

# High uptake of vaccination against mpox in men who have sex with men (MSM) on HIV pre-exposure prophylaxis (PrEP) in Paris, France

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1 **ARTICLE TYPE** 2 Letter 3 4 Title 5 High uptake of vaccination against mpox in men who have sex with men (MSM) on HIV 6 preexposure prophylaxis (PrEP) in Paris, France 7 8 **AUTHORS** 9 Romain Palich<sup>1</sup>, Thibaut Jedrzejewski<sup>2</sup>, Luminita Schneider<sup>1</sup>, Naoual Qatib<sup>1</sup>, Thibault Orrière<sup>1,2</sup>, 10 Daniel Gosset<sup>2</sup>, Thomas Grunemwald<sup>2</sup>, Dominique Pataut<sup>2</sup>, Michel Ohayon<sup>2</sup>, Christine 11 Katlama<sup>1</sup> 12 13 **AFFILIATIONS** 1. Sorbonne University, Infectious Diseases department, Pitié-Salpêtrière hospital, AP-HP, 14 15 Pierre Louis Epidemiology and Public Health institute (iPLESP), INSERM 1136, Paris, France 16 2. "Le 190" Sexual Health Center, Paris, France 17 18 **CORRESPONDING AUTHOR** 19 Romain Palich, MD, PhD 20 Service de Maladies Infectieuses et Tropicales, hôpital Pitié-Salpêtrière, 47-83 boulevard de 21 l'hôpital, 75013 Paris, France 22 Tel: +33.1.42.16.01.71, fax: +33.1.42.16.04.45 23 Email: romain.palich@aphp.fr 24 25 **WORDS COUNT** 26 574 27 28 **KEY WORDS** 

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Mpox; vaccination; PrEP; MSM

#### **BODY TEXT**

In July 2022, the French health authorities recommended smallpox vaccination (IMVANEX® and JYNNEOS®) to prevent mpox in population at high risk of exposure. HIV and PrEP physicians were informed and involved in the deployment of this vaccination, but there has been no communication to the general public. The current mpox epidemic in France, the rest of Europe and the USA is concentrated among men who have sex with men (MSM), particularly in case of multiple physical and sexual contacts [1,2]. Several case series have reported high proportions of people living with HIV and of users of HIV preexposure prophylaxis (PrEP) [3,4].

 To assess the uptake of vaccination among PrEP users, we conducted an observational study in two centres in Paris, France (Infectious Diseases department of the Pitié-Salpêtrière hospital and "Le 190" sexual health clinic). We systematically asked PrEP users who attended a routine check-up for PrEP at both centres between November 2022 and January 2023 whether they had received at least one vaccine dose since July 2022. We used a structured questionnaire for that, administrated by the physician. If not vaccinated, we collected the reasons: prior mpox disease, not feeling at risk, waiting for medical advice during their routine check-up for PrEP, being against vaccination in general, or declining to answer. All information was reported in medical records, and later extracted and aggregated after de-identification. According to the French law (Act 78–17 of Jan 6, 1978, on Computers, Files and Liberties) this study was conducted in compliance with the CNIL (French National Agency Regulating Data Protection, ref. 2085881 for Pitié-Salpêtrière, and ref. 2221945 for "Le 190"), and with the reference methodology 004 (www.cnil.fr).

A total of 424 MSM with a median age of 36 years (IQR 29-46) participated (Figure 1); 22 (5.2%) had been previously diagnosed with mpox, and 329 (77.6%) had received at least one vaccine dose. Of the remaining 73 PrEP users not yet immunised against mpox, 40 (54.8%) agreed to be vaccinated. Among the 33 (45.2%) who refused, reasons given were: did not feel at risk of mpox (20, 60.6%), was against vaccines in general (8, 24.2%), or preferred not to give a reason (4, 12.1%). One had a formal contraindication to the vaccine (allergy). No individual who received the vaccination reported severe adverse reactions.

Overall, of the 402 PrEP users who had not had a diagnosis of mpox, 369 (87.0%) have been vaccinated against mpox. Interestingly, most had sought vaccination spontaneously during the summer of 2022. Nearly half of PrEP users who refused vaccination did not feel at risk. This is consistent with a French survey reporting that MSM on PrEP who were reluctant to be vaccinated against mpox had few sex partners, and had refused other vaccinations in their lifetime [5].

Our study has some limitations. We did not collect the number of vaccine doses received by participants. Although it has been shown that one dose of vaccine can provide rapid protection

against the disease [6,7], a two-dose schedule may be required for long-term protection [8].
Thus, we cannot exclude that some participants may not be fully protected.

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The uptake of vaccination in our study is very similar to the 89.2% reported by Canadian colleagues in a recent study which included 331 transgender people and MSM [9]. Both studies highlight the role that physicians can play in vaccine campaigns for the prevention of sexually transmitted diseases, particularly in epidemic circumstances, by proactively offering and facilitating access to vaccination.

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#### Competing interest statement

No competing interest.

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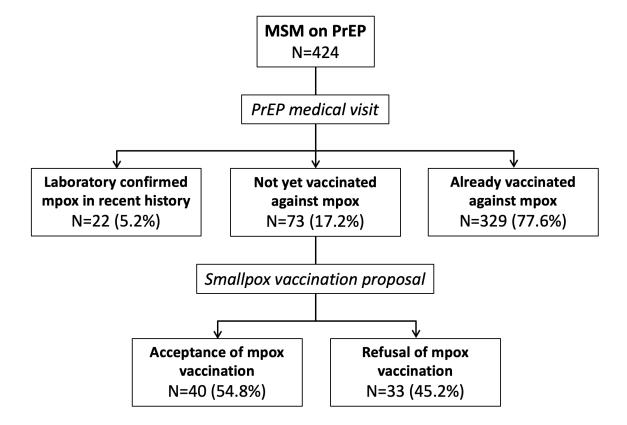
#### Contributorship statement

- 91 CK, MO and DG designed the study; RP, TJ, LS, NQ, TO, DG, TG, DP, MO and CK participated in
- data collection, were responsible for data quality in the centers, and provided useful advice in
- 93 the discussion; RP wrote the first draft; all authors approved the final manuscript.



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