

Following is a response from DHS Lead Statistician, Ruilin Ren:

I do not know your purpose of study, and why it is necessary to put all the data together. When you put the different surveys together, you need to adjust the survey weights, even if the surveys were from the same country, because the sampling fraction, the response rates vary from survey to survey and the sampling weights are normalized weights. See below for detailed explanations.

1. Firstly, the 2013-2014 survey was based on 2002 census. 2015-2016 surveys were based on 2013 census. The 2017 survey was based on an updated frame from 2013 census. We have combined data for 2013 and 2014, 2015 and 2016, it is better to use the combined data because the combined weights are calculated and provided in the data set. The 2017 survey was a stand alone survey. These different survey cycles differ on the urban-rural definition.
2. The weights must be adjusted if combining datasets from different surveys. You may find the weight adjustment topics on the DHS data user forum because this is a frequently asked question.
3. The PSU number is unique within survey cycle, but not unique across survey cycles, see my point #1 for the survey cycles.
4. As for sampling stratum, it can be coded in v022 or v023, but you can always use v024 cross v025 to have the sampling stratum
5. The urban-rural changes from different survey circles , they differ on the ground, some places were defined as rural in the previous survey and changed to urban in a subsequent survey, but the number of codes stay the same because it is urban-rural crosses regions. The number of stratum codes does not reflect the urban-rural definition change.
6. The number of regions (14) in Senegal have not been changed since 2013, so the number of stratum should be the same from 2013, it should have 28 codes because it is region (14) crosses urban-rural (2).