

## **Documents for the NHANES III MULTIPLY IMPUTED DATA SET**

### **A. Primary Documentation Files and SAS programs**

The primary reference document for the NHANES III Multiply Imputed Data Set is:

- Third National Health and Nutrition Examination Survey (NHANES III, 1988-1994): Multiply Imputed Data Set User's Guide.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/miuserguide.pdf>)

The User's Guide reviews the history and goals of the NHANES III multiple imputation research project, describes variables and naming conventions, and provides a brief summary of analytic guidelines.

The NHANES III Multiply Imputed Data Set consists of five ASCII data files with SAS programs and supporting documentation. The ASCII data files are named CORE.DAT and IMP $x$ .DAT for  $x = 1, \dots, 5$ . To view the individual documentation files for these data files, follow the links below:

- documentation file for CORE.DAT;
- documentation file for IMP1.DAT;
- documentation file for IMP2.DAT;
- documentation file for IMP3.DAT;
- documentation file for IMP4.DAT;
- documentation file for IMP5.DAT.

SAS input statements for converting the ASCII data files into SAS data sets:

- CORE.SAS, the input statements for CORE.DAT;
- IMP1.SAS, the input statements for IMP1.DAT;
- IMP2.SAS, the input statements for IMP2.DAT;
- IMP3.SAS, the input statements for IMP3.DAT;
- IMP4.SAS, the input statements for IMP4.DAT;
- IMP5.SAS, the input statements for IMP5.DAT.

After executing the input statements, one should then run:

- NH3MI.SAS, a SAS program for merging the CORE data set with IMP $x$ .DAT ( $x = 1, \dots, 5$ ).

## **B. Technical Reports**

This CD-ROM contains two technical reports giving detailed information on the NHANES III Multiply Imputed Data Set:

- Schafer, J.L. (2001a) Multiple imputation models and procedures for NHANES III.; (<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mimodels.pdf>)
- Schafer, J.L. (2001b) Analyzing the NHANES III Multiply Imputed Data Set: Methods and examples. (<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/analyzing.pdf>)

Example analysis programs in SAS and SAS-callable SUDAAN included on this CD-ROM in the folder named “Program Examples”:

- MI Analysis Example A ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi\\_example\\_a.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi_example_a.sas))
- MI Analysis Example B ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi\\_example\\_b.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi_example_b.sas))
- MI Analysis Example C ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi\\_example\\_c.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi_example_c.sas))
- MI Analysis Example D ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi\\_example\\_d.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/mi_example_d.sas))
- Conventional Analysis Example A ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/conventional\\_a.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/conventional_a.sas))
- Conventional Analysis Example D ([https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/conventional\\_d.sas](https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/conventional_d.sas))

### C. Earlier Publications

Additional material on the NHANES III multiple imputation research project is provided in the following reports and articles, which are reproduced by permission:

- Little, R.J.A. and Rubin, D.B. (1992) Assessment of Trial Imputations for NHANES III. Waban, MA: Datametrics Research, Inc.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/datametrics.pdf>)
- Ezzati-Rice, T.M., Fahimi, M., Judkins, D. and Khare, M. (1993) Serial Imputation of NHANES III with Mixed Regression and Hot-Deck Techniques. Proceedings of the Survey Research Methods Section of the American Statistical Association, 1:292-296. Alexandria, VA: American Statistical Association.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/jsm93c.pdf>)
- Ezzati-Rice, T.M., Khare, M., Rubin, D.B., Little, R.J.A. and Schafer, J.L. (1993) A Comparison of Imputation Techniques in the Third National Health and Nutrition Examination Survey. Proceedings of the Survey Research Methods Section of the American Statistical Association, 1:303-308. Alexandria, VA: American Statistical Association.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/jsm93b.pdf>)
- Khare, M., Little, R.J.A., Rubin, B. and Schafer, J.L. (1993) Multiple Imputation of NHANES III. Proceedings of the Survey Research Methods Section of the American Statistical Association, 1:297-302. Alexandria, VA: American Statistical Association.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/jsm93a.pdf>)
- Schafer J.L., Khare, M. and Ezzati-Rice, T.M. (1993) Multiple imputation of missing data in NHANES III. Proceedings of the Annual Research Conference, 459-487. Washington, DC: Department of Commerce, Bureau of the Census.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/arc93.pdf>)
- Little, R.J.A., Ezzati-Rice, T.M., Johnson, W., Khare, M., Rubin, D.B. and Schafer, J.L. (1995) A simulation study to evaluate the performance of model-based multiple imputations in NCHS health examination surveys. Proceedings of the Annual Research Conference, 257-266. Washington, DC: Department of Commerce, Bureau of the Census.  
(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/arc95.pdf>)
- Schafer, J.L., Ezzati-Rice, T.M., Johnson, W., Khare, M., Little, R.J.A. and Rubin, D.B.

(1996) The NHANES III Multiple Imputation Project. Proceedings of the Survey Research Methods Section of the American Statistical Association, 1:28-37. Alexandria, VA: American Statistical Association.

(<https://wwwn.cdc.gov/Nchs/Data/Nhanes3/7a/doc/jsm96.pdf>)