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## OPEN Perceptions of targeted sexual healthcare among French MSM based on HPV vaccination policy in France

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Human papillomavirus (HPV) vaccination in France is recommended for persons of both sexes up to 19 years of age. This increases to 26 years for men who have sex with men (MSM), as they are considered a high-risk group. Raising the upper age limit for MSM is a targeted sexual healthcare policy because it takes into account the specificities of MSM sexual practices. Assessing MSM's perceptions of targeted sexual healthcare, using HPV vaccination as an example, is crucial for improving public health policy and HPV recommendations. As part of the French mixed-methods study Vaccigay, we conducted a qualitative study—using semi-structured interviews—with MSM selected by age and HPV vaccination status in 2022. Interviews were transcribed verbatim and thematically analysed using NVivo. Some respondents supported targeted sexual healthcare policy for MSM because they recognised the epidemiological factors involved and wanted healthcare workers to have a non-judgmental attitude toward them. Others did not because they felt it stigmatised MSM; they advocated equal sexual healthcare for everyone. Ultimately, uncertainty about one's own sexual orientation and difficulty discussing sexuality with doctors were barriers to accessing targeted sexual health care. We recommend improving training of healthcare workers on the specific needs of sexual and gender minorities, increasing the number of sexual health centres that serve these populations, and extending HPV vaccination to all adults up to the age of 26, irrespective of sexual orientation.

**Keywords** HPV vaccination, MSM, Targeted sexual healthcare, France

Men who have sex with men (MSM) are at greater risk of HIV and other sexually transmitted infections (STIs) than the general population, as evidenced by the very high incidence and prevalence of these infections among them<sup>1</sup>. Accordingly, they constitute a key population for health promotion in the field of HIV and sexual health in general, in terms of prevention, screening, and disease management<sup>2</sup>. Key populations, including MSM, have long benefited from useful targeted healthcare interventions<sup>3</sup>, including specific prevention campaigns, tailored screening offers, and more recently—for MSM—vaccination for Mpox and human papillomavirus (HPV) adapted to their specific needs.

The HPV virus is responsible for anogenital warts, precancerous lesions, and six types of cancer. In France, two HPV vaccines are used to prevent these diseases<sup>4</sup>. In France, HPV vaccination was initially reserved for girls and young women to prevent cervical cancer<sup>5</sup>. In 2016, vaccination policy changed to also include MSM up to 26 years of age. In 2021, this policy was adapted once more to also include all persons of both sexes aged between 11 and 14, with catch-up vaccinations up to the age of 19. The latter change was partly driven by a desire to reduce the risk of lower uptake by adolescent MSM because of stigmatization. HPV is transmitted almost exclusively through sexual contact, which makes these vaccination strategies a complex issue both socially and morally<sup>6</sup>. HPV vaccination for adolescents (boys and girls) implicitly and explicitly conveys the idea that they are—or soon will become—sexually active. Becoming sexually active implies becoming aware of one's own

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sexual orientation<sup>7</sup>. In terms of adolescent boys who may feel that they might be interested in having sexual relations with other men but who are unsure about their sexual orientation, this is a very delicate situation, especially in a context where their family and school environment are not aware of these doubts.

The targeted HPV vaccination policy for MSM (see above) and other tailored sexual health strategies for this population have always raised doubts within the French MSM community. The very fact that these targeted strategies exist suggests that healthcare authorities need MSM to recognize and accept that they are more exposed to certain health issues than the general population. While some MSM recognize and accept this approach, others see these strategies as a form of stigmatization of their identity and sexual practices. In Goffman's concept of stigmatisation, individuals who have behavioural, physical and social characteristics that are perceived to be different from the norm may be more easily disqualified and excluded from a group in which they were initially included<sup>8</sup>. According to Link and Phelan, the stigmatisation of a group within a power relationship involves the labelling of differences, stereotyping (i.e., associating a label with a set of negative characteristics), segregation of the group, loss of social status of its members, and structural discrimination (i.e., institutional practices that operate to the detriment of the group)<sup>9</sup>. Stigmatisation can be classified into three types: public (occurs in the general population, the stigmatized person being associated with specific stereotypes), structural (involves discrimination in terms of access to social and medical services, as well as the use of inappropriate language at the political level), and medical (practiced by medical staff and often the result of stereotyping)<sup>10</sup>.

Besides perceived stigmatization of a group, another reason why members of the MSM community question the legitimacy of targeted vaccination and sexual health strategies is that they may require disclosure of one's sexual practices—and therefore sexual orientation—to a health professional. This disclosure may be a source of real or anticipated stigmatization and moral judgment<sup>11</sup>. To counter this apprehension, not only among MSM but other key populations, over the past decade, a large number of community sexual health centres have opened in France with the aim of offering adapted, non-stigmatizing health services to key populations. Finally, virulent public debate around communitarianism in healthcare is still very present in France<sup>12</sup>. Accordingly, health recommendations which target one specific community, for example MSM, are seen by some members of the given community as a form of segregation from the rest of society.

We hypothesize that the differences in MSM perceptions of targeted sexual care for their community have consequences on: (1) their perception that HPV vaccination recommendations do indeed concern them; as HPV vaccination recommendations for MSM in France were only introduced in 2016 (see above), there is a lack of qualitative data on how these recommendations are perceived by MSM in the country, (2) their ability to approach a health professional to ask for HPV vaccination, and (3) their uptake of HPV vaccination.

More than 40 years after the emergence of HIV and the development of targeted sexual health strategies for homosexuals and MSM<sup>13–15</sup>, using the qualitative component of the mixed-methods French study Vaccigay, we aimed to explore the different perceptions of these strategies among MSM themselves. More specifically, we focused on France's HPV vaccination policy for MSM, analysing how recent recommendations for MSM and for the general population raise new questions about an old issue<sup>16</sup>—specifically, whether and how to target MSM in public health approaches—with a view to improving public health policy and HPV recommendations.

## Methods

Vaccigay is a mixed-methods study conducted between February and August 2022 in France. It aimed to understand the barriers and facilitators influencing HBV, HAV and HPV vaccine uptake in French MSM. The quantitative component gathered information from 3730 MSM through a cross-sectional online survey; its methodology has been previously published<sup>17,18</sup>. The qualitative component involved semi-structured individual interviews conducted between April and July 2022 which collected MSM perceptions of targeted sexual healthcare through the question: “As an MSM, do you believe you need targeted sexual healthcare?”. Ethical approval was obtained from the University of Aix-Marseille Ethics Committee (approval number: 2020-10-08-008), all methods were performed in accordance with the relevant guidelines and regulations, and all participants provided written informed consent prior to enrolment. We adopted the CONSolidated criteria for REporting Qualitative research (COREQ)<sup>19</sup> to report the qualitative component.

## Recruitment and characteristics of participants

Eligibility criteria for participation in Vaccigay were: (i)  $\geq 18$  years old, (ii) residing in France and using dating sites and/or social networks, (iii) self-identifying as a cisgender or transgender man, (iv) declaring lifetime sex with men (exclusively or not) or not self-identifying as heterosexual. At the end of the quantitative online survey (vaccigay.fr), respondents were invited to participate in the qualitative component. Those who agreed were asked to provide their contact information. No relationship was established with the participants prior to the commencement of the study.

For the qualitative study, we grouped participants according to their age (dichotomised into those over and under 30 years, given that vaccination is recommended for MSM under the age of 26) and HPV vaccination status. We should have increased this limit to 32 years in order to cover individuals who might have been vaccinated in 2016, when the vaccination policy changed to include MSM up to 26 years of age. However, to streamline the process for respondents, we chose under and over 30 years. We decided to only focus on HPV instead of exploring all three vaccines (i.e., HBV, HAV, HPV) investigated in Vaccigay, because only the HPV vaccine is specific to MSM. The HBV vaccine is also recommended for teenagers as a catch-up and, as for HAV, for certain professionals and travellers. Had we investigated all three, it would have been much more difficult to identify the perceptions regarding targeted strategies specific to MSM.

Age	HPV vaccinated	Intended to get vaccinated against HPV	Not vaccinated against HPV and did not intend to get vaccinated	Total
< 30 years old	5/5	5/5	4/5	14/15
≥ 30 years old	5/5	6/5	4/5	15/15
Total	10/10	11/10	8/10	29/30

**Table 1.** Characteristics of MSM who participated in the qualitative study grouped according to age, HPV vaccination status, and intention to get vaccinated against HPV.

### Data collection

Organising face-to-face meetings was challenging as respondents to the quantitative online survey were spread throughout France, and the study's ethics committee prohibited the collection of names and places of residence. Accordingly, the qualitative interviews—conducted by a woman, MM, a social health psychologist research engineer with a solid expertise in qualitative research—were conducted over the phone. The literature highlights that telephone-based and face-to-face interviews have their advantages and disadvantages<sup>20</sup>. However, in terms of surveys concerning sexuality, Novick pointed out that the anonymity provided by the telephone makes it easier to discuss related topics<sup>21</sup>.

Before the beginning of the individual interviews, participants were informed about the goals of the qualitative study and were advised of their rights. Participants were not informed of the interviewer's biases, assumptions, reasons and interests regarding the research topic. Interviews were audio-recorded only if the participant agreed. No participants refused to be recorded. The language of the interviews was French, and the mean duration was 40 min. No field notes were taken during the interview or afterwards. The interview guide was prepared by MM and discussed with the research team. It covered the following topics: (i) preferences, barriers and facilitators for vaccines and vaccination in general, (ii) the impact of the COVID-19 pandemic on the participant's perceptions regarding vaccination in general, (iii) how easy or difficult it was for the participant to disclose his sexual orientation to his general practitioner (GP), and to discuss vaccination in general with this professional, (iv) suggestions for improving vaccination uptake in MSM, (v) knowledge about HPV and HPV vaccination, and (vi) perception about the need for targeted sexual healthcare (see dedicated question above), understood as including targeted check-ups, regular screening, prevention and other targeted measures which take into account the specificities of MSM sexual practices.

Data saturation was discussed collectively during the data collection process, and was achieved when no new information was added to the previously collected data<sup>22,23</sup>.

### Data analysis

Interviews were transcribed verbatim. Participants were not given the transcripts back for comments and corrections. MM performed the data analysis using a thematic approach with NVivo software, following the six-step process described by Braun and Clarke<sup>24</sup>. In addition, the psychosocial approach<sup>25</sup> was mobilized to interpret the data, allowing us to understand how participants' positions and experiences emerged from the interaction between individual psychological factors (social identity, social representations, knowledge) and social factors (social norms, stigma, collective discourses, and the organization of the healthcare system). Each interview was analysed individually, highlighting key themes related to participants' experiences with vaccination in general, then more specifically with HPV vaccination, and finally with perceptions of targeted sexual healthcare. The themes identified in each interview were then compared across all participants, allowing for a comprehensive and nuanced representation of the issues discussed. Themes derived from the interview guide were classified into codes and subcodes (i.e., nuances within major themes) by MM. The final codebook was summarized in a report edited by MM. We have decided not to provide a description of the coding tree due to the large number of codes and subcodes. For the present qualitative study, CO read the interviews, the report, the codebook, and performed a thematic analysis of the transcribed discourses relating to MSM's perceptions of targeted sexual healthcare. Results were discussed collectively by the research team, without the involvement of the participants, and were compared with the scientific literature. The translated citations included in this article have been slightly modified to improve readability and clarity.

### Results

The qualitative study included 29 participants, who were interviewed once. Of these, 15 were 30 years old or over and 14 were younger than 30. Among the former, five were vaccinated against HPV, six intended to get vaccinated, and four were not vaccinated and did not intend to be. Among the latter, the respective numbers were five, five, and four. Three interviews were interrupted by participants and were excluded from the analysis; four other participants who did not provide any opinion (i.e., whether favourable, against, or mixed) were also excluded. Accordingly, our analysis is based on 22 interviews. Eight participants favoured targeted sexual healthcare for MSM, 12 were not favourable, and two provided mixed opinions. Participants' characteristics are described in Table 1.

### Reasons for negatively perceiving targeted sexual healthcare for MSM

*Not 'to be put in a box'*

Some MSM felt that targeted sexual healthcare stigmatizes them. Others reported that it removes equal sexual healthcare for everyone.

One participant conveyed the feeling of being stigmatized with the expression 'being put in a box':

That's something that really shocks me; saying that there are specific policies for gays... I don't see why we put someone in a box based on their orientation. [Interview no. 109, 30 years old or older, not vaccinated against HPV]

The same person explained that he did not want targeted sexual healthcare because, just as for the HIV epidemic, such strategies discriminate against the LGBTIQ+ community. Moreover, he felt that targeted care feeds the notion that MSM are a group apart in society.

But what 'box' are we talking about? Another participant interpreted the acronym MSM as indicative of his identity. However, this acronym was created in the early 1990s in the context of HIV to emphasize that it is behaviours and not identity which expose individuals to the virus (i.e., HIV). More specifically, the acronym was developed as it also covers MSM that do not necessarily identify themselves as homosexuals. This was a critical distinction because until then experts had stated that being homosexual (i.e., identity) was a risk factor<sup>26</sup>.

This interpretation of the acronym MSM by the aforementioned participant as indicative of his identity highlights the disparity between public health categorizations and people's understanding of them, to the extent that some MSM were completely unaware of the existence of these categorizations. This was reflected in the following verbatim by the first participant mentioned above [Interview no. 109]:

Interviewee (I): MSM are hospitals, right?

M: No, sorry, they are the men who have sex with men.

I: Ah ok! [...] Well, for MS... what is it again? (laughs)

M: MSM, men who have sex with men (laughs)

I: It's [ the acronym MSM] complicated! (laughs)

[Interview no. 109, 30 years old or older, not vaccinated against HPV]

Moreover, some participants highlighted that the feeling of being stigmatized because of targeted vaccination strategies could hinder communication with their GP and could lead to mistrust. Again the term "being put in a box" was used to reflect this:

She's [the participant's GP] already recommended me to have the ehm...the hepatitis B vaccine, but actually, it's just that when we talked about it, I felt that I was being pigeonholed a bit, like...and that, like, I was at risk, that I was being put in a box, that I had to do this and that, that everything was pushing down hard on me. And ehm, I think that's what held me back a bit, I don't know, from talking about these things with her. [Interview no. 246, younger than 30 years old, not vaccinated against HPV]

#### *Not my sexual orientation, but my practices*

Other MSM rejected targeted sexual healthcare because they argued that some heterosexuals faced similar risks of STIs when they engaged in anal sex or had multiple partners:

And then, something that I hear less about is the fact that heterosexual couples nowadays have practices, like anal intercourse, and transmission is possible for both the man and the woman, and that's where I understand a little less why we should only target the MSM population. [Interview no. 240, younger than 30 years old, not vaccinated against HPV]

No, in my opinion, we need to generalise treatment. If a person is at risk because they have several partners for example, regardless of their sexuality, they should be treated. Regardless of sexuality. [Interview no. 76, 30 years old or older, vaccinated against HPV]

Another participant emphasized the necessity of extending prevention tools targeting MSM to the general population, reflecting the concept of universal right of access to care and prevention<sup>27</sup>.

Actually, what would be great is if we gave everyone the same amount of attention. We [MSM], we're lucky that way, because, like, when we talk about HIV, we mainly talk about MSM. But I got my little brother to start taking PrEP: he's no way an MSM, but he has a fulfilling sex life, and I think he's largely... anyway, it's not a question of taking risks, because I don't see it that way, but he's in contact with as many possibilities as I am, and he has as much a right to be protected and monitored as I do. [Interview 23, 30 years old or older, vaccinated against HPV]

To summarize, the various arguments participants gave against targeted sexual healthcare for MSM were as follows: some felt targeted care labelled and stigmatized MSM in general, and consequently they refused to use prevention services. Some advocated equal sexual healthcare for all, arguing that sexual practices, and not sexual orientation, is the real risk factor. Finally, others mentioned their desire for MSM-specific prevention tools to be extended to the general population.

### **Reasons for positively perceiving targeted sexual healthcare for MSM**

#### *Epidemiological reasons*

Some participants understood the epidemiological reasons for targeting the MSM population; however, they found it difficult to speak openly about sexuality in the healthcare setting:

I think it [i.e., targeted MSM care] could be good, since there's a range of diseases that circulate more intensely in the MSM community compared to the general population, but I don't know how it could

happen. I find it quite intrusive to ask about sexuality, but at the same time, yes, it wouldn't be bad. [Interview no. 29, younger than 30 years old, vaccinated against HPV]

And then, if a population is at risk.... Actually, I think that it [i.e., the risk] has to be identified, and that sometimes that's a criterion that can be stigmatising, but which should be mentioned to make sure it [i.e., the care given] is more efficient. Because... I don't think everyone has the same needs. [Interview no. 153, 30 years old or older, not vaccinated against HPV]

#### *Understanding the sexual habits of MSM*

Other MSM positively perceived targeted sexual healthcare for MSM because they wanted health workers to have a non-judgmental attitude of them:

Oh yeah! Absolutely, yes [to targeted sexual healthcare]! Especially more doctors trained in the area of MSM. Yeah. We don't feel understood, not listened to and that's a problem. Once I saw a doctor in the emergency room, very close to my home, a lady called XX, who said to me 'Be careful though'; and the second time, she said to me straight out 'Sorry, but this isn't an emergency at all. You have to show trust when you have sex, you have to agree [only] if such and such...!'. Like, basically, [she was saying that] I'd have to ask people I have sex with for their sexual CV; it's absurd. Can you imagine? You go to the emergency room to get treatment and they tell you that basically you're not someone that can be taken seriously and that, well, that's it... So when you have to deal with that you say to yourself 'wow!'. [Interview no. 103, 30 years old or older, not vaccinated against HPV]

One participant stated that he felt at ease in a community setting, such as in the French non-profit organisation for HIV and hepatitis AIDES, and emphasised that doctors should be trained by members of these types of organisations:

Yes, completely! Especially tolerance. Because that's what I experienced at AIDES, and the people who came to AIDES, that's what they were looking for. Most of them [i.e., AIDES personnel] are MSM who welcome you, who advise you; they know what they're talking about. And obviously for all these people, having this network helps enormously. And, [in terms of] support, to answer your question, yes it must be adapted. That's for sure. [Interview no. 101, 30 years old or older, vaccinated against HPV]

One participant underscored the necessity of increasing the number of sexual health centres like CeGIDD (i.e., centres in France which provide free information, screening, and HIV, viral hepatitis, and other STI diagnoses), improving the services they offer, an extending opening hours. In their discourses, participants indicated that they preferred CeGIDD to other types of services (e.g., GP) because they felt the atmosphere there was non-discriminatory and that staff are well-trained.

Yes. Specialized centres with staff trained only for that [i.e., sexual healthcare]. I had the opportunity to go to a centre; people there go at it from a different angle; they weren't afraid to ask things... uh... and then, the fact that they're people who we don't know very well helps. These people are trained for that. I preferred to go there; it was a few years ago, but I felt you could say more personal things. [Interview no. 202, younger than 30 years old, vaccinated against HPV]

#### *The lack of specific sexual education for MSM*

Two participants positively perceived targeted sexual healthcare for MSM because it addresses the current lack of information and education among MSM about STI prevention. One of them emphasized the need to target MSM, as it is common belief that the HPV vaccine is exclusively for heterosexual girls, not for homosexuals:

Ehm, yes. Yes, for the HPV and hepatitis A vaccines, for example, people aren't informed. I'm a guru [laughs]; I encourage my friends to go for vaccinations, to go for screenings more regularly etc. Ehm... but it's true that when it comes to HPV, there's still this preconception that it's for young girls. Anyway, for guys, it would be good if we could do a few more targeted campaigns. [Interview no. 223, younger than 30 years old, vaccinated against HPV]

Another participant highlighted that, unlike heterosexuals, homosexuals receive less support and education on STI prevention, leading to risky behaviours. For instance, he contracted genital warts after his first sexual encounter:

Yes. Yes, because when you grow up as a heterosexual, you have [STI prevention] support throughout your childhood and adolescence. That is to say, you've got the code [i.e., you know what to do], you see? And a gay boy of 12/13 for example, finds it hard to find his place, to plan a love life, a sexual life. So my first thought was to step back until the moment when, well, until the urge came. Then it hits you all of a sudden and you're overwhelmed by this urge. During my first encounter, I actually got genital warts; so, when you start having sex for the first time and you catch something, that affects you. I was 18 and I wasn't prepared at all; I had no clue what was happening to me. Well, fortunately that was all it was; it could have been something else. There you go. [Interview no. 107, 30 years old or older, not vaccinated against HPV]

One participant highlighted that there should be more MSM-targeted education on STI prevention in schools:

In the questionnaire [i.e., Vaccigay's online quantitative survey] there were several questions linked to HPV, and frankly, I think it's really regrettable that in the school curriculum, particularly in upper secondary school—because in lower secondary school it's a bit tricky, we avoid talking about sexuality in

France, unfortunately—but in upper secondary school, it's such a shame that we don't do prevention and don't advise people to get the HPV vaccine especially for gay people. [Interview 103, 30 years old or older, not vaccinated against HPV]

School played a key role in this context, as it may sometimes be challenging to address sexuality-related issues (i) within the family, for example because of religious beliefs, and (ii) with medical professionals, because they might report information about a minor's sexuality to the latter's parents. The underlying issue which permeated participants' discourses was the continued taboo surrounding sexuality, particularly in the context of homosexuality:

There's nothing! Not in schools, or at the doctor's... I think that all that [i.e., the lack of information about STIs and sexual health] is linked obviously, because we can't deny it, it's just because it's [i.e., the lack of this information] linked to sexuality, because it's taboo in France, that you can't talk about it... and often it's linked to the homosexual side of things. Anyway, there you have it. There's not enough prevention. [Interview no. 103, 30 years old or older, not vaccinated against HPV]

To summarize, the various reasons participants gave for supporting targeted sexual healthcare for MSM were as follows: (i) they were aware of the greater epidemiological risks of contracting STI in the MSM population compared to heterosexuals, (ii) they needed greater empathy from healthcare professionals, and (iii) they required more information about STI prevention.

### Reasons related to the difficulty using targeted sexual healthcare for MSM

#### *Uncertainty about sexual orientation*

Some participants declared that uncertainty about sexual orientation and the difficulty of discussing sexual practices with the doctor made it difficult to use targeted sexual health care.

With regard to the former point, they underlined that uncertainty or changes in one's orientation often negatively influenced people from being able to pursue a specific STI prevention pathway targeting a particular population (whether MSM or other):

Each [person's] journey is unique, but yes, prevention happens once the process has been, ehm, I don't know, once you've fully come to terms with who you are... once you've found your sexual identity, you know. And what's more, it's a problem that concerns the heterosexual population less, so it's actually the people who are looking for [their sexual identity] or who refuse [their sexual identity] [that have a problem], while straight people feel less concerned about it I think... [Interview no. 141, younger than 30 years old, not vaccinated against HPV]

But if I'm interested in getting this vaccination, this health protection, it means that in my mental process, I accept the totality of my image, and what I am. Maybe that [i.e., accepting oneself and one's sexuality] still poses a problem for me. [Interview no. 190, younger than 30 years old, not vaccinated against HPV].

#### *Discussing sexuality is difficult*

For the MSM population, accepting targeted prevention tools takes time, and implies accepting one's sexual orientation and/or identity. For people who have not yet fully accepted their orientation, discussing it with a doctor is complicated. Accordingly, this professional cannot suggest appropriate prevention tools.

One of the study participants reported that he would be reluctant to engage in a discussion with his doctor about sexual practices, as he anticipated that the latter would not be able to fully understand him:

My GP is great; he's interested in everything, he's wonderful; but I don't talk to him openly about everything, because it's difficult to talk about these practices to someone who is... let's say 'normalised', heterosexual, and all that. [Interview no. 109, 30 years old or older, not vaccinated against HPV]

The difficulty in discussing sexuality may come from both patients and GPs, as emphasized by one participant who was himself a doctor:

As a doctor, we find it difficult to broach the subject in consultations, apart from a few circumstances [why we would]; but as a patient, these are not the questions we would first ask our doctors [Interview 240, younger than 30 years old, not vaccinated against HPV]

Because discussing sexuality with GPs is challenging, some MSM did not seek information on sexual health prevention from them. Moreover, they felt guilty about this, and perceived they were responsible for this shortcoming:

That's exactly it, yes. Yes, that's clearly it. Clearly, I'm not aware [of the HPV vaccine]. But I didn't make the effort to inform myself either, that's for sure. But, it's obviously because I'm not informed about the subject, that I'm not aware [...]. Obviously, I can't feel the need to get vaccinated if I don't know it exists. [Interview no. 204, younger than 30 years old, not vaccinated against HPV]

In summary, some participants mentioned that uncertainty about one's sexual orientation and the difficulty of discussing sexuality with healthcare professionals may prevent MSM from using targeted sexual healthcare services.

## Discussion

Our results highlight conflicting perceptions about targeted sexual healthcare among our study population of MSM living in France. Some MSM perceived that targeted care was a form of categorization of their sexual practices and identity. More generally, individuals who criticized targeted care argued for a unified approach to prevention and vaccination, whereby the entire population would receive the same type and level of care.

Conversely, other participants positively perceived targeted health for MSM. They recognized the specific health realities of the MSM community which they did not consider stigmatizing. More generally, these MSM based their perceptions on their lived experience with health services; having experienced ignorance and moral judgment in general care services, they appreciated the empathy and non-judgmental attitude of healthcare professionals practicing in community health centres. Several of these MSM advocated better training of healthcare professionals on the specificities of MSM social and sexual habits.

The ways in which MSM in our study perceived targeted health messages and strategies for specific populations—especially MSM—in terms of HPV vaccination, echoes historical debates around whether and how HIV prevention should be targeted in France. In terms of public communication, health authorities long promoted a ‘one size fits all’ approach to prevention targeting the entire population. In contrast, associations in the fight against AIDS called for community approaches, better adapted to the realities experienced by MSM. These opposing viewpoints highlight the limitations of a universalist approach to public health. They also highlight the heterogeneity of MSM populations, because many MSM do not claim to belong to the gay community, and do not wish to be primarily considered as such. Our study participants’ fear of being “put in a box” reflects this tension. This fear also reflects the growing individualization of experiences of homosexuality in France in recent years. While sexual orientation was experienced as a collective identity for many gays in the 1980s and 1990s, today it often represents only one facet of their experience.

The conflicting perceptions of targeted healthcare for MSM we observed reflect differing visions of the social world, but also different lived experiences with health services. Accordingly, different MSM profiles emerged as evidenced in the Vaccigay study<sup>18</sup>: some that were more community based (i.e., having a circle of gay friends, having disclosed their sexual orientation, frequenting virtual or physical social spaces, sharing values) and some less tied to the MSM community (i.e., having a circle mainly composed of heterosexuals, not systematically disclosing their sexual orientation, not frequenting gay social spaces). This aligns with sociobehavioral surveys which found that MSM profiles can change over the long term depending on how important MSM community spaces are for the individual<sup>28</sup>. Although these simplified ‘more’ or ‘less’ community-based profiles do not of course adequately summarize the nuanced and complex experience of homosexuality in France<sup>29</sup>, they do reflect the coexistence of generally differing perceptions and attitudes. Interestingly, the name of our study (“Vaccigay”), which explicitly associated health with homosexual identity, did not discourage MSM who were most critical of targeted prevention from participating.

The timing of the study also merits consideration; qualitative data were collected between April and July 2022, therefore at the tail end of the COVID-19 health crisis, and the moment when the 2022/2023 Mpox outbreak started in France. Consequently, participants at the time not only faced health issues closely associated with MSM (HIV, Mpox), but also public health issues common to the general population (COVID-19). This fact may have encouraged more MSM to view targeted healthcare for MSM negatively.

As mentioned above, some of the MSM who were most critical of targeted healthcare measures and who wanted to be seen as being just like everyone else nevertheless willingly participated in a study called Vaccigay, a title that identifies sexual orientation with vaccination.

More generally, our results illustrate the difficulty which some MSM have in understanding the reasoning behind target healthcare measures for the MSM population in France. The refusal by many participants to accept that the MSM population is more exposed than the general population to the risk of STIs reflects this difficulty. Our results highlight the need to strengthen community health education among MSM, with a view to helping homosexuals acquire a better understanding of their individual and collective health needs.

In this context, to increase HPV vaccine uptake in MSM in France, we recommend three complementary actions:

- Increasing the age of vaccination to 26 years for everyone, not only MSM; this would reduce the effects of anticipated or experienced stigmatization, in particular, forgoing healthcare;
- Improving health professionals’ training on the specific needs of sexual and gender minorities;
- Increasing the number of sexual health centres for gender and sexual minorities, and improving existing structures.

## Data availability

The datasets generated and analysed during the current study are available from the corresponding author on reasonable request.

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## References

1. Korenromp, E. L. et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: A multisources estimation. *JAIDS J. Acquir. Immune Defic. Syndr.* **95**, e34 (2024).
2. Stengaard, A. R. et al. HIV seroprevalence in five key populations in Europe: A systematic literature review, 2009 to 2019. *Eurosurveillance* **26**, (41) 1–13. <https://doi.org/10.2807/1560-7917.ES.2021.26.47.2100044> (2021).
3. Armstrong, D. Screening: Mapping medicine’s temporal spaces. *Sociol. Health Illn.* **34**, 177–193 (2012).

4. Haute Autorité de santé (HAS). *Vaccination Contre Les Papillomavirus Humains (HPV). Elargissement De La Cohorte De Rattrapage Vaccinal Chez Les Hommes Et Les Femmes Jusqu'à 26 Ans Révolus*. [https://www.has-sante.fr/upload/docs/application/pdf/2025-05/vaccination\\_contre\\_les\\_papillomavirus\\_elargissement\\_de\\_la\\_cohorte\\_de\\_rattrapage\\_vaccinale\\_ches\\_les\\_hommes\\_et\\_femmes\\_jusqu\\_a\\_.pdf](https://www.has-sante.fr/upload/docs/application/pdf/2025-05/vaccination_contre_les_papillomavirus_elargissement_de_la_cohorte_de_rattrapage_vaccinale_ches_les_hommes_et_femmes_jusqu_a_.pdf) (2025).
5. Löwy, I. HPV Vaccination in Context: A View from France. In *Three Shots at Prevention. The HPV Vaccine and the Politics of Medicine's Simple Solutions* (ed. Johns, H.) 270–292 (University Press, Baltimore, 2010).
6. Wailoo, K., Livingston, J., Epstein, S. & Aronowitz, R. (eds) *Three Shots at Prevention. The HPV Vaccine and the Politics of Medicine's Simple Solutions*. (Johns Hopkins University Press, Baltimore, 2010). <https://doi.org/10.1353/book.488>.
7. Bergström, M. (ed) *La sexualité qui vient. Jeunesse et relation intimes après #Metoo*. (La Découverte, Paris, 2025). <https://doi.org/10.3917/dec.bergs.2025.01>.
8. Castro, A. & Farmer, P. Understanding and addressing AIDS-related stigma: From anthropological theory to clinical practice in Haiti. *Am. J. Public Health* **95**, 53–59 (2005).
9. Link, B. G. & Phelan, J. C. Conceptualizing stigma. *Ann. Rev. Sociol.* **27**, 363–385 (2001).
10. Karlsen, T. H. et al. The EASL–lancet liver commission: Protecting the next generation of Europeans against liver disease complications and premature mortality. *Lancet* **399**, 61–116 (2022).
11. Babel, R. A., Wang, P., Alessi, E. J., Raymond, H. F. & Wei, C. Stigma, HIV risk, and access to HIV Prevention and treatment services among men who have sex with men (MSM) in the United States: A scoping review. *AIDS Behav.* **25**, 3574–3604 (2021).
12. Mohammed, M. & Talpin, J. *Communautarisme?* (PUF, 2018).
13. Adam, B. D. Constructing the neoliberal sexual actor: Responsibility and care of the self in the discourse of barebackers. *Cult. Health Sex.* **7**, 333–346 (2005).
14. Girard, G. HIV risk and sense of community: French gay male discourses on barebacking. *Cult. Health Sex.* **18**, 15–29 (2016).
15. Hammack, P. L., Frost, D. M., Meyer, I. H. & Pletta, D. R. Gay men's health and identity: Social change and the life course. *Arch. Sex. Behav.* **47**, 59–74 (2018).
16. Trachman, M., Gelly, M. & Girard, G. Défaire et refaire un groupe à risqué. Objectivation et prévention du sida chez les homosexuels masculins à l'ère des antirétroviraux. *Population* **73**, 787–807 (2018).
17. Brosset, E. et al. Gradient of vaccine hesitancy among French men having sex with men: An electronic cross-sectional survey in 2022. *Hum. Vaccin. Immunother.* **19**, 2293489 (2023).
18. Cogordan, C. et al. Sexual and preventive behaviors associated with HAV, HBV, and HPV vaccine hesitancy among men who have sex with men in France. *Hum. Vaccin. Immunother.* **20**, 2348845 (2024).
19. Tong, A., Sainsbury, P. & Craig, J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* **19**, 349–357 (2007).
20. Rahman, R. B. A. Comparison of telephone and in-person interviews for data collection in qualitative human research. *Interdiscip. Undergrad. Res. J.* **1**, 10–13 (2023).
21. Novick, G. Is there a bias against telephone interviews in qualitative research?. *Res. Nurs. Health* **31**, 391–398 (2008).
22. Saunders, B. et al. Saturation in qualitative research: Exploring its conceptualization and operationalization. *Qual. Quant.* **52**, 1893–1907 (2018).
23. Guest, G., Bunce, A. & Johnson, L. How many interviews are enough?: An experiment with data saturation and variability. *Field Methods* **18**, 59–82 (2006).
24. Braun, V. & Clarke, V. Using thematic analysis in psychology. *Qual. Res. Psychol.* **3**, 77–101 (2006).
25. Fischer, G.-N. *Les concepts fondamentaux de la psychologie sociale*. (Dunod, 2020).
26. Larmarange, J. & Broqua, C. Orientation Sexuelle et Identité de Genre : Quelles Catégories D'enquête en Afrique Subsaharienne ? In *Minorités de genre et de sexualité : Objectivation, catégorisations et pratiques d'enquête* (eds Rault, W. & Trachman, M.) 191–208 (Inéd Éditions, Paris, 2023). <https://doi.org/10.4000/books.ined.19456>.
27. Eribon, D. *Insult and the Making of the Gay Self* (Duke University Press, 2004).
28. Méthy, N., Velter, A., Semaille, C. & Bajos, N. Sexual behaviours of homosexual and bisexual men in France: A generational approach. *PLoS ONE* **10**, e0123151 (2015).
29. Chameau, Z. et al. Disparités géographiques et sociales du recours au dépistage et à la prophylaxie pré-exposition (PrEP) chez les hommes ayant des rapports sexuels avec des hommes (HSH) résidant en Île-de-France / Geographical and social gradients in the use of HIV testing and pre-exposure prophylaxis (PrEP) among men who have sex with men (MSM) living in the Île-de-France region. *Bulletin épidémiologique hebdomadaire* 286–295 (2024).

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## Author contributions

PV is the principal investigator and oversaw the study protocol development. MM, BS contributed to the design of the research project. MB contributed to the community involvement in the research project. AV provided input as an expert on the issues of vaccination and MSM. MM collected and analysed the data and contribute to the writing of the paper. CO analysed the data and wrote the first draft of the manuscript. GG contribute to the writing of the paper and oversaw its scientific content. MA, EB, LF, CC contributed to the interpretation of the data. All authors contributed to and approved the current version of the manuscript.

## Declaration

## Competing interests

The authors declare no competing interests.

## Additional information

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