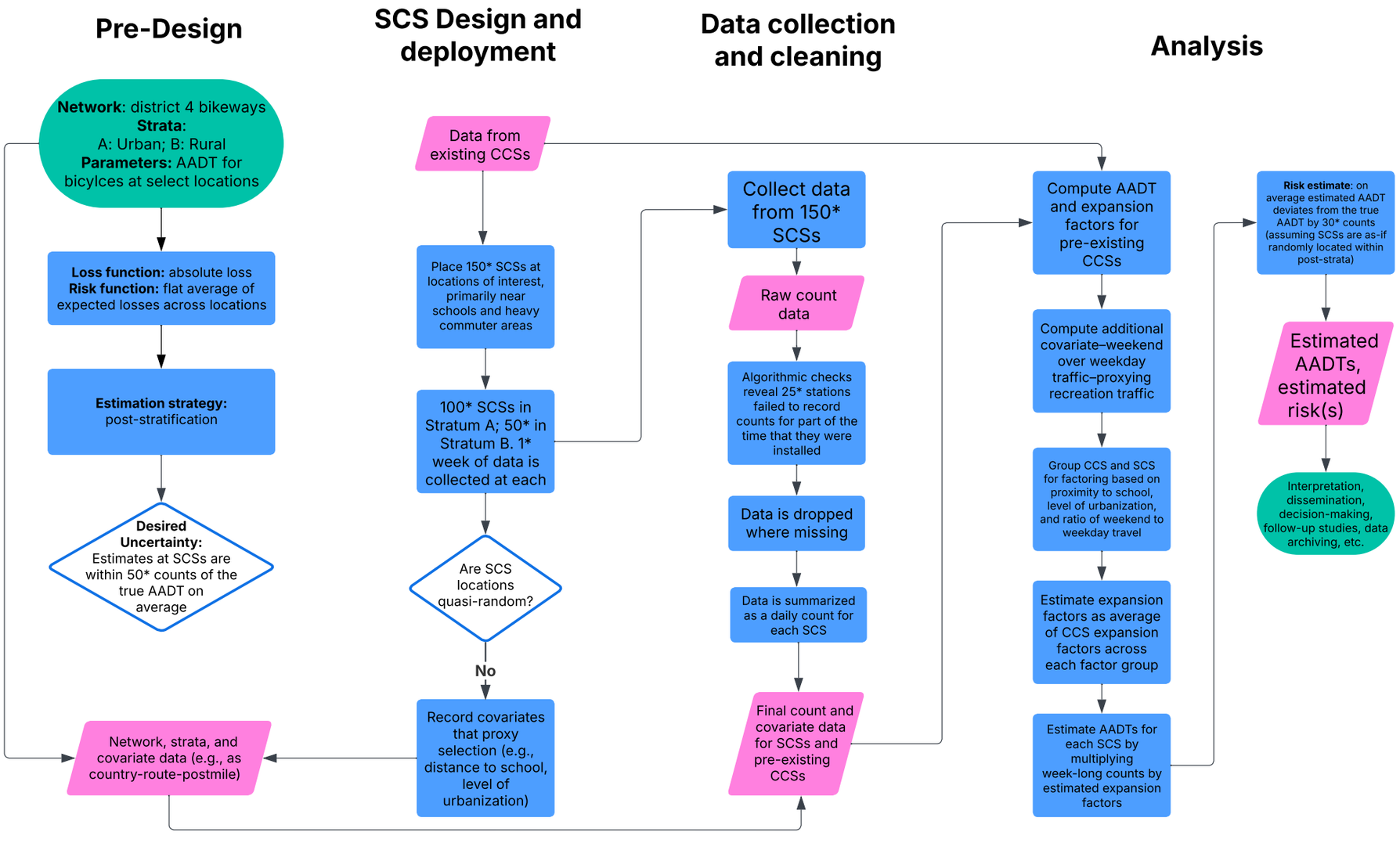

Flowchart 2: An example of a high level workflow to define, design, and estimate AADTs at specific locations across two strata where SCSs will be placed. This example assumes previously collected data from representative (i.e. randomly located) CCSs is available in each stratum. SCSs are placed deliberately at locations of interest–primarily near schools and in high commuter areas. Because the mechanism used to select SCS sites is different from the random selection used to place CCSs, some adjustment for the covariates influencing SCS site selection is required. For instance, expansion factors for SCSs near schools should be estimated from CCSs near schools, not from all CCSs in the stratum. Some covariates (e.g. proximity to school) might be known before the SCS counts are in; some covariates (e.g., proportion of weekly traffic on the weekend) are only available after the SCS counts are observed. Post-stratification is then used to adjust for the bias in the selection of SCS sites. The desired level of uncertainty may or may not be attained, since the precision in estimating each SCS depends on the underlying heterogeneity in AADTs across locations and the number of previously placed CCSs, neither of which is under the control of the agency in this workflow. Reducing uncertainty requires either placing more CCSs at the design stage or changing the estimation strategy at the analysis stage. Note that this workflow demonstrates AADT estimation at one time point.

*: Numbers are only placeholders. *All* particulars (numbers, strata, estimation strategy, etc) are defined only for illustration: they are not intended to be realistic and are not recommendations. In practice, the agency must choose, derive, measure, and/or estimate the corresponding particulars in each case.