Healthcare Cost and Utilization Project — HCUP

A FEDERAL-STATE-INDUSTRY PARTNERSHIP IN HEALTH DATA Sponsored by the Agency for Healthcare Research and Quality

USER GUIDE FOR THE

1993-2002 NIS SUPPLEMENTAL DISCHARGE-LEVEL FILES

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OVERVIEW

The NIS is available yearly, beginning with 1988, allowing analysis of trends over time. Analyses of time trends using the HCUP NIS are recommended from 1993 forward because earlier samples were drawn from only 8 to 11 States, covering less than 50 percent of the hospital discharge population. The HCUP National Inpatient Sample (NIS) was redesigned in 1998 and again in 2012 to improve national estimates. In order to facilitate analysis of trends using multiple years of NIS data, AHRQ has developed new trend weights for 1993-2011 that adjust for changes in the new 2012 NIS design. For trends analysis spanning 2012 and earlier NIS data, the new NIS trend weights should be used prior to 2012 data to make estimates comparable to the new 2012 NIS design. Refer to <u>1993-2011 NIS Trend Weights Files</u> on the <u>NIS Database Documentation</u> page on the HCUP User Support (<u>HCUP-US</u>) Web site, for details. The trend weights were developed for trends analysis, but they can be used for all analyses, as is done on the <u>HCUPnet</u> Web site.

The new trend weights replace the earlier NIS Trend Weights that were developed for the 1988-1997 NIS following the 1998 NIS redesign. The new trend weights are available in two types of files: a) new *hospital-level* Trend Weights Files for the 1993-2011 NIS; and b) updated Supplemental *Discharge-Level* Files for the 1993-2002 NIS. Both types of files contain the new trend weights that adjust for changes in the new 2012 NIS design. The main distinction between these two types of files is that the updated Supplemental *Discharge-Level* Files for the 1993-2002 NIS provide users with both the updated trend weights and additional data elements that were added for later data years of the NIS through 2002. However, the Supplemental *Discharge-Level* files are only needed and available through 2002 because those additional discharge-level variables are available in the original NIS files after 2002.

This User Guide provides guidance on how to use the updated 1993-2002 NIS Supplemental Discharge-Level Files available through the HCUP Central Distributor. The report <u>Using the HCUP Nationwide Inpatient Sample to Estimate Trends</u>¹, available on the HCUP-US Website under <u>Methods Series</u>, includes recommendations for trend analysis.

NIS SUPPLEMENTAL DISCHARGE-LEVEL FILES FOR TRENDS ANALYSES

There is one NIS Supplemental Discharge-Level File for each year from 1993 to 2002. The 1993-2002 NIS Supplemental Discharge-Level Files are appropriate for use in conjunction with the complete NIS data files that are available for purchase through the HCUP Central Distributor. The NIS Supplemental Discharge-Level Files contain additional variables that must be used with the original NIS files.

File Composition

Each NIS Supplemental Discharge-Level File contains the same number of records as the corresponding NIS Core file. The number of data elements in the yearly NIS Supplemental

¹ As of May, 2015, this report had not yet been updated for the new 2012 NIS design. However, the methods described in the report are still valid.

Discharge-Level Files varies by year. A description of the data elements is provided in a later section of this guide.

File Format

The NIS Supplemental Discharge-Level Files are available in fixed-width ASCII formatted files on a single DVD.

Linkage

The NIS Supplemental Discharge-Level Files are to be match-merged with the original NIS Core files using the appropriate record identifier (SEQ in the 1993-1997 files or KEY in the 1998-2002 files). An example SAS program to merge the NIS Supplemental Discharge-Level Files with the NIS Core Files is provided.

Obtaining the Data

The NIS Supplemental Discharge-Level Files are available at no charge through the HCUP Central Distributor to users who have already purchased the NIS. The files may be ordered online on the HCUP Central Distributor <u>ordering Web site</u>.

To reach the HCUP Central Distributor, please use one of the following contact channels: E-mail: <u>HCUPDistributor@ahrq.gov</u> Phone (toll free): (866) 556-4287 FAX: (866) 792-5313.

DATA ELEMENTS IN THE NIS SUPPLEMENTAL DISCHARGE-LEVEL FILES

The data elements in the 1993-2002 NIS Supplemental Discharge-Level Files consist of one of four types: new weights for national trends, renamed, recoded, and new data elements.

Weights for National Trends

The HCUP National Inpatient Sample (NIS) was redesigned in 1998 and again in 2012 data to improve national estimates. In order to facilitate analysis of trends using multiple years of NIS data, AHRQ developed new discharge trend weights for the 1993-2011 NIS. These weights adjust for changes in the 2012 NIS design and are designed to be used instead of the original NIS discharge weights for trends analysis. For trends analysis spanning 2012 and earlier NIS data, the new NIS trend weights should be used prior to 2012 data to make estimates comparable to the new 2012 NIS design. Refer to <u>1993-2011 NIS Trend Weights Files</u> on the <u>NIS Database Documentation</u> page on the HCUP User Support (<u>HCUP-US</u>) Web site, for details. The trend weights were developed for trends analysis, but they can be used for all analyses, as is done on the <u>HCUPnet</u> Web site.

The new 1993-2011 NIS Trend Weights replace the earlier NIS trend weights that were developed for the 1988-1997 NIS following the 1998 NIS redesign. The original 1988-2002 NIS Supplemental Discharge-Level Files contained the older trend weights. The updated 1993-2002 NIS Supplemental Discharge-Level Files contain the new trend weights. However, the Supplemental *Discharge-Level* files are only available through 2002, so the *hospital-level* Trend Weights Files are the only option for 2003-2011. The *hospital-level* Trend Weights Files are

available for download under <u>1993-2011 NIS Trend Weights Files</u> from the <u>NIS Database</u> <u>Documentation</u> page on the HCUP-US Web site. The report <u>Using the HCUP Nationwide</u> <u>Inpatient Sample to Estimate Trends</u>², available on the HCUP-US Website under <u>Methods</u> <u>Series</u>, includes recommendations for trend analysis.

Renamed Data Elements

In a few cases, a data element in earlier NIS data is identical to a variable in later NIS years, except that the variable name was changed. In these cases, the NIS Supplemental Discharge-Level File for the earlier years contains the renamed variable that corresponds to later years. For example, in the 1993-2000 NIS, the variable for the encrypted physician identifier for the attending physician was called MDID_S. Starting with the 2001 NIS, this exact information is stored in a variable called MDNUM1_S. The NIS Supplemental Discharge-Level Files for 1993-2000 include the information stored in MDID_S, but the variable is named MDNUM1_S.

Recoded Data Elements

Sometimes a data element in earlier NIS years is similar to a variable in later NIS years, but the coding scheme of the variable is different. In these cases, the NIS Supplemental Discharge-Level File for the earlier years contains the recoded variable that is consistent in name and coding to later years. For example, in the 1993-1997 NIS, the variable SEX includes information on the patient's gender. Starting in 1998, the variable FEMALE includes this same information but with a slightly different coding scheme. In the 1993-1997 NIS Supplemental Discharge-Level Files, the variable FEMALE is recoded from the variable SEX.

New Data Elements

The later years of the NIS contain data elements that were not included in earlier years. Because these data elements are of analytic use to researchers, the new variables are included in the NIS Supplemental Discharge-Level Files, when possible. For example, only the Clinical Classifications Software (CCS) for the principal diagnosis and procedure had been included in the original NIS files for 1993-1997. The CCS categories for secondary diagnoses and procedures are included in the 1993-1997 NIS Supplemental Discharge-Level Files because they were included in later years of the NIS.

Handling of Diagnoses

There are two major changes in how diagnoses are handled beginning with the 1998 and 2003 NIS. The data elements in the NIS Supplemental Discharge-Level Files present users with a consistent set of diagnostic information, corresponding to how diagnoses are handled in the later years.

Invalid and inconsistent diagnoses. Prior to 1998, invalid and inconsistent diagnoses are retained as reported in the diagnosis array (DXn) and a corresponding array of validity flags (DXV) indicates invalid or inconsistent codes. Beginning in the 1998 data, invalid and inconsistent diagnoses are masked and no validity flags are included in the NIS. Invalid diagnoses are set to "invl" and diagnoses inconsistent with the age or gender of the discharge

² As of May, 2015, this report had not yet been updated for the new 2012 NIS design. However, the methods described in the report are still valid.

are set to "incn." The 1993-1997 NIS Supplemental Discharge-Level Files include a diagnosis array in which invalid and inconsistent codes have been masked, just as they are in later years of the NIS.

The sample merge programs provided with the NIS Supplemental Discharge-Level Files rename the original diagnosis array (DXn) to (OLDDXn) to eliminate confusion. Users are advised to use the new, consistently coded diagnosis array in the NIS Supplemental Discharge-Level Files.

External cause of injury codes (E codes). Prior to 2003, E codes are included in the diagnosis array (DXn). Beginning in 2003, E codes are placed in a separate array (ECODEn). The 1993-2002 NIS Supplemental Discharge-Level Files include a diagnosis array (DXn) that excludes E codes and the first four E codes reported on the original record are in a separate array (ECODEn).

Handling of Procedures

The handling of invalid and inconsistent procedures changed in 1998. Prior to 1998, invalid and inconsistent procedures are retained as reported in the procedure array (PRn) and a corresponding array of validity flags (PRV) indicates invalid or inconsistent codes. Beginning in the 1998 data, invalid and inconsistent procedures are masked and no validity flags are included in the NIS. Invalid procedures are set to "invl" and procedures inconsistent with the age or gender of the discharge are set to "incn." The 1993-1997 NIS Supplemental Discharge-Level Files include a procedure array in which invalid and inconsistent codes have been masked, just as they are in later years of the NIS.

The sample merge programs provided with the NIS Supplemental Discharge-Level Files rename the original diagnosis array (PRn) to (OLDPRn) to eliminate confusion. Users are advised to use the new, consistently coded procedure array in the NIS Supplemental Discharge-Level Files.

Table 1 (on the following page) lists the data elements in the NIS Supplemental Discharge-Level Files. Documentation for these data elements is included in the NIS documentation on the HCUP User Support Website (<u>http://www.hcup-us.ahrq.gov/db/nation/nis/nisdde.jsp</u>). Specific information on how variables were recoded for the NIS Supplemental Discharge-Level Files is included in Appendix A.

		T	-				Ye		-		
		6	(in	dic			-	-	me	nt i	S
										NIS	
										file	
		1	1	1	1	1	1	1	2	2	2
		9	9	9	9	9	9	9	0	0	0
		9	9	9	9	9	9	9	0	0	0
		3	4	5	6	7	8	9	0	1	2
Linkage			-	-		-	-		-	-	_
SEQ	Used to link records in the						1	1			
	NIS Supplemental										
	Discharge-Level File to the	х	х	х	х	х					
	original 1993-1997 NIS.										
KEY	Used to link records in the										
	NIS Supplemental										
	Discharge-Level File to the						х	х	х	х	х
	original 1998-2002 NIS.										
Demographic											
AWEEKEND			х	x	х	x					
	(see Appendix A)	х	^	^	^	^					
DISPuniform	Recoded from DISP	x	x	x	x	x					
	(see Appendix A)	^	^	^	^	^					
ELECTIVE	Recoded from ATYPE	x	x	x	x	x	x	x	x	x	
	(see Appendix A)	^	^	^	^	^	^	^	^	^	
FEMALE	Recoded from SEX	x	x	x	х	x					
	(see Appendix A)		~	~	~						
ZIPINC_Qrtl	Added for 1997-2002 only ³	-				х	х	Х	Х	Х	Х
Diagnoses	E 4000 4007										
DX1-DX15	For 1993-1997:										
	- Set to "invl" if $DXV = 1$										
	- Set to "incn" if DXV = .C										
	For 1993-2002:	v	v	v	v	v	v	v	v	v	
	- Extracted E codes into	х	х	х	х	х	х	х	х	х	х
ECODE array											
-											
- Packed DX array to eliminate gaps											
NDX Recalculated to correspond											\square
	to updated DX array		х	х	х	х	х	х	х	х	х
DXCCS1	For 1993-1997:										\vdash
	- Renamed DCCHPR1										
	- Set to .A if $DXV1 = 1$										
	- Set to .C if $DXV1 = .C$	x	x	x	x	x	x	x	x	x	х
	For 1993-2002:										
	- Remove E code CCS						L				
·				•		•			•	•	

Table 1. Data Elements in the 1993-2002 NIS Supplemental Discharge-Level Files
--

 $[\]frac{1}{3}$ Because the data were not available, ZIPINC_Qrtl could not be added for earlier years of the NIS.

					D	ata	Ye	ar							
				dic					me	nt i	s				
		(x indicates data element included in that year's NI													
								-		file					
		1	1	1	1	1	1	1	2	2					
		9	9	9	9	9	9	9	0	0	0				
		9	9	9	9	9	9	9	0	0	0				
		3	4	5	6	7	8		0	1	2				
DXCCS2-	For 1993-1997:														
DXCCS15	- Assigned using CCS		х	х	х	х									
	software														
ECODE1-	Extracted from DX array.														
ECODE4	Only the first four	х	х	х	х	х	х	х	х	х	х				
	occurrences are retained.														
E_CCS1-	Assigned using CCS	v	v	v	X	X	v	v	×	×	v				
E_CCS4	software	X	х	х	х	х	х	х	х	х	х				
NECODE	Calculated for ECODE array	х	х	х	х	х	х	х	х	Х	Х				
Procedures	· · · · · · · · · · · · · · · · · · ·														
PR1-PR15	Set to "invl" if PRV = 1.	v	x	x	x	x									
	Set to "incn" if PRV = .C.	х	X	X	X	X									
PRCCS1	Renamed PCCHPR1														
	Set to .A if PRVn = 1 x Set to .C if PRVn = .C		х	x x	х	х									
PRCCS2-	Assign using CCS software	x	x	x	x	x									
PRCCS15		^	^	^	^	^									
Physician Ider															
MDNUM1_S	Renamed MDID_S	х	Х	Х	Х	Х	Х	Х	Х						
MDNUM2_S	Renamed SURGID_S	х	Х	Х	Х	Х	Х	Х	Х						
Hospital Strati															
HOSP_	Added to be consistent with														
BEDSIZE	1998 forward NIS definition	x	x	x x	x	x	x	x							
	that defines size within U.S.	^			^	^									
	Census region.														
HOSP_	Added to be consistent with														
CONTROL	1998 forward NIS definition	x	x	x x	(x	x	c								
	that includes collapsed														
	categories.	41.													
HOSP_	Added to be consistent with	x x													
LOCATION	1998 forward NIS naming			х	х	х									
	convention. Added to be consistent with														
HOSP_ LOCTEACH	1998 forward NIS definition.														
LUCTEACH	Definition of a teaching														
	•	v	v	v	v	v									
	hospital is broader than H_LOCTCH. More facilities	X	Х	X	х	Х									
	will be categorized as														
	teaching.														
HOSP_	Added to be consistent with	+													
REGION	1998 forward NIS naming	x	x	x	x	x									
	convention.														
convention.					I	I		Ī	I	I					

		ì	ncl	ude	ate ed i	s d n th	Ye ata nat lem	ele yea	ır's	NIS	S
		1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	1 9 9	2 0 0	2 0 0	2 0 0
HOSP_ TEACH Added to be consistent with 1998 forward NIS definition. Definition of a teaching hospital is broader than H_TCH. More facilities will be categorized as teaching.		3 x	4 x	5 x	6 x	7 X	8	9	0	1	2
Variables for V											
NIS_ STRATUM	Renamed STRATUM. Appropriate for use with trend discharge weight (TRENDWT)	x	x	x	x	x					
TOTAL_DISC	Renamed TOTDSCHG	х	х	Х	Х	х					
TRENDWT	Added to be consistent with NIS 2012 forward sample design. Use TRENDWT for any analysis spanning 2012 and earlier NIS data. The original discharge weights on the 1993-2002 NIS should be used only for a single year analysis.	x	x	x	x	x	x	x	x	x	×

HOW TO USE THE NIS SUPPLEMENTAL DISCHARGE-LEVEL FILES

The NIS Supplemental Discharge-Level Files were designed to be merged with the NIS Core files to produce a dataset containing the complete set of variables from both sources. The NIS Supplemental Discharge-Level Files DVD contains the NIS Supplemental Discharge-Level Files, documentation, load programs for SAS, SPSS, and Stata, and an example SAS program to merge the NIS Supplemental Discharge-Level Files DVD does not include the NIS Core Files. <u>The NIS Supplemental Discharge-Level Files DVD does not include the NIS Core files, which must be obtained separately from the HCUP Central Distributor.</u>

Contents of the NIS Supplemental Discharge-Level Files DVD

All years of the NIS Supplemental Discharge-Level Files are distributed on a single DVD. The DVD includes the directories described below in Table 2.

Directory	Contents
Root	User Guide for NIS Supplemental Discharge-Level Files – this
	document
/File Specifications	Text files containing specifications for each of the NIS Trends
	Supplemental files including the dataset name, number of
	observations, and record layout.
/Files	Fixed-width ASCII self-extracting compressed files for each year
	of the NIS Supplemental Discharge-Level Files.
/SAS Load Programs	SAS load programs for each year of the NIS Supplemental
	Discharge-Level Files. There is one program per year.
/SPSS Load Programs	SPSS load programs for each year of the NIS Supplemental
	Discharge-Level Files. There is one program per year.
/Stata Load Programs	Stata load programs for each year of the NIS Supplemental
	Discharge-Level Files. There is one program per year.
/Sample Merge	Example SAS program to merge the NIS Supplemental
Program	Discharge-Level Files with the NIS Core Files.

 Table 2. NIS Supplemental Discharge-Level Files DVD

The 1993-2002 NIS Supplemental Discharge-Level Files are described in table 3 below.

Year	File Name	ASCII File Size	Number of Variables	Number of Records
1993	NIS_1993_Supplemental.ASC	2.15 GB	86	6,538,976
1994	NIS_1994_Supplemental.ASC	2.10 GB	86	6,385,011
1995	NIS_1995_Supplemental.ASC	2.21 GB	86	6,714,935
1996	NIS_1996_Supplemental.ASC	2.15 GB	86	6,542,069
1997	NIS_1997_Supplemental.ASC	2.37 GB	87	7,148,420
1998	NIS_1998_Supplemental.ASC	1.43 GB	46	6,827,350
1999	NIS_1999_Supplemental.ASC	1.50 GB	46	7,198,929
2000	NIS_2000_Supplemental.ASC	1.63 GB	46	7,450,992
2001	NIS_2001_Supplemental.ASC	1.33 GB	44	7,452,727
2002	NIS_2002_Supplemental.ASC	1.39 GB	43	7,853,982

Table 3. NIS Supplemental Discharge-Level ASCII Files

Copying and Decompressing the ASCII Files

In order to load and analyze the NIS data on a computer, you will need the following:

- A DVD drive
- A hard drive with at least 15 gigabytes of space available for each year
- SAS[®], SPSS[®], Stata[®] or similar analysis software.

To copy and decompress the data from the DVD, follow these steps:

- 1) Create a directory for the NIS on your hard drive.
- 2) Copy the self-extracting data files from the DVD into the new directory.
- 3) To unzip each data file, run the corresponding *.exe file by typing the file name from a command prompt or by clicking on the name from within Windows Explorer.
- 4) Edit the name of the "Extract to Folder" in the Self-Extractor dialog to select the desired destination directory for the extracted file.
- 5) Click on the "OK" button, and if prompted, click "Yes" to create the folder.
- 6) You will be prompted to enter the encryption password (sent separately by email) to decrypt each file.
- 7) The ASCII data files will then be decrypted and uncompressed into this directory. After the files are uncompressed, the *.exe files can be deleted.

Downloading and Running the Load Programs

Programs to load the data into SAS, SPSS, or Stata, are available on the DVD and on the HCUP User Support Web site (HCUP-US). To download and run the load programs, follow these steps:

- 1) Go to the NIS Supplemental Discharge-Level Files page on HCUP-US at <u>https://www.hcup-us.ahrq.gov/db/nation/nis/nistrends2.jsp</u>.
- 2) Go to the "Load Programs" section on this page.

- 3) Click on "SAS Load Programs", "SPSS Load Programs", or "STATA Load Programs" to go to the corresponding Load Programs page.
- Select and download the load programs you need. The load programs are specific to the data year. Save the load programs into the same directory as the NIS ASCII files on your computer.
- 5) Edit and run the load programs as appropriate for your environment to load and save the analysis files. For example, add directory paths for the input and output files if needed.

Merge Instructions for SAS Users

Merging a NIS Supplemental Discharge-Level File with a NIS Core file requires five steps:

- **Step 1 Organize PC directories.** If using the supplied SAS programs to combine the NIS Supplemental Discharge-Level Files with the NIS Core files, the NIS Supplemental Discharge-Level SAS file and the Core file for a given year should be placed in the same directory. Place the provided SAS programs in a convenient directory.
- Step 2 SAS load the NIS Supplemental Discharge-Level Files. Use the provided SAS load programs to load the ASCII files into SAS format.
- Step 3 Modify SAS Merge program. Two SAS programs are provided:
 - NIS_Trends_Supplemental_Driver.sas is modified by the user, as described below, to indicate the appropriate year and the location of the input files.
 - NIS_Trends_Supplemental_Macro.sas is called by the driver program and should not be modified by the user.

The SAS program NIS_Trends_Supplemental_Driver.sas must be modified to reflect the appropriate year, directories, and file names. There are six macro variables that must be updated in order for the program to run without error:

Macro Variable Statement	Description	Allowable Values
%LET year_ =	Year to be processed	1993 to 2002
%LET corepath_ =	Directory on user's PC where the NIS Core file <i>and</i> the NIS Supplemental Discharge-Level SAS files are stored.	A valid PC directory path name such as c:\NIS.
%LET corename_ =	Name of the NIS Core file to be used.	The valid name of a SAS data file containing the NIS Core data. Do not specify the file extension or directory path.
%LET mrgpath_ =	Directory on user's PC where the merged output file will be stored.	A valid PC directory path name such as c:\NIS.
%LET mrgname_ =	Name of the output file created by the	Any valid file name, without directory path or file

Macro Variable Statement	Description	Allowable Values			
	program	extension			
%INCLUDE " <i>path/</i> NIS_Trends_Supplemental_Macro.sas"	Change <i>path</i> to the directory path of the supplied program, (usually the same location as the Driver program, but may be different, if desired).				

- **Step 4 Run the program**. Depending on CPU and disk subsystem speed, it may take five minutes or more to process each year of data.
- Step 5 Check the SAS log. The programs should run without errors. Some warnings are acceptable under certain circumstances (see below). It is important to insure that the NIS Supplemental Discharge-Level File and the NIS Core file have the same number of observations and that the number of observations is identical to the "Number of Records" listed in the table above.

A Note on NIS Core Files for 1993 to 1997

For most years, NIS Core files are a single file containing all required variables. However the 1993 to 1997 NIS are stored in multiple files (e.g. Core A, Core B, Dx, Pr, etc.) The provided SAS programs will accept only a single input Core file. Therefore, the user may wish to combine the separate files of the NIS Core before merging them with the NIS Supplemental Discharge-Level File. Alternately, it is possible to use the main Core file ("Core A") alone with the supplied programs. Reformatted diagnosis and procedure arrays will be added to the Core A file. If this approach is chosen, the user may notice warnings on the SAS log reading: "Not all variable names in the RENAME list ...were used". These warnings are not critical.

The Resulting SAS Output File

The file output by the SAS programs will contain all data elements from the NIS Core and all data elements from the NIS Trends Supplemental file. No data elements are deleted, but the original diagnosis and procedure arrays will be renamed. The data elements in the resulting SAS output file should agree with Appendix B, Resulting NIS Merged Files.

Merge Instructions for non-SAS Users

Merging a NIS Supplemental Discharge-Level File with a NIS Core file requires three main steps:

- **Step 1 Load the** NIS Supplemental Discharge-Level File **into the appropriate format.** SPSS users may utilize the provided SPSS load programs to convert the ASCII files into SPSS format. Stata users may utilize the provided Stata load programs to convert the ASCII files into Stata format.
- Step 2 Rename variables that will be overwritten. The diagnoses array (DX1-DX15) for 1993-2002 and the procedure array (PR1-PR15) for 1993-1997 will be replaced by the updated versions. If you want to retain the old versions, please rename DX1-DX15 to oldDX1-oldDX15 and NDX to oldNDX. Prior to 1998, also rename PR1-PR15 to oldPR1-oldPR15.

- Step 3 Merge the NIS Supplemental Discharge-Level File with the NIS Core File. The NIS Supplemental Discharge-Level Files are to be match-merged with the original NIS Core files using the appropriate record identifier. The merge key varies by data year:
 - o The data element SEQ should be used to match-merge the 1993-1997 files
 - The data element KEY should be used to match-merge the 1998-2002 files.

A Note on NIS Core Files for 1993 to 1997

For most years, NIS Core files are a single file containing all required variables. However the 1993 to 1997 NIS are stored in multiple files (e.g. Core A, Core B, Dx, Pr, etc.) Users may wish to combine the separate files of the NIS Core before merging them with the NIS Supplemental Discharge-Level File. Alternately, it is possible to merge the main Core file ("Core A") with the NIS Supplemental Discharge-Level File. Reformatted diagnosis and procedure arrays will be added to the Core A file.

The Resulting File

The file resulting from the match-merge will contain all of the data elements from the NIS Core and all of the data elements from the NIS Supplemental Discharge-Level File. No data elements are deleted. The data elements in the resulting file should agree with Appendix B, Resulting NIS Merged Files.

Appendix A. Recodes of Trends Variables

APPENDIX A. RECODES OF TRENDS VARIABLES

	ADAYWK	AWEEKEND						
Value	Description	Value	Description					
1	Sunday	1	Admission on Saturday-Sunday					
7	Saturday	I	Admission on Saturday-Sunday					
2	Monday							
3	Tuesday							
4	Wednesday	0 Admission on Mo	Admission on Monday-Friday					
5	Thursday							
6	Friday							
	Missing		Missing					
.B	Unavailable from source	•	Missing					
.Α	Invalid	.A	Invalid					

	DISP		DISPUNIFORM
Value	Description	Value	Description
1	Routine	1	Routine
2	Short-term hospital	2	Transfer to short term hospital
3	Skilled Nursing Facility (SNF)		Transfer Other: Includes Skilled
4	Intermediate Care Facility (ICF)	5	Nursing Facility (SNF), Intermediate Care Facility (ICF), Another Type of Facility
5	Another type of facility		Another Type of Tacility
6	Home Health Care (HHC)	6	Home Health Care (HHC)
7	Against medical advice (AMA)	7	Against medical advice (AMA)
20	Died	20	Died in hospital
	Missing		
.В	Unavailable from source (coded 1988-1997 data only)		Missing
.A	Invalid	.A	Invalid

	SEX	FEMALE				
Value	Description	Value	Description			
1	Male	0	Male			
2	Female	1	Female			
	Missing					
.В	Unavailable from source (coded in 1988-1997 data only)	-	Missing			
.A	Invalid	.A	Invalid			
.C	Inconsistent	.C	Inconsistent			

	ATYPE	ELECTIVE				
Value	Description	Value	Description			
1-2, 4-6	Non-elective	0	Non-elective			
3	Elective	1	Elective			
	Missing		Missing			
.Α	Invalid	.A	Invalid			

Appendix B. Resulting NIS Merged Files

APPENDIX B. RESULTING NIS MERGED FILES

The following table lists the data elements expected in the updated NIS Core file <u>after</u> the NIS Supplemental Discharge-Level File is merged with the original NIS Core file.

Data Element	Data Elements in the <u>updated</u> NIS Core File by Data Year (x indicates data element is included in that year's NIS Supplemental Discharge-Level File)										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
ADAYWK	Х	Х	Х	Х	Х		Not Available				
AGE	Х	х	Х	Х	Х	Х	Х	Х	Х	Х	
AGEDAY	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
AMONTH	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
ASOURCE	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
ASOURCE_X		No	t Availat	ole		Х	Х	Х	Х	Х	
ATYPE	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
AWEEKEND	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DCCHPR1	Х	Х	Х	Х	Х		No	ot Availa	ble		
DIED	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DISCWT		No	t Availat	ole		Х	Х	Х	Х	Х	
DISCWT_U	Х	Х	Х	Х	Х	Replaced by DISCWT					
DISCWTcharge			No	t Availat	ble	X Available					
DISP	Х	х	Х	Х	Х	Not Available					
DISPUB92		No	t Availat	ole		Х	x x x x x				
DISPUNIFORM	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DQTR	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DRG	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DRG10	Х	Х	Х	Х	Х	Х	X Not Available		ble		
DRG18		No	t Availat	ole						х	
DRGVER	Х	Х	Х	Х	Х					Х	
DSHOSPID	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DSNDX	Х	Х	Х	Х	Х	Not Available					
DSNPR	Х	х	Х	Х	Х	Not Available					
DSNUM	Х	х	Х	Х	Х	Not Available					
DSTYPE	Х	х	Х	Х	Х	Not Available					
DX1 - DX15	Х	х	Х	Х	Х	Х	Х	Х	Х	Х	
DXCCS1 - DXCCS15	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
DXSYS	Х	Х	Х	Х	Х		No	ot Availa	ble		
DXV1 - DXV15	Х	Х	Х	Х	Х		No	ot Availa	ble		
ECODE1 - ECODE4	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
ELECTIVE	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
E_CCS1 - E_CCS4	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
FEMALE	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	
HOSPID	X	Х	Х	Х	Х	Х	Х	Х	Х	X	
HOSPST	X	Х	Х	Х	Х	Х	X	Х	Х	Х	
HOSPSTCO	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	

Data Element	Data Elements in the <u>updated</u> NIS Core File by Data Year (x indicates data element is included in that year's NIS Supplemental Discharge-Level File)										
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
HOSP_BEDSIZE	X	X	X	X	X		On Hosp				
HOSP_CONTROL	х	Х	Х	Х	Х		On Hospital Weights File				
HOSP_LOCATION	х	Х	Х	Х	Х		On Hospital Weights File				
HOSP_LOCTEACH	х	Х	Х	Х	Х		On Hospital Weights File				
HOSP_REGION	Х	Х	Х	Х	Х	On Hospital Weights F			ghts File		
HOSP_TEACH	х	Х	Х	Х	Х	On Hospital Weights File					
KEY		N	ot Availa	ble		Х	X		X X X		
LOS	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
LOS X	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
MDC	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
MDC10	х	Х	Х	Х	Х	Х	Х	No	ot Availa	ble	
MDC18		N	ot Availa	ble		Х	Х	Х	Х	Х	
								Not			
MDID_S	X	X	X	X	X	X	X	X		ilable	
MDNUM1_S	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
MDNUM2_S	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
NDX	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	
NECODE	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
NEOMAT	Х	Х	Х	Х	Х	X Op W	X /eights	Х	Х	Х	
NIS_STRATUM	х	х	х	х	х		ile	X X X			
NPR	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
OLD_DX1 - OLD_DX15	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
OLD_DXCCS1-OLD_DXCCS15		N	ot Availa	ble		Х	Х	Х	Х	Х	
OLD_NDX	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
OLD_PR1 - OLD_PR15	Х	Х	Х	Х	Х		N	ot Availa	ble		
PAY1	х	Х	Х	Х	Х	Х				Х	
PAY1_N	х	Х	Х	Х	Х		N	ot Availa	ble		
PAY1_X		N	ot Availa	ble		Х	Х	Х	Х	Х	
PAY2	х	Х	Х	Х	Х	Х	Х			Х	
PAY2_N	Х	Х	Х	Х	Х		N	ot Availa	ble		
PAY2_X			ot Availa			Х	Х	Х	Х	Х	
PCCHPR1	х	Х	Х	Х	Х		N	ot Availa	ble		
PR1 - PR15	х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
PRCCS1 - PRCCS15	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
PRDAY1	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
PRDAY2 - PRDAY15			ot Availa	ble		Х	Х	Х	Х	Х	
PROCESS	Х	Х	Х	Х	Х		N	ot Availa	ble		
PRSYS	Х	Х	Х	Х	Х		Not Available				
PRV1 - PRV15	Х	Х	Х	Х	Х		N	ot Availa	ble		
RACE	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
SEQ	Х	Х	Х	Х	Х	Not Available					
SEQ_SID	Х	Х	Х	Х	Х			ot Availa			
SEX	X	X	X	X	X	Not Available					
SURGID_S	X	Х	Х	Х	Х	х	х	х	N	lot ilable	

Data Element	Data Elements in the <u>updated</u> NIS Core File by Data Year (x indicates data element is included in that year's NIS Supplemental Discharge-Level File)											
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002		
TOTAL_DISC	X X X X X On Hospital Weights File)		
TOTCHG	х	Х	Х	Х	Х					Х		
TOTCHG_X	х	х	Х	Х	х	Х	х	Х	Х	х		
YEAR	On Ho	х	х	х	х	х	х					
TRENDWT	х	Х	Х	Х	Х	Х	х	Х	Х	Х		
ZIPINC		Х	х	Х	Х	Х						
ZIPINC4	х	Х	Х	Х	Х	Not Available						
ZIPINC8	Х	X X X X X Not Available										
ZipInc_Qrtl		Х	Х	Х	Х	Х	Х					