Monkeypox vaccination willingness, determinants, and communication needs in gay, bisexual, and other men who have sex with men, in the context of limited vaccine availability in the Netherlands (Dutch MPX-survey)

Nicole HTM Dukers-Muijrers, Ymke J Evers, Veja Widdershoven, Udi Davidovich, Philippe CG Adam, Eline LM Op de Coul Paul Zantkuijl, Amy Matser, Maria Prins, Henry JC de Vries, Casper den Heijer, Christian JPA Hoebe, Anne-Marie Niekamp, Francine Schneider, Juliana Reyes-Urueña, Roberto Croci, Angelo D'Ambrosio, Marc van der Valk, Dirk Posthouwer, Robin Ackens, Henriette ter Waarbeek, Teymur Noori, Elske Hoornenborg

- **Of survey respondents 81.5% were willing to accept monkeypox preventive vaccination**.
- **Communication should be tailored** to perceived risks/severity of monkeypox, perceived vaccine efficacy and side effects, and can address protection motivation and social norms about vaccination.
- **Communication should be factual**, stigma-free, accessible and delivered regularly and broadly.
- **Information needs to be more accessible, uniform and clear** (also regarding vaccination procedures and triage).
- Public health efforts may be strengthened in **less urban areas** and in those less connected to gay/queer community.
- **More equitable vaccination** access might benefit from adding self-registration, provision at multiple (non-)clinic settings, and discrete/anonymous options to include people who are not in current selections

nicole.dukers@ggdzl.nl

Objective

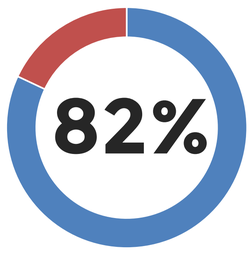
In the public health response to the multi-country monkeypox outbreak, vaccination, offered to people at higher risk for infection, is a crucial part of a **combined prevention approach**. We study vaccine acceptance and its determinants, to target and tailor public health (communication-)strategies **in the context of limited vaccine supply** in the Netherlands.

Methods

- **Online survey** in convenience sample of gay, bisexual and other men who have sex with men, including transgender persons (gbMSM/TGP) (**22/07-05/09/22**, the Netherlands).
- We assessed **determinants** (sociodemographic, social environment, medical, and behavioral factors, and beliefs) for being (un)willing to accept vaccination.
- We used multivariable multinominal regression and logistic regression analyses, calculating adjusted odds ratios (aOR) and 95%CI. Estimates were **adjusted for number of partners**.
- An open question asked **respondents for their recommendations** on communication and vaccination.

Results

High vaccination willingness *



81.5% of 1,856 unvaccinated gbMSM/TGP survey respondents would (certainly) accept vaccination against monkeypox when offered.

- 85% in vaccine-eligible respondents
- 78% in vaccine non-eligible respondents

** Since sample is non-representative, proportion is an estimate of (expected high) willingness in target population.*

Determinants for non-willingness (quantitative analyses)

- lower level of **urbanization** (rural: aOR:2.2;1.2-3.7; low-urban: aOR:2.4; 1.4-3.9; versus high-urban)
- not knowing monkeypox-vaccinated persons (aOR:2.4;1.6-3.4), and **lack of connection** to gay/queer-community (aOR:2.0;1.5-2.7)

Results

Beliefs associated with willingness (quantitative analyses):

Perceived risk and severity of monkeypox

Expected vaccine effectiveness and side-effects

Motivation to protect against monkeypox

Social norms on what others think and do

Recommendations of respondents to professionals (qualitative):

- **Communication**: More clear information, accessible, delivered regularly, stigma-free, facts on monkeypox, vaccination benefits, triage and procedures, all preventive options.
- **Vaccination**: Add 'self-registration', provision also at non-clinic settings, anonymous options, include those 'hidden' at high risk.

Conclusion

Willingness to be vaccinated is high *~. For equitable access to information (for all) and to vaccination (for those at risk), we identify the following **opportunities**:

- Public health efforts may be **strengthened** in less urban areas and in those less connected to gay/queer community.
- Communication should be **tailored to beliefs**, **stigmafree, clear, and factual**.
- Information about preventive options should be **better visible and understandable** for all people, regardless where they live or who is in their social network.
- Information should be **uniform**; aligned by all stakeholders
- Be **transparent about vaccine triage**. Communicate who is eligible (when were, how) and who is not, relevance & goal of vaccination, and explain other preventive options~.
- Explore extra ways to provide **low-threshold vaccination~.**
- **Ensure accesss to vaccination for all people with high risk** (multiple sexpartners) thus also those who are not included in current selections based on patient registries~.

Timely and accurate data on number of people invited and vaccinated provide crucial guidance for public health practice; such data are lacking.

~ Applies to a context where preventive vaccination is offered and where there is limited vaccine supply.

& Thanks to: ECDC; Dutch HIV-treatment centers Centers Sexual Health; Community organizations

Factsheet for professionals: https://www.ggdzl.nl/professionals/publicaties/factsheets-en-rapporten

Preprint: