01	-0,19	0,19	0,13	0,06	-0,22	0,19	0,02	-0,17	,27*	-0,15	0,14	-0,07	0,18	-0,15	0,08	-0,07	0,02
53. QoC - Clinical	0,10	0,02	0,01	-0,00	0,00	-0,208	-0,09	-0,04	-0,05	0,12	0,02	0,08	-0,10	0,04	0,06	-0,01	0,24	-0,15	0,08	,28*	0,23	-0,26*	-0,06	-0,10	0,02
54. QoC - Personal	0,15	0,01	0,02	-0,00	-0,16	-0,223	-0,14	0,03	-0,08	0,15	-0,01	0,15	-0,09	0,18	-0,02	-0,04	0,16	,25*	0,21	-0,24	0,23	-0,24	-0,08	-0,02	-0,01
55. Satisfaction QoC	0,18	0,19	-0,12	-0,11	-0,09	-0,159	,28*	0,07	-0,13	0,14	0,04	0,08	0,10	0,14	-0,25	-0,10	0,07	-0,08	0,19	,34**	0,13	0,00	0,03	-0,14	0,11
56. PrEP in GPs office?	0,03	-0,14	0,03	-0,19	-0,07	0,056	-0,14	0,23	0,09	0,14	,30*	0,18	0,14	-0,20	-0,15	0,18	-0,31*	0,14	0,02	-0,22	,27*	0,07	0,03	0,01	0,16

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1. Age	-0,04	-0,09	0,10	-0,01	-0,02	0,14	0,00	0,16	-0,16	0,06	0,14	-0,05	0,18	0,18	0,17	0,09	0,23	0,10	0,17	0,19	0,12	0,24	-0,18	0,26	0,06
2. MSM	-0,11	0,09	-0,09	-0,13	0,01	0,11	0,07	0,10	0,12	-0,06	-0,04	-0,01	0,14	0,09	-0,07	0,09	-0,05	,26*	-0,01	-0,02	0,11	-0,05	-0,01	0,02	0,10
3. Ethnicity (non-dutch vs dutch)	-0,20	0,01	-0,13	0,13	-0,01	-0,07	-0,14	-0,18	0,07	-0,01	-0,06	-0,04	-0,21	-0,09	-0,16	0,07	0,04	0,15	-0,01	-0,04	0,05	0,01	0,12	0,03	-0,10
4. Education (low vs high)	-0,11	-0,05	0,12	,25*	0,20	0,08	0,06	-0,08	0,05	-0,13	-0,07	0,06	-0,12	-0,16	-0,11	-0,13	0,12	0,02	-0,02	0,02	0,08	0,04	-0,03	-0,00	-0,09
5. Employed	0,11	0,10	0,12	-0,15	-0,03	0,07	0,12	0,01	0,18	-0,07	0,00	-0,11	0,01	-0,09	0,00	-0,08	-0,04	0,04	-0,01	0,03	0,02	-0,01	-0,01	-0,02	
6. Income (low vs medium/high)	-0,07	0,09	0,11	0,00	-0,03	-0,05	0,12	0,21	,31*	-0,07	-0,15	0,04	-0,13	-0,10	-0,26*	-0,08	0,08	-0,07	0,09	0,11	-0,03	-0,02	-0,01	0,08	-0,04
7. SES	-0,09	0,04	0,21	0,09	0,13	0,05	0,11	0,01	0,22	-0,17	-0,09	-0,01	-0,14	-0,16	-0,17	-0,13	0,15	0,05	0,09	0,14	0,12	0,05	0,02	0,04	-0,12
8. Relation	-0,04	,26*	-0,05	0,13	-0,07	-0,03	-0,09	0,08	-0,04	0,18	0,05	0,11	0,09	0,08	-0,03	0,24	0,01	0,01	0,12	0,09	-0,06	-0,03	-0,04	0,21	0,03
9. Married	-0,01	0,06	-0,20	0,00	0,07	-0,22	0,02	0,02	0,00	-0,13	0,00	0,22	0,10	0,05	0,05	0,08	0,01	0,00	0,08	0,06	-0,12	-0,04	0,17	0,08	0,00

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
10. Residence	-0,13	0,14	0,15	-,30*	0,04	0,04	-,26*	0,21	-0,17	0,14	-0,03	-0,10	0,01	0,13	-0,02	0,14	0,09	-0,02	0,08	0,03	0,01	-0,05	-0,20	0,06	0,00
11. Sex partners	0,09	,31*	0,06	-0,15	-0,18	-0,10	-,29*	,27*	-0,11	0,12	-0,06	-0,02	0,07	0,09	-0,12	0,08	0,08	,28*	0,17	0,12	0,14	0,17	-0,02	,33*	0,03
12. Sex with HIV+/?	0,02	0,09	0,25	-0,05	-0,24	-0,22	-,29*	0,24	,37**	0,02	0,14	-0,06	0,25	0,21	0,24	0,11	0,15	0,14	0,16	0,14	0,16	0,15	0,10	0,15	-0,17
13. CAS	0,08	0,07	0,08	-0,11	-0,10	-0,10	-,29*	0,14	-0,15	-0,05	-0,10	-0,08	0,11	0,07	0,19	0,07	0,18	0,18	0,21	0,20	0,16	0,09	-0,01	0,12	-30*
14. PEP	0,03	0,06	-0,14	0,04	,27*	0,21	0,13	-0,12	0,25	-0,16	-0,17	-0,03	-0,16	-0,10	-0,14	-0,12	-0,03	-0,02	-0,04	-0,02	-0,09	-0,14	0,11	0,20	0,17
15. Less condom use	0,05	0,11	-0,08	0,01	0,21	-0,23	-0,02	-0,22	0,04	0,15	0,16	0,17	0,13	0,10	0,06	-0,03	-0,08	,27*	,27*	-0,24	-0,16	-0,23	0,09	-0,27	-0,02
16. STI - anal/syphilis	-0,20	0,15	-0,13	-0,15	-,29*	-0,22	-0,08	0,18	-0,12	-0,10	0,07	0,07	,35**	0,15	0,13	0,01	0,16	0,11	0,22	0,23	0,00	0,16	-0,13	0,08	-0,21
17. More STIs	0,15	0,00	-0,12	0,16	,26*	,29*	0,14	-0,24	0,10	0,00	-0,16	-0,25	,30*	-0,21	-0,21	-0,18	0,05	-0,17	-0,05	-0,01	-0,13	0,05	0,09	-0,07	0,09
18. Chemsex	-,28*	0,08	0,10	-0,19	-0,25	-0,20	-0,07	0,09	-0,02	-0,12	0,05	0,08	0,23	-0,01	0,05	-0,06	0,00	-0,03	0,17	0,15	-0,02	0,13	-0,10	0,11	-0,18
19. High risk HIV < 6 months	0,02	0,20	0,15	-0,14	-0,10	-0,10	-0,17	0,24	-0,22	-0,14	0,05	-0,06	0,25	0,21	0,16	0,11	0,08	0,21	0,10	0,08	0,10	0,02	0,10	0,09	-0,11
20. High risk HIV at start	-0,05	-0,16	0,05	0,13	0,24	-0,07	0,10	-,44**	,25*	0,11	0,07	0,22	,25*	-0,16	-,33**	-0,04	-0,24	-,39**	,28*	,25*	-0,23	-0,10	-0,05	-0,21	0,00
21. PrEP barriers - none	-0,21	-0,18	-0,22	0,19	0,19	0,21	0,18	-0,05	0,00	-0,04	0,00	-0,03	0,19	-0,05	0,12	-0,20	-0,08	0,00	-0,01	0,00	-0,07	0,02	-0,04	0,19	0,20
22. PrEP barriers - costs	0,04	0,25	-0,09	-0,15	-0,15	-0,19	-0,02	0,04	0,09	-0,10	0,08	0,16	-0,12	-0,05	-0,02	,27*	0,08	0,07	0,12	0,08	0,02	-0,10	-0,05	-0,08	-0,13
23. PrEP barriers - effectiveness	,41**	0,10	-0,09	0,15	0,01	0,21	-0,02	-0,05	0,19	0,11	-0,15	-0,10	-0,17	-0,17	,27*	-0,05	-0,16	0,12	-0,16	-0,14	0,07	,27*	0,02	-0,07	0,16
24. PrEP barriers - time effort	,32*	,28*	0,08	0,03	-0,14	0,10	-0,05	,27*	0,03	-,35**	-0,21	0,09	-0,14	-0,20	-0,21	-0,10	-0,04	-0,02	-0,01	0,01	-0,18	0,11	0,09	-0,15	,25*
25. PrEP barriers - availability treatment	0,08	0,07	-0,05	-0,10	-0,23	-0,09	0,02	0,11	-0,21	-0,05	-0,19	-0,21	-0,16	-0,13	-0,01	0,03	-0,10	0,05	-0,05	-0,09	0,01	,28*	0,10	-0,01	-0,09
26. PrEP barriers - stigma surrounding	1,00	,36**	-0,09	-0,15	-0,01	,29*	-0,23	0,20	-0,17	-0,07	-,25*	,29*	,27*	-0,17	-0,15	-0,05	0,04	0,12	0,05	0,07	0,14	0,21	0,09	0,01	-0,06
27. PrEP barriers - stigma HCP	,36**	1,00	-0,05	-,43**	-0,13	0,08	-0,09	,26*	-0,07	-0,10	-0,11	-0,15	-0,02	0,00	-0,10	-0,02	0,18	0,11	0,21	0,21	0,04	0,14	0,02	-0,05	-0,22
28. PrEP barriers - other	-0,09	-0,05	1,00	-0,02	-0,15	-0,22	-0,19	0,01	0,05	-0,05	,31*	0,15	0,19	0,20	0,03	0,17	0,00	0,20	-0,02	-0,06	0,21	0,04	0,02	0,20	0,02
29. GP expect judging	-0,15	-,43**	-0,02	1,00	,46**	0,03	,32*	-,28*	,25*	0,00	0,01	0,07	0,03	0,01	-0,06	-0,07	-0,12	-0,07	-0,11	-0,13	-0,13	0,03	-0,03	0,05	0,05
30. SHC expect judging	-0,01	-0,13	-0,15	,46**	1,00	0,16	0,18	-,37**	,31*	0,09	0,05	0,13	0,03	0,13	0,05	-0,10	-0,09	-0,08	-0,15	-0,16	-0,17	-0,17	0,00	0,00	0,03
31. Satisfaction decision	,29*	0,08	-0,22	0,03	0,16	1,00	0,10	0,12	0,00	0,12	-,57**	,59**	-,39**	-0,42**	-,33**	,37**	0,16	0,12	0,09	0,15	0,24	,40**	-0,04	-0,01	,25*
32. Use frequency	-0,23	-0,09	-0,19	,32*	0,18	0,10	1,00	-0,21	,30*	-0,20	-0,08	-0,10	-0,22	-0,24	-0,17	-0,13	0,02	-0,11	0,03	0,06	-0,10	-0,02	-0,08	-0,26	-0,07
33. Use duration	0,20	,26*	0,01	-,28*	-,37**	0,12	-0,21	1,00	,39**	-0,10	-0,22	-,26*	-0,02	-0,01	-0,13	-0,02	,34**	0,20	,39**	,38**	0,12	0,22	-0,18	,32*	0,05
34. Main HCP	-0,17	-0,07	0,05	,25*	,31*	0,00	,30*	-,39**	1,00	-0,22	-0,03	0,14	-0,06	0,03	-0,09	-0,03	-0,10	0,04	-0,11	-0,11	-0,06	-0,24	-0,10	0,03	-0,18
35. Screening waste of time?	-0,07	-0,10	-0,05	0,00	0,09	0,12	-0,20	-0,10	-0,22	1,00	0,00	-0,11	0,01	0,10	0,00	0,11	0,14	0,09	0,09	0,08	0,18	0,13	-0,01	0,07	,27*
36. Counseling - side effects	-0,25*	-0,11	,31*	0,01	0,05	-,57**	-0,08	-0,22	-0,03	0,00	1,00	,73**	,55**	,54**	,36**	,49**	-0,15	-0,02	,27*	,30*	-0,05	,33**	-0,15	0,02	-0,02
37. Counseling - adherence	-0,29*	-0,15	0,15	0,07	0,13	-,59**	-0,10	-,26*	0,14	-0,11	,73**	1,00	,53**	,47**	,31*	,42**	-0,28*	-0,25*	-0,40**	-0,41**	-0,34**	,50**	0,05	-0,07	-0,16
38. Counseling - condom	-0,27*	-0,02	0,19	0,03	0,03	-,39**	-0,22	-0,02	-0,06	0,01	,55**	,53**	1,00	,63**	,61**	,26*	-0,15	-0,04	-0,15	-0,18	-0,17	,26*	-0,13	0,09	-0,02
39. Counseling - HIV/STI	-0,17	0,00	0,20	0,01	0,13	-,42**	-0,24	-0,01	0,03	0,10	,54**	,47**	,63**	1,00	,38**	,52**	-0,03	0,15	-0,10	-0,16	-0,03	,33**	0,03	0,23	-0,05
40. Counseling - drugs	-0,15	-0,10	0,03	-0,06	0,05	-,33**	-0,17	-0,13	-0,09	0,00	,36**	,31*	,61**	,38**	1,00	,22	-0,12	-0,04	-0,14	-0,17	-0,08	-0,24	0,03	-0,02	-0,03
41. Counseling - screenings	-0,05	-0,02	0,17	-0,07	-0,10	-,37**	-0,13	-0,02	-0,03	0,11	,49**	,42**	,26*	,52**	0,22	1,00	0,05	0,23	-0,09	-0,15	0,02	-0,13	0,02	0,23	0,04
42. Screening - HIV	0,04	0,18	0,00	-0,12	-0,09	0,16	0,02	,34**	-0,10	0,14	-0,15	-,28*	-0,15	-0,03	-0,12	0,05	1,00	,37**	,85**	,88**	,49**	,30*	-0,11	0,15	0,01
43. Screening - kidney	0,12	0,11	0,20	-0,07	-0,08	0,12	-0,11	0,20	0,04	0,09	-0,02	-,25*	-0,04	0,15	-0,04	0,23	,37**	1,00	,37**	,33**	,68**	,36**	0,10	,39**	0,13
44. Screening - anal	0,05	0,21	-0,02	-0,11	-0,15	0,09	0,03	,39**	-0,11	0,09	-0,27*	-0,40**	-0,15	-0,10	-0,14	-0,09	,85**	,37**	1,00	,98**	,42**	,35**	-0,17	,29*	-0,02

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
45. Screening - pharyngeal	0,07	0,21	-0,06	-0,13	-0,16	0,15	0,06	,38**	-0,11	0,08	-,30*	,41**	-0,18	-0,16	-0,17	-0,15	,88**	,33**	,98**	1,00	,41**	,35**	-0,18	0,20	-0,05	
46. Screening - HepC	0,14	0,04	0,21	-0,13	-0,17	0,24	-0,10	0,12	-0,06	0,18	-0,05	,34**	-0,17	-0,03	-0,08	0,02	,49**	,68**	,42**	,41**	1,00	,41**	-0,04	0,17	0,11	
47. Screening - counseling	0,21	0,14	0,04	0,03	-0,17	,40**	-0,02	0,22	-0,24	0,13	,33**	,50**	,26*	,33**	-0,24	-0,13	,30*	,36**	,35**	,35**	,41**	1,00	-0,06	0,18	0,10	
48. Vaccination hepatitis AB	0,09	0,02	0,02	-0,03	0,00	-0,04	-0,08	-0,18	-0,10	-0,01	-0,15	0,05	-0,13	0,03	0,03	0,02	-0,11	0,10	-0,17	-0,18	-0,04	-0,06	1,00	-0,09	0,06	
49. Doctor visits		-0,17	-0,07	0,05	,25*	,31*	0,00	,30*	,39**	1,00	-0,22	-0,03	0,14	-0,06	0,03	-0,09	-0,03	-0,10	0,04	-0,11	-0,11	-0,06	-0,24	-0,10	0,03	-0,18
50. QoC - Accessibility		-0,06	-0,22	0,02	0,05	0,03	,25*	-0,07	0,05	-0,18	,27*	-0,02	-0,16	-0,02	-0,05	-0,03	0,04	0,01	0,13	-0,02	-0,05	0,11	0,10	0,06	,34*	1,00
51. QoC - Accessibility (minus affordable)		-0,12	-0,23	0,02	0,11	0,11	0,24	-0,02	-0,06	0,06	,25*	-0,04	-0,12	-0,06	-0,06	-0,10	0,02	-0,03	0,11	-0,05	-0,08	0,09	0,01	0,05	,28*	,95**
52. QoC - Structure & Facilities		0,06	-0,04	0,05	-0,06	0,02	,35**	-0,23	0,10	,44**	,37**	0,05	-0,18	0,04	0,02	-0,04	0,04	0,03	0,04	-0,04	-0,05	0,09	0,21	0,05	0,21	,76**
53. QoC – Clinical		0,11	0,02	-0,15	-0,08	-0,16	,46**	-0,05	,31*	,57**	0,18	-0,22	,45**	-0,15	,32*	-0,18	-0,22	,29*	0,09	0,22	0,24	,28*	,34**	-0,01	0,06	,51**
54. QoC – Personal		0,04	-0,19	-0,04	0,05	0,00	,34**	-0,11	,26*	,49**	0,16	-0,04	-0,17	-0,06	-0,08	-0,07	0,06	,27*	0,15	0,14	0,14	0,19	0,19	0,06	0,19	,59**
55. Satisfaction QoC		0,18	-0,09	,26*	-0,08	0,03	,50**	-0,08	0,14	,43**	,29*	-0,18	,29*	-0,05	-0,08	0,03	0,04	-0,04	0,09	-0,01	-0,05	0,17	0,18	0,10	0,17	,50**
56. PrEP in GPs office?		0,12	0,00	0,08	-31*	-37**	-25*	-37**	,42**	,23	0,07	0,08	0,07	0,05	0,00	0,06	0,06	-0,01	0,05	0,08	0,06	0,09	-0,04	0,01	0,10	-0,01

	51	52	53	54	55	56
1. Age	-0,02	0,17	0,10	0,15	0,18	0,03
2. MSM	0,12	0,04	0,02	0,01	0,19	-0,14
3. Ethnicity	-0,03	-0,05	0,01	0,02	-0,12	0,03
4. Education	-0,061	-0,095	-0,003	-0,003	-0,119	-0,193
5. Employed	-0,02	-0,07	0,00	-0,16	-0,09	-0,07
6. Income	0,04	-0,10	-0,21	-0,22	-0,16	0,06
7. SES	-0,07	-0,24	-0,09	-0,14	,28*	-0,14
8. Relation	0,02	0,01	-0,04	0,03	0,07	0,23
9. Married	-0,02	-0,19	-0,05	-0,08	-0,13	0,09
10. Residence	-0,02	0,19	0,12	0,15	0,14	0,14
11. Sex partners	0,03	0,13	0,02	-0,01	0,04	,30*
12. Sex with HIV+/?	-,27*	0,06	0,08	0,15	0,08	0,18
13. CAS	,33**	-0,22	-0,10	-0,09	0,10	0,14
14. PEP	0,22	0,19	0,04	0,18	0,14	-0,20
15. Less condom use	0,02	0,02	0,06	-0,02	-0,25	-0,15
16. STI - anal/syphilis	,28*	-0,17	-0,01	-0,04	-0,10	0,18
17. More STIs	0,16	,27*	0,24	0,16	0,07	,31*
18. Chemsex	-0,18	-0,15	-0,15	,25*	-0,08	0,14
19. High risk HIV < 6 months	-0,17	0,14	0,08	0,21	0,19	0,02
20. High risk HIV at start	0,09	-0,07	,28*	-0,24	,34**	-0,22
21. PrEP barriers - none	0,15	0,18	0,23	0,23	0,13	,27*

	51	52	53	54	55	56
22. PrEP barriers - costs	-0,07	-0,15	-,26*	-0,24	0,00	0,07
23. PrEP barriers - effectiveness	0,24	0,08	-0,06	-0,08	0,03	0,03
24. PrEP barriers - time effort	-0,24	-0,07	-0,10	-0,02	-0,14	0,01
25. PrEP barriers - availability treatment	-0,11	0,02	0,02	-0,01	0,11	0,16
26. PrEP barriers - stigma surrounding	-0,12	0,06	0,11	0,04	0,18	0,12
27. PrEP barriers - stigma HCP	-0,23	-0,04	0,02	-0,19	-0,09	0,00
28. PrEP barriers - other	0,02	0,05	-0,15	-0,04	-,26*	0,08
29. GP expect judging	0,11	-0,06	-0,08	0,05	-0,08	-,31*
30. SHC expect judging	0,11	0,02	-0,16	0,00	0,03	-,37**
31. Satisfaction decision	0,24	,35**	,46**	,34**	,50**	-,25*
32. Use frequency	-0,02	-0,23	-0,05	-0,11	-0,08	-,37**
33. Use duration	-0,06	0,10	,31*	,26*	0,14	,42**
34. Main HCP	0,06	-,44**	-,57**	-,49**	-,43**	-0,23
35. Screening waste of time?	,25*	,37**	0,18	0,16	,29*	0,07
36. Counseling - side effects	-0,04	0,05	-0,22	-0,04	-0,18	0,08
37. Counseling - adherence	-0,12	-0,18	-,45**	-0,17	-,29*	0,07
38. Counseling - condom	-0,06	0,04	-0,15	-0,06	-0,05	0,05
39. Counseling - HIV/STI	-0,06	0,02	-,32*	-0,08	-0,08	0,00
40. Counseling - drugs	-0,10	-0,04	-0,18	-0,07	0,03	0,06
41. Counseling - screenings	0,02	0,04	-0,22	0,06	0,04	0,06
42. Screening - HIV	-0,03	0,03	,29*	,27*	-0,04	-0,01
43. Screening - kidney	0,11	0,04	0,09	0,15	0,09	0,05
44. Screening - anal	-0,05	-0,04	0,22	0,14	-0,01	0,08
45. Screening - pharyngeal	-0,08	-0,05	0,24	0,14	-0,05	0,06
46. Screening - HepC	0,09	0,09	,28*	0,19	0,17	0,09
47. Screening - counseling	0,01	0,21	,34**	0,19	0,18	-0,04
48. Vaccination hepatitis AB	0,05	0,05	-0,01	0,06	0,10	0,01
49. Doctor visits	0,06	-,44**	-,57**	-,49**	-,43**	-0,23
50. QoC - Accessibility	,95**	,76**	,51**	,59**	,50**	-0,01
51. QoC - Accessibility (minus affordable)	1,00	,66**	,36**	,45**	,38**	-0,04
52. QoC - Structure & Facilities	,66**	1,00	,65**	,73**	,60**	-0,03
53. QoC - Clinical	,36**	,65**	1,00	,80**	,51**	0,02
54. QoC - Personal	,45**	,73**	,80**	1,00	,56**	0,02
55. Satisfaction QoC	,38**	,60**	,51**	,56**	1,00	0,01
56. PrEP in GPs office?	-0,04	-0,03	0,02	0,02	0,01	1,00

Appendix 9. Binary logistic regression

Variables in the Equation*

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Chemsex	-,100	,513	,038	1 ,845	,905
	Constant	,405	,373	1,184	1 ,277	1,500

a. Variable(s) entered on step 1: Chemsex.

Variables in the Equation*

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	High risk at start	-1,931	1,095	3,109	1 ,078	,145
	Constant	2,079	1,061	3,844	1 ,050	8,000

a. Variable(s) entered on step 1: High risk at start.

Variables in the Equation*

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Chemsex	,329	,719	,209	1 ,648	1,389
	High risk at start	,728	1,420	,263	1 ,608	2,071
	Sex with HIV+/?	-2,329	1,257	3,430	1 ,064	,097
	GP judging	-,834	,798	1,091	1 ,296	,434
	Income med/high	22,692	18723,907	,000	1 ,999	7163930640,334
	Use frequency	-,770	,718	1,151	1 ,283	,463
	Duration PrEP-use	-,109	,044	6,242	1 ,012	,896
	Constant	-18,251	18723,907	,000	1 ,999	,000

a. Variable(s) entered on step 1: Chemsex, High risk at start, Sex with HIV+/? , GP judging, Income medium/high, Use frequency, Duration PrEP-use.

Variables in the Equation*

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Chemsex	,271	,655	,171	1 ,679	1,312
	High risk at start	-,253	1,349	,035	1 ,851	,776
	Sex with HIV+/?	-2,352	1,208	3,793	1 ,051	,095
	GP judging	-,717	,762	,887	1 ,346	,488
	Use frequency	-,894	,656	1,857	1 ,173	,409
	Duration PrEP-use	-,063	,035	3,223	1 ,073	,939
	Constant	4,277	1,605	7,104	1 ,008	72,003

a. Variable(s) entered on step 1: Chemsex, High risk at start, Sex with HIV+/? , GP judging, Use frequency, Duration PrEP-use.

*Dependent variable = healthcare provider (0=SHC, 1=GP)

Appendix 10. Multivariable regression analysis

Model	Coefficients ^a							
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta				Lower Bound	Upper Bound
1 (Constant)	1,027	1,389			,740	,462	-1,753	3,808
QoC Accessibility ^b	,062	,384	,022	,161	,873		-,706	,830
QoC Structure & Facilities	1,347	,428	,547	3,150	,003		,491	2,203
QoC Clinical Care	,663	,332	,300	1,999	,050		-,001	1,328
QoC Personal & Interpersonal care	-,280	,406	-,087	-,690	,493		-1,094	,533

- a. Dependent Variable: Satisfaction QoC
b. QoC domain 'Accessibility' minus Item 'Affordability'

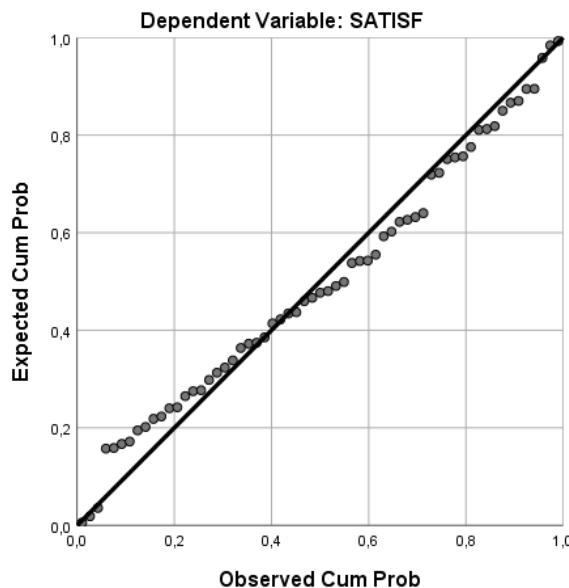
Model	Coefficients ^a							
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	95,0% Confidence Interval for B	
	B	Std. Error	Beta				Lower Bound	Upper Bound
1 (Constant)	4,276	1,289			3,317	,002	1,696	6,856
QoC Accessibility ^b	1,058	,331	,384	3,195	,002		,395	1,720
2 (Constant)	2,055	1,217			1,688	,097	-,382	4,492
QoC Accessibility ^b	-,093	,382	-,034	-,244	,808		-,858	,671
QoC Structure & Facilities	1,603	,352	,632	4,559	,000		,899	2,306
3 (Constant)	1,505	1,228			1,226	,225	-,954	3,963
QoC Accessibility ^b	,009	,378	,003	,023	,982		-,748	,765
QoC Structure & Facilities	1,119	,430	,441	2,600	,012		,257	1,981
QoC Clinical Care	,526	,281	,255	1,872	,066		-,037	1,088
4 (Constant)	1,222	1,377			,888	,379	-1,537	3,982
QoC Accessibility ^b	,007	,380	,002	,018	,986		-,755	,769
QoC Structure & Facilities	1,039	,466	,410	2,229	,030		,105	1,973
QoC Clinical Care	,420	,363	,204	1,159	,251		-,306	1,147
QoC Personal & Interpersonal care	,243	,523	,090	,464	,644		-,805	1,291
5 (Constant)	1,858	1,454			1,278	,207	-1,056	4,772
QoC Accessibility ^b	,049	,380	,018	,128	,898		-,712	,809
QoC Structure & Facilities	,897	,476	,354	1,884	,065		-,057	1,851
QoC Clinical Care	,437	,361	,211	1,211	,231		-,286	1,160
QoC Personal & Interpersonal care	,263	,520	,097	,505	,616		-,780	1,305

	SES	-,509	,393	-,138	-1,297	,200	-1,296	,278
6	(Constant)	1,060	1,437		,738	,464	-1,820	3,941
	QoC Accessibility ^b	,188	,369	,068	,510	,612	-,552	,929
	QoC Structure & Facilities	,990	,459	,390	2,156	,036	,069	1,910
	QoC Clinical Care	,272	,354	,131	,768	,446	-,437	,981
	QoC Personal & Interpersonal care	,146	,502	,054	,291	,772	-,860	1,153
	SES	-,452	,378	-,122	-1,197	,237	-1,210	,306
	High risk at start	1,197	,506	,251	2,367	,022	,183	2,210
7	(Constant)	1,378	1,459		,944	,349	-1,549	4,305
	QoC Accessibility ^b	,189	,368	,069	,513	,610	-,550	,927
	QoC Structure & Facilities	,842	,476	,332	1,771	,082	-,112	1,796
	QoC Clinical Care	,239	,354	,116	,675	,502	-,471	,948
	QoC Personal & Interpersonal care	,237	,507	,087	,468	,642	-,779	1,254
	SES	-,415	,378	-,112	-1,096	,278	-1,174	,344
	High risk at start	1,268	,508	,266	2,496	,016	,249	2,287
	Screening waste of time	-,844	,736	-,124	-1,146	,257	-2,320	,633
8	(Constant)	1,324	1,461		,907	,369	-1,607	4,256
	QoC Accessibility ^b	,147	,371	,053	,395	,694	-,598	,891
	QoC Structure & Facilities	,865	,476	,341	1,817	,075	-,090	1,821
	QoC Clinical Care	,013	,423	,006	,031	,975	-,836	,862
	QoC Personal & Interpersonal care	,428	,544	,158	,787	,435	-,663	1,518
	SES	-,446	,380	-,120	-1,173	,246	-1,208	,317
	High risk at start	1,202	,513	,252	2,343	,023	,173	2,231
	Screening waste of time	-,808	,738	-,118	-1,095	,279	-2,287	,672
	Counseling compliance to therapy	,435	,447	,119	,973	,335	-,462	1,333
9	(Constant)	,836	1,360		,615	,542	-1,894	3,566
	QoC Accessibility ^b	,162	,343	,059	,472	,639	-,527	,851
	QoC Structure & Facilities	,690	,444	,272	1,555	,126	-,201	1,582
	QoC Clinical Care	-,146	,395	-,071	-,371	,712	-,938	,646
	QoC Personal & Interpersonal care	,420	,503	,155	,836	,407	-,589	1,429
	SES	-,604	,355	-,163	-1,703	,095	-1,317	,108
	High risk at start	1,426	,480	,300	2,974	,004	,464	2,389
	Screening waste of time	-,891	,682	-,131	-1,306	,197	-2,262	,479
	Counseling compliance to therapy	-,241	,467	-,066	-,517	,607	-1,178	,695
	Satisfaction decision making	,289	,092	,381	3,134	,003	,104	,474

10	(Constant)	2,622	1,395		1,880	,066	-,180	5,424
	QoC Accessibility ^b	,727	,370	,264	1,968	,055	-,015	1,470
	QoC Structure & Facilities	,215	,441	,085	,488	,628	-,671	1,102
	QoC Clinical Care	-,488	,384	-,236	-1,271	,209	-1,258	,283
	QoC Personal & Interpersonal care	,302	,468	,111	,646	,522	-,639	1,243
	SES	-,505	,331	-,137	-1,526	,133	-1,171	,160
	High risk at start	1,366	,446	,287	3,064	,004	,470	2,262
	Screening waste of time	-,598	,641	-,088	-,932	,356	-1,886	,690
	Counseling compliance to therapy	-,364	,435	-,100	-,835	,408	-1,238	,511
	Satisfaction decision making	,385	,091	,507	4,213	,000	,201	,568
	Main HCP	-1,339	,444	-,392	-3,018	,004	-2,231	-,448

- a. Dependent Variable: Satisfaction QoC
b. QoC domain 'Accessibility' minus Item 'Affordability'

Normal P-P Plot of Regression Standardized Residual



Appendix 11. Perceived Quality of Care divided per item of each domain

QoC Accessibility	GP (N=37)	GGD (N=26)	P-value
Item 1: affordability	3.30 (SD 0.85)	4.88 (SD 0.33)	0.000
Item 2: distance	4.03 (SD 1.07)	4.12 (SD 1.18)	0.758
Item 3: accessibility of transport	4.38 (SD 0.76)	4.5 (SD 0.58)	0.495
Item 4: accessibility of making appointments	3.84 (SD 1.07)	3.77 (SD 0.86)	0.787
Item 5: waiting time to get appointments	3.54 (SD 1.12)	3.00 (SD 1.06)	0.058
Item 6: opening hours	3.65 (SD 0.89)	3.69 (SD 1.05)	0.859
MEAN	3.79 (SD 0.65) 3.89 (SD 0.72)*	4.00 (SD 0.43) 3.82 (SD 0.48)*	0.136 0.662*

*Means minus item 'affordable costs'

QoC Structure & Facilities	GP (N=37)	GGD (N=26)	P-value
Item 1: waiting room crowd	3.57 (SD 1.04)	4.38 (SD 0.80)	0.001
Item 2: waiting room feeling	3.95 (SD 0.74)	4.27 (SD 0.78)	0.101
Item 3: PrEP-facilities	3.81 (SD 1.02)	4.81 (SD 0.49)	0.000
Item 4: time for PrEP-care	3.76 (SD 1.11)	4.77 (SD 0.51)	0.000
Item 5: appointment at scheduled time	3.92 (SD 0.89)	4.77 (SD 0.43)	0.000
Item 6: respectful treatment staff	4.19 (SD 0.81)	4.92 (SD 0.27)	0.000
Item 7: prescriptions and doctors notes	4.19 (SD 0.78)	4.42 (SD 0.81)	0.286
Item 8: continuity of care	3.97 (SD 1.04)	4.27 (SD 0.87)	0.240
Item 9: cooperation with HCPs	3.81 (SD 1.05)	3.85 (SD 0.83)	0.887
MEAN	3.91 (SD 0.69)	4.50 (SD 0.44)	0.000

QoC Clinical care	GP (N=37)	GGD (N=26)	P-value
Item 1: competent	4,05 (SD 0.91)	4,65 (SD 0.63)	0.005
Item 2: best care possible	4,00 (SD 0.86)	4,73 (SD 0.53)	0.000
Item 3: knowledge HIV & PrEP	3,24 (SD 1.10)	4,81 (SD 0.49)	0.000
Item 4: knowledge STIs	3,49 (SD 0.87)	4,73 (SD 0.72)	0.000
Item 5: knowledge medical background	3,84 (SD 1.07)	4,42 (SD 0.86)	0.024
Item 6: experiences with LQ	3,41 (SD 1.07)	4,58 (SD 0.81)	0.000
Item 7: works according to guideline	3,81 (SD 1.00)	4,81 (SD 0.57)	0.000
Item 8: consultation with colleagues	3,86 (SD 0.89)	4,38 (SD 0.90)	0.026
Item 9: information care plan	3,84 (SD 0.96)	4,65 (SD 0.63)	0.000
Item 10: information at right time	3,67 (SD 1.07)	4,69 (SD 0.62)	0.000
MEAN	3.70 (SD 0.75)	4.65 (SD 0.59)	0.000

QoC Personal and Interpersonal care	GP (N=37)	GGD (N=26)	P-value
Item 1: explains medical words	4.35 (SD 0.63)	4.58 (SD 0.50)	0.136
Item 2: encourage to ask questions	3.73 (SD 0.93)	4.5 (SD 0.65)	0.001
Item 3: respectful	4.16 (SD 0.83)	4.77 (SD 0.51)	0.001
Item 4: gives time to say what's important	4,00 (SD 1.00)	4,73 (SD 0.60)	0.002
Item 5: listens	4.19 (SD 0.78)	4.73 (SD 0.53)	0.003
Item 6: explains tests	4.19 (SD 0.66)	4.77 (SD 0.43)	0.000
Item 7: makes me feel comfortable to talk	4.03 (SD 0.83)	4.81 (SD 0.40)	0.000
Item 8: interested	3.78 (SD 0.95)	4.38 (SD 0.80)	0.011
Item 9: respects privacy	4.24 (SD 0.80)	4.65 (SD 0.63)	0.032
Item 10: understand my situation	3.89 (SD 0.78)	4.69 (SD 0.47)	0.000
Item 11: individual care needs	3.97 (SD 0.85)	4.69 (SD 0.55)	0.000
Item 12: trustful	4.11 (SD 0.66)	4.85 (SD 0.37)	0.000
Item 13: respectful to PrEP-use, sexual	4.27 (SD 0.73)	4.77 (SD 0.51)	0.002

orientation			
Item 14: non-judgemental to PrEP-use, sexual orientation	4.22 (SD 0.75)	4.81 (SD 0.49)	<i>0.000</i>
Item 15: same treatment as others	4.38 (SD 0.59)	4.81 (SD 0.40)	<i>0.001</i>
Item 16: comfortable to talk about sex	4.05 (SD 0.78)	4.81 (SD 0.40)	<i>0.000</i>
Item 17: appreciate my opinion and wishes	4.11 (SD 0.88)	4.73 (SD 0.60)	<i>0.003</i>
Item 18: let me participate in decision making	4.16 (SD 0.83)	4.69 (SD 0.55)	<i>0.006</i>
MEAN	4.10 (SD 0.63)	4.71 (SD 0.40)	<i>0.000</i>

Appendix 12. Screenings at the GP and SHC

Number and percentage of screenings in the preceding year at the GP (N=28):

Screenings (N, %)	0 screenings	1 screening	2 screenings	3 screenings	4 screenings
HIV	1 (3.6)	0 (0.0)	6 (21.4)	6 (21.4)	15 (53.6)
Kidney function	0 (0.0)	3 (10.7)	7 (25.0)	6 (21.4)	12 (42.9)
Anal swab	1 (3.6)	2 (7.1)	5 (17.9)	6 (21.4)	14 (50.0)
Pharyngeal swab	2 (7.1)	2 (7.1)	4 (14.3)	6 (21.4)	14 (50.0)
Hepatitis C	2 (7.1)	4 (14.3)	4 (14.3)	6 (21.4)	12 (42.9)
Counseling	10 (35.7)	6 (21.4)	4 (14.3)	3 (10.7)	5 (17.9)

Number and percentage of screenings in the preceding year at the SHC (N=14):

Screenings (N, %)	0 screenings	1 screening	2 screenings	3 screenings	4 screenings
HIV	0 (0.0)	0 (0.0)	1 (7.1)	0 (0.0)	13 (92.9)
Kidney function	0 (0.0)	2 (14.3)	3 (21.4)	0 (0.0)	9 (64.3)
Anal swab	0 (0.0)	0 (0.0)	1 (7.1)	0 (0.0)	13 (92.9)
Pharyngeal swab	0 (0.0)	0 (0.0)	1 (7.1)	0 (0.0)	13 (92.9)
Hepatitis C	0 (0.0)	3 (21.4)	2 (14.3)	0 (0.0)	9 (64.3)
Counseling	2 (14.3)	1 (7.1)	4 (28.6)	0 (0.0)	7 (50.0)

Appendix 13. Chemsex-group vs. non-chemsex-group

Variable (N, %)	No Chemsex (N=30)	Chemsex (N=33)	P-value
Age, mean (SD)	41.7 (SD 11.4)	42.4 (11.4)	0.813 ^a
Ethnicity Dutch	23 (76.7)	28 (84.8)	0.240 ^b
Higher education^c	26 (86.7)	24 (72.2)	0.172 ^b
Higher income^d	28 (93.3)	31 (93.9)	0.922 ^b
High SES^e	23 (76.7)	21 (63.6)	0.260 ^b
Married	4 (13.3)	8 (24.2)	0.271 ^b
Number of sexpartners <6 months, mean (SD)	23.9 (SD 28.5)	30.9 (SD 32.8)	0.363 ^a
Sex with HIV +/? <6 months	21 (70.0)	28 (84.8)	0.157 ^b
Condomless anal sex <6 months	28 (93.3)	30 (100)	0.132 ^b
STI anal/syphilis <6 months	3 (10.0)	17 (51.5)	0.000 ^b
PEP-prescription <6 months	3 (10.0)	2 (6.1)	0.563 ^b
High risk < 6 months	23 (76.7)	26 (78.8)	0.840 ^b
High risk at start	25 (83.3)	29 (87.9)	0.607 ^b
Less condom use since PrEP	20 (66.7)	27 (81.8)	0.168 ^b
More STIs since PrEP	7 (23.3)	9 (27.3)	0.720 ^b
PrEP-use			0.512 ^b
Daily	16 (53.3)	18 (54.5)	
Event driven	11 (36.7)	14 (42.4)	
GP expect judging	5 (16.7)	11 (33.3)	0.129 ^b
Main practitioner GP	18 (60.0)	19 (57.6)	0.845 ^b

- a. Differences compared between GP and SHC by using T-test
- b. Differences compared between GP and SHC by using chi-square tests
- c. Higher vocational education or higher
- d. Medium or high net monthly income (>1500 euro)
- e. Combination of highly educated, being employed and a medium/high net monthly income