**Model description**

**Population and settings:**

General population with 2 subgroups: UK born and Non-UK born individuals.

**Entities, state variables and scales**

Entities: Individuals

Each individual is characterised by demographic related attributes.

Demographic attributes include: Age; sex; time of entry into setting (Homeless/General population); ethnicity; country of birth.

Infection related attributes: None

Attributes related to TB include: None

To run code on desktop:

(a). single run: “./maketb” then “./Main\_desktop.exe”

Note on a mac this is “ source maketb’ then “./Main\_desktop”

(b). multiple runs using multicores: “./maketb” then “python runsimulations\_mpi4py\_multiprocessing.py”

Model simulation results can either be written to screen or directly into output summary files.

If multiple runs are done using the python file then a summary of the simulations is done and saved in 'mean\_valiables\_base.csv'. Individual simulation results are in stored in summary1xx.txt.

Results can plotted using “createplotres.py”