Additional file 4 – Testing for interactions between monitoring frequency and monitoring modality

Aim: We examined potential interactions between monitoring frequency (i.e., 6-monthly or 3-monthly) and monitoring modality (i.e., online or in-clinic) in order to determine the need for stratifying analyses by monitoring modality.

Methods:
For the following seven outcomes, constructed multivariable Poisson models including monitoring frequency, monitoring modality, and an interaction term for monitoring frequency * monitoring modality: (i) the rate of any visit, (ii) the rate of scheduled monitoring visits), (iii) the rate of unscheduled STI testing visits, (iv) the detection rate of bacterial STIs, (v) the positivity of bacterial STIs at any visit, (vi) the positivity of bacterial STIs at scheduled monitoring visits, and (vii) the positivity of bacterial STIs at unscheduled STI testing visits. For outcomes iv-vii, 'bacterial STIs' referred to diagnoses of gonorrhea, chlamydia, or infectious syphilis.

Results
For none of the seven outcomes, there was a statistically significant interaction effect between monitoring frequency and monitoring modality (Additional file 4: Tables 1-7). As such, we did not stratify the analyses presented in the main paper by monitoring modality.

Table 1. Visit rate ratios for any visit (EZI-PrEP, 2021-2024, the Netherlands)

	Visit rate ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	0.67	[0.60-0.74]	<0.001
Monitoring modality (online *vs* in-clinic)	1.04	[0.95-1.14]	0.40
Monitoring frequency * monitoring modality	1.06	[0.91-1.22]	0.46

Table 2. Visit rate ratios for scheduled monitoring visits (EZI-PrEP, 2021-2024, the Netherlands)

	Visit rate ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	0.54	[0.48-0.61]	<0.001
Monitoring modality (online *vs* in-clinic)	1.02	[0.92-1.12]	0.75
Monitoring frequency * monitoring modality	1.01	[0.85-1.20]	0.91

Table 3. Visit rate ratios for unscheduled STI testing visits (EZI-PrEP, 2021-2024, the Netherlands)

	Visit rate ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	1.62	[1.28-2.07]	<0.001
Monitoring modality (online *vs* in-clinic)	1.22	[0.94-1.58]	0.13
Monitoring frequency * monitoring modality	1.05	[0.75-1.45]	0.79

Table 4. Detection rate ratio for bacterial STIs (EZI-PrEP, 2021-2024, the Netherlands)

	Detection rate ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	0.74	[0.62-0.98]	0.032
Monitoring modality (online *vs* in-clinic)	1.20	[0.99-1.46]	0.060
Monitoring frequency * monitoring modality	0.95	[0.71-1.29]	0.76

Table 5. Positivity ratio for bacterial STIs at any visit (EZI-PrEP, 2021-2024, the Netherlands)

	Positivity ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	1.19	[0.97-1.47]	0.096
Monitoring modality (online *vs* in-clinic)	1.15	[0.96-1.39]	0.14
Monitoring frequency * monitoring modality	0.87	[0.67-1.19]	0.46

Table 6. Positivity ratio for bacterial STIs at scheduled monitoring visits (EZI-PrEP, 2021-2024, the Netherlands)

	Positivity ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	0.97	[0.74-1.28]	0.84
Monitoring modality (online *vs* in-clinic)	1.16	[0.93-1.44]	0.19
Monitoring frequency * monitoring modality	1.10	[0.76-1.59]	0.62

Table 7. Positivity ratio for bacterial STIs at unscheduled STI testing visits (EZI-PrEP, 2021-2024, the Netherlands)

	Positivity ratio	95% confidence interval	p-value
Monitoring frequency (6-monthly *vs* 3-monthly)	1.17	[0.84-1.65]	0.35
Monitoring modality (online *vs* in-clinic)	1.06	[0.74-1.51]	0.76
Monitoring frequency * monitoring modality	0.71	[0.44-1.15]	0.16