



## *Linking the Nursing Home Minimum Data Set (MDS) with Other CMS Facility Data*

*The Research Data Assistance Center (ResDAC) is a CMS contractor that provides free assistance to academic and non-profit researchers interested in using Medicare and/or Medicaid data for their research. ResDAC is staffed by a consortium of epidemiologists, public health specialists, health services researchers, biostatisticians, and health informatics specialists from the University of Minnesota.*

Often, researchers are interested in linking the MDS assessment data with other CMS facility data such as the Provider of Services File (POS), Online Survey, Certification and Reporting (OSCAR), or the Nursing Home Compare Database.

The CMS MDS data received by the researcher contains two file types, the individual assessment data, and the MDS facility file. The MDS assessment data contains individual level assessment data and the facility file contains basic level institutional information about every facility represented in the assessment data. There are several 'facility' identifiers in both files. These include:

*TN-007  
April 2005  
Authors: Kelly Merriman, Barbara Frank*

1. Federal Medicare identification number [MCARE\_ID] found in the MDS facility file is submitted by the state, is standard for all facilities, and as a result, is considered more consistent and reliable information. It is as current as of the time the file was extracted for the researcher by CMS. So if a researcher requests MDS data for 1999-2003 generated in 2004, the Facility file will contain the Federal Medicare identification number [MCARE\_ID] as of 2004.
2. Facility Internal ID [FAC\_INT\_ID] found in both the MDS individual assessment and MDS facility files. It is a CMS system generated unique facility identifier that should be used in combination with STATE\_ID to create a unique facility number that can be used to link the two file types. This number does not change overtime.

The most appropriate variable to use to link the Nursing Home Minimum Data Set (MDS) with other CMS facility data depends on (1) when the MDS file was extracted by CMS and (2) when the other CMS facility data file (e.g., POS file) was created by CMS. Note, the provider number in the other CMS facility data file would be as current as the time the file was created.

For example, if the MDS data was extracted by CMS in 2004 and the goal is to link it with the 2004 POS file then it's suggested to use the Federal Medicare identification number [MCARE\_ID] in the facility file as the variable to merge the two datasets.

Note, this is not an exact science and there will most likely be discrepancies. Lastly, to link the individual MDS assessment data to the MDS facility file at the facility level, you will have to do the following:

1. From the MDS individual assessment variables use the following variables:  
Facility Internal ID [FAC\_INT\_ID] + State ID [STATE\_ID]
2. Link information obtained from #1 to the following MDS facility variables:  
Facility Internal ID [FACILITY\_INTERNAL\_ID] + State ID [STATE\_ID]
3. Once you have the link established, find the associated MCARE\_ID from the Facility file which can be linked to the Provider Number in the other CMS facility file (e.g., POS File).

If, however, older MDS data was extracted more recently and the goal is to link it with older, more historical data (e.g., information during the same time period), then either Federal Facility Provider Number [FAC\_MCARE\_NBR (AA6B)] in the MDS individual assessment data or the Federal Medicare identification number [MCARE\_ID] found in the MDS facility file could be used. For example, if 1999 MDS data was extracted in 2004, but the researcher wishes to link with 1999 POS file then FAC\_MCARE\_NBR (AA6B) may need to be used to identify the nursing facility in cases where that facility has since changed in 2004. To reiterate, the Federal Facility Provider Number [FAC\_MCARE\_NBR (AA6B)] found in the MDS individual assessment data is the facility number used at the time the assessment was completed, but is populated by the person completing the assessment, is not checked for accuracy, and may contain errors. In comparison, the Federal Medicare identification number [MCARE\_ID] found in the MDS facility file although consider more 'reliable' contains the provider number at the time CMS extracted the file which may have changed since the time period of the data. It's suggested that researcher try both methods to determine which results in the best match rate.

If you have any questions or comments, ResDAC staff can be contacted at 1-888-ResDAC or [resdac@umn.edu](mailto:resdac@umn.edu)

Internet Citation:

*Linking the Nursing Home Minimum Data Set (MDS) with Other CMS Facility Data*. Technical Brief, ResDAC Publication Number TN-007, April 2005. Research Data Assistance Center, University of Minnesota, Minneapolis, MN. <http://www.resdac.umn.edu>.

Technical Document authored by Kelly Merriman and Barbara Frank, ResDAC staff.

Copyright © 2008 Regents of the University of Minnesota. All Rights Reserved.

The analyses upon which this publication is based were performed under Contract Number 500-01-0043, entitled, "Research Data Assistance Center (ResDAC)", sponsored by CMS, Department of Health & Human Services.