S2 Table. Description of Single-Sex Model Parameters.

Parameter	Description
Λ_u	Natural birth and maturity rate of susceptible youth unaware of their HIV status
Λ_a	Natural birth and maturity rate of susceptible youth aware of their HIV status
ρ_{ht}	Youth HIV testing rates
ρ_t	Youth adherence rate to anti-retroviral therapy treatment
ρ_c	Youth condom use rate
μ	Natural death rate of youth respectively
γ	Probability of youth transmission risk
δ	Disease induced deaths in youth
c	Youth sexual contact rate
$\alpha_{ht},\ \alpha_{ht}^1$	Factors negatively and positively influencing HIV testing rate among the youth
$\alpha_c,\ \alpha_c^1$	Factors negatively and positively influencing condom use rate among the youth
$\alpha_t,\ \alpha_t^1$	Factors negatively and positively influencing ART adherence rate among the youth
σ	Exit rate of youth upon turning 24 years