

1996 National Health Interview Survey (NHIS)
Health Insurance Public Use Data File

1. The 1996 National Health Interview Survey (NHIS) Health Insurance data file contains a variety of data items addressing health insurance. These data items are essentially the same as in other recent years with a few exceptions. The differences are:
 - A) All Medicare recipients were asked about "Medicare Managed Care plans."
 - B) All Medicaid recipients were asked about "Medicaid Managed Care plans."
 - C) For those with private general purpose health care plans, coverage of dental care was ascertained instead of coverage for mammograms.

The coding scheme for the private insurance plans has changed completely from previous years. The new codes are more directly related to newer types of managed care. As a result, many of the recodes relating to earlier HMO coverage have been deleted. These fields have been left blank on the file so that the fields that are consistent between 1996 and previous years are retained in the same locations.

As a result of the Federal government furlough, two weeks of data collection were omitted in January of 1996. In addition, in order to test the changing NHIS core questionnaire, for much of the year the sample was split between the old (paper) and new (computerized) versions of the core questionnaire. This data file includes only data obtained from the paper version of the NHIS questionnaire. As a result, the sample size is considerably smaller than in the previous year (63,402 vs. 102,467). The weights have been adjusted for these factors to produce national estimates.

2. The 1996 Health Insurance supplement was administered for the full year (except as mentioned above) in all of the NHIS sample households which were interviewed using the paper core NHIS. Information was collected from a household respondent about all family members who participated in the NHIS.

The 1996 Health Insurance file is structured in the following way:

- a. The NHIS person record from the core questionnaire (locations 1-189)
- b. The weight fields (locations 190-335)
- c. Fields needed for calculating variances (locations 342-358)
- d. Data from supplement (locations 401-554)

Note: All data from the Health Insurance supplement have been shifted to start in location 401 in order to accommodate a longer public use person record required by the new sample design in 1995. As noted

above, fields that are the same as in 1995 are in the same locations, but many old recode fields pertaining to private health insurance have been left blank as a result of the change in the plan coding.

3. In 1996, two types of item non-response were identified:

- (1) "Not ascertained" (codes 8, 98, or 998) includes blanks when there should have been a response or when an impossible code appeared and;
- (2) Responses of "don't know" or "refused" when the question was asked (codes 9, 99 and 999).

4. The overall response rate for the 1996 Health Insurance was 89.8 percent. This response rate was calculated as follows:

Household response rate from core of 93.8 percent multiplied by the 95.7 percent who responded to the Health insurance section yields an overall response rate of 89.8 percent.

Dummy records were created for those with no response to the entire section (see file location 401).

5. Weights and variances:

Since the NHIS uses a multistage sample design to represent the civilian non-institutionalized population of the United States, weights must be used to make accurate estimates based on data from the National Health Interview Survey. A set of weights are included on the 1996 file:

The first weight listed below (i.e. the Final Basic Weight) will be used in most analyses of the Health Insurance data.

The Final Basic Weight (location 219-227) is the equivalent of the Annual Final Basic Weight found on the NHIS Person Record of the Basic Health and Demographic component of the survey (i.e. the Core questionnaire). A national estimate of all person level variables can be made using this weight.

This weight will be used in conjunction with Health Insurance data items in file locations 401-554.

The Final Quarter Basic Weight before age-sex-race/ethnicity adjustment (loc. 172-177) is required by some software packages for variance estimation for surveys with complex sample designs. This weight is also included on the file.

As mentioned above, the sample design for the NHIS was changed for 1995. Data from 1995 and 1996 can be combined with data from previous years, however, variances for 1995 and 1996 must be calculated separately from variances of previous years. In addition, because of the smaller sample size in 1996, some of the design elements were combined for reasons of confidentiality. The exact changes are included in explanation below.

There are a number of computer programs that yield variance estimates for data based on complex sample surveys. Some are based on replication approaches and others are based on Taylor linearization approaches. In addition to the Final Quarter Basic Weight before age-sex-race/ethnicity adjustment (which is the weight prior to post-stratification), included on the Health Insurance file is the collapsed variance stratum (loc. 354-357), the variance PSU (loc.358), the substratum for variance estimation (loc. 342-343), the secondary sampling unit (344-350), Panel 4 (loc. 352), and the NSR status variable (loc. 353) to permit the analyst the capability of using such variance estimation procedures. These variables and weights are necessary for directly calculating sampling variances.

6. Estimating annual numbers of events or conditions

- a. To reduce respondent error, the recall period for questions about some events is limited to two weeks. These events are: bed days and other restricted activity days, work loss and school loss days, and doctor visits. The two-week variables are found in locations 98-107 and 120-121. Estimates of the total number of occurrences of these events in the population can be derived as follows:

$$\text{Number of events} \times 26 \text{ (number of two-week periods in a year)} \times \text{Final Basic Weight}$$
$$= \text{Total number of events occurring in the population during the annual period, i.e. 1996.}$$

Example: Number of bed days (Loc. 100-101) \times 26 \times Final Basic Weight (Loc. 219-227) = total number of bed days reported for the population in 1996.

- b. The recall period for acute incidence conditions is also two weeks and a national estimate of the total number of acute incidence conditions is calculated using the same procedures as for two-week events for the annual period.

$$\text{Number of acute incidence conditions} \times 26 \times \text{Final Basic Weight}$$
$$= \text{Total number of acute incidence conditions occurring in the population during 1996.}$$

Note: An acute incidence condition is an acute condition with onset during the two weeks preceding the date of interview.

- c. The recall period for information on hospitalizations is 12 months. However, in calculating number of discharges (Locations 132-133, 137-138), only discharges occurring in the past 6 months are counted. Therefore, the weighted estimates must be calculated as follows:

$$\text{Number of discharges} \times 2 \times \text{Final Basic Weight}$$
$$= \text{Total number of discharges occurring in the population in 1996.}$$

7. Calculation of rates for events and conditions:

The number of events or conditions estimated for the population, as described in item 6, above, can be used as the basis for calculating rate of occurrence of these events (or conditions) per person and per 100 persons for the total U.S. population and for various population subgroups.

Note: Only rates can be estimated from these data. The percent of the population experiencing a particular type of event during the data year cannot be estimated. (The percent of the population experiencing the event in the reporting period (i.e. two weeks or 6 months) can be estimated but is generally not meaningful.)

8. Data on hospital episodes and days, based on a 12-month recall are in locations 122-131. The Final Basic Weight is used for calculating estimates of these events in the same way it is used for all other person-based variables. These variables do permit estimating the percent of the population in this annual period experiencing a hospital episode in the past year and the percent of that population having a specified number of hospital days.

9. Guidelines for Citation of Data

With the goal of mutual benefit, the National Center for Health Statistics (NCHS) requests that recipients of data files cooperate in certain actions related to their use.

Any published material derived from the data should acknowledge NCHS as the original source. The suggested citation to appear at the bottom of all tables is as follows:

Source: National Center for Health Statistics (1996)

When cited in a bibliography, the suggested citation should read:

National Center for Health Statistics (1998). Data File Documentation, National Health Interview Survey of Health Insurance, 1996 (machine readable data file and documentation), National Center for Health Statistics, Hyattsville, Maryland.

The published material should also include a disclaimer that credits any analyses, interpretations, or conclusions reached to the author (recipient of the data file) and not to NCHS, which is responsible only for the initial data. Consumers who wish to publish a technical description of the data should make a reasonable effort to insure that the description is not inconsistent with that published by NCHS.

HI-2

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
21	Recode		LATE INTERVIEW (OR LAST ATTEMPT) FLAG
		36,891	0. Interview not late
		18,591	1. One week late
		6,372	2. Two weeks late
		1,548	3. Unknown
22-23	HH-11c,d		Housing Unit = (00-07)
		1,234	00. Housing unit; kind unknown
		58,363	01. House, apartment, flat
		37	02. HU in nontransient hotel, motel, etc.
		5	03. HU-permanent in transient hotel, motel, etc.
		20	04. HU in rooming house
		3,072	05. Mobile home or trailer with no permanent room added
		450	06. Mobile home or trailer with one or more permanent rooms added
		51	07. HU not specified above
			Other Unit = (08-13)
		39	08. Quarters not HU in rooming or boarding house
		3	09. Unit not permanent in transient hotel, motel, etc.
		14	10. Unoccupied site for mobile home, trailer, or tent
		90	11. Student quarters in college dormitory
		24	12. Other unit not specified above
		0	13. Other unit; kind unknown
24	HH-12		HAS TELEPHONE
		57,080	1. Yes, phone number given
		2,558	2. Yes, no phone number given
		3,099	3. No
		665	4. Unknown
25	A-1		SEX
		30,358	1. Male
		33,044	2. Female

HI-3

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
26	-		AGE IMPUTED FLAG
		63,400	0. Age known
		2	1. Age unknown, imputed as 34
27-28	Person Column		AGE
		976	00. Under 1 year
		62,241	01-89. Number of years
		185	90. 90 years or older
29	Recode		AGE RECODE #1
		4,918	1. Under 5 years
		13,210	2. 5-17 years
		5,568	3. 18-24 years
		19,974	4. 25-44 years
		12,598	5. 45-64 years
		2,213	6. 65-69 years
		1,928	7. 70-74 years
		2,993	8. 75 years and over
30	Recode		AGE RECODE #2
		6,008	1. Under 6 years
		11,219	2. 6-16 years
		6,469	3. 17-24 years
		9,603	4. 25-34 years
		10,371	5. 35-44 years
		7,673	6. 45-54 years
		4,925	7. 55-64 years
		4,141	8. 65-74 years
		2,993	9. 75 years and over
31-32	Recode		AGE RECODE #3
		2,905	00-35. Months
		60,497	36. Over 3 years
33	-		MONTH OF BIRTH IMPUTED FLAG
		60,272	0. Month known
		3,090	1. Month unknown, '8' imputed
		40	9. Date of birth unknown

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
34-39	A-3		MONTH AND YEAR OF BIRTH
34-35			Month
			01. January 08. August
			02. February 09. September
			03. March 10. October
			04. April 11. November
			05. May 12. December
			06. June 99. Unknown
			07. July
36-39			Year of Birth
			1905. 1905 and before
			1906-1997. 1906-1997
			9999. Unknown
40	Recode		HISPANIC ORIGIN IMPUTED FLAG
		62,712	0. Hispanic Origin Known
		690	1. Hispanic Origin Imputed from Reference Person
41-42	A-6		MAIN RACIAL BACKGROUND* - Reported (see notation for locations 43-45)
		46,996	01. White
		9,027	02. Black/African American**
		482	03. Indian (American)
		325	06. Chinese
		455	07. Filipino
		987	15. Other API (includes Hawaiian, Korean, Vietnamese, Japanese, Asian Indian, Samoan, and Guamanian)
		3,797	16. Other Race (includes Eskimo and Aleut)
		181	17. Multiple Race
		1,152	99. Unknown

* Some categories may be too small to analyze separately and therefore may produce unreliable estimates; in addition, counts may not agree with those produced by the Census Bureau.

** For convenience, the category 'Black/African American' will be shown as 'Black' in all race recode locations throughout the documentation.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes	
43-45	Recode		RACE RECODES	
43		51,962	Recode 1*	Persons whose Main Racial Background (location 41-42) was "other" or "unknown" were classified in the following recodes by using the racial background observed by the interviewer. Use of these recodes is recommended for estimating statistics for the groups shown here.
		9,065	1. White	
		2,375	2. Black	
44		51,962	Recode 2	
		11,440	1. White	
			2. Non-white	
45		9,065	Recode 3	
		54,337	1. Black	
			2. Non-black	
46-47	A-5		HISPANIC ORIGIN**	
		12	00. Multiple Hispanic	
		1,387	01. Puerto Rican	
		646	02. Cuban	
		3,935	03. Mexican-Mexicano	
		4,391	04. Mexican-American	
		99	05. Chicano	
		1,133	06. Other Latin American	
		1,184	07. Other Spanish	
		338	08. Spanish, DK type	
		114	09. Unknown if Spanish origin	
		50,163	10. Not Spanish origin	
48	L-7		MARITAL STATUS	
		14,293	0. Under 14 years	
		28,314	1. Married - spouse in household	
		494	2. Married - spouse not in household	
		3,022	3. Widowed	
		3,475	4. Divorced	
		1,102	5. Separated	
		12,070	6. Never married	
		632	7. Unknown	

*This recode is used to define race in the Current Estimates tables.

**If unknown, the family reference person code was imputed. A flag indicating imputation is in loc. 40 and the relationship to reference person is in loc. 63.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
49	L-1		VETERAN STATUS
		38,331	1. Non-veteran
		1,311	3. WW I and WW II
		800	4. Korean War
		1,715	5. Vietnam veteran
		810	6. Post-Vietnam
		1,070	7. Other service
		163	8. Served in Armed Forces, unknown if war veteran
		1,074	9. Unknown if served in Armed Forces
		18,128	Blank. Under 18 years of age
50	L-1		ACTIVE GUARD/RESERVE STATUS FOR PERSONS ON ACTIVE DUTY IN ARMED FORCES
		38,331	0. Non-veteran
		363	1. All service in Guard/Reserve
		740	2. Some service in Guard/Reserve
		36	3. Unknown if all service in Guard/Reserve
		4,159	4. No active service in Guard/Reserve
		1,645	5. Unknown if ever active member in Guard/Reserve or served in Armed Forces
		18,128	Blank. Under 18 years of age
51-52	L-2		EDUCATION OF INDIVIDUAL - COMPLETED YEARS
		2,628	00. Never attended; kindergarten only
		36,181	01-12. Grades 1-12
			College:
		3,321	13. 1 year
		4,433	14. 2 years
		1,602	15. 3 years
		5,424	16. 4 years
		1,039	17. 5 years
		2,762	18. 6 years or more
		1,094	19. Unknown
		4,918	Blank. Under 5 years of age

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
53	Recode		EDUCATION OF INDIVIDUAL RECODE
		2,628	0. None; kindergarten only
		12,480	1. 1-8 years (elementary)
		7,494	2. 9-11 years (high school)
		16,207	3. 12 years (high school graduate)
		9,356	4. 1-3 years (college)
		5,424	5. 4 years (college graduate)
		3,801	6. 5+ years (post-college)
		1,094	7. Unknown
		4,918	Blank. Under 5 years of age
54-55	-		HIGHEST EDUCATION OF RESPONSIBLE ADULT FAMILY MEMBER (Detail)
		151	00. Never attended; kindergarten only
		29,963	01-12. Grades 1-12
			College:
		4,719	13. 1 year
		7,364	14. 2 years
		2,688	15. 3 years
		9,589	16. 4 years
		2,073	17. 5 years
		6,048	18. 6 years or more
		807	19. Unknown
56	-		HIGHEST EDUCATION OF RESPONSIBLE ADULT FAMILY MEMBER Recode
		151	0. None; kindergarten only
		3,807	1. 1-8 years (elementary)
		5,471	2. 9-11 years (high school)
		20,685	3. 12 years (high school graduate)
		14,771	4. 1-3 years (college)
		9,589	5. 4 years (college graduate)
		8,121	6. 5+ years (post-college)
		807	7. Unknown

HI-8

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
57	L-8		FAMILY INCOME \$20,000 OR MORE
		18,637	1. Less than \$20,000
		42,177	2. \$20,000 or more
		2,588	3. Unknown
58-59	L-8		FAMILY INCOME
		243	00. Less than \$1,000
		366	01. \$ 1,000 - \$ 1,999
		319	02. 2,000 - 2,999
		356	03. 3,000 - 3,999
		433	04. 4,000 - 4,999
		694	05. 5,000 - 5,999
		695	06. 6,000 - 6,999
		699	07. 7,000 - 7,999
		701	08. 8,000 - 8,999
		941	09. 9,000 - 9,999
		1,132	10. 10,000 - 10,999
		705	11. 11,000 - 11,999
		1,304	12. 12,000 - 12,999
		838	13. 13,000 - 13,999
		828	14. 14,000 - 14,999
		1,100	15. 15,000 - 15,999
		777	16. 16,000 - 16,999
		810	17. 17,000 - 17,999
		1,042	18. 18,000 - 18,999
		1,216	19. 19,000 - 19,999
		4,786	20. 20,000 - 24,999
		4,130	21. 25,000 - 29,999
		4,150	22. 30,000 - 34,999
		3,179	23. 35,000 - 39,999
		3,180	24. 40,000 - 44,999
		2,824	25. 45,000 - 49,999
		15,137	26. \$50,000 and over
		10,817	27. Unknown

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
60	Recode		FAMILY INCOME RECODE
		1,717	0. Under \$5,000
		1,389	1. \$ 5,000 - \$ 6,999
		2,341	2. 7,000 - 9,999
		4,807	3. 10,000 - 14,999
		4,945	4. 15,000 - 19,999
		4,786	5. 20,000 - 24,999
		8,280	6. 25,000 - 34,999
		9,183	7. 35,000 - 49,999
		15,137	8. \$50,000 or more
		10,817	9. Unknown
61	Generated		NHIS POVERTY INDEX*
		48,720	1. At or above poverty threshold
		8,572	2. Below poverty threshold
		6,110	3. Unknown
62-63			FAMILY RELATIONSHIP
62	A-2		Type of Family
		6,440	&. Primary individual
		684	-. Secondary individual
		56,152	0. Primary family
		126	1-9. Secondary family
63	A-2		Relationship to Reference Person
		6,048	&. Reference person, living alone
		18,770	0. Reference person, 2+ persons in household
		13,756	1. Spouse, other spouse NOT in Armed Forces and living at home
		151	2. Spouse, other spouse in Armed Forces and living at home
		21,000	3. Child of reference person or spouse
		1,252	4. Grandchild of reference person or spouse
		645	5. Parent of reference person or spouse
		1,763	6. Other relative
		17	7. Child of military family with no eligible reference person
		0	9. DK or refused

*Based on family size, number of children under 18 years of age and family income using the 1995 poverty levels derived from the August, 1996 Current Population Survey.

HI-10

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
64	Recode		FAMILY RELATIONSHIP RECODE
		6,048	1. Living alone
		1,076	2. Living only with non-relative
		28,297	3. Living with spouse
		27,981	4. Living with relative - other
65-66	Generated		SIZE OF FAMILY* Unrelated individuals are coded 01
67	Generated		SIZE OF FAMILY RECODE
		62,665	1-8. Number of members
		737	9. 9+ members
68	A-2		PARENT/OTHER ADULT RELATIVE (under 25 years old and never married)
		13,233	1. Both parents, no other relative
		3,521	2. Mother only
		324	3. Father only
		1,835	4. Both parents and other 21+ year old adult relative
		1,271	5. Mother and other 21+ year old adult relative
		152	6. Father and other 21+ year old adult relative
		281	7. No parent, but one 21+ year old adult relative
		427	8. No parent, but two or more 21+ year old adult relatives
		164	9. Unknown
		849	0. Other
		41,345	Blank. Not applicable (25+ years old or ever married)

*Count includes spouse in military but living at home.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
69	B-1 B-8		MAJOR ACTIVITY (18+ years old)
		28,283	1. Working
		7,516	2. Keeping house
		2,504	3. Going to school
		6,513	4. Something else
		458	5. Unknown
		18,128	Blank. Not applicable (Under 18 years)
70	G-4		HEALTH STATUS
		22,720	1. Excellent
		18,116	2. Very Good
		15,237	3. Good
		4,899	4. Fair
		1,697	5. Poor
		733	6. Unknown
71	Recode		ACTIVITY LIMITATION STATUS*- (all ages)
		3,018	1. Unable to perform major activity
		3,343	2. Limited in kind/amount major activity
		2,727	3. Limited in other activities
		54,314	4. Not limited (includes unknowns)
72	Recode		ACTIVITY LIMITATION STATUS MEASURED BY "ABILITY TO WORK" (18-69 years)
		2,829	1. Unable to work
		1,765	2. Limited in kind/amount of work
		1,490	3. Limited in other activities
		34,269	4. Not limited (includes unknowns)
		23,049	Blank. Not applicable (under 18 years, 70+ years)

*This location is used to categorize persons with limitation of activity in the Current Estimates tables.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
73	B-11		LIMITATION OF SCHOOL ACTIVITIES (5-17 yrs)
		81	1. Unable to attend school
		438	2. Attends special school/classes
		74	3. Needs special school/classes
		124	4. Limited in school attendance
		282	5. Limited in other activities
		12,211	6. Not limited (includes unknowns)
		50,192	Blank. Not applicable (Under 5 years or 18+ years)
74	B-14		NEEDS HELP WITH PERSONAL CARE (5-59 years old and limited, or age 60-69 years)*
		408	1. Unable to perform personal care needs
		822	2. Limited in performing other routine needs
		8,488	3. Not limited in performing personal or routine needs
		404	4. Unknown
		53,280	Blank. Not applicable (Under 5 years; 5-59 years not limited; 70+ years old)

*For persons 70+ years, use location 71 to analyze 'Needs Help With Personal Care'; codes 1 and 2 in location 71 correspond to codes 1 and 2 in location 74.

HI-13

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
75	D-1		EMPLOYMENT STATUS IN PAST 2 WEEKS (18+ years)
			In the Labor Force: (1-7)
			Currently employed: (1-3)
		28,767	1. Worked in past 2 weeks
		494	2. Did not work, has job; not on lay-off and not looking for work
		28	3. Did not work, has job; looking for work
			Unemployed: (4-7)
		93	4. Did not work, has job; on lay-off
		6	5. Did not work, has job; on lay-off and looking for work
		200	6. Did not work, has job; un known if looking or on lay-off
		960	7. Did not work, has no job; looking for work or on lay-off
			Not in Labor Force (18+ years): (8)
		14,726	8. Not in labor force (18+ years)
		18,128	Blank. Not applicable (Under 18 years old)
76	L-6		CLASS OF WORKER
		14,726	0. Not in labor force
		21,596	1. Private company
		756	2. Federal Government employee
		1,388	3. State Government employee
		2,369	4. Local Government employee
		789	5. Incorporated business
		2,615	6. Self-employed
		29	7. Without pay
		35	8. Never worked
		971	9. Unknown
		18,128	Blank. Under 18
77-79			BLANK

HI-14

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
80-81	Recode		INDUSTRY RECODE 1 SEE APPENDIX B
82-83	Recode		INDUSTRY RECODE 2 SEE APPENDIX B
84-86			BLANK
87-88	Recode		OCCUPATION RECODE 1 SEE APPENDIX C
89-90	Recode		OCCUPATION RECODE 2 SEE APPENDIX C
91	L-R		RESPONDENT FOR CORE
		27,761	1. Self-entirely
		3,242	2. Self-partly
		31,712	3. Proxy
		687	4. Unknown
92	Recode		CONDITION LIST ASSIGNED AND ASKED
		10,548	1. Condition List 1, Skin and musculoskeletal
		10,568	2. Condition List 2, Impairments
		10,388	3. Condition List 3, Digestive
		10,472	4. Condition List 4, Miscellaneous
		10,113	5. Condition List 5, Circulatory
		10,575	6. Condition List 6, Respiratory
		738	7. Unknown

HI-15

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
93-94	G-5		HEIGHT WITHOUT SHOES (18+ years)
		363	58. 58 inches or less
		43,782	59-76. Number of inches
		246	77. 77 inches or more
		883	99. Unknown
		18,128	Blank. Under 18 years of age
95-97	G-5		WEIGHT WITHOUT SHOES (18+ years)
		288	097. 97 pounds or less
		42,919	098-289. Number of pounds
		320	290. 290 pounds or more
		1,747	999. Unknown
		18,128	Blank. Under 18 years of age
98-99	Recode		TOTAL RESTRICTED ACTIVITY DAYS IN PAST TWO WEEKS
		57,092	00. None
		6,310	01-14. Days
100-101	D-4		BED DAYS IN PAST TWO WEEKS
		59,733	00. None
		3,669	01-14. Days
102-103	D-2		WORK-LOSS DAYS IN PAST TWO WEEKS
		61,810	00. None
		1,592	01-14. Days
104-105	D-3		SCHOOL-LOSS DAYS IN PAST TWO WEEKS
		62,431	00. None
		971	01-14. Days

HI-16

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
106-107	D-6		OTHER DAYS OF RESTRICTED ACTIVITY IN PAST TWO WEEKS
		60,449	00. None
		2,953	01-14. Days
108-110	G-2		BED DAYS IN PAST 12 MONTHS
		35,920	000. None
		26,460	001-365. 1-365 days
		1,022	366. Unknown
111	Recode		BED DAYS IN PAST 12 MONTHS - Recode
		35,920	0. None
		20,817	1. 1-7 days
		4,084	2. 8-30 days
		1,243	3. 31-180 days
		316	4. 181-365 days
		1,022	5. Unknown
112-114	G-3		DOCTOR VISITS IN PAST 12 MONTHS
		15,335	000. None
		47,627	001-996. Visits
		0	997. 997+ visits
		440	998. Unknown
115	G-3		INTERVAL SINCE LAST DOCTOR VISIT
		182	0. Never
		48,478	1. Less than 1 year
		6,010	2. 1 to less than 2 years
		4,842	3. 2 to less than 5 years
		2,128	4. 5 years or more
		1,762	5. Unknown

HI-17

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
116-117	Generated		NUMBER OF CONDITIONS
118-119	Generated		NUMBER OF ACUTE INCIDENCE CONDITIONS
120-121	Generated		NUMBER OF TWO-WEEK DOCTOR VISITS
122-123	Generated		NUMBER OF SHORT-STAY HOSPITAL EPISODES IN PAST 12 MONTHS
124-126	Generated		SHORT-STAY HOSPITAL EPISODE DAYS IN PAST 12 MONTHS
127-128	Generated		NUMBER OF SHORT-STAY HOSPITAL EPISODES IN PAST 12 MONTHS EXCLUDING DELIVERY*
129-131	Generated		SHORT-STAY HOSPITAL EPISODE DAYS IN PAST 12 MONTHS EXCLUDING DELIVERY*
132-133	Generated		NUMBER OF SHORT-STAY HOSPITAL DISCHARGES IN PAST 6 MONTHS
134-136	Generated		NUMBER OF DAYS IN SHORT-STAY HOSPITAL IN PAST 12 MONTHS FOR DISCHARGES IN PAST 6 MONTHS
137-138	Generated		NUMBER OF SHORT-STAY HOSPITAL DISCHARGES IN PAST 6 MONTHS EXCLUDING DELIVERY*
139-141	Generated		NUMBER OF DAYS IN SHORT-STAY HOSPITAL IN PAST 12 MONTHS FOR DISCHARGES IN PAST 6 MONTHS EXCLUDING DELIVERY*

*Based on Operation codes and reason entered hospital.

HI-18

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
142-143			BLANK
144	L-9b		YEARS LIVED IN STATE OF PRESENT RESIDENCE
		1,766	1. Less than 1 year
		5,762	2. 1 yr., less than 5 yrs.
		6,429	3. 5 yrs., less than 10 yrs.
		5,243	4. 10 yrs., less than 15 yrs.
		32,468	5. 15 years or more
		3,051	9. Unknown
		8,683	Blank. Not applicable (Foreign-born)
145	L-9c		YEARS LIVED IN UNITED STATES
		274	1. Less than 1 year
		1,339	2. 1 yr., less than 5 yrs.
		1,667	3. 5 yrs., less than 10 yrs.
		1,144	4. 10 yrs., less than 15 yrs.
		3,997	5. 15 years or more
		262	9. Unknown
		54,719	Blank. Not applicable (U.S. born)
146-171	-		BLANK

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
172-177	-		FINAL QUARTER BASIC WEIGHT BEFORE AGE-SEX-RACE-ETHNICITY ADJUSTMENT (has one implied decimal)
178			SAMPLING QUARTER
		16,902	1. Quarter 1
		19,814	2. Quarter 2
		13,470	3. Quarter 3
		13,216	4. Quarter 4
179-181	-		BLANK
182	Unit Control File		REGION
		12,500	1. Northeast
		13,606	2. Midwest
		21,982	3. South
		15,314	4. West
183	Unit Control File		GEOGRAPHIC DISTRIBUTION
			1-7. MSA Size
		8,007	1. 5,000,000 or more
		7,914	2. 2,500,000 - 4,999,999
		15,124	3. 1,000,000 - 2,499,999
		6,747	4. 500,000 - 999,999
		7,811	5. 250,000 - 499,999
		4,520	6. 100,000 - 249,999
		810	7. Under 100,000
		12,469	Blank. Non-MSA
184-185			BLANK
186	Unit Control File		MSA-NON-MSA RESIDENCE
		20,826	1. In MSA; in Central City
		30,107	2. In MSA; not in Central City
		12,469	3. Not in MSA
187-189			BLANK

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
190-200	-	-	CHRONIC CONDITION PREVALENCE AND INCIDENCE FACTOR (XX.XXXXXXXXXX) - character format with implied decimal
			FINAL BASIC WEIGHT
201-209	-	-	QUARTER
210-218	-	-	SEMI-ANNUAL (Quarter/2)
219-227	-	-	ANNUAL (Quarter/4)
			6.5 WEIGHT
228-236	-	-	QUARTER SEMI-ANNUAL AND ANNUAL*
			ESTIMATED RESTRICTED ACTIVITY DAYS IN PAST 2 WEEKS
237-245	-	-	QUARTER SEMI-ANNUAL AND ANNUAL*
			ESTIMATED BED DAYS IN PAST 2 WEEKS
246-254	-	-	QUARTER SEMI-ANNUAL AND ANNUAL*
			ESTIMATED WORK-LOSS DAYS IN PAST 2 WEEKS
255-263	-	-	QUARTER SEMI-ANNUAL AND ANNUAL*
			ESTIMATED SCHOOL-LOSS DAYS IN PAST 2 WEEKS
264-272	-	-	QUARTER SEMI-ANNUAL AND ANNUAL*
			ESTIMATED DOCTOR VISITS IN PAST 12 MONTHS
273-281	-	-	QUARTER
282-290	-	-	SEMI-ANNUAL
291-299	-	-	ANNUAL

*Estimates can be made for these periods depending on whether one quarter, two quarters or all four quarters of records are used.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
			ESTIMATED SHORT-STAY HOSPITAL EPISODE DAYS IN PAST 12 MONTHS
300-308	-	-	QUARTER
309-317	-	-	SEMI-ANNUAL
318-326	-	-	ANNUAL
327-335			ANNUAL ESTIMATED NUMBER OF SHORT-STAY HOSPITAL EPISODES IN PAST 12 MONTHS
336			BLANK
337-340	Recode		STRATA FOR VARIANCE ESTIMATION
341	Recode		PSU FOR VARIANCE ESTIMATION
342-343	Recode		SUBSTRATUM FOR VARIANCE ESTIMATION
344-350	Generated		SECONDARY SAMPLING UNIT
351	Unit Control File	41,421 21,981	TYPE OF PSU 1. Self representing 2. Non self representing
352	Unit Control File		Panel 4 1-4. Code used to identify nationally representative subsamples.
353			NSR STATUS VARIABLE
354-357			COLLAPSED VARIANCE STRATUM
358			VARIANCE PSU
359-400	-		BLANK

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
401			DUMMY RECORD INDICATOR
		13	0. One or more sections dummied
		2,585	1. Total dummy record
		60,804	Blank. Not a dummy record
402	1b		COVERED BY MEDICARE LAST MONTH
		7,398	1. Yes
		52,832	2. No
		3,131	8. Not ascertained
		41	9. DK or refused
403	1d (2)		TYPE OF COVERAGE
		254	1. Part A - Hospital only
		58	2. Part B - Medical only
		3,858	3. Both part A and part B
		2,977	4. Card N.A.
		243	8. Not ascertained
		8	9. DK or refused
		56,004	Blank. NA; No or unknown if covered by Medicare
404	1e		MEDICARE PART A (No Card Seen)
		2,732	1. Yes
		33	2. No
		29	8. Not ascertained
		183	9. DK or refused
		60,425	Blank. NA; No or unknown if covered by Medicare, covered but part A/B coverage unknown from card
405	1f		MEDICARE PART B (No Card Seen)
		2,613	1. Yes
		118	2. No
		37	8. Not ascertained
		209	9. DK or refused
		60,425	Blank. NA; No or unknown if covered by Medicare, covered but part A/B coverage unknown from card

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
406	1g		LENGTH OF TIME WITH MEDICARE COVERAGE
		207	1. Less than 6 months
		183	2. 6 months, but less than 1 year
		352	3. 1 year but less than 2 years
		719	4. 2 years or more
		82	8. Not ascertained
		46	9. DK or refused
		61,813	Blank. NA; No or unknown if covered by Medicare, covered but age 67 or older
407	1h		GO TO ANY DOCTOR OR CHOOSE FROM LIST OF DOCTORS
		5,999	1. Any doctor
		638	2. Select from list/group
		193	8. Not Ascertained
		568	9. DK or refused
		56,004	Blank. NA; No or unknown if covered by Medicare
408-409			BLANK
410	2b		COVERED BY MEDICAID LAST MONTH
		6,994	1. Yes
		53,320	2. No
		172	8. Not ascertained
		2,916	9. DK or refused

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
411	2d		LENGTH OF TIME WITH MEDICAID COVERAGE
		694	0. Less than 6 months
		633	1. 6 months but less than one year
		840	2. 1 yr, but less than 2 years
		1,589	3. 2 years but less than 5 years
		2,377	4. 5 years or more
		32	5. On and off for less than 2 years
		144	6. On and off for 2 yrs but less than 5 yrs
		377	7. On and off for 5 yrs or more
		132	8. Not ascertained
		176	9. DK or refused
		56,408	Blank. NA; No or unknown if covered by Medicaid last month
412	2e		GO TO ANY DOCTOR OR CHOOSE FROM LIST OF DOCTORS
		4,230	1. Any doctor
		1,841	2. Select from list/group
		483	8. Not ascertained
		440	9. DK or refused
		56,408	Blank. NA; No or unknown if covered by Medicaid
413	2f		NEED APPROVAL OR REFERRAL FROM USUAL DOCTOR
		1,241	1. Yes
		201	2. No
		77	8. Not ascertained
		322	9. DK or refused
		61,561	Blank. NA; No or unknown if covered by medicaid; doesn't select from list/group
414	3b		RECEIVED MEDICAID CARE IN PAST 12 MONTHS
		591	0. Single person * (not asked question)
		5,165	1. Yes
		48,385	2. No
		9,054	8. Not ascertained
		207	9. DK or refused

* In previous years, only single persons who were covered by Medicaid in the previous month.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
415	4b		COVERED BY OTHER PUBLIC ASSISTANCE LAST MONTH
		467	1. Yes
		59,779	2. No
		3,021	8. Not ascertained
		135	9. DK or refused
416	5c		COVERED BY CHAMPUS OR CHAMP - VA LAST MONTH
		1,127	1. Yes
		58,918	2. No
		3,357	8. Not ascertained
417	5f		COVERED BY OTHER MILITARY HEALTH CARE LAST MONTH
		626	1. Yes
		60,281	2. No
		2,495	8. Not ascertained
418	6b		COVERED BY INDIAN HEALTH SERVICE LAST MONTH
		226	1. Yes
		60,033	2. No
		3,081	8. Not ascertained
		62	9. DK or refused

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes			
(419-506)	1a-7b		TABLE HI (Tape locations in parenthesis)			
			Plan 1	Plan 2	Plan 3	Plan 4
	NAME OF PLAN		(419-420)	(441-442)	(463-464)	(485-486)
	01,04,10-12, 20-22,30-32, 40-42,50-52,60-62,70-72,90-92,96,					
	95. Refer to Health Insurance Plan Listing	44,954	16,107	3,661	1,042	
	98. Not ascertained	407	420	140	29	
	99. DK or refused to say if has insurance	2	0	0	0	
	Blank. NA; No or unknown if anyone in family has private health insurance; this plan not mentioned for this family/individual	18,039	46,875	59,601	62,331	
	COVERAGE STATUS		(421)	(443)	(465)	(487)
	0. Not known to be covered by this plan	8,732	6,522	1,745	539	
	1. Covered by this general purpose plan	35,975	5,534	711	132	
	2. Covered by this single service plan	464	4,235	1,240	341	
	8. Unknown which family member is covered by this plan	192	236	105	59	
	Blank. NA; No or unknown if anyone in family has private health insurance; this plan not mentioned for this family/individual	18,039	46,875	59,601	62,331	
	PLAN IN WHOSE NAME		(422)	(444)	(466)	(488)
	1. In own name	17,361	5,419	1,113	267	
	2. Person not in household	666	275	66	15	
	3. Someone else in family (HH) or unknown	27,336	10,833	2,622	789	
	Blank. NA; No or unknown if anyone in family has private health insurance; this plan not mentioned for this family/individual	18,039	46,875	59,601	62,331	

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes			
(419-506)	1a-7b		TABLE HI - Continued			
			Plan 1	Plan 2	Plan 3	Plan 4
		LAST MONTH'S PREMIUM PAID BY FAMILY	(425)	(447)	(469)	(491)
	0.	Zero	885	459	77	7
	1.	\$1-9	539	756	220	78
	2.	\$10-1	1,588	1,274	311	103
	3.	\$20-49	5,726	2,393	487	126
	4.	\$50-99	7,072	1,775	295	75
	5.	\$100-199	7,458	1,238	160	47
	6.	\$200-499	3,808	397	41	6
	7.	\$500 or more	496	36	8	2
	8.	Not ascertained	414	320	118	37
	9.	DK or refused	6,312	3,350	975	294
	Blank.	NA; No or unknown if anyone in family has private health insurance; this plan not mentioned for this family/individual; entire premium paid by employer/union	29,104	51,404	60,710	62,627
		VARIETY OR SINGLE SERVICE PLAN	(426)	(448)	(470)	(492)
	1.	Variety of service	43,948	10,936	1,884	428
	2.	Single service/care	634	4,989	1,715	592
	8.	Not ascertained	297	245	89	24
	9.	DK or refused	484	357	113	27
	Blank.	NA; No or unknown if anyone in family has private health insurance; this plan not mentioned for this family/individual	18,039	46,875	59,601	62,331

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes			
(419-506)	1a-7b		TABLE HI - Continued			
			Plan 1	Plan 2	Plan 3	Plan 4
		TYPE OF SINGLE SERVICE	427-428	449-450	471-472	493-494
		01. Accidents	61	76	37	7
		02. AIDS care	0	0	0	0
		03. Cancer treatment	11	100	61	25
		04. Catastrophic care	45	29	9	5
		05. Dental care	104	4,206	1,035	404
		06. Disability insurance	0	41	25	14
		07. Hospice care	7	4	0	0
		08. Hospitalization-only	253	172	50	12
		09. Long term care	8	26	24	23
		10. Prescriptions	12	104	47	19
		11. Vision care	8	116	389	68
		12. Other	113	49	24	6
		98. Not ascertained	8	50	8	9
		99. DK or refused	4	16	6	0
		Blank. NA; No or unknown if anyone in family has private health insurance, this plan not mentioned for this family/individual, not single service plan	62,768	58,413	61,687	62,810
		TYPE OF PLAN	(429)	(451)	(473)	(495)
		1. HMO/IPA	18,611	4,197	688	166
		2. Other	21,881	5,707	930	195
		8. Not ascertained	280	144	80	25
		9. DK or refused	3,957	1,490	388	93
		Blank. NA; No or unknown if anyone in family has private health insurance, this plan not mentioned for this family/individual, single service plan	18,673	51,864	61,316	62,923

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes			
(419-506)	1a-7b		TABLE HI - Continued			
			Plan 1	Plan 2	Plan 3	Plan 4
		CHOICE OF DOCTOR	(430)	(452)	(474)	(496)
		1. Any doctor	20,056	5,372	810	166
		2. Select from group/list	22,593	4,801	835	213
		8. Not ascertained	224	160	78	23
		9. DK or refused	1,856	1,205	363	77
		Blank. NA; No or unknown if anyone in family has private health insurance, this plan not mentioned for this family/individual, single service plan	18,673	51,864	61,316	62,923
		PREFERRED PROVIDER LIST OPTION (Family/individual has plan and can choose any doctor)	(431)	(453)	(475)	(497)
		1. Yes	6,845	1,598	220	51
		2. No	9,135	2,397	317	53
		8. Not ascertained	297	130	15	3
		9. DK or refused	3,779	1,247	258	59
		Blank. NA	43,346	58,030	62,592	63,236
		PLAN PAYS FOR OUT OF PLAN USE (Family/individual has plan and must select from specific group/list)	(432)	(454)	(476)	(498)
		1. Yes	8,554	1,593	221	32
		2. No	8,438	1,838	315	87
		8. Not ascertained	678	144	41	0
		9. DK or refused	4,923	1,226	258	94
		Blank. NA	40,809	58,601	62,567	63,189
		PLAN PAYS FOR DENTAL CARE	(433)	(455)	(477)	(499)
		1. Yes	19,031	4,252	730	127
		2. No	23,198	5,842	887	235
		8. Not ascertained	275	182	77	20
		9. DK or refused	2,225	1,262	392	97
		Blank. NA	18,673	51,864	61,316	62,923

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes			
(419-506)	1a-7b		TABLE HI - Continued			
			Plan 1	Plan 2	Plan 3	Plan 4
		PLAN PAYS FOR WELL CHILD CARE (Family has plan and 1+ family members under age 18)	(434)	(456)	(478)	(500)
	0.	No person under 18 years	19,378	5,832	1,088	224
	1.	Yes	16,022	2,585	360	99
	2.	No	5,289	1,467	188	46
	8.	Not ascertained	1,494	742	231	49
	9.	DK or refused	2,546	912	219	61
	Blank.	NA	18,673	51,864	61,316	62,923
	BLANK		(435-440)	(457-462)	(479-484)	(501-506)

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
507	8b		DENIED/RESTRICTED COVERAGE IN PAST TWO YEARS DUE TO PRE-EXISTING CONDITION
		504	1. Yes
		59,324	2. No
		3,402	8. Not ascertained
		172	9. DK or refused
508	9b		TURNED DOWN WHEN APPLIED IN PAST 2 YEARS
		519	1. Yes
		59,009	2. No
		3,718	8. Not ascertained
		156	9. DK or refused
(509-513)	Recode		REASONS UNABLE TO GET HEALTH INSURANCE
509			PRE-EXISTING CONDITION(S)
		212	1. Mentioned
		260	2. Not mentioned
		28	8. Not ascertained (any reason)
		19	9. DK any reason
		62,883	Blank. NA; No or unknown if unable to get insurance
510			HEALTH RISK (smoking/overweight)
		27	1. Mentioned
		445	2. Not mentioned
		28	8. Not ascertained but turned down (entire question)
		19	9. DK any reason
		62,883	Blank. NA; No or unknown if unable to get insurance
511			WORK OCCUPATION (construction, beautician, farm worker)
		0	1. Mentioned
		472	2. Not mentioned
		28	8. Not ascertained (any reason)
		19	9. DK any reason
		62,883	Blank. NA; No or unknown if unable to get insurance

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
(509-513)	Recode		REASONS UNABLE TO GET HEALTH INSURANCE -Continued
	512		PREMIUMS WERE TOO HIGH
		102	1. Mentioned
		370	2. Not mentioned
		28	8. Not ascertained (any reason)
		19	9. DK any reason
		62,883	Blank. NA; No or unknown if unable to get insurance
	513		OTHER REASONS
		158	1. Mentioned
		314	2. Not mentioned
		28	8. Not ascertained (any reason)
		19	9. DK any reason
		62,883	Blank. NA; No or unknown if unable to get insurance
	514	10b	STAYED IN JOB BECAUSE OF HEALTH INSURANCE
		831	1. Yes
		59,079	2. No
		3,314	8. Not ascertained
		178	9. DK or refused
	515	11	HEALTH INSURANCE OFFERED BY EMPLOYER
		16,214	0. Not asked, person has job and has insurance in own name
		3,222	1. Yes
		6,863	2. No
		2,177	8. Not ascertained
		711	9. DK or refused
		34,215	Blank. NA; 70+ yrs; not employed in past 2 weeks

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
516	Recode		PRIVATE HEALTH INSURANCE COVERAGE RECODE
		538	0. Only known coverage is single purpose plan
		40,228	1. Covered by at least one general purpose health plan
		19,211	2. Not covered by any plan
		265	6. Unknown if covered by at least one particular plan
		2,967	8. Not ascertained (whole question)
		193	9. Unknown if covered (whole question)
517	Generated		NUMBER OF PRIVATE, GENERAL PURPOSE HEALTH INSURANCE PLANS PER PERSON
		23,174	0. No known plans
		40,228	1-4. Number of plans
518	Generated		NUMBER OF PRIVATE HEALTH INSURANCE PLANS PER FAMILY
		18,678	0. No known plans
		44,724	1-4. Number of plans
519	Generated		NUMBER OF SINGLE PURPOSE PLANS PER PERSON
		57,828	0. No known plans
		5,574	1-4. Number of plans
520	Generated		NUMBER OF SINGLE PURPOSE PLANS PER FAMILY
		56,793	0. No known plans
		6,609	1-4. Number of plans
521	Recode		MEDICARE AND/OR PRIVATE HEALTH INSURANCE
		42,844	1. Covered by one or both
		16,756	2. Not covered by either
		3,802	9. Unknown if covered

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
522	Recode		MEDICAID OR OTHER PUBLIC ASSISTANCE
		167	1. Covered by both
		7,127	2. Covered by one
		52,863	3. Covered by neither
		3,245	9. Unknown if covered
523	Recode		MILITARY COVERAGE
		1,004	0. Covered by CHAMPUS/ CHAMP-VA
		503	1. Covered by other military/VA
		123	2. Covered by both CHAMPUS and other military health care
		58,153	3. Not covered by any military health care
		262	6. Not covered by other military; not ascertained if covered by CHAMP-VA
		1,124	7. Not covered by CHAMP-VA; not ascertained if covered by other military
		2,233	8. Not ascertained
524	Recode		COVERAGE STATUS*
		49,804	1. Yes, covered
		9,713	2. Not known to be covered, some response to non-coverage reasons
		3,885	3. Not known to be covered, no response to non-coverage items

*The coverage status recode is based on responses to Questions 1-7 and the private health insurance plans referred to in Question 8. In addition, 21 people reported "covered by other plan" as a reason for having no insurance (Loc. 535=1); in location 541, 18 of these persons gave a general indication of the type of plan but not enough detail to alter their general coverage status to "covered". If someone is not known to be covered by any of these sources (Questions 1-7) but did not respond to Question 12, they were given a "3" code. This code includes all nonrespondents.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
(525-538)	Recode		WHY NOT COVERED BY HEALTH INSURANCE
	525		JOB LAYOFF/LOSS/UNEMPLOYED
		712	1. Mentioned
		8,638	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	526		WASN'T OFFERED BY EMPLOYER
		1,774	1. Mentioned
		7,576	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	527		NOT ELIGIBLE - PART TIME WORKER
		364	1. Mentioned
		8,986	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	528		FAMILY COVERAGE NOT OFFERED BY EMPLOYER
		611	1. Mentioned
		8,739	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
(525-538)	Recode		WHY NOT COVERED BY HEALTH INSURANCE -Continued
	529		BENEFITS RAN OUT
		234	1. Mentioned
		9,116	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	530		CAN'T OBTAIN BECAUSE OF POOR HEALTH, ILLNESS OR AGE
		127	1. Mentioned
		9,223	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	531		TOO EXPENSIVE/CAN'T AFFORD
		6,711	1. Mentioned
		2,639	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	532		DISSATISFIED WITH PREVIOUS INSURANCE
		61	1. Mentioned
		9,289	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
(525-538)	Recode		WHY NOT COVERED BY HEALTH INSURANCE -Continued
	533		DON'T BELIEVE IN INSURANCE
		126	1. Mentioned
		9,224	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	534		HEALTHY/HAVEN'T NEEDED INSURANCE
		1,072	1. Mentioned
		8,278	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	535		COVERED BY OTHER PLAN
		21	1. Mentioned
		9,329	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	536		TOO OLD FOR COVERAGE UNDER FAMILY PLANS
		150	1. Mentioned
		9,200	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
(525-538)	Recode		WHY NOT COVERED BY HEALTH INSURANCE -Continued
	537		FREE/INEXPENSIVE CARE AVAILABLE
		127	1. Mentioned
		9,223	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
	538		OTHER REASONS
		889	1. Mentioned
		8,461	2. Not mentioned
		98	8. Not ascertained (any reason)
		265	9. DK any reason
		53,689	Blank. NA; covered, not known to be covered but no response to non-coverage items
539-540	12b		MAIN REASON NOT COVERED
		417	01. Job layoff/loss/unemployed
		803	02. Wasn't offered by employer
		146	03. Not eligible-part time worker
		298	04. Family coverage not offered by employer
		78	05. Benefits ran out
		64	06. Can't obtain because of poor health, illness or age
		6,051	07. Too expensive/can't afford
		30	08. Dissatisfied with previous insurance
		73	09. Don't believe in insurance
		543	10. Healthy/haven't needed insurance
		11	11. Covered by other plan
		65	12. Too old for coverage under family plans
		47	13. Free/inexpensive care available
		612	14. Other reason
		45	15. More than 1 reason specified, unknown which is main
		430	98. Not ascertained (includes unknown any specific reason)
		0	99. DK or refused
		53,689	Blank. NA; Covered, not known to be covered but no response to non-coverage items

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
541	12c		COVERED BY STATE SPONSORED HEALTH, PRIVATE, OR OTHER TYPE OF PLAN *
		8	1. State Plan
		4	2. Private Plan
		6	3. Other Plan
		3	8. Not ascertained
		0	9. DK or refused
		63,381	Blank. NA; covered, not known to be covered but not response to non-coverage items.
542	12d		WHEN LAST HAD COVERAGE
		721	1. Less than 6 months ago
		619	2. 6 months ago, but less than 1 year ago
		1,419	3. 1 year ago, but less than 3 years ago
		2,610	4. 3 or more years ago
		3,530	5. Never had health insurance
		249	8. Not ascertained
		565	9. DK or refused
		53,689	Blank. NA, Covered, not known to be covered but no response to non-coverage items; said covered by other plan in Q.12a
543-544	12e		MAIN REASON STOPPED BEING COVERED (Not covered but had coverage within past 3 years; Q12d = 1-3)
		954	01. Lost job/changed employers
		425	02. Spouse/parent lost job/changed employers
		17	03. Death of spouse or parent
		72	04. Divorce or separation
		242	05. Became ineligible because of age
		53	06. Employer stopped offering coverage
		23	07. Cut back to part time
		72	08. Benefits from employer/former employer ran out
		759	09. Other reason
		109	98. Not ascertained
		33	99. DK or refused
		60,643	Blank. NA

*This data was not included in the overall coverage status in Loc. 524. Persons with a response in this field were not asked the remainder of question 12. They are "covered" to an unknown degree; not enough is known about their coverage to classify them into specific coverage categories.

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
545	12f		TRIED TO FIND OTHER HEALTH INSURANCE (Not covered but had coverage within past 3 years or unknown when last covered; Q12d = 1-3,8,9)
		770	1. Yes
		2,070	2. No
		447	8. Not ascertained
		286	9. DK or refused
		59,829	Blank. NA
546	12g		REASON UNABLE TO FIND HEALTH INSURANCE (Not covered but had coverage in past 3 years or unknown when covered but tried to get coverage; Q12f = 1)
		606	1. Could not afford
		52	2. Was rejected
		96	3. Other reason
		15	8. Not ascertained
		1	9. DK or refused
		62,632	Blank. NA
547	13a		ANY TIME WITHOUT COVERAGE
		2,005	1. Yes
		44,720	2. No
		2,956	8. Not ascertained
		123	9. DK or refused
		13,598	Blank. NA; not covered, not known to be covered
548	13b		NUMBER OF MONTHS WITHOUT COVERAGE
		241	1. 1 month or less
		478	2. 2-3 months
		569	3. 4-6 months
		609	4. More than 6 months
		85	8. Not ascertained
		23	9. DK or refused
		61,397	Blank. NA; not covered, not known to be covered, covered and no time without coverage in past 12 months

1996 NHIS HEALTH INSURANCE PUBLIC USE FILE

Tape Locations	Item No.	Frequency	Items and Codes
549-550	13c		MAIN REASON WITHOUT COVERAGE
		470	01. Lost job/changed employers
		315	02. Spouse/parent lost job/changed employers
		7	03. Death of spouse or parent
		43	04. Divorce or separation
		46	05. Became ineligible because of age
		38	06. Employer stopped offering coverage
		19	07. Cut back to part time
		44	08. Benefits from employer/former employer ran out
		766	09. Other reason
		211	98. Not ascertained
		46	99. DK or refused
		61,397	Blank. NA not covered, not known to be covered, covered and no time without coverage in past 12 months
551	14		AMOUNT FAMILY SPENT FOR MEDICAL CARE
		8,442	1. Zero
		31,539	2. Less than \$500
		13,263	3. \$500 - \$1,999
		2,554	4. \$2,000 - \$2,999
		1,284	5. \$3,000 - \$4,999
		1,050	6. \$5,000 or more
		3,007	8. Not ascertained
		2,263	9. DK or refused
552	Recode		RESPONSE STATUS
		24,029	1. Self
		35,989	2. Proxy
		3,384	9. Unknown Respondent
553-554			PERSON WHO ANSWERED MOST QUESTIONS
		3,404	00. Unknown respondent
		59,877	01-28. Person number
		0	30-97. Person number
		105	98. Active duty military
		16	99. Non household member
555-560			BLANK

HEALTH INSURANCE PLAN LISTING

FEE FOR SERVICE PLANS:

- 01. Blue Plan
- 04. Other Plan - enrollment unknown

MANAGED CARE PLANS

HMO

Group

- 10. 99,999 or less
- 11. 100,000 or more
- 12. Unknown enrollment

Staff

- 20. 99,999 or less
- 21. 100,000 or more
- 22. Unknown enrollment

IPA

- 30. 99,999 or less
- 31. 100,000 or more
- 32. Unknown enrollment

Network

- 40. 99,999 or less
- 41. 100,000 or more
- 42. Unknown enrollment

Mixed HMO

- 50. 99,999 or less
- 51. 100,000 or more
- 52. Unknown enrollment

HEALTH INSURANCE PLAN LISTING -
Continued

Preferred Provider Organization (PPO)

- 60. 99,999 or less
- 61. 100,000 or more
- 62. Unknown enrollment

Point of Service (POS)

- 70. 99,999 or less
- 71. 100,000 or more
- 72. Unknown enrollment

Other HMO/Managed Care*

- 90. 99,999 or less
- 91. 100,000 or more
- 92. Unknown enrollment

OTHER PLANS

- 95. Single purpose plan
- 96. Comprehensive plan, unknown type
- 98. Not Ascertained
- 99. Unknown

*Includes HMO type unspecified

Definitions:

Group HMO: An HMO that contracts with one independent group practice to provide health services.

Staff HMO: An HMO that delivers health services through a physician group that is controlled by the HMO Unit.

IPA: An HMO that contracts directly with physicians in independent practices; and/or contracts with one or more associations of physicians in independent practice; and/or contracts with one or more multispecialty group practices (but the plan is predominantly organized around solo/single practices).

Network: An HMO that contracts with two or more independent group practices, possibly including a staff group, to provide health services. Although a network may contain a few solo practices, it is predominantly organized around groups.

Mixed: A managed care plan combining more than one type of delivery with no one type predominant (over 70%).

HEALTH INSURANCE PLAN LISTING -
Continued

PPO: PPO's are a form of managed care although not a "traditional" HMO. Enrollees in PPOs are encouraged to use designated or "preferred" health providers. Financial incentives for individuals to use preferred providers include lower copayments or coinsurance and maximum limits on out-of-pocket costs for in-network use. PPOs are less restrictive than HMOs in that visits to specialists are not dependent on the authorization by a member's primary care physician. Unlike HMOs, out-of-network usage is allowed by PPOs, though at a higher cost to enrollees. (Adapted from 1995-96 Managed Health Care Directory, American Managed Care and Review Association Foundation, Washington DC).

POS: Point-of-service (POS) plans are a form of managed care although not a "traditional HMO". POS plans allow for "opt-out" or out-of-network coverage, but accompanied by strong economic incentives to the enrollees to use network providers (e.g. lower copayments or lower coinsurance for network use). The out-of network usage is insured as fee-for-service coverage. POS plans generally use gatekeepers for referrals to specialists in the network. It is this attribute that most readily distinguishes a POS plan from a PPO. (Adapted from 1995-96 Managed Health Care Directory, American Managed Care and Review Association Foundation, Washington DC).

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
01	01	AGRICULTURE	01-02, 071-072, 074-076, 078
02	01	FORESTRY AND FISHERIES	08-09
10	02	MINING	10, 12-14
20	03	CONSTRUCTION	15-17
(30-34, 40-46)	(04)	MANUFACTURING:	
(30-34)		NONDURABLE GOODS	
30	04	Food and kindred products	201-209
31	04	Textile mill and finished textile products	221-229, 231-239
32	04	Printing, publishing and allied industries	271-279
33	04	Chemicals and allied products	281-287, 289
34	04	Other nondurable goods	21, 261-263, 265, 267, 291, 295, 299, 301-306, 308, 311, 313-317, 319

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
(30-34, 40-46)	(04)	MANUFACTURING: - continued	
(40-46)		DURABLE GOODS	
40	04	Furniture, lumber and wood	241-245,249,25
41	04	Primary metal industries	331-332,334,3331, 3334,3339,3351, 3353-3357,3363- 3366,3369,339
42	04	Fabricated metal industries, including ordnance	341-349
43	04	Machinery, except electrical	351-359
44	04	Electrical machinery, equipment and supplies	361-367,369
45	04	Transportation equipment	371-376,379
46	04	Other and not specified durable goods	321-329,381-382, 384-387,39

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
(50-54)	(05)	TRANSPORTATION, COMMUNICATIONS AND OTHER PUBLIC UTILITIES	
50	05	Railroads	40
51	05	Trucking service and warehousing	421-423
52	05	Other transportation	41,43-47
53	05	Communications	481-484,489
54	05	Utilities and sanitary	491-497
60	06	WHOLESALE TRADE	501-509,511-519

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
(61-65)	(07)	RETAIL TRADE	
61	07	General merchandise stores	531,533,539
62	07	Food, bakery and dairy stores	541-546,549
63	07	Automotive dealers and gasoline stations	551-557,559
64	07	Eating and drinking places	58
65	07	Other and not specified retail trade	521,523,525-527,56,571-572,5731,5734-5736,591-594,5961-5963,598,5992-5995,5999
(70-71)	(08)	FINANCE, INSURANCE, AND REAL ESTATE	
70	08	Banking and credit agencies	60-61
71	08	Insurance, real estate, and other finance	62-65,67

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
(75-85)	(09-12)	SERVICES:	
(75-76)	(09)	BUSINESS AND REPAIR SERVICES	
75	09	Business services	731-738, 751, 752, 7542
76	09	Repair services	753, 7549, 762-764, 7692, 7694, 7699
(77-78)	(10)	PERSONAL SERVICES	
77	10	Private households	88
78	10	Other personal services	701-704, 721-726, 729
79	11	ENTERTAINMENT AND RECREATION SERVICES	781-784, 791-794, 799
(80-85)	(12)	PROFESSIONAL AND RELATED SERVICES	
80	12	Hospitals	806
81	12	Health services, except hospitals	801-803, 8041-8043, 8049, 805, 807-809
82	12	Elementary and secondary schools and colleges	821-822
83	12	Other educational services	823-824, 829
84	12	Social services, religious and membership organizations	832-833, 835-836, 839, 84, 861-866, 869
85	12	Legal, engineering and other professional services	81, 871-874, 899

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODES OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 80-81	No. 2 Chrs. 82-83	Industry Title	SIC Code*
90	13	PUBLIC ADMINISTRATION	911-913, 919, 92-97
95	14	UNKNOWN INDUSTRY (Includes never worked)	-
96	14	REFUSED, CLASSIFIED, ETC.	
97	15	NOT IN LABOR FORCE - codes Blank and 8 in current activity recode (loc. 75) (Under 18 or 18+ and not in Labor Force).	
98	16	ARMED FORCES (excludes Reserves and National Guard)	

*Standard Industrial Classification

APPENDIX B
INDUSTRY RECODE TITLES

Code	Titles	Recode No. 1 Inclusions
01	AGRICULTURE, FORESTRY AND FISHERIES	01,02
02	MINING	10
03	CONSTRUCTION	20
04	MANUFACTURING	30-34, 40-46
05	TRANSPORTATION, COMMUNICATIONS AND OTHER PUBLIC UTILITIES	50-54
06	WHOLESALE TRADE	60
07	RETAIL TRADE	61-65
08	FINANCE, INSURANCE, AND REAL ESTATE	70-71
09	BUSINESS AND REPAIR SERVICES	75-76
10	PERSONAL SERVICES	77-78
11	ENTERTAINMENT AND RECREATION SERVICES	79
12	PROFESSIONAL AND RELATED SERVICES	80-85
13	PUBLIC ADMINISTRATION	90
14	UNKNOWN (includes never worked, refused, classified, etc.)	95-96
15	NOT IN LABOR FORCE	97
16	ARMED FORCES	98

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1 Chrs. 87-88	No. 2 Chrs. 89-90	Occupation Title	SOC Code*
(01-03)	(01)	EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS	-
01	01	Officials and administrators, public administration	111-113
02	01	Managers and administrators, except public administration	121-128,131- 1344,1351- 1354,1359, 136-139
03	01	Management related occupations	1412,1414-1415, 1419,142-143, 1442-1443,1449, 145,1472- 1473,149

*Standard Occupational Classification

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes		Occupation Title	SOC Code*
No. 1 Chrs. 87-88	No. 2 Chrs. 89-90		
(04-11)	(02)	PROFESSIONAL SPECIALTY OCCUPATIONS	-
04	02	Engineers	1622-1628,1632- 1637,1639
05	02	Architects and surveyors	161,164
06	02	Natural mathematical and computer scientists	171-172,1732- 1733,1739, 1842-1843, 1845-1847,1849, 1852-1855
07	02	Health diagnosing occupations	261-262,27,281, 283,289
08	02	Health assessment and treating occupations	29,301-302, 3031-3034,3039, 304
09	02	Teachers, librarians and Counselors	2212-2218, 2222-2228, 2231-2238, 2242-2247, 2249,231-233, 235,236,239,24, 251,252
10	02	Writers, artists, entertainers and athletes	34,321-329, 331-333,398
11	02	Other professional specialty occupations	1912-1916, 1919,192, 2032-2033, 2042,2049, 211-212

*Standard Occupational Classification.

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
(12-13)	(03)	TECHNICIANS AND RELATED SUPPORT OCCUPATIONS	-
12	03	Health technologists and technicians	362-366, 369
13	03	Technologists, technicians except health	3711-3713, 3719, 372-373, 382, 3831-3833, 384, 389, 392-393, 396, 3971-3972, 3974, 399, 825
(14-16)	(04)	SALES OCCUPATIONS	-
14	04	Supervisors and proprietors	40
15	04	Sales representatives, commodities and finance	4122-4124, 4152-4153, 421, 423-424
16	04	Other sales	4342-4348, 4351- 4354, 4356, 4359, 4362-4367, 4369, 444-447, 449

*Standard Occupational Classification

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
(17-21)	(05)	ADMINISTRATIVE SUPPORT OCCUPATIONS, INCLUDING CLERICAL	-
17	05	Computer equipment operators	4612-4613
18	05	Secretaries, stenographers and typists	4622-4624
19	05	Financial records processing occupations	4712-4713, 4715-4716, 4718
20	05	Mail and message distributing	4742-4745
21	05	Other administrative support	4511-4514, 4516, 4519, 4521-4529, 463, 4642-4645, 4649, 4662-4664, 4692, 4694, 4696, 4699, 4722-4723, 4729, 4732-4733, 4739, 4751-4759, 4782-4784, 4786- 4787, 4791-4795, 4799
22	06	Private household occupations	502-507, 509

*Standard Occupational Classification.

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes		Occupation Title	SOC Code*
No. 1 Chrs. 87-88	No. 2 Chrs. 89-90		
(23-24)	(07)	PROTECTIVE SERVICE OCCUPATIONS	
23	07	Police and firefighters	5111-5112, 5122-5123, 5132-5134
24	07	Other protective service occupations	5113, 5142, 5144, 5149
(25-28)	(08)	SERVICE OCCUPATIONS, EXCEPT PROTECTIVE AND HOUSEHOLD	
25	08	Food service	5211-5219
26	08	Health service	5232-5233, 5236
27	08	Cleaning and building service	5241-5242, 5244-5246, 5249
28	08	Personal service	5251-5258, 5262- 5264, 5269
(29-31)	(09)	FARMING, FORESTRY AND FISHING OCCUPATIONS	
29	09	Farm operators and managers	5512-5515, 5522- 5525
30	09	Farm workers and other agricultural workers	5611-5619, 5621-5622, 5624-5625, 5627
31	09	Forestry and fishing occupations	571-573, 579, 583-584, 8241 (pt.)

*Standard Occupational Classification.

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
(32-34)	(10)	PRECISION PRODUCTION, CRAFT AND REPAIR OCCUPATIONS	
32	10	Mechanics and repairers	60,6111-6118, 613-614,6151- 6159,616,6171- 6179
33	10	Construction and extractive trades	6311-6316,6318, 632,6412- 6414 (pt.),6422, 6424,6432-6433, 6442-6444,645, 6462-6468,6472- 6476,6479,652- 654,656
34	10	Precision production occupations	67,71, 6811-6814, 6816-6817, 6821-6824, 6829,6831-6832, 6835,6839,6844, 6852-6854,6856, 6859,6861-6862, 6864-6867,6869, 6871-6873,6879, 6881-6882,691- 696,7477 (pt.), 7668,7677 (pt.), 7752,828

*Standard Occupational Classification

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
		OPERATORS, FABRICATORS AND LABORERS	
(35-36)	(11)	MACHINE OPERATORS, ASSEMBLERS AND INSPECTORS	
35	11	Machine operators and tenderers, except precision	6841-6842, 6849, 6855, 6863, 6868, 7312-7319, 7322, 7324, 7326, 7329, 7339, 7342-7344, 7349, 7431-7435, 7439, 7443-7444, 7449, 7451-7452, 7459, 7462-7463, 7467, 7472, 7474, 7476-7478, 7479, 7512-7519, 7522, 7529, 7539, 7542- 7544, 7549, 7631- 7636, 7639, 7642- 7644, 7649, 7651- 7652, 7654-7659, 7661-7667, 7669, 7671-7676, 7677 (pt.), 7678-7679
36	11	Fabricators, assemblers, inspectors and samplers	7332-7333, 7532- 7533, 7714, 7717, 72, 774, 7753- 7759, 782-785, 787

*Standard Occupational Classification

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
(37-39)	(12)	TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS	
37	12	Motor vehicle operators	8111,8212-8216, 8218-8219,874
38	12	Other transportation, except motor vehicles	8113,8232-8233, 8239,8241 (pt.), 8242-8245
39	12	Material moving equipment operators	812,8312-8319
(40-41)	(13)	HANDLERS, EQUIPMENT CLEANERS, HELPERS AND LABORERS	
40	13	Construction laborers	871
41	13	Freight, stock and material handlers	85,861-863, 8641-8646, 8648,865, 8722-8726,873, 875,8761,8769

* Standard Occupational Classification

APPENDIX C

OCCUPATION RECODE OUTLINE

Revised in 1995

Recodes			
No. 1	No. 2	Occupation Title	SOC Code*
Chrs.	Chrs.		
87-88	89-90		
95	14	UNKNOWN OCCUPATION (Includes never worked)	
96	14	REFUSED, CLASSIFIED, ETC.	
97	15	NOT IN LABOR FORCE - codes Blank and 8 in current activity recode (Loc. 75). (Under 18 or 18+ and Not in Labor Force)	
98	16	MILITARY	

*Standard Occupational Classification

APPENDIX C
OCCUPATION RECODE TITLES

Code	Titles	Recode No. 1 Inclusions
	MANAGERIAL AND PROFESSIONAL SPECIALTY OCCUPATIONS	
01	EXECUTIVE, ADMINISTRATIVE AND MANAGERIAL OCCUPATIONS	01-03
02	PROFESSIONAL SPECIALTY OCCUPATIONS	04-11
	TECHNICAL, SALES AND ADMINISTRATIVE SUPPORT OCCUPATIONS	
03	TECHNICIANS AND RELATED SUPPORT OCCUPATIONS	12-13
04	SALES OCCUPATIONS	14-16
05	ADMINISTRATIVE SUPPORT OCCUPATIONS, INCLUDING CLERICAL	17-21
	SERVICE OCCUPATIONS	
06	PRIVATE HOUSEHOLD OCCUPATIONS	22
07	PROTECTIVE SERVICE OCCUPATIONS	23-24
08	SERVICE OCCUPATIONS, EXCEPT PROTECTIVE AND HOUSEHOLD	25-28
09	FARMING, FORESTRY AND FISHING OCCUPATIONS	29-31
10	PRECISION PRODUCTION, CRAFT AND REPAIR OCCUPATIONS	32-34
	OPERATORS, FABRICATORS AND LABORERS	
11	MACHINE OPERATORS, ASSEMBLERS AND INSPECTORS	35-36
12	TRANSPORTATION AND MATERIAL MOVING OCCUPATIONS	37-39
13	HANDLERS, EQUIPMENT CLEANERS, HELPERS AND LABORERS	40-41
14	UNKNOWN OCCUPATION (includes never worked, refused, classified, etc.)	95-96
15	NOT IN LABOR FORCE	97
16	MILITARY	98

VARIANCE ESTIMATION FOR PERSON DATA USING THE
NHIS PUBLIC USE PERSON DATA TAPE, 1995-2004

April 17, 1998

About this document:

This document provides basic design information about the 1995-2004 NHIS and presents methods to compute standard errors for each annually released person-level database. This document focuses upon a full-sample NHIS Core survey that is anticipated for each data collection year. For some years the full-sample methods need to be modified to account for design changes. In particular, the 1996 NHIS has a sample design quite different from the 1995 NHIS. Also, Supplemental surveys may require modified methods. Some notes about these modifications appear at the end of this document.

Contents

VARIANCE ESTIMATION FOR PERSON DATA USING THE NHIS PUBLIC USE PERSON DATA TAPE, 1995	Pages 2-11
Notes for the 1995 NHIS Year 2000 supplement	Page 12
Notes for the 1996 NHIS	Pages 13-16

VARIANCE ESTIMATION FOR PERSON DATA USING THE
NHIS PUBLIC USE PERSON DATA TAPE, 1995

Introduction: The data collected in the NHIS are obtained through a complex sample design involving stratification, clustering, and multistage sampling, and the final weights are subject to several adjustments. Any variance estimation methodology must involve numerous simplifying assumptions about the design and weighting. We provide some oversimplified conceptual NHIS design structures that should allow users of this Public Use Data Set to compute reasonably accurate standard errors.

There are several available software packages for analyzing complex samples. A comparison is beyond the scope of this document, but an Internet web page Summary of Survey Analysis Software currently located at <http://www.fas.harvard.edu/~stats/survey-soft/survey-soft.html> provides references and discussion. At NCHS the software package SUDAAN has been used to produce standard errors. In this document SAS and SUDAAN computer code is provided, but without guarantees of any kind. The computer code and methods are subject to change without notification to the user. The entire risk as to the results and performance is assumed by the user. NCHS recommends that any analysis of NHIS data be done under the supervision of a statistician who understands the implications of complex-sample design surveys.

Conceptual NHIS design for 1995 The U.S. Bureau of the Census partitions the state counties or equivalents along with metropolitan areas into a universe of about 1900 Primary Sampling Units (PSUs) (note, PSUs may be combined counties) to provide the primary sampling areas for its many national surveys. For the NHIS these universe PSUs are partitioned into geographical strata at the state level. Some of the larger universe PSUs are self-representing (SR), i.e., they are in the NHIS with certainty. The other PSUs are called non-self-representing (NSR) or non-certainty PSUs. Within each state the NSR PSUs are partitioned into strata based upon similarity of PSU characteristics. Within each NSR stratum 2 PSUs are selected using Durbin's probability proportional to size (PPS) sampling method using the population as a measure of size. (In some smaller states only 1 PSU is drawn PPS). The SR PSUs are equivalent to strata, but historically they have been referred to as PSUs. (PPS and Durbin sampling are discussed in Chapter 9A of Cochran (1977)).

Within a sampled NSR or SR PSU the geography is partitioned into smaller geographical clusters which are used to form the universe of secondary sampling units (SSUs). These SSUs are then partitioned into density strata based upon black and Hispanic population concentration as determined by the 1990 Decennial Census. An additional strata for new construction since the last Decennial Census is also created. Within each density stratum SSUs are sampled at different rates to meet different design objectives. Within each sample SSU, all households containing black or Hispanic persons are sampled, while all other households are subsampled. Supplemental NHIS surveys may require additional sampling at SSU, household, or family levels.

The fundamental sampling weights are created such that under ideal sampling conditions, unbiased estimators for each level of sampling are available. In practice, however, the final sampling weights are adjusted for non-response, and ratio adjusted. Furthermore, in 1995 a government shutdown resulted in three lost weeks of sample which resulted in further weighting adjustments. The most important adjustment is a quarterly post-stratification to 90 age/sex/race/ethnicity Census control totals.

For variance estimation purposes, NCHS treats the NHIS as a two-stage sample. The PSU probabilities of selection are known, and the SSUs are treated as sampled with replacement within PSU density strata. Sampling weights are adjusted by postratification. With these assumptions the SUDAAN software is used to compute variances. Much of the design information, state, density strata, and Durbin probabilities can be used to identify the smaller geographical areas. NCHS forbids the disclosure of information which may compromise the confidentiality promised to survey respondents, so some design information is not provided with the Public Use Data. While all design information is not available to the public, variance estimation methods exist which provide similar results to the NCHS internally used methodology. Two methods are described below.

Design Information Available on the NHIS Public Use Databases.

CAUTION For 1996 databases, refer to the Notes at the end of this document.

The following variables are used to produce code for variance estimation. Field locations below are from the PERSON level database, but may change on other databases; the user should check the file documentation.

Variable Name	Tape Location	Field Label
STRAT_V	337-340	'STRATA FOR VARIANCE ESTIMATION'
PSU_V	341	'PSU FOR VARIANCE ESTIMATION'
SUB_V	342-343	'SUBSTRATUM FOR VARIANCE ESTIMATION'
SSU	344-350	'SECONDARY SAMPLING UNIT'
PANEL	352	'PANEL 4'
TYPE_PSU	351	'TYPE OF PSU'
WTF	219-227	'FINAL BASIC WEIGHT'

Two methods of variance estimation are provided.

Method 1 - 187 Strata containing 2 PSUs per stratum sampled with replacement

Here, the NHIS universe has been partitioned into 187 strata. Most of the original NHIS strata and PSUs retain their original sampling structure with two PSUs being sampled per stratum, but a few strata have been collapsed, and in the largest self-representing strata, two pseudo-PSUs have been created. All PSUs are treated as sampled with replacement within their respective strata. This method will provide somewhat conservative standard errors, and the standard error estimator itself has less stability than the standard error estimator described by Method 2 below. Method 1 should be applicable to many complex survey sample design computer programs which require exactly 2 sampled PSUs per stratum. This method is robust when analyzing subsetted data (See the section "Subsetted Data Analysis" below).

Coding required (SAS code provided):

```
STRATUM = STRAT_V;

PSU = PANEL;

IF (PSU_V = 5) THEN PSU = INT((PANEL + 1)/2);

IF(PSU_V = 8) THEN STRATUM = 553;

IF((TYPE_PSU = 1) AND (PSU_V IN (2,4))) THEN STRATUM =
(STRAT_V -1);

IF((STRAT_V = 921) AND (PSU_V = 3)) THEN STRATUM = 901;
```

As a check the user should observe 374 PSUs when using the full database.

For the above simplification of the NHIS sample design structure, the following SUDAAN design statements may be used. (Note, the input file must first be sorted by STRATUM and PSU variables.)

```
PROC ... DESIGN = WR;
NEST STRATUM PSU ;
WEIGHT WTF;
```

See the Section "Worked SUDAAN Examples" below for further discussion.

Method 2 - Multiple PSUs per Stratum design sampled with replacement

This method provides for more statistically efficient variance estimation than Method 1, since it makes better use of the sampling design information. Its application is limited to software that can handle multiple PSUs per stratum, e.g., SUDAAN. For this method the original certainty PSUs are partitioned by aggregations of the original race-ethnic density strata used in sampling. The first randomly sampled unit is actually the SSU variable which is now treated as the PSU variable. (Note, a certainty PSU unit contributes nothing to the variance at the PSU sampling level.) Non-certainty-strata PSUs are treated as being sampled with replacement within their respective strata. Except for a few special cases, the non-certainty PSUs have exactly the same structure in both Methods 1 and 2.

Coding required, (SAS code provided):

```

IF TYPE_PSU = 1 THEN DO; /* certainty strata PSUs */
    STRATUM = STRAT_V*1000 + SUB_V;
    PSU = SSU ;
    END;

ELSE DO ; /* non-certainty PSU */;
    STRATUM = STRAT_V ;
    PSU = PSU_V ;
    END;

```

As a check, the user should observe the following counts:

Certainty Strata PSUs	4079
Non-certainty Strata PSUs	259
Total PSUs	4338

For the Method 2 design structure, the following SUDAAN design statements may be used. (Note, the input file must first be sorted by STRATUM and PSU variables.)

```

PROC ... DESIGN = WR;
NEST STRATUM PSU;
WEIGHT WTF;

```

See the Section "Worked SUDAAN Examples" for further discussion.

CAUTION. Method 2 should only be used on a full sample person data base. Using this method with subsetted data may lead to incorrectly computed standard errors. (See the section "Subsetted Data Analysis" below). If using a subsetted data set, the user should check the degree of agreement of the certainty and non-certainty counts with the values presented above.

CAUTION

A typically used rule-of-thumb for degrees of freedom to associate with a standard error is the quantity (number of PSUs - number of strata). This rule assumes that the PSUs are somewhat comparable in size. For Method 2 this rule may be grossly inaccurate since the concept of PSU is quite different for certainty and non-certainty strata. Certainty strata PSUs of Method 2 have small weighted values relative to those of non-certainty PSUs. The rule-of-thumb degrees of freedom for Method 1 is 187, and Method 2 should have a "true" degrees of freedom exceeding that of Method 1. However, for practical purposes, any degrees of freedom exceeding 120 can be treated as infinite, i.e., one uses a normal Z-statistic instead of a t-statistic for testing. Note, that a one-tailed critical $t_{0.025}$ at 120 degrees of freedom is 1.98 while at an infinite degrees of freedom (i.e., a z-value) is 1.96. If a variable of interest covers most of the NHIS PSUs, the limiting value would probably be adequate for analysis. The user should consult a mathematical statistician for discussion of degrees of freedom.

SUBSETTED DATA ANALYSES

Frequently, studies of NHIS variables are restricted to select subdomains, e.g., persons aged 65 and older. To save on storage the user may delete all records outside of the domain of interest. This procedure of keeping only select records is called subsetting the data. With a subsetted data set one can produce correct point estimates, e.g., the subdomain means, but standard errors may be computed incorrectly when using a compromised design structure. For example, if a stratum of Method 2 contains 10 PSUs and 5 are lost because of subsetting, a SUDAAN run on the subsetted data will use an incorrect formula to compute stratum contributions to the variance. If the full data are run, SUDAAN correctly handles the 5 empty PSUs. Note, that SUDAAN has a SUBPOPN option that allows the targeting of a subdomain from a full design data base. (See the SUDAAN manual for details).

Subsetting methods with SUDAAN

Strategy 1. Use Method 1 above with the MISSUNIT option on the NEST statement -

```
      NEST          STRATUM PSU/MISSUNIT ;
```

If a WR design has exactly 2 PSUs per stratum and some PSUs are removed from the database then the SUDAAN MISSUNIT option performs a fix-up which produces a standard error identical to that achieved when using a full data set and SUBPOPN statement. Note, other output like design effects, degrees of freedom, standardization may be computed differently. The user is responsible for checking that subsetted input leads to correct results.

Strategy 2. Use Method 1 or 2 above on a "fixed-up" subsetted data set. Basically, one needs to add some dummy records containing full design information to the subsetted data set. To do this follow these instructions:

1. Create a 2-variable file containing STRATUM and PSU for each record of the full person file (100,000+ records)
2. Sort this file by STRATUM and PSU within STRATUM.
3. Keep only 1 record for each PSU
add WTF = 10 -10 as a very small weight
add variable DUMMY = 0 to designate dummy record

A file, called DESIGN containing 4 variables with
374 records (Method 1 used) or with
4338 records (Method 2 used) is created

4. Append DESIGN to the original subsetted database, called DATASET, to form a new set, called DATANEW.

Define DUMMY = 1 on the DATASET component.

On the DESIGN component records define all variables other than STRATUM, PSU, WTF, DUMMY as missing ".".

5. Sort DATANEW by STRATUM PSU
6. In SUDAAN use a "SUBPOPN DUMMY = 1;" line to direct SUDAAN to restrict estimation to the subdomain of interest.

With the above fix-up SUDAAN will correctly handle empty PSUs when computing the standard errors. SUDAAN output that needs the entire full sample database for correct computation, e.g., design effects, may or may not be appropriate. See the SUDAAN manual for computational forms or consult with a mathematical statistician for correct interpretation.

Other notes on Subsetting data:

If a subsetting database under Method 2 has only a few missing PSUs, the subsetting database can probably be run with SUDAAN without being fixed up. For example, a subsetting by SEX will most likely result in all PSUs still being in sample, but black males aged 65 and older would result in the loss of many PSUs. The impact of running SUDAAN on uncorrected subsetting data varies. Frequently, subsetting runs produce results consistent with those run on a full data set, but sometimes they do not.

Subsetting by aggregates of Strata does not need a fix-up.

The condition, doctor visit, and hospital record databases are actually subsetting files. To use with SUDAAN properly, the information should be linked back to the appropriate person on the person file. Some statistics, based upon aggregation of records, may be computed directly from this file along with the fix-up. Consult with a statistician for appropriate SUDAAN usage.

WORKED SUDAAN EXAMPLES

In the following runs the variables used are

LDR = proportion of persons without a doctor visit in the last 2 years

TDV_R = mean number of annual doctor visits (based upon 2 week recall)

HLT_FP = proportion of persons with self-reported fair or poor health status (omitting missing)

AGE2: 1 = aged less than 18

2 = aged 18 to 44

3 = aged 45 to 64

4 = aged 65 and older

The following SUDAAN code was executed for both Method 1 and Method 2:

Caution The output presented below is based upon a preliminary NHIS Public Use database. Your Public Use database may produce slightly different SUDAAN output.

```
PROC DESCRIPT DATA = HIS.infile FILETYPE=SAS DESIGN = WR;

NEST          STRATUM PSU ;
WEIGHT        WTF;

VAR          LDR      TDV_R      HLT_FP ;

SUBGROUP      SEX  AGE2;
LEVELS        2    4;
TABLES        SEX  AGE2;

PRINT         NSUM WSUM MEAN SEMEAN
              / WSUMFMT=F10.0      MEANFMT=F8.5      SEMEANFMT=F8.5      ;
```

Method 1: partial output:

S U D A A N
 Software for the Statistical Analysis of Correlated Data
 Copyright Research Triangle Institute April 1996
 Release 7.00

Number of observations read : 102467 Weighted count :261889548
 Number of observations skipped : 0
 (WEIGHT variable nonpositive)
 Denominator degrees of freedom : 187

Research Triangle Institute

The DESCRIPT Procedure

by: Variable, SEX.

Variable		SEX		
		Total	1	2
LDR	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	0.13797	0.18013	0.09793
	SE Mean	0.00178	0.00250	0.00178
TDV_R	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	5.90759	4.90385	6.86089
	SE Mean	0.09060	0.10039	0.12407
HLT_FP	Sample Size	101277	48266	53011
	Weighted Size	258963568	126221708	132741859
	Mean	0.10126	0.09124	0.11079
	SE Mean	0.00157	0.00188	0.00176

Method 1: partial output:

S U D A A N
 Software for the Statistical Analysis of Correlated Data
 Copyright Research Triangle Institute April 1996
 Release 7.00

Number of observations read : 102467 Weighted count :261889548
 Number of observations skipped : 0
 (WEIGHT variable nonpositive)
 Denominator degrees of freedom : 187

Research Triangle Institute

The DESCRIPT Procedure

by: Variable, AGE2.

Variable		AGE2 Total	1	2
LDR	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	0.13797	0.08894	0.18489
	SE Mean	0.00178	0.00269	0.00268
TDV_R	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	5.90759	4.29682	4.88589
	SE Mean	0.09060	0.09797	0.12432
HLT_FP	Sample Size	101277	29183	40423
	Weighted Size	258963568	69438212	107054300
	Mean	0.10126	0.02552	0.06610
	SE Mean	0.00157	0.00129	0.00168

Variable		3	4
LDR	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	0.14461	0.07606
	SE Mean	0.00293	0.00251
TDV_R	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	7.08504	11.09843
	SE Mean	0.17859	0.30642
HLT_FP	Sample Size	19834	11837
	Weighted Size	51315866	31155190
	Mean	0.16651	0.28344
	SE Mean	0.00356	0.00519

Method 2 Partial Output

S U D A A N
 Software for the Statistical Analysis of Correlated Data
 Copyright Research Triangle Institute April 1996
 Release 7.00

Number of observations read : 102467 Weighted count :261889548
 Number of observations skipped : 0
 (WEIGHT variable nonpositive)
 Denominator degrees of freedom : 4030

Research Triangle Institute

The DESCRIPT Procedure

by: Variable, SEX.

Variable		SEX		
		Total	1	2
LDR	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	0.13797	0.18013	0.09793
	SE Mean	0.00174	0.00231	0.00184
TDV_R	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	5.90759	4.90385	6.86089
	SE Mean	0.07704	0.08503	0.11403
HLT_FP	Sample Size	101277	48266	53011
	Weighted Size	258963568	126221708	132741859
	Mean	0.10126	0.09124	0.11079
	SE Mean	0.00152	0.00174	0.00182

Method 2 Partial Output

S U D A A N
 Software for the Statistical Analysis of Correlated Data
 Copyright Research Triangle Institute April 1996
 Release 7.00

Number of observations read : 102467 Weighted count :261889548
 Number of observations skipped : 0
 (WEIGHT variable nonpositive)
 Denominator degrees of freedom : 4030

Research Triangle Institute

The DESCRIPT Procedure

by: Variable, AGE2.

Variable		AGE2 Total	1	2
LDR	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	0.13797	0.08894	0.18489
	SE Mean	0.00174	0.00271	0.00254
TDV_R	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	5.90759	4.29682	4.88589
	SE Mean	0.07704	0.09116	0.11805
HLT_FP	Sample Size	101277	29183	40423
	Weighted Size	258963568	69438212	107054300
	Mean	0.10126	0.02552	0.06610
	SE Mean	0.00152	0.00118	0.00157

Variable		3	4
LDR	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	0.14461	0.07606
	SE Mean	0.00303	0.00269
TDV_R	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	7.08504	11.09843
	SE Mean	0.16109	0.28387
HLT_FP	Sample Size	19834	11837
	Weighted Size	51315866	31155190
	Mean	0.16651	0.28344
	SE Mean	0.00351	0.00501

Best NHIS design using Durbin probabilities (not available to the public)
and weights adjusted by post-stratification

Variable		SEX Total	1	2
LDR	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	0.13784	0.17991	0.09789
	SE Mean	0.00170	0.00221	0.00182
TDV_R	Sample Size	102467	48809	53658
	Weighted Size	261889549	127570237	134319312
	Mean	5.90468	4.89733	6.86141
	SE Mean	0.07511	0.08320	0.11217
HLT_FP	Sample Size	101277	48266	53011
	Weighted Size	258974266	126232939	132741328
	Mean	0.10127	0.09125	0.11080
	SE Mean	0.00137	0.00159	0.00165

Best NHIS design using Durbin probabilities (not available to the public) and weights adjusted by post-stratification

Post-stratified estimates

by: Variable, AGE2.

Variable		AGE2 Total	1	2
LDR	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	0.13784	0.08845	0.18484
	SE Mean	0.00170	0.00258	0.00248
TDV_R	Sample Size	102467	29711	40801
	Weighted Size	261889549	70670755	108040689
	Mean	5.90468	4.29787	4.87876
	SE Mean	0.07511	0.09066	0.11858
HLT_FP	Sample Size	101277	29183	40423
	Weighted Size	258974266	69441900	107059972
	Mean	0.10127	0.02555	0.06624
	SE Mean	0.00137	0.00116	0.00153

Variable		3	4
LDR	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	0.14484	0.07587
	SE Mean	0.00298	0.00268
TDV_R	Sample Size	20000	11955
	Weighted Size	51713265	31464840
	Mean	7.08472	11.09687
	SE Mean	0.16180	0.27613
HLT_FP	Sample Size	19834	11837
	Weighted Size	51315313	31157082
	Mean	0.16633	0.28322
	SE Mean	0.00342	0.00487

Remark on Examples

A comparison of the three SUDAAN examples shows that Method 2 performs quite well when compared to the "best" internal NCHS variance design for the NHIS. Based on limited preliminary evidence, it appears that for means, Method 2 typically provides standard errors in close agreement with, while slightly larger than, the standard errors produced by the NCHS "best" method. Method 1 tends to provide slightly larger standard errors than Method 2 does, although the sample output does include examples where the Method 1 standard error is smaller than the Method 2 standard error.

Reference:

(1977) Cochran, W. G., Sampling techniques (3rd ed), John Wiley & Sons

Notes for Year 2000 application (added 01/21/98)

The variance estimation methods of this document may be applied to the Year 2000 Objectives Public Use File. The following changes must be made:

The design information variables are all in the same file locations with the exception of "WTF".

Substitute:

WTF 207-212 'FINAL BASIC WEIGHT'

The PSU check for method 2 should now read:

As a check, the user should observe the following counts:

Certainty Strata PSUs	3804
Non-certainty Strata PSUs	259
Total PSUs	4063

Notes on the 1996 NHIS (added 04/17/98)

In 1996 the NHIS survey underwent a transition from a paper-and-pencil to a computer-assisted interview process. This transition resulted in roughly 5/8 of the available full sample being targeted for processing and public release. In 1997 the full sample was again implemented. For 1996 the reader should substitute the information on pages 3 and 4 and the top of page 5:

Design Information Available on the NHIS Public Use Databases.

Method 1 - 187 Strata containing 2 PSUs per stratum sampled with replacement

Method 2 - Multiple PSUs per Stratum design sampled with replacement

with the 1996 information on the following pages:

Design Information Available on the 1996 NHIS Public Use Databases.

The following variables are used to produce code for variance estimation. Field locations below are from the PERSON level database, but may change on other databases; the user should check the file documentation.

Variable Name	Location	Field Label
STRAT96*	354-357	'COLLAPSED VARIANCE STRATUM'
PSU96*	358	'VARIANCE PSU'
SUB_V	342-343	'SUBSTRATUM FOR VARIANCE ESTIMATION'
SSU	344-350	'SECONDARY SAMPLING UNIT'
PANEL	352	'PANEL 4'
NSR96*	353	'NSR STATUS VARIABLE'
WTF	219-227	'FINAL BASIC WEIGHT'

(*indicates modified design variables added to the 1996 databases)

Two methods of variance estimation are now provided.

Method 1.96 -98 Strata containing 3 PSUs per stratum sampled with replacement

Here, the NHIS universe has been partitioned into 98 collapsed strata with 3 PSUs per stratum. All PSUs are treated as sampled with replacement within their respective strata. This method will provide somewhat conservative standard errors, and this standard error estimator itself has less stability than the standard error estimator described by Method 2.96 below.

Coding required, (SAS code provided):

```
STRATUM = INT(STRAT96/10) * 10 ;  
PSU = PANEL ;
```

Note, INT () is the Integer-value SAS function, e.g., INT(2.3) = 2

As a check the user should observe $98 * 3 = 294$ PSUs when using the full database.

For the above simplification of the NHIS sample design structure, the following SUDAAN design statements may be used. (Note, the input file must first be sorted by STRATUM and PSU variables).

```
PROC ... DESIGN = WR;  
NEST STRATUM PSU ;  
WEIGHT WTF;
```

Method 2.96 - Multiple PSUs per Stratum design sampled with replacement

This method provides for more statistically efficient variance estimation than Method 1.96, since it makes better use of the sampling design information. Its application is limited to software that can handle multiple PSUs per stratum, e.g., SUDAAN. For this method the original certainty PSUs are partitioned by aggregations of the original race-ethnic density strata used in sampling. The first randomly sampled unit is actually the SSU variable which is now treated as the PSU variable. (Note, a certainty PSU unit contributes nothing to the variance at the PSU sampling level). Non-certainty strata PSUs are treated as being sampled with replacement within their respective strata.

Coding required (SAS code provided):

```
IF NSR96 = 1 THEN DO; /*1996 certainty strata PSUs */
    STRATUM = STRAT96*100 + SUB_V;
    PSU     = SSU
END;

ELSE DO; /* 1996 non-certainty PSU */
    STRATUM = STRAT96 ;
    PSU     = PSU96 ;
END;
```

As a check, the user should observe the following counts:

Certainty Strata PSUs	1736
Non-certainty Strata PSUs	240
Total PSUs	1976

For the Method 2.96 design structure, the following SUDAAN design statements may be used. (Note, the input file must first be sorted by STRATUM and PSU variables.)

```
PROC ... DESIGN = WR;
NEST   STRATUM PSU ;
WEIGHT WTF ;
```

Caution. Both Method 1.96 and Method 2.96 should only be used on a full sample person database. Using this method with subsetted data may lead to incorrectly computed standard errors. (See the section Subsetted Data Analysis in the 1995 section). If using a subsetted data set, the user should check the degree of agreement in the PSU counts with the values presented above for either of the two methods. Unlike Method 1 for 1995, Method 1.96 is not robust for analyzing subsetted survey data.

CAUTION

A typically used rule-of-thumb for degrees of freedom to associate with a standard error is the quantity (number of PSUs - number of strata). This rule assumes that the PSUs are somewhat comparable in size. For Method 2.96 this rule may be grossly inaccurate since the concept of PSU is quite different for certainty and non-certainty strata. Certainty strata PSUs of Method 2.96 have small weighted values relative to those of non-certainty PSUs. The rule-of-thumb degrees of freedom for Method 1.96 is 196, and Method 2.96 should have a true degrees of freedom exceeding that of Method 1.96. However, for practical purposes, any degrees of freedom exceeding 120 can be treated as infinite, i.e., one uses a normal Z-statistic instead of a t-statistic for testing. Note, that a one-tailed critical $t_{0.025}$ at 120 degrees of freedom is 1.98 while at an infinite degrees of freedom (i.e., a z-value) is 1.96. If a variable of interest covers most of the NHIS PSUs, the limiting value would probably be adequate for analysis. The user should consult a mathematical statistician for discussion of degrees of freedom.

The observant reader may notice that the 1996 method 1.96 has a larger rule of thumb degrees of freedom than the corresponding 1995 method 1. The 1996 variance estimation design consists of collapsed strata that may introduce a much larger stratum-collapse bias than occurred in 1995, and furthermore, the PSUs within each 1996 collapsed stratum have greater PSU weight diversity than in 1995 which may reduce stability.

The section on SUBSETTED DATA ANALYSES in the 1995 section should be read considering the changes provided in this 1996 section.