**Appendix B.**

**Calibration of East Africa HIV Simulation Model.**

***Calibration***

We pre-specified three calibration criteria in order to evaluate whether the model’s predictions were compatible with observed results: HIV prevalence (Figure B1), people living with HIV (Figure B2), and AIDS-related mortality (Figure B3). We compared data from the most recent year available (2007), as well as time trends over the longest period of time (1997-2007) over which East Africa data were available for all three criteria [1]. Two parameters were varied during calibration: a multiplier on the probability of sexual transmission of HIV and a multiplier on HIV mortality. These inputs and other model inputs are listed in Table 1 of the main manuscript.

Figure B1. Model calibration of HIV prevalence over time. The dotted line shows model projections and the solid line shows estimated HIV prevalence from published literature [1]. The long dashed line shows a high estimate and the short dashed line shows a low estimate from the literature [1].

Figure B2. Model calibration of people living with HIV (PLWHIV) over time. The dotted line shows model projections and the solid line shows the estimated number of PLWHIV from published literature [1]. The long dashed line shows a high estimate and the short dashed line shows a low estimate from the literature [1].

Figure B3. Model calibration of HIV-related deaths over time. The dotted line shows model projections and the solid line shows estimated HIV-related deaths from published literature [1]. The long dashed line shows a high estimate and the short dashed line shows a low estimate from the literature [1].

**Reference**

[1]. WHO. Epidemiological Fact Sheet on HIV and AIDS, Uganda. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. 2008.