

Oral HIV Pre-Exposure Prophylaxis among HIV-Negative Men who Have Sex with Men in Switzerland: Acceptability According to Current Guidelines and Possible Future Adaptions

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Background

Due to the high proportion of newly diagnosed HIV-infections among men who have sex with men (MSM) in high-income countries, in 2012 the WHO recommended to offer oral HIV Pre-Exposure Prophylaxis (PrEP) to MSM [1]. Although PrEP has not been approved in Switzerland, it is discussed as an additional prevention method for MSM. However, little is known about the acceptability of PrEP among MSM in Switzerland. Furthermore, the ongoing clinical research could change the current PrEP guidelines in near future.

The study tried to identify:

- (1) the acceptability of PrEP among HIV-negative MSM living in Switzerland according to *current guidelines*
- (2) the acceptability of PrEP according to various *possible future adaptions*

Methods

Procedures

In a cross-sectional study, we surveyed a convenience sample of 556 MSM living in Switzerland aged 15 to 81 years ($M=40.6$, $SD=11.9$) by using anonymous, standardized self-administered online and paper-and-pencil questionnaires. Participants were gathered through different gay-specific sites.

Measurement

The current and future acceptability of PrEP was measured by six items about the intention to use PrEP according to current guidelines ("How likely would you use PrEP if it would be available in Switzerland?") and possible adaptions (less side effects, 100% effectiveness, event-driven PrEP, no costs, injection instead of pill). Answers ranged from 1="very unlikely" to 7="very likely".

Data Analysis

We carried out descriptive statistics to analyze the intention to use PrEP according to current guidelines and possible future adaptions. Furthermore, we conducted paired sample t-tests [2] in order to compare the intention to use PrEP on current and future conditions.

Table 1: Sample description (N=556)

Variable		%	n
Sexual orientation (n=555)	gay	88	489
	bisexual	11	62
Relationship status (n=556, multiple answers possible)	single	44	243
	stable relationship with a man	51	283
	stable relationship with a woman	6	32
Educational level (n=555)	non-tertiary education	56	309
	tertiary education	44	246
Community type (n=555)	more than 100'000 inhabitants	48	268
	between 20'000 - 100'000 inhabitants	13	73
	less than 20'000 inhabitants	39	214

Results

The mean intention to use PrEP according to current guidelines was 3.67 ($SD=2.11$). Thirty-nine percent of the participants would probably use PrEP if available. However, almost 51% were unlikely to use PrEP. Only about 10% were undecided about using PrEP in the future (cf. Figure 1).

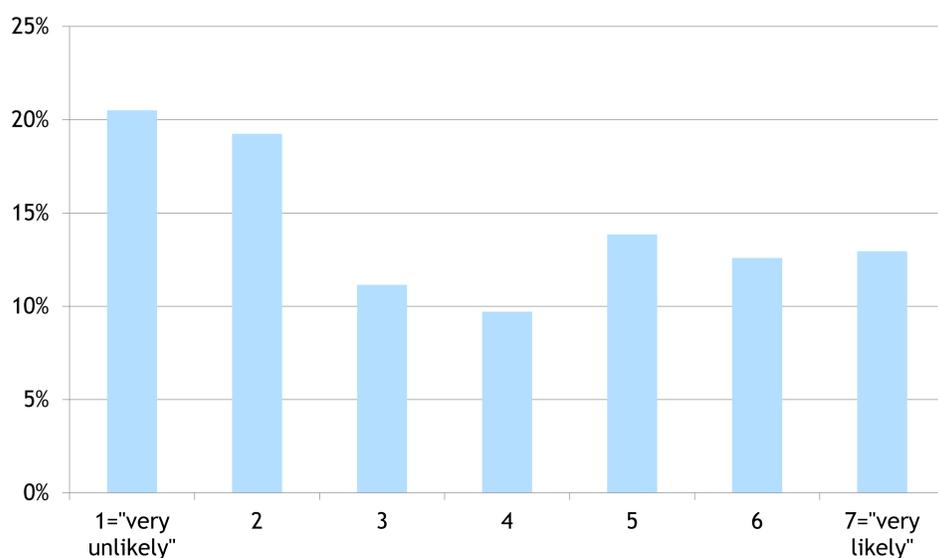


Figure 1: Intention to use PrEP according to current guidelines (n=556)

With one exception, the acceptability of PrEP according to various possible future adaptions is higher than according to current guidelines. Paired sample t-tests showed that the participants' intention to use PrEP significantly increased with the possibility to obtain a drug with less side effects or with a 100% effectiveness compared to the intention according to current guidelines. Also the option of an event-driven regimen or a full financial coverage by the health insurance significantly increased the intention to use PrEP. The option of having the drug injected instead of taking pills did not increase the intention (cf. Table 2).

Table 2: The intention to use PrEP according to various possible future adaptions

Scenarios	Mean	SD	df	t	p
Less side effects	5.47	1.75	533	-15.79	<0.001
100% effectiveness	5.61	1.83	548	-18.27	<0.001
Event-driven	4.35	2.35	547	-5.76	<0.001
Full financial coverage by health insurance	4.97	2.24	547	-13.70	<0.001
Injection instead of pills	3.60	2.31	546	0.86	0.39

Conclusion

Results indicate that the acceptability of PrEP among MSM living in Switzerland is moderate but possible future adaptations of PrEP could enlarge the acceptability significantly.

The non-probability sampling strategy is limited with regard to generalization. Participants with tertiary education are overrepresented which signals a possible education bias. Furthermore, since PrEP has not been approved in Switzerland the study surveyed a hypothetical situation.

However, results show that especially having a drug with less side-effects and a higher effectiveness could be of importance for MSM. Moreover, financial coverage by health insurance and an event-driven PrEP regimen will increase the acceptability of PrEP.

Before implementing PrEP in Switzerland, these issues should be considered while being aware that the decision making process is far more complex and influenced by several other factors.

References

- [1] World Health Organization. (2012). Guidance on Pre-Exposure-Oral Prophylaxis (PrEP) for serodiscordant couples, men and transgender women who have sex with men at high risk of HIV. Recommendations for use in the context of demonstration projects. http://apps.who.int/iris/bitstream/10665/75188/1/9789241503884_eng.pdf?ua=1
- [2] Ciaran, A., & Miller, R. (2009). *SPSS Statistics for Social Scientists* (2nd ed.). Basingstoke: Palgrave Macmillan.