1. Data processing/access

*Current process:* manually download data in Excel format and save in CPOP folders. Carry out bespoke analysis within each Excel workbook to calculate each indicator.

*Improvements/Alternative process:*

-Gather CPOP data from online sources using APIs

-Data tidying/manipulation in R to calculate indicators and calculate 3 year averages etc.

-We could revisit some of the methodology for calculating the indicators to make it less complex

2. Refresh the data in the app

*Current process:* save each of the indicators in 3 Excel spreadsheets (one for CPP, one for IGZ, one for DZ). Run multiple R codes, which tidies and formats all of this data to be used in the app e.g. calculating deciles, typology group scores, generate tables, calculate Duncan Index. Some of this code requires R to be restarted due to loading plyr after dplyr.

*Improvements/Alternative process:*

-Use R to prepare a single dataset with all indicators

-Remove plyr where possible and only use dplyr/tidyverse

-Possibly combine data tidying code into fewer files

-For Duncan index data prep could be done in R (currently Excel)

3. Tidy current code – both the data preparation code and the CPOP app itself

*Current process:* all of the code is quite messy and doesn’t conform to any stylesheet.

*Improvements/Alternative process:*

-Reformat to follow style sheet

-Commenting properly to improve readability

4. Improving the performance of the CPOP

*Current process:* there could be some scope to improve the speed of the app and longevity.

*Improvements/Alternative process:*

-Look for some newer packages/ replace any deprecated functions or code

-Use renv package to ensure that it doesn’t break when packages are updated.

-Could we improve the appearance of some parts, maybe using css?

-Could we improve the performance?