

[Ynnnnnn.EDITS] – User File Edit Results

1. The *EDITS* file is only intended for you to view or print. Use the landscape print format. Each line contains 132 positions. Reduce the margin widths and/or font size if necessary. A *sample* of the edit results is shown in **Exhibit 4.**)

2. It is important that you review your User File Edit Results first to confirm that each of the data items you submitted met the NDI specifications and to determine if any of your records were rejected -- and why. The edit results will provide you with the following information:

- A listing of your rejected records with a reason for the rejection.
- The total number and percent of rejected records.
- Statistics on the overall completeness of each data item.
- Statistics on the accuracy of each data item; i.e., how many records contained data that were out of range.

3. The file(s) of records you submit for an NDI file search are first run against the NDI edit program to determine whether your file conforms to the NDI file format requirements and coding specifications described in Chapter 2. If your data file has significant problems, the data will be returned to you for revision and resubmission at no extra charge.

4. *User records rejected by the edit program are not eligible for an NDI search.* To be eligible for an NDI search, a record must contain *at least one* of the following combinations of data items:

- **FIRST** and **LAST NAME** and **SOCIAL SECURITY NUMBER**
- **FIRST** and **LAST NAME** and **MONTH** and **YEAR OF BIRTH**
- **SOCIAL SECURITY NUMBER** and **DATE OF BIRTH** and **SEX**

EXHIBIT 4: User File Edit Results (EDITS)

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL
NATIONAL CENTER FOR HEALTH STATISTICS

N A T I O N A L D E A T H I N D E X U S E R F I L E E D I T R E S U L T S

NDI APPLICATION NUMBER: Y50099N

SPECIAL NOTE: A STATISTICAL SUMMARY OF THE EDIT RESULTS
APPEARS ON THE LAST PAGE OF THIS REPORT.

CONTROL NUMBER	LAST NAME	FIRST NAME	M I	SSN	BIRTH DATE	FATHERS SURNAME	UNIT AGE	S R M X C S	SOB	SOB	PROGRAM	DATE	REASON FOR REJECTION: INVALID KEY FIELDS(*)
74521	DOE	JANE	B	*****	13331945			F 1 9 5		44		04/01/05	SSN BMO FSN
12547	DOE	JOHN		*****	1291930	DOE		M 2 1					SSN BYR
094560	JONES			2467	9999			M 2 2	45				SSN BYR BMO FNM FSN
12345	WASHINGTON			123456789	9999			F 3 9	11				BYR BMO FNM FSN
4567321C1	56357	KATHERINE		*****	01221918			F 1 9	99				SSN FNM FSN
987654321	WILLIAMS	MARK	G	*****	45121932			M 2 9	99				SSN BMO FSN
23456	ANDERSON	DAVID		*****	9999			M 1 9	99				SSN BYR BMO FNM FSN
6543210C1	*****	ROBERT		*****	09151936			M 4 9	22				SSN LNM FSN
567890	*****	*****		987654321	9999			M 1 1	48				BYR BMO LNM FNM FSN
000000123	ADAMS	SUZANNE		*****	9999			F 9	3	44			SSN BYR BMO FSN

(LIST IS LIMITED TO A MAXIMUM OF 250 RECORDS)

EXHIBIT 4: User File Edit Results (EDITS) (continued)

01/25/05

DATA ITEMS	"TOTAL" RECORDS EDITED			RECORDS REJECTED & LISTED		
	VALID DATA	INVALID/MISSING DATA	BLANK OR UNKNOWN	VALID DATA	INVALID/MISSING DATA	BLANK OR UNKNOWN
	NUMBER	PERCENT**	OUT OF RANGE	NUMBER	PERCENT**	OUT OF RANGE
LAST NAME	5720	99.95	1	7	70.00	1
FIRST NAME	5719	99.93	1	6	60.00	1
MIDDLE INITIAL	3285	57.40	0	2	20.00	0
SSN	3712	64.86	1	2	20.00	1
BIRTH MONTH	5713	99.83	2	4	40.00	1
BIRTH DAY	5712	99.81	0	3	30.00	1
BIRTH YEAR	5713	99.83	0	4	40.00	2
FATHERS SURNAME	136	2.38	0	1	10.00	1
AGE UNIT	0	0.00	0	1	10.00	0
NUMBER UNITS	0	0.00	0	0	0.00	0
SEX	5723	100.00	0	0	0.00	0
RACE	0	0.00	0	10	100.00	0
MARITAL STATUS	3674	64.20	0	9	90.00	0
STATE RESIDENCE	4541	79.35	1137	3	30.00	0
STATE BIRTH	0	0.00	0	4	40.00	2
				0	0.00	0

**DENOMINATOR = TOTAL RECORDS EDITED = 5723 0.17%

**DENOMINATOR = RECORDS REJECTED & LISTED = 10

RECORDS PASSED TO NDI RETRIEVAL = 5713

[Ynnnnnn.SUMMARY] – Summary Retrieval Statistics

The **SUMMARY** file is only intended for you to view or print. Use the **landscape** print format. Each line contains 132 positions. Reduce the margin widths and/or font size if necessary.

This file contains a two-page report (see **Exhibit 5**) that provides the following summary information about your NDI file search:

1. Your assigned NDI search number and the date of the search.
2. The year(s) of death that your records were searched against and the total number of **NDI records** searched.
3. The number of NDI RECORDS involved in *possible* record matches (i.e., satisfying any one of the seven NDI matching criteria). Also shown is the number of *possible* record matches that were EXACT matches (i.e., ALL items provided on the user record agreed exactly with the items on the matching NDI record).
4. The total number of **user records** you submitted, the number of your records involved in possible matches, the number of non-matching records, and the number of your records rejected by the NDI edit program.
5. The extent to which USER RECORDS were involved in **multiple** matches with NDI RECORDS (i.e., how many user records matched with only one NDI record, how many matched with two NDI records, ..., and how many user records matched with 11 or more NDI records). **NOTE:** Data on the number of multiple possible matches are only intended to show you how many possible matches can be generated by the NDI's liberal matching criteria. The matching criteria are designed to maximize the number of TRUE matches that are generated (listed) but require that you expend time and effort to carefully assess your NDI results to insure you only select the correct matches.
6. The number of NDI RECORDS involved in matches by state of death.

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES
 PUBLIC HEALTH SERVICE
 NATIONAL CENTER FOR HEALTH STATISTICS

NATIONAL DEATH INDEX
 RETRIEVAL REPORT (SUMMARY)

APRIL 1, 2005

NDI APPLICATION NUMBER: Y50098N

SUMMARY RETRIEVAL STATISTICS

RECORDS ON THE NATIONAL DEATH INDEX FILE:	REQUEST RECORDS SUBMITTED BY THE USER:	
YEAR(S) SEARCHED: 2002	TOTAL USER REQUEST RECORDS SUBMITTED	5723
TOTAL NDI RECORDS SEARCHED	NO. OF USER RECORDS INVOLVED IN MATCHES	431
NO. OF NDI RECORDS INVOLVED IN POSSIBLE RECORD MATCHES	NO. OF NON-MATCHING USER RECORDS	5282
ALL ITEMS MATCHED	NO. OF REJECTED USER RECORDS	10
OTHER POSSIBLE MATCHES		

NUMBER OF USER REQUEST RECORDS INVOLVED IN MATCHES WITH ONE OR MORE NDI RECORDS

POSSIBLE NDI RECORD MATCHES	NUMBER OF USER REQUEST RECORDS
1 NDI RECORD	339
2 NDI RECORDS	70
3 NDI RECORDS	15
4 NDI RECORDS	6
5 NDI RECORDS	0
6 NDI RECORDS	1
7 NDI RECORDS	0
8 NDI RECORDS	0
9 NDI RECORDS	0
10 NDI RECORDS	0
11+ NDI RECORDS	0

TOTAL USER RECORDS
INVOLVED IN MATCHES 431

EXHIBIT 5: Summary Retrieval Statistics (SUMMARY) (continued)

S T A T E S	TOTAL POSSIBLE RECORD MATCHES	MATCHES ON ALL ITEMS PROVIDED*	OTHER POSSIBLE RECORD MATCHES**	S T A T E S	TOTAL POSSIBLE RECORD MATCHES	MATCHES ON ALL ITEMS PROVIDED*	OTHER POSSIBLE RECORD MATCHES**
TOTAL U.S.	554	2	552	MISSOURI	9	0	9
ALABAMA	9	0	9	MONTANA	0	0	0
ALASKA	1	0	1	NEBRASKA	1	0	1
ARIZONA	8	0	8	NEVADA	3	0	3
ARKANSAS	3	0	3	NEW HAMPSHIRE	1	0	1
CALIFORNIA	48	0	48	NEW JERSEY	11	0	11
COLORADO	4	0	4	NEW MEXICO	7	0	7
CONNECTICUT	3	0	3	NEW YORK	19	0	19
DELAWARE	0	0	0	N. Y. CITY	33	0	33
FLORIDA	37	0	37	N. CAROLINA	25	0	25
GEORGIA	18	0	18	N. DAKOTA	1	0	1
HAWAII	2	0	2	OHIO	28	0	28
IDAHO	2	0	2	OKLAHOMA	10	0	10
ILLINOIS	24	0	24	OREGON	4	0	4
INDIANA	14	0	14	PENNSYLVANIA	23	0	23
IOWA	8	0	8	RHODE ISLAND	0	0	0
KANSAS	3	0	3	S. CAROLINA	6	0	6
KENTUCKY	8	0	8	S. DAKOTA	0	0	0
LOUISIANA	17	0	17	TENNESSEE	16	0	16
MAINE	1	0	1	TEXAS	36	0	36
MARYLAND	12	0	12	UTAH	2	0	2
MASSACHUSETTS	13	0	13	VERMONT	0	0	0
MICHIGAN	11	2	9	VIRGINIA	20	0	20
MINNESOTA	4	0	4	WASHINGTON	6	0	6
MISSISSIPPI	10	0	10	WEST VIRGINIA	4	0	4
				WISCONSIN	6	0	6
				WYOMING	0	0	0
				PUERTO RICO	20	0	20
				VIRGIN ISLANDS	0	0	0

* THIS COLUMN INDICATES HOW MANY OF THE 'TOTAL POSSIBLE RECORD MATCHES' RESULTED FROM SITUATIONS WHERE 'ALL' ITEMS PROVIDED ON A USER'S REQUEST RECORD MATCHED WITH ITEMS ON AN NDI RECORD.

** THIS COLUMN INDICATES HOW MANY OF THE 'TOTAL POSSIBLE RECORD MATCHES' RESULTED FROM SITUATIONS WHERE 'ONLY SOME' OF THE ITEMS PROVIDED ON A USER'S REQUEST RECORD MATCHED WITH ITEMS ON AN NDI RECORD.

[Ynnnnnnn.REPORT] – NDI Retrieval Report

IMPORTANT: If you decide to use computer software to assess the quality of the NDI record matches or to manipulate the NDI output, you should use the record format provided in the "Combined File of Matching User and NDI Records" (file name = Ynnnnnnn.COMBINED).

The NDI Retrieval Report (*REPORT*) file is only intended for you to print in **landscape** print format. Each line contains 132 positions. Reduce the margin widths and/or the font size if necessary.

The Retrieval Report is the primary output of an NDI file search. This report indicates which user records are involved in **possible** record matches with one or more NDI records. These possible matches are based on the seven matching criteria mentioned on the first page of **Chapter 4**. Major features of the *REPORT* file are as follows:

1. Only your user records that generate **possible** record matches with NDI records (according to the seven matching criteria) are listed in the Retrieval Report. Your user records are listed in the same sequence in which you submitted them. User records that do not generate any possible NDI record matches are not included in the *REPORT*.
2. The Retrieval Report first shows the information contained on the user record, followed by a listing of the NDI record or records that were identified as **possible** record matches.
3. More than one possible NDI record match may be generated for a particular user record. Four possible NDI record matches are listed in the sample Retrieval Report shown in **Exhibit 6**.
4. Information on each NDI record match includes State of death, death certificate number, and date of death. This is followed by an indication of which data items on the NDI record agreed or disagreed with data items on your user record.
5. The NDI record matches are listed in **ranked order** based solely on the number of data items that are in agreement with those on the user record. The NDI record match containing the greatest number of matching data items is listed first.
6. When ALL the data items provided on your user record agree exactly with the related items on an NDI record, the NDI record match will be listed with an asterisk (*) in the left margin. This does not imply that the NDI record is a **true** or correct match, especially if you provided only a limited number of data items on the subject's record or if the subject had a common name.
7. To properly assess your NDI results, it is important that you become very familiar with the abbreviations and symbols used in the Retrieval Report. A description of the abbreviations and symbols is presented in **Exhibit 6A**. Geographic codes and abbreviations are listed in **Exhibit 2B**. Additional information regarding the assessment of your NDI results is provided in **Chapter 4**.
8. If you submit a large number of records, you may find the printout of this entire file too cumbersome to use. You may prefer to use the **compressed** NDI Retrieval Report (Ynnnnnnn.COMPRESS) described in the next section.



National Death Index

Retrieval Report

Whenever a user record matches with one or more NDI records, a NDI Retrieval Report is generated. Presented below is a hypothetical example of a Retrieval Report which shows one user record matching with four NDI records. Note: The NDI Plus service lists cause of death codes in a separate report.

USER REQUEST RECORD	(POSSIBLE MATCHES = 4)	NDI APPL NO	840099	CONTROL NO	4507							
POSSIBLE DECEDENT NAME	FATHERS SURNAME	SOC SEC NO	AGE	SEX	RACE	MS	SOR	SOB	LA	USER DATA		
REGINA HANES		114576493	12 10 1918	F	-	M	PA	LA	011583			
POSSIBLE NDI RECORD MATCHES (IN RANKED ORDER)												
STATE	CERT NUMBER	DATE OF DEATH	NAME F M I L	FATHERS SURNAME	LN/ FS	SOC SEC NO	AGE <td>SEX</td> <td>RACE</td> <td>MS</td> <td>SOR</td> <td>SOB</td>	SEX	RACE	MS	SOR	SOB
*PENNSYLVANIA	861086	02-01-85	X B X			XXXXXXX	X X X	X	-	X	X	X
LOUISIANA	421304	07-07-80	X - X			--X-X-X-X	X +01	X	-	X	X	X
LOUISIANA	A 421304	07-07-80	F B X			--X-X-X-X	X +01	X	-	X	X	X
INDIANA	859637	05-21-93	X - N		N	--X-X-X-	X X -05	X	-	X	-	?

Column heading abbreviations:
 LN/FS = Last name on user record compared to father's surname on NDI record.
 MS = Marital status

Symbols used within the table:
 * = All items provided on user record matched exactly with items on NDI record.
 X = User data item and NDI data item matched exactly.
 Blank = User data item and NDI data item did not match.
 - = Data item not provided by user.
 For SSN: specific digits did not match.
 For LN/FS: comparison was not attempted.
 ? = Insufficient information on NDI record.
 A = Alias name on NDI record.

SOR = State of residence
 SOB = State of birth

F = Only first initial of first name matched.
 N = Names matched only on NYSIS phonetic codes.
 B = Middle initials not provided on either record. This occurrence is treated as a match on middle initial.
 +01 = Birth year on the NDI record is one year more than the year on the user record.
 -05 = Birth year on the NDI record is five years less than the year on the user record.

EXHIBIT 6A: Retrieval Report

Column heading abbreviations:

- LN/FS** = The **LAST NAME (LN)** supplied on the user record is compared to the **FATHER'S SURNAME (FS)** on the NDI record. This column is only relevant when **SEX** is female and when the user does not supply a **FATHER'S SURNAME**. A dash (-) appears in this column whenever this check is not performed; that is, whenever (a) sex is male or unknown or (b) father's surname is supplied on the user's record (for a direct comparison with the father's surname on the NDI record).
- AGE** = **Age at Death (actual or estimated)**
- YR** = Year(s) **WK** = Week(s) **HR** = Hour(s)
MO = Month(s) **DY** = Day(s) **MI** = Minute(s)
- SEX** = **M = Male** **F = Female**
- MS** = **Marital Status:** **S = Single** **M = Married** **W = Widowed** **D = Divorced**
- RACE** = **WH = White** **JA = Japanese**
BL = Black **HA = Hawaiian**
IN = Indian **ON = Other nonwhite**
CH = Chinese **FI = Filipino**
OA = Other Asian or Pacific Islander
- SOR** = **State of Residence** (see abbreviations in Exhibit 2B in Chapter 2).
- SOB** = **State of Birth** (see abbreviations in Exhibit 2B in Chapter 2).

Symbols used within the table:

- X** = User's data item matched exactly with the comparable data item on the NDI record.
- Blank** = Data item supplied by the user **DOES NOT** match the data item on the NDI record.
- ?** = Insufficient information on the NDI record; data item was provided on the user record.
- (dash) = **General usage:** Data item **NOT** provided on user record.

Exceptions for dashes:

- **For SSN:** Specific digits of SSN did not agree.
- **For SSN:** When SSN is not provided on user record, only one "-" is printed.
- **For middle initial:** No middle initial was provided on user record; however, a middle initial was provided on NDI record.
- **For "LN/FS":** No cross check was performed between the **LAST NAME (LN)** on the user record and the **FATHER'S SURNAME (FS)** on the NDI record as described above.

- *** = An asterisk in the left margin indicates that **ALL** data items provided on the user record matched exactly with the related items on the NDI record.
- N** = Names matched only on NYSIIS phonetic codes (New York State Identification and Intelligence System).

- I = Only the first initials of the first names agreed on the user and NDI records.
- B = Middle initials were NOT provided on either the user record or the NDI record; i.e., both fields were blank. This occurrence is treated as a match on middle initial and ASSUMES the individual(s) did not have a middle name. (A "blank" signifies that middle initials were provided but did not agree. An "X" signifies agreement on the middle initials. A dash (-) signifies that a middle initial only existed on the NDI record, while a "?" signifies that the middle initial only existed on the user record.)
- A = The NDI record is an **ALIAS** record (also referred to as an "Also Known As" or "AKA" record). Some states will create and submit more than one NDI record for a decedent whenever the death certificate indicates that the decedent went by more than one first name and/or last name. The death certificate numbers on these NDI records will be the same, indicating there is only one death certificate on file in that state.
- +01 = The birth year on the NDI record is one year more than birth year on the user record; for example, 1910 (NDI record) minus 1909 (user record) = +01. (Matching criteria 2 or 3 may have been satisfied. See **Chapter 4**.)
- 01 = The birth year on the NDI record is one year less than the birth year on the user record, for example, 1910 (NDI record) minus 1911 (user record) = -01. (Matching criteria 2 or 3 may have been satisfied. See **Chapter 4**.)
- +02
thru
+99 = Difference between the years of birth on the NDI and user records. The four digit birth year on the user record is always subtracted from the four digit birth year on the NDI record. For example, 1905 (NDI record) minus 1920 (user) = -15 years.
- >99 = **Difference** between the **BIRTH YEARS** on the NDI record and the user record is *greater than 99 years*. For example, 2001 (NDI record) minus 1898 (user record) = 101 years or *greater than 99 years*.

[Ynnnnnn.COMPRESS] – Compressed NDI Retrieval Report

IMPORTANT: If you decide to use computer software to assess the quality of the NDI record matches or to manipulate the NDI output, you should use the record format provided in the "Combined File of Matching User and NDI Records" (file name = Ynnnnnn.COMBINED.)

1. This *COMPRESS* file is intended solely for the visual inspection of a *large number* of NDI record matches. Each line contains 132 positions. If you decide to print this file, use the landscape print format and, if necessary, reduce the margin widths and/or font size.
2. The file contains the identical information on matching user and NDI records as is provided in the NDI Retrieval Report (*REPORT*) file. (A sample of a *COMPRESS* file is shown in **Exhibit 7**.)
3. Only the column headings and line spacings in the *REPORT* file have been eliminated from the *COMPRESS* file to reduce significantly the number of pages generated by a large number of matches.
4. The Compressed NDI Retrieval Report for EACH user record involved in a match begins with the user record's *control or ID number* on the first line (in the left margin); followed by the user record information on the second line. The first possible NDI record match appears on the third line, followed by any additional possible NDI record matches appearing on subsequent lines.
5. You can print out some or all of the information on both the *REPORT* and *COMPRESS* files and then decide which, if any, of the printouts you prefer to use.

EXHIBIT 7: Compressed NDI Retrieval Report (COMPRESS)

0000004507	REGINA HANES	661098	02-01-1985	X B X	X	114576493	12 10 1918	-	F	-	S	PA	LA	011593
	*PENNSYLVANIA	421304	07-07-1980	X - X	-	XXXXXXX	X X X	-	X	-	X	X	X	
	LOUISIANA	A421304	07-07-1980	I B X	-	--X-X-X	X X +01	-	X	-	X	X	X	
	INDIANA	598637	03-21-1993	X - N	-	---X-X-	X X -01	-	X	-	X	X	X	
1234567890	ROBERT BELGRAD			BILSPAD	X	888888888	02-04-1946	60	M	WH	M	CA	LA	052288
	CALIFORNIA	123456	06-05-2003	X B X	-	XXXXXXX	X X -01	X	X	X	X	X	X	
9876543210	MICHELLE S. GOODIER	054321	09-11-1988	X X X	-	123456789	05-22-1970	-	F	WH	S	MA	MD	120491
	MASSACHUSETTS	151957	09-24-2002	X X X	-	XXXXXXXXXX	X X X	-	X	X	X	X	X	
	CALIFORNIA	614850	09-27-2002	I N	-	X-X-X-	X X -05	-	X	X	X	X	X	
	ILLINOIS			I N	-	---XX-X	X X -47	-	X	X	X	X	X	
00000056789	ELIZABETH ARIAS			MUNOR	-	777666555	09-15-1930	-	F	-	M	MD	FL	110597
	FLORIDA	106110	10-11-2002	I B -	X	XXXXX-XXX	X X -41	-	X	-	X	X	X	
00600379C1	BENJAMIN W. FRANKLIN	001401	01-12-2002	I X X	-	432123456	01-18-1939	-	M	-	M	TH	TH	003456
	TENNESSEE	000789	11-23-1993	X N	-	-----	X X +08	-	X	-	X	X	X	
	WEST VIRGINIA			X N	-	-----	X X	-	X	-	X	X	X	

[Ynnnnnn.COMBINED] – Combined File of Matching User and NDI Records

This file contains the same information on each possible match as presented in the **Retrieval Report**. Please note, however, that only the **COMBINED** file contains probabilistic scoring information (see positions 172-178).

1. The **COMBINED** file is intended for those NDI users who receive a large number of possible NDI record matches and would like to write computer programs to assist them in assessing the quality of the matches. This file (containing 178-character records) is not intended to be printed or read on a PC screen.
2. This file **combines** the information provided on a user record with information on the matching NDI record(s). Each **COMBINED** record on this file contains information from only one user record and only one matching NDI record. A separate **COMBINED** record is created for each NDI record match listed for a given user record in the NDI Retrieval Report. In such instances all the information from the user record is repeated at the beginning of each **COMBINED RECORD**.
3. The record layout for the **COMBINED** file is presented in **Exhibit 8**.
4. The **first 100 positions** of each **COMBINED** record contain the actual data from the user record. Refer to Chapter 2, Exhibit 2, for more detailed information about the code structure for this portion of the **COMBINED RECORD**.
5. **Positions 101-171** contain data related to the matching NDI record listed in the NDI Retrieval Report (**REPORT**) file. Refer to **Retrieval Report Abbreviations and Symbols (Exhibit 6A)** for more detailed information about the code structure for this portion of the **COMBINED** record.
6. **Positions 172-178** of each **COMBINED** record contain probabilistic scoring information on each match. Refer to **Appendix A** for information on probabilistic scoring.
7. The **COMBINED** record contains the State of death (data element 14) as well as the State of death **code** (data element 15) to permit users to assess agreements between the State of death code and the codes for the State of residence and/or State of birth (data elements 9 and 10, respectively).
8. The **COMBINED** record also indicates whether multiple NDI record matches occurred for a particular user record. Refer to **data element 32** (matching sequence) and **data element 33** (number of possible NDI record matches).

EXHIBIT 8: Record Layout for the Combined File (COMBINED)

***SPECIAL NOTE:** This record is identical to the first 178 positions of "Exhibit 9: Record Layout for the Cause File."

USER RECORD INFORMATION: Data Elements 1-13, positions 1-100 (actual information provided by NDI user)			
	DATA ELEMENTS	POSITIONS	CODE STRUCTURE
1.	Name of person in study group:		
	Last name	1-20	Alpha, left justified (See Exhibit 2A, Chapter 2.)
	First name	21-35	Alpha, left justified (See Exhibit 2A, Chapter 2.)
	Middle Initial	36	Alpha or blank
2.	Social Security Number	37-45	Alpha/numeric or blank
3.	Date of birth:		
	Month	46-47	01-12, 99 or blanks
	Day	48-49	01-31, 99 or blanks
	Year	50-53	1850 -20xx or blanks
4.	Father's surname	54-71	Alpha, left justified; or blanks (See Exhibit 2A, Chapter 2.)
5.	Age at death:		
	Unit	72	0-6, 9 or blanks (See Exhibit 2, element #5, Chapter 2.)
	Number of units	73-74	00-98, 99 or blanks (See Exhibit 2, element #5, Chapter 2.)
6.	Sex	75	1, 2, 9, M, F, or blank (See Exhibit 2, element #6, Chapter 2.)
7.	Race	76	0-8, 9 or blank (See Exhibit 2, element #7, Chapter 2.)
8.	Marital Status	77	1-4, 9 or blank (See Exhibit 2, element #8, Chapter 2.)
9.	State of residence	78-79	01-57, 59, 99 or blanks (see Exhibit 2B, Chapter 2.)
10.	State of birth	80-81	01-57, 59, 99 or blanks (See Exhibit 2B, Chapter 2.)
11.	Control or sequence number (optional)	82-91	Alpha/Numeric, left justified. (If this field is blank on user's record, NCHS assigns a sequence number.)
12.	Optional user data	92-97	Alpha/Numeric, left justified; or blanks. User may provide information or codes to assess each match; e.g., date of last contact or date of death. (See Exhibit 2, element #12.)
13.	Blank field	98-100	Blanks

NDI RECORD INFORMATION: Data elements 14-33, positions 101-178 (information on matching NDI records)

	DATA ELEMENTS	POSITIONS	CODE STRUCTURE
14.	State of death	101-112	Alpha, left justified
14A.	Year of death	113-116	Beginning with death year 1979
15.	State of death <u>CODE</u>	117-119	01-57, 59, left justified; 33C if New York City (See Exhibit 2B, Chapter 2.)
16.	Alias indicator	120	"A" if an alias record; otherwise blank
17.	Death certificate number	121-126	Numeric (numbers are reassigned for each year of death)
18.	Date of death:		
	Month	127-128	01-12
	Day	129-130	01-31
	Year (last 2 digits)	131-132	00-99
For items 19-31 (positions 133-165) below, see Exhibit 6 and 6A, Chapter 3.			
19.	Name (NDI record):		
	First name	133-134	bX, bN, b?, lb, lN, bb (<i>b=blank</i>)
	Middle initial	135	X, B, ?, -, b (<i>b=blank</i>)
	Last Name	136	X, N, ?, b (<i>b=blank</i>)
20.	Father's surname (NDI record)	137	X, N, ?, -, b (<i>b=blank</i>)
21.	Last Name (on user record) compared to father's surname (on NDI record)	138	X, N, ?, -, b (<i>b=blank</i>)
22.	Social Security Number (NDI record)	139-147	A string of 9 X's and/or dashes (-) to show agreement or disagreement on each digit; or one dash in position <u>143</u> (surrounded by blanks) to indicate that the SSN was not reported on user's record; or a question mark (?) in position <u>143</u> to indicate that the SSN was not reported <i>only</i> on the NDI record.
23.	Birth Date (NDI record):		
	Month	148	X, ?, -, b (<i>b=blank</i>)
	Day	149	X, ?, -, b (<i>b=blank</i>)
	Year	150-152	Xbb, ?bb, -bb +01, -01, +02, -02, ...+99, -99, >99 (<i>b=blank</i>)

	DATA ELEMENTS	POSITIONS	CODE STRUCTURE
24.	Age at Death (NDI record)	153	X, ?, -, b (b=blank)
25.	Sex (NDI record)	154	X, ?, -, b (b=blank)
26.	Race (NDI record)	155	X, ?, -, b (b=blank)
27.	Marital status (NDI record)	156	X, ?, -, b (b=blank)
28.	State of residence (NDI record)	157	X, ?, -, b (b=blank)
29.	State of birth (NDI record)	158	X, ?, -, b (b=blank)
30.	Blank field	159-164	Blanks
31.	Exact match indicator	165	Asterisk (*) or blank (An "*" means all items provided on the user record matched exactly with the corresponding items on the NDI record.)
32.	Matching sequence	166-168	001-050 This number indicates <u>which</u> multiple NDI record match is represented on this "User/NDI record"; e.g. <u>003</u> of 010 possible NDI record matches. NOTE: Virtually all the NDI records presented in the <i>CAUSE</i> file will be the <i>first ranked</i> NDI record match; e.g., <u>001</u> of 010 possible matches. The <i>CAUSE</i> file may also include a few matches that were NOT ranked <i>first</i> ; however, each of these matches had a probabilistic score which was high enough for the match to be assigned a status code of "1" (true match; assumed dead) – see data element 36, position 178 below.
33.	Number of possible NDI record matches	169-171	001-050 This number indicates <u>how many</u> multiple NDI record matches were listed for a given user record; e.g. 003 of <u>010</u> possible NDI record matches. (Also refer to data element 32 above.)

PROBABILISTIC SCORING INFORMATION:			(See Appendix A for more detailed information on probabilistic scoring.)
	<i>DATA ELEMENTS</i>	<i>POSITIONS</i>	<i>CODE STRUCTURE</i>
34.	PROBABILISTIC SCORE	172-176	
35.	CLASS CODE	177	1, 2, 3, 4, or 5
36.	STATUS CODE	178	0 = FALSE match; assumed alive 1 = TRUE match; assumed dead)

DRAFT

[Ynnnnnn.CAUSE] – Cause of Death File

Important: Do not access this file first. As mentioned below in item 5, the NDI user needs to access other NDI files first to identify TRUE matches from all the possible matches listed. The CAUSE file does not contain all the matches. It only contains those NDI matches (and their related cause of death codes) which were ranked first and/or had a high probabilistic score (see "Important Limitations" below).

1. The NDI Plus CAUSE file does not appear on the NDI Results CD for those users who only requested a *routine* NDI search (which only provides the state of death, date of death and death certificate number for each possible match).
2. The CAUSE file contains 438 positions for each record as described in Exhibit 9. The CAUSE file is not intended to be printed. It is a text file that can be used with your own software. Its primary use is to link the *true* matches identified in the COMBINED file with their cause of death codes in the CAUSE file.
3. The CAUSE file begins with the same 178 record format as the COMBINED file (positions 1-178). The remaining fields on the CAUSE file contain the coded causes of death (see positions 180-438).
4. The underlying and multiple cause of death codes reported for deaths occurring from 1979 -1998 come from the International Classification of Diseases, Ninth Revision (ICD -9) while the cause of death codes for deaths occurring in 1999 and beyond come from the International Classification of Diseases, Tenth Revision (ICD-10). All ICD-9 codes are 3 or 4 digits. All ICD-10 codes begin with an alpha character followed by 2 or 3 digits. (NOTE: The NDI results do not include decimals in the underlying and multiple cause of death codes. The decimal is implied between the third and fourth digits for ICD-9 codes and between the second and third digits for ICD -10 codes. The CD that contains your NDI results has a folder named "CAUSE CODES." BEFORE OPENING THE FILES CONTAINING THE ICD-9 AND ICD-10 CODES, PLEASE GO TO THE FILE NAMED "READ ME FIRST" – AND READ IT FIRST!)
5. Before using the CAUSE file, the NDI user should determine which of the possible NDI record matches are likely to be *true* matches and which ones are only *questionable* matches. This may be done by accessing any of the following 3 files depending on the overall number of possible NDI record matches you have to assess:
 - NDI Retrieval Report (*REPORT*)
 - Compressed NDI Retrieval Report (*COMPRESS*)
 - Combined File of Matching User and NDI Records (*COMBINED*)
6. Once the *true* and *questionable* NDI record matches have been determined, the user can link these records to the CAUSE file to obtain the associated coded causes of death. The linkage may be performed based on the following fields on both the COMBINED and the CAUSE files:
 - State of death code (positions 117 -119)
 - Death certificate number (positions 121 -126)
 - Year of death (positions 131 -132)

Important Limitations

The NDI is only authorized to release the coded cause s of death for either of the following two types of NDI record matches:

Matches that are ranked first in the NDI list of possible NDI record matches: NDI record matches are ranked based on the number of data items that agree, with a record containing an agreement on Social Security Number always being ranked first. If you use the COMBINED file to assess the NDI matches, you can refer to positions 166 -168 to determine how the record was ranked. **NOTE: Many matches that are ranked first can still be false matches.**

Any match (regardless of its rank) which has a high enough probabilistic score to be assigned a Status Code of "1" (meaning true match; assumed dead: To determine whether an NDI record was assigned a Status Code of 1, you can refer to any of the following files:

Combined File of Matching User and NDI Records (*COMBINED*) -- position 178

Cause of Death File (*CAUSE*) -- position 178

Cause of Death Report (*PRTCAUSE*) -- last printed column

NOTE: Most NDI record matches that are good enough to be assigned a Status Code of 1 will also tend to be ranked first in the list of possible matches. However; the Status Codes are only intended as a guide for the NDI user. The probabilistic scoring system gives fairly conservative results. Consequently, most of the records assigned a Status Code of 1 will actually be TRUE matches while a number of additional TRUE matches may be found among those records assigned the Status Code of 0 (meaning a FALSE match; assumed alive). **IT IS THE USER'S RESPONSIBILITY TO MAKE A FINAL DETERMINATION OF THE TRUE AND FALSE MATCHES.** Refer to **Appendix A** for information on the assignment of probabilistic scores.

Other limitations

New York City cause of death codes: Please note that NCHS is not in a position to guarantee that the New York City (NYC) Department of Health will approve your NDI Plus request or that the NYC approval will be granted in time for your NDI Plus search.

NYC must approve each NDI Plus request before NCHS is permitted to release the cause of death codes for NYC matches. NYC, however, has assured the National Center for Health Statistics (NCHS) that everything possible will be done to expedite NDI Plus requests. When NCHS notifies you that you have been approved for NDI Plus, you will also be informed whether we have received NYC's approval for your study. If NYC's approval is still pending, you have several options:

- a. Wait until we receive NYC's approval before you submit your records for an NDI Plus search.
- b. Submit your records for an NDI Plus search with the understanding that you will only receive the death certificate numbers and dates of death for those NDI matches involving NYC records -- you will not receive the associated cause of death codes. The underlying cause of death field will contain an "N/A" (to indicate that the coded cause is not available) and the multiple cause of death fields will be left blank. Once we receive NYC's approval for you to receive the coded causes, you may resubmit the true NYC matches (which you identified from your NDI search). There will be no additional charge for this service.
- c. Request copies of death certificates directly from NYC (which may take time).
- d. Do without coded causes of death for NYC matches.

Illinois cause of death codes: Illinois state law prohibits the release of identifying cause of death information whenever selected causes of death appear on a death certificate. In such instances the NDI Plus service is restricted from releasing any cause of death codes appearing on that record. This restriction pertains to only 1 percent of all the Illinois deaths occurring after 1986. For these records, the underlying cause field will contain "N/A" to indicate that the code is not available. The multiple cause fields will be left blank. (Note: Whenever Illinois releases copies of such death certificates, they are required by law to remove all the causes of death that appear on the document.)

Rhode Island cause of death codes: Only the NCHS probabilistic score (and not the ranking of the possible NDI record match) will determine whether coded causes for Rhode Island deaths may be released to users. Coded causes may be released only for those matching NDI records which are assigned probabilistic scores high enough to be considered true matches (i.e., with a Status Code of 1) -- and then only if there are exact agreements on names (as opposed to only phonetic agreements on names). All other matching NDI records will contain an "N/A" in the underlying cause field to indicate the code is not available. The multiple cause of death fields will be left blank.

1981 and 1982 multiple cause data: With the exception of calendar years 1981 and 1982, all deaths occurring annually in the United States are processed. Although underlying cause data have been processed for all 54 registration areas, in 1981 and 1982 multiple cause data were only coded on a 50 percent sample basis for deaths occurring in 19 registration areas. The remaining 35 registration areas had multiple cause data processed on a 100 percent basis in 1981 and 1982. (The registration areas are the 50 states, New York City, the District of Columbia, Puerto Rico and the Virgin Islands.) Listed below are the 19 registration areas whose multiple cause data were only coded for a 50 percent sample of their 1981 and 1982 deaths:

Alabama	Montana
Arizona	North Dakota
Arkansas	Ohio
California	Oklahoma
Florida	Rhode Island
Georgia	Tennessee
Idaho	Texas
Illinois	Washington
Indiana	West Virginia
Kentucky	

Un-linkable cause of death information: Because of minor differences each year in the cut-off dates before the creation of the NDI file and the NCHS Multiple Cause of Death files, there may be a few instances when coded cause data are not available for a matching NDI record. For these records, the underlying cause field will contain "N/A" to indicate that the code is not available. The multiple cause fields will be left blank.