

Brief description about the 'DesatsLong.sas7bdat' SAS® dataset:

The 'DesatsLong.sas7bdat' SAS® dataset is a repeated measures (longitudinal) data. This dataset contains information on 76 distinct subjects where each subject is observed continuously for 84 days to record their number of desaturation episodes.

Codebook for the 'DesatsLong.sas7bdat' SAS® dataset:

ID = Unique Subject Identifier

Day = 'Day' represents day (a numeric value) of the 84 days each subject is observed.

NumDesat = 'NumDesat' represents the number of desaturation episodes corresponding to each day. If the number of desaturation episodes is not observed on any day a '.' Is used to indicate that it is missing.

The Biostatistician working on this project requires the 'DesatsLong.sas7bdat' SAS® dataset be further simplified into the following longitudinal structure:

ID Week NumDays SumOfDesats AvgDesats

Codebook for the simplied SAS® dataset:

ID = Unique Subject Identifier

Week = 'Week' represents which week it is (a numeric value) when classifying the 84 days into several weeks.

NumDays = 'NumDays' represents the number of days corresponding to each week where the desaturation episodes were measured (and not missing).

SumOfDesats = 'SumOfDesats' represents the total number of desaturation episodes corresponding to each week.

AvgDesats = 'AvgDesats' represents the average number of desaturation episodes corresponding to each week.

The Biostatistician reached out to you(a SAS $^{\circ}$ programmer) to write SAS $^{\circ}$ code that creates the simplified SAS $^{\circ}$ dataset of interest .

So,

a. Develop your logic for necessary data management to create the simplified dataset of interest. Write SAS® code to implement the logic you developed.