**Locations**

*Describes modeled locations*

* code – a unique alphanumeric code
* name – a short text descriptive name
* type – the type of location. For now, we are only using “MSA” (metropolitan statistical area)

\*code is a unique identifier for the table

**Strata**

*Maps strata of age, sex, race, risk factor to a single integer code*

* age – the text description of the age bracket.
* race – the text description of the race
* sex – the text description of biological sex (male or female)
* risk – the text description of HIV acquisition risk factor (“msm”, “idu”, “msm\_idu”, or “heterosexual”)
* stratum – an integer code used to represent this stratum in other tables

**Interventions**

*Describes the scenarios for interventions (including no intervention) that govern simulations*

* id – a unique numeric id
* name – a short text description of the intervention scenario
* target\_population – a text description of what population is being intervened upon
* suppressed\_proportion – a proportion on the interval [0,1] denoting the proportion of the target population with HIV that is suppressed during the intervention time frame
* prep\_coverage – a proportion on the interval [0,1] denoting the proportion of the target population without HIV that is prescribed and adherent to PrEP during the intervention time frame
* testing\_frequency – a number on the interval [0, Inf) denoting the average number of times HIV-negative individuals in the target population are screened for HIV yearly
* begin\_implementation\_year – when the intervention starts to be implemented
* implementation\_complete\_year – when the intervention is fully implemented
* end\_year – when the intervention ends

\*id is a unique identifier for the table

\*id=0 with the name “base” is always used to represent pre-intervention simulated data

**Simulations**

*Contains simulated data from model runs*

* intervention\_id – links to interventions in the Interventions table
* location\_code – the alphanumeric code linking to locations within the Locations table
* data\_type – the text type of epidemiological data. For now, possibilities are “HIV\_Mortality”, “Incidence”, “New\_Diagnoses”, “Percent\_Diagnosed”, “Prevalence”
* year – the year of the data point
* stratum – the code which maps to a stratum of age x race x sex x risk factor (using the strata table)
* simulation – a numeric indicator of separate simulations. Note that this identifier is only unique within strata of intervention\_id x location\_code (ie, separate interventions and separate locations will repeat the simulation indicator. However, within a given location, simulation 1 from one intervention corresponds to simulation 1 from any other intervention; likewise for simulation 2, 3, etc)
* value – the numeric value of the simulated data point

**Summarized\_Simulations**

*Contains summary statistics for simulated data from model runs*

* intervention\_id – links to interventions in the Interventions table
* location\_code – the alphanumeric code linking to locations within the Locations table
* data\_type – the text type of epidemiological data. For now, possibilities are “HIV\_Mortality”, “Incidence”, “New\_Diagnoses”, “Percent\_Diagnosed”, “Prevalence”
* year – the year of the data point
* stratum – the code which maps to a stratum of age x race x sex x risk factor (using the strata table)
* statistic – the text description of the summary statistic. At this point, the possible values are: “mean”, “median”, “interval\_lower\_95”, “interval\_upper\_95”, “interval\_lower\_50”, and “interval\_upper\_50”
* value – the value of the statistic

**Epi\_Data**

*Contains epidemiological data collected by the CDC or other public health agencies*

* location\_code – the alphanumeric code linking to locations within the Locations table
* data\_type – the text type of epidemiological data. For now, possibilities are “HIV\_Mortality”, “Incidence”, “New\_Diagnoses”, “Percent\_Diagnosed”, “Prevalence”
* year – the year of the data point
* stratum – the code which maps to a stratum of age x race x sex x risk factor (using the strata table)
* value – the numeric value of the simulated data point
* source – the public health agency from which the data derives. For now, just using “CDC”