S09.02 figure 1 suggests local elimination is likely to occur earlier in Bellary (median: 2023) than in Mysore (2028) and Belgaum (2030), with the required intervention duration being 11–35 years. The discounted cost of achieving local elimination in each of the settings is estimated to be \$8–11 000 000 with 5000–11 000 HIV infections averted up to 2050.

Abstract O1-S09.02 Figure 1 Posterior distribution of the year when HIV indicates in FSWs and clients goes below 1 infection per 1000 FSWs and clients.

Conclusion Our results suggest Avahan could result in local elimination of HIV among FSWs and clients in these districts without ART. Current discussions around the use of ART for HIV elimination should also consider other prevention strategies, especially in concentrated epidemic settings where eliminating HIV from FSWs and clients is likely to eliminate HIV in the general population. Our modest estimated costs for local elimination could be completely offset against averted ART costs.

O1-S09.03 MAIN RESULTS AND IMPACT ANALYSIS OF ANNUAL CHLAMYDIA SCREENING IN A LARGE REGISTER-BASED PROGRAMME IN THE NETHERLANDS

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Background Chlamydia screening programmes can only work when they motivate sufficient persons at risk to get tested regularly. The outcomes of the Chlamydia Screening Implementation (CSI) in the Netherlands are novel and valuable because of the large scale of the programme (315 000 young persons targeted), its systematic nature (invitations based on municipal registers) and its multiple screening rounds (annual invitations in three consecutive years).

Methods From April 2008 to March 2010, Chlamydia Screening was offered annually to municipal-registered 16–29 year olds in three regions of the Netherlands. A phased implementation was applied by grouping clusters in three random, risk-stratified blocks. Participation and positivity rates were compared between blocks submitted to 1, 2 or 3 screening rounds (3rd round only partially completed). The effect of the repeated screening rounds on the prevalence of Chlamydia in the whole target group was estimated by weighting procedures comparing demographic characteristics of participants and target group.

Results The participation rate in the first round was 16% among all invitees and 20% among the sexually active target population (M13%, F 25%). The participation fell down to 11% in blocks invited two times and 9% in the block invited three times, whereas it was 13% in the control block invited in round two only. The positivity rate in round one was 4.2% among all participants. Positivity rates decreased significantly to 4.0% in blocks screened twice and to 3.5% in the block screened thrice ($p=0.04$); in the control block 4.3% tested positive. The population prevalence was estimated at 2.6% in Amsterdam, 3.8% in Rotterdam and 2.4% in South Limburg. The prevalence declined over the three screening rounds, but declines were not significant (see Abstract O1-S09.03 figure 1).

Abstract O1-S09.03 Figure 1 Estimated Chlamydia prevalence among young people invited for Chlamydia screening 1, 2 or 3 times at annual intervals, as compared to a control group invited only once. [*bars indicate high-low estimates for South Limburg, an adaptation to correct for participant selection.

Conclusions The participation in the CSI project was lower than expected and declined with repeated invitation. Chlamydia positivity rates were reduced by 17% in clusters screened three times, whereas these stayed high in control groups. Only a small and non-significant impact on population prevalence was measured. Further extrapolation of the findings in a simulation model suggest a limited impact on Chlamydia prevalence after 10 years of screening and estimates of cost-effectiveness do not support a nationwide roll-out of this programme in the Netherlands.

O1-S09.04 MODELLLED IMPACT OF CHANGING PARTICIPATION RATES ON EFFECTIVENESS OF POPULATION BASED CHLAMYDIA SCREENING

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