**Optima HIV model minimum data requirements**

**DATABOOK**

Values to be entered in the Excel spreadsheet downloaded from a newly created project from the online Optima HIV tool (<hiv.ocds.com>).

For each year from 2000 (or project start year) to latest available year where values available.

For each population at least one estimate value for one year or an assumption value is required for the following indicators grouped by sheet:

* Population size
* HIV prevalence
* Other epidemiology
  + Percentage of people who die from non-HIV-related causes per year
  + Prevalence of any ulcerative STIs
  + Tuberculosis prevalence
* Testing & treatment
  + Percentage of population tested for HIV in the last 12 months
  + Probability of a person with CD4 <200 being tested per year
  + Number of people on treatment
  + Percentage of people covered by pre-exposure prophylaxis
  + Number of women on PMTCT (Option B/B+)
  + Birth rate (births per woman per year)
  + Percentage of HIV-positive women who breastfeed
* *Optional indicators (not mandatory)*
  + Number of HIV tests per year
  + Number of HIV diagnoses per year
  + Modeled estimate of new HIV infections per year
  + Modeled estimate of HIV prevalence
  + Modeled estimate of number of PLHIV
  + Number of HIV-related deaths
  + Number of people initiating ART each year
  + PLHIV aware of their status (%)
  + Diagnosed PLHIV in care (%)
  + PLHIV in care on treatment (%)
  + Pregnant women on PMTCT (%)
  + People on ART with viral suppression (%)
* Cascade *(not mandatory but highly recommended)*
  + Average time taken to be linked to care (years)
  + Average time taken to be linked to care for people with CD4<200 (years)
  + Percentage of people in care who are lost to follow-up per year (%/year)
  + Percentage of people with CD4<200 lost to follow-up (%/year)
  + Viral load monitoring (number/year)
  + Proportion of those with VL failure who are provided with effective adherence support or a successful new regimen (%/year)
  + Treatment failure rate (%/year)
* Sexual behavior
  + Average number of acts with regular partners per person per year
  + Average number of acts with casual partners per person per year
  + Average number of acts with commercial partners per person per year
  + Percentage of people who used a condom at last act with regular partners
  + Percentage of people who used a condom at last act with casual partners
  + Percentage of people who used a condom at last act with commercial partners
  + Percentage of males who have been circumcised
* Injecting behavior
  + Average number of injections per person per year
  + Average percentage of people who receptively shared a needle/syringe at last injection
  + Number of people who inject drugs who are on opiate substitution therapy
* Partnerships & transitions
  + Interactions between regular partners
  + Interactions between casual partners
  + Interactions between commercial partners
  + Interactions between people who inject drugs
  + Births
  + Aging
  + Risk-related population transitions (average number of years before movement)
* Constants: no changes required unless updating with context specific values

**HIV PROGRAMS**

Values to be entered in respective project within the online Optima HIV tool (<hiv.ocds.com>)

For each year from 2010 to most recent year for which data are available.

For each program, intervention, or modality, it is recommended to enter both spending and coverage from the same year for at least one year, preferably the most recent year for which data are available:

* Cost functions
  + Saturation: range
  + Unit cost: range
  + Spending
  + Coverage
* Outcome functions: by parameter influenced by population group or population interacting pair
  + Outcome in the absence of any programs (listed) targeting this parameter
  + Outcome value for maximum attainable coverage of each program acting in isolation