

MrOS Data: Overview

This file provides a general overview of the released MrOS data, as well as the documentation.

Most datasets and documentation can be found on MrOS Online:

<https://mrosdata.sfcc-cpmc.net/>

or via a request through the AgingResearchBiobank:

<https://agingresearchbiobank.nia.nih.gov/studies/mros/>

Where to begin ...

It is recommended that anyone planning to complete a MrOS analysis review the following documentation, at a minimum:

- Overview Documentation (this document)
- MrOS Data Sets List
- MrOS General Documentation List
- Changes_MMMYY (lists changes to the data since the last release, where MMM is the month and YY is the year of the release)
- MrOS Publications Guidelines
- Analyst guide for visit measures (MrOSVisit_Information.pdf)
- Other analyst guides and information files specific to the data set(s) that will be Analyzed (i.e V1_Information.pdf or V3_Information.pdf)

The information files for the data sets may be particularly helpful in answering questions and orienting the analyst to the data.

General Description of MrOS Datasets

Datasets are sorted by the visit from which the data is associated. There are several MrOS visits and several datasets associated with each visit. For example, there are many datasets from the baseline clinic visit such as V1 (baseline SAQ and most clinic measures), B1 (baseline DXA data), M1 (baseline medication data), and U1 (baseline ultrasound data). There are also several datasets from MrOS ancillary studies that utilized samples or images from the baseline datasets such as AS1 (baseline biochemical assays), BM1 (baseline markers of bone turnover) and OH1 (baseline vitamin d and PTH measures). Likewise, there are many datasets associated with the third clinic visit such as V3 (Visit 3 SAQ and most clinic measures), B3 (visit 3 DXA data) and M3 visit 3 medication data). There is also a dataset from an ancillary study that utilized Visit 3 samples: IR3 (visit 3 iron measures).

All datasets names include a 1 or 2 letter category code, a one or two letter/number visit code and the date the dataset was last updated. For example, the dataset V1FEB12 is the baseline SAQ and most clinic measures dataset where V indicates visit data, 1 indicates baseline and FEB12 indicates the data was last updated at the February 2012 data release. Likewise OH1AUG12 is the baseline vitamin D and PTH data where OH indicates vitamin D, 1 indicates baseline and AUG12 indicates the data was last updated in August 2012. OHDFEB12 is the first Dental Visit data where OH indicates vitamin D, D indicates dental and FEB12 indicates data was last updated in February 2012.

The visit codes for naming MrOS datasets are as follows:

- 1=Baseline
- 2=Visit 2
- 3=Visit 3
- I= Interim questionnaire
- I2= Interim questionnaire
- D=Dental
- D2=Dental visit 2
- S=Sleep
- S2=Sleep Visit 2
- 4=Visit 4
- 4R=Visit 4 Repeat

The data included in the release is similar to, but not exactly, a "long-skinny" format. The same variable name is used at subsequent visits when it refers to the same question. For example, average height is calculated in the same manner at baseline and follow-up visits. Therefore the variable HWHGT is included in the baseline data set and follow-up visit data sets. To successfully merge the data, one must rename the variable HWHGT in one of the data sets prior to merging.

As an example, the following SAS code will successfully merge the baseline and dental visit 1 data sets and keep the variables separate:

```
*RENAME THE COMMONLY NAMED VARIABLE;
DATA TEMPV1 (KEEP=ID HWHGT RENAME=(HWHGT=HWHGTV1) );
SET V1FEB12;
RUN;

*MERGE THE DATA SETS;
DATA MERGED;
MERGE TEMPV1 VDAUG11;
BY ID;
RUN;
```

This data set will include both the HWHGTV1 (average height at baseline) and HWHGT (average height at dental exam).

Formats

The formats applied to the variables in the data sets are listed in the MrOS_Formats.pdf file.

To determine the format assigned to a certain variable, locate the variable in the PROC CONTENTS and find its format in the 'Format' column.

The format library you use will depend on the type of SAS system you are running. We release format libraries for 64-bit systems only (The SAS file Formats.sas7bdat). The format library can be downloaded on MrOS Online. For MrOS Online: go to Data and Documentation, General Documentation files, and download the formats.zip file.

SAS users who are unfamiliar with format libraries may have difficulty importing MrOS datasets into SAS. To import an MrOS dataset, the SAS user must first submit a libname statement that specifies the location of the format library. The following code will do this:

```
LIBNAME LIBRARY "C:\MYDATA\DATA\MROS\FORMATS";
```

This code assumes that the MrOS format library is located in the folder C:\MYDATA\DATA\MROS\FORMATS. The format library can be anywhere - it could be in any folder on your computer. However, the path to that folder must be specified in this libname statement. Additionally, this libname statement must use the word library, otherwise SAS will not know that the user is pointing to a format library location.

If the user is still having problems with formats for MrOS, a temporary solution would be to include the following code:

```
options nofmterr;
```

This option allows the user to import a data set even if there are problems with a format library. The underlying issue with format assignment has not been resolved, but this would allow the user to import the data.

For users who are working on 32 bit systems, and not on 64 bit systems, you will need to convert the 64 bit library that we release to a 32 bit version compatible with your system. Additional details on how to do this can be found in the formats_information.pdf file, also available to download on MrOS Online.

Cleaning Code

The cleaning code is segmented into many different files, and can be used to determine how calculated variables were created. Please refer to the link on “Datasets Available to Download” for a list of the cleaning code provided on this release.

Annotated Forms

The annotated forms for SAQ and clinic visits are listed in the annotated forms folder under documentation directory. Please refer to the link on “Datasets Available to Download” for a list of the annotated forms provided on this release.

Analysis Plans and Publications

The MrOS Publications Guidelines and Analysis Plan submission form are included on this release. For an updated list of all MrOS analysis plans, please see the analysis plan database on the MrOS web site.

Please note that all MrOS analyses must be approved by the MrOS Publications Committee before any analyses can begin. All resulting abstracts, posters, presentations and manuscripts must also be approved by the MrOS Publications Committee as described by the MrOS Publications Guidelines.

Logos and Sample Presentations

The MrOS Logos and a sample MrOS PowerPoint presentation are provided for use in creation of MrOS posters and presentations.