**Table 1. Prior (pre-calibration) values of key parametersa**

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Value (median prior, with sampling range)** | **Reference** |
| **Transmission*b*** | | |
| Transmission rates by age/sex/time | (Calibrated) | (Calibrated) |
|  | | |
| **Testing** (Probability of receiving an HIV test within the past year) | | |
| Female, age 35-39, 2015 | 0.52 (0.24-0.73) | KDHS 200322, 200823, 201424 |
| Female, age 17 and younger, 2015 | 0.35 (0.13-0.63) |
| Yearly change in odds of receiving a test, for individuals over 17 (odds ratio) | 1.26 (0.32-5.04) |
| Yearly change in odds of receiving a test, for individuals age 17 and under (odds ratio) | 1.23 (0.31-4.90) |
| Change in odds of receiving a test for every one-year increase in age, for individuals over 17 (odds ratio) | 0.96 (0.24-3.86) |
| Ratio of testing rates among male vs female | 1 (0.25-4) | (Calibrated) |
|  | | |
| **Engagement** (Annual probability of starting ART) | | |
| Female, 2015 | 0.32 (0.08-1) | AIDSinfo2 |
| Yearly change in odds of starting ART prior to universal ART, 2016 (odds ratio) | 1.34 (0.34-5.36) |  |
| Yearly change in odds of starting ART during rollout of universal ART, 2016-2017 (odds ratio) | 1.68 (0.42-6.70) |
| Yearly change in odds of starting ART after initial rollout of universal ART, 2017 (odds ratio) | 1.12 (0.28-4.49) |
| Ratio of engagement rates among male vs female | 1 (0.25-4) | (Calibrated) |
|  | | |
| **Disengagement** (Annual probability of stopping ART)*c* | | |
| Among suppressed | 0.098 (0.026-0.329) | Lee et al25 |
| Among unsuppressed | 0.13 (0.035-0.418) | Lee et al25 |
|  | | |
| **Suppression** (average time to suppression, years)*d* | | |
| in 1993 | 1.49 (0.38-5.78) | Njuguna et al26 |
| in/after 2003 | 1.49 (0.38-5.78) | Njuguna et al26 |
| Ratio of suppression rates among male vs female | 1 (0.25-4) | (Calibrated) |
|  | | |
| **Viral** **rebound** (average time to loss of suppression, years) | | |
| All years | 5.07 (1.3-19.7) | Maina et al27 |

*a* Select parameters only; see **Table S1** for full parameterization of all parameter values

*b* A composite of number of sexual encounters and rate of transmission per encounter.

*c* Same for all ages and sexes; constant over time

*d* Same for all ages

**Abbreviations:** Kenya Demographic and Health Survey (KDHS); antiretroviral therapy (ART)

**Relevant References (See full text for full reference list):**

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