## Public Use Data Tape Documentation

## Physician's Examination

Tape Number 5302
National Health and Nutrition Examination Survey, 1976-80
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service - National Center for Health Statistics


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Physician's Examination<br>Tape Number 5302

National Health and Nutrition Examination Survey, 1976-80

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
National Center for Health Statistics

Hyattsville, Maryland
October 1986

# SECOND NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY, 1976-80 

 NHANES IIDocumentation for Public Use Data Tape

Catalog Number 5302

## Physician's Examination, Ages 6 Months - 74 Years

This data tape contains demographic and physician's examination data for persons 6 months through 74 years of age examined in the second National Health and Nutrition Examination Survey (NHANES 11), conducted in 1976-1980 by the National Center for Health Statistics, U.S. Public Health Service.

Peter Gergen, Arnold Engel, Mary Dudley and Wilbur Hadden of the Division of Health Examination Statistics (DHES) were responsible for the data compilation and technical review necessary to assemble this tape and construct the documentation. Richard Orli, Joyce Lewis, and Linda Graham of Computer Based Systems, lnc. provided computer programming and data editing assistance.

NCHS PUBLIC USE TAPES

Public use data tapes from the National Center for Health Statistics (NCHS) for all NHANES Il components will be released as soon as the data have been compiled and documented. NHANES II data tapes are available for purchase from:

```
National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, Virginia 22161
(703) 487-4650
```

A list of NCHS public use data tapes that can be purchased from NTIS can be obtained from:

Scientific and Technical Information Branch
National Center for Health Statistics
Center Building, Room 1-57
3700 East-West Highway
Hyattsville, Maryland 20782
(301) 436-8500

USE OF NCHS DATA TAPES

The National Center for Health Statistics requests the cooperation of recipients of data tapes in certain actions related to their use.

Any publication based on the data should acknowledge NCHS as the original source. It should include a disclaimer which credits the authors for any analyses, interpretations, or conclusions, and not NCHS, which is responsible only for the data.

Users who wish to publish a technical description of the data should make a reasonable effort to insure that the description is consistent with that published by NCHS. This does not mean, however, that NCHS will review such descriptions.

NCHS would appreciate receiving reprints of journal articles or other publications based upon findings from the NHANES II survey. Please send them to the address below.

The data tapes have been carefully edited. Some of the continuous data items have extremely high or low values. It has been verified that the values appear that way on the original interview documents; that is, it has been verified that the values have not resulted from incorrect keypunching. Within each data tape numerous consistency checks have been performed. However, due to the large volume of data collected in the survey, it is likely that a small number of errors or discrepancies remain undetected. NCHS would like to be informed if any such errors are detected so that errata sheets can be issued to previous purchasers and corrections made to a new data tape, if appropriate. Please contact:

```
Division of Health Examination Statistics
National Center for Health Statistics
Center Building, Room 2-58
3700 East-West Highway
Hyattsville, Maryland 20782
(301) 436-7068
```


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## i. NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY (NHANES II)

## A. HISTORY AND SCOPE

1. Description of Survey: NHANES ll was one of a series of population based surveys conducted by the National Center for Health Statistics to help determine the health status of the Nation. Data were collected through response to questionnaires on medical history, food consumption, and health-related behavior. Data also were collected through direct medical examination. The tape documented here contains data from the demographic and physician examination parts of the survey for persons 6 months through 74 years of age. A detailed description of the design, content, questionnaires, and operation of NHANES $1 i$ is provided in the following report: "Plan and Operation of the Second National Health and Nutrition Examination Survey, 1976-1980," DHHS Pub. No. (PHS) 81-1317, Vital and Health Statistics, Series 1, No. 15, Public Health Service, available at cost from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The stock number is 017-022-00752-5. One copy is provided with the documentation herein, and a general summary of the data collection techniques and content is given in Appendix A.
2. Target Population: NHANES ll was conducted on a nationwide probability sample of approximately 28,000 persons 6 months through 74 years of age from the civilian, noninstitutionalized population of the United States. The survey started in February 1976 and was completed in February 1980. The NHANES II sample was selected so that certain population groups thought to be at high risk of malnutrition (persons with low incomes, preschool children, and the elderly) were oversampled. Adjusted sampling weights were then computed for 76 age, sex, and race categories to inflate the sample in such a manner as to closely reflect the estimated civilian, noninstitutionalized J.S. population 6 months through 74 years of age at the midpoint of the survey (March 1, 1978).
B. SAMPLE DESIGN AND RECOMMENDATIONS FOR ANALYSIS

NHANES Il uses a multistage sample designed to represent the civilian, noninstitutionalized population of the United States, 6 months through 74 years of age. Since the sample is not a simple random one and certain population groups were oversampled, it is necessary to incorporate the person's sample weight for proper analysis of the data. The sample weight. is a composite of the individual selection probability, adjustments for nonresponse, and poststratification adjustments.

NHANES $1 /$ provides information on 20,322 individuals who were both interviewed and examined, and on another 4,964 individuals who were interviewed but not examined, in the age range 6 months through 74 years of age. In addition to the general examination components, several more detailed examinations were performed on subsamples of the population. Therefore, instead of there being one sample weight per person, there are several sample weights for each person. For a person not selected for a particular subsample, the associated subsample weight is zero. When analyzing the special subsamples, the analyst must be careful to select the appropriate sampling weight from the weights found in tape locations 282-317. For a more complete description of how the sample weights are calculated, see the detailed note section of this documentation. This file contains data on all 20,322 examined persons 6 months through 74 years of age.

The NHANES $/ l$ data were collected using a complex sample design involving both clustering and stratification. Because of the complex design and the ratio adjustments applied to the sample weights, the direct application of standard statistical analysis methods for variance estimation and hypothesis testing may be very misleading. The modification of statistical analysis procedures to incorporate the effects of complex
survey designs is an important area of research; however, the current methodologies appropriate for the analysis of data from such surveys have not been made readily available in the standard packaged statistical software.

There are computer programs available which provide the capability of variance estimation for complex sample designs. The balanced repeated replication approach ${ }^{1}$ is utilized in \&REPERR EPSALMS to calculate the variance-covariance matrix. Both routines are available within the OSIRIS IV 1 ibrary. ${ }^{2}$ SURREGR $^{3}$ and SUPERCARP ${ }^{4}$ are programs that calculate the variance-covariance matrix using the linearization approach ${ }^{5}$ (Taylor series expansion). Another program, SESUDAAN, ${ }^{6}$ calculates variances and design effects. SURREGR and SESUDAAN are special procedures for the SAS package, which is available from SAS Institute, Box 8000, Carey, N.C., 27511.


#### Abstract

In order to provide the user with the capability of estimating the complex sample variances in the NHANES $|\mid$ data using the above procedures, Strata and Pseudo Primary Sampling Unit (PSU) codes have been provided on all data tapes in positions 324-326. These variables and the sample weights are necessary for the calculation of variances.


Even though the overall number of examined persons in this survey is quite large for statistical inference purposes, subclass analyses can lead to estimators that are unstable, particularly estimates of variances. Consequently, analyses of subclasses require that the user pay particular attention to the coefficient of variation for the estimates of means, proportions and totals. In addition, small sample sizes, or a small number of PSU's used in the variance calculations, may produce unstable estimates of the variances using the above computer programs.

An NCHS publication discusses these issues and describes analytic strategies for examining various hypotheses for the first National Health and Nutrition Examination Survey (NHANES I), which used a similar type of complex sample design. 7

## II. PHYSICIAN'S EXAMINATION, AGES 6 MONTHS - 74 YEARS

A. DESCRIPTION

This data tape contains demographic and physician's examination data for all examined persons 6 months through 74 years of age.
B. DEMOGRAPHIC DATA COLLECTION

An advance letter, announcing the forthcoming arrival of an interviewer from the U.S. Bureau of the Census, was mailed to each household that fell into the NHANES I\| probability sample. The interviewer subsequently visited the household to ascertain its composition, select the sample person(s), and administer demographic and medical history questionnaires. Demographic information relating to the household, the housing unit, and each sample person 6 months through 11 years of age was obtained from an available and competent household respondent. (In contrast, the preferred respondent for the medical information for persons 12 through 74 years of age was the actual sample person, with proxy response accepted when the sample person was not available.)
C. PHYSICIAN'S EXAMINATION DATA COLLECTION

The physician's examination was conducted at the time of the medical examination in the Mobile Examination Center. The exam was conducted by a licensed M.D. using a standardized order and set of definitions see Appendix $B$ for details.
D. DATA EDITING

Extensive work was done to check the data collected for accuracy using the original microfilm records. Whenever possible, data were checked for internal consistency. If any problems are found, please contact NCHS.

## III. TAPE CHARACTERISTICS AND DESCRIPTION

## A. TAPE CHARACTERISTICS

| Title: | Physician Examination, Ages 6 Months - 74 Years |
| :---: | :---: |
| Catalog Number: | 5302 |
| Data Set Name: | HEHANES2.DU530201 |
| Format: | Fixed Block, EBCDIC |
| Record Length: | 900 |
| Blocksize: | 24,300 |
| Densizy: | 6250 BPI |
| Number of Records: | 20,322 |
| Number of Reels: | 1 |
| Created by: | Division of Health Examination Statistics National Center for Health Statistics Hyattsville, Maryland |

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Perifolliculosis ..... 748
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Severity ..... 786
Certainty. ..... 787
ICDA Code b ..... 788-791
Severity ..... 792
Certainty ..... 793
ICDA Code c. ..... 794-797
Severity ..... 798
Certainty ..... 790
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Severity ..... 864
Certainty ..... 865
ICDA Code o ..... 866-869
Examiner Number ..... 870-871
c. USE OF SPECIAL TERMS


#### Abstract

For the demographic data, the term "blank but applicable", is used to indicate a data item that was to have a response for a sample person but for which no usable data were provided. This includes unanswered data fields, as well as those containing impossible entries: i.e., out-ofrange or inconsistent with other entries. The term "blank" refers to data items where the sample person was not supposed to respond to the question.


The notation "see detailed note" is intended to refer the user to the section Detailed Notes. In this section, a comprehensive description of the field is given.

National Health and Nutrition Examination Survey II

| Tape position(s), item descriptions, and codes | counts |
| :--- | ---: |
|  |  |


| Tape position(s), item descriptions, and codes | counts |
| :--- | ---: |
|  |  |



|  | Tape position(s), item descriptions, and codes | Counts |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { F.060-061 } \quad \text { QB } \\ & \text { National origin or ancestry } \end{aligned}$ |  |  |
|  | countries of Central or South America | 121 |
| 02 | Chicano | 43 |
| 03 | Cuban | 95 |
| 04 | Mexican | 258 |
| 05 | Mexicano | 82 |
| 06 | Mexican-American | 419 |
| 07 | Puerto Rican | 192 |
|  | Other Spanish | 100 |
| 09 | other European, such as German. French, English, Irish | 14,221 |
|  | black, Negro or Afro-American | 2,662 |
|  | American Indian or Alaskan native | 270 |
|  | Asian or Pacific Islander such as Chinese, Japanese. Ph Samoan | 382 |
|  | another group not listed | 1.065 |
|  | blank but applicable | 408 |
| F.062-063 Q9a <br> What was the highest grade or year of school he/she ever attended? |  |  |
|  | nond (regardiess of age) | 4,351 |
|  | 28 elementary grades (1-8) | 4, B11 |
|  | 34 high school (1-4) | 7,297 |
|  | 45 college (1-5+) | 3,719 |
|  | blank but applicable | 144 |
| $\begin{aligned} & \text { P.O64 Q9b } \\ & \text { Did he/she finish that grade (year)? } \end{aligned}$ |  |  |
|  |  |  |
|  | yes | 10,215 |
|  | no | 5,471 |
|  | blank but applicable nk | $\begin{array}{r} 285 \\ 4,351 \end{array}$ |
| P. 065 Q10a <br> What was he/she doing during most of the past 12 months? |  |  |
|  | working | 6, 667 |
|  | keeping house | 3, 372 |
|  | something else | 2,721 |
|  | blank but applicable | 51 |
| blank |  | 7.511 |
| P.066 Q10b <br> What was he/she doing? |  |  |
| 1 | layoff | 27 |
| 2 | retired | 1,179 |
| 3 | student | 966 |
| 4 | $\text { i } 1$ | 61 |
| 5 | staying home | 96 |
| 6 | looking for work | 98 |
|  | unable to work | 225 |
|  | blank but applicable | 51 |
|  | other | 69 |
| bla |  | 17,550 |

National Health and Nutrytion Examination Survey II-Continued


National Health and Nutrition Examination Survey II-Continued


National Health and Nutrition Examination Survey II-Continued
Tape position(s), item descriptions, and codes
F. O92 mat bedrooms are in this residence?
How many
O-7 bedrooms. More than 7 bedrooms coded as 7
P. O93 Qunts
Ask only of unrelated householdmembers. Do vou have complete kitchen
facilities in your living quarters, that is a kitchen sink kith piped
water, a refrigerator and a range or cookstove?
1 yes
2 no
blank

P. O94 Q15a
Do you (have, have access tol complete kitchen facilites in this house:
that is a kitchen sink with piped water, a refrigerator, and a range or
cookstove?

2 no 19.981
$\begin{array}{lr}1 \text { yes } & 19,817 \\ 2 \text { no } & 287 \\ 8 \text { blank but applicable } & 75 \\ \text { blank } & 143\end{array}$
P.095 Q15b

Do you have access to a range or cookstove?

| 1 yes | 178 |
| :--- | ---: |
| 2 no | 109 |
| B blank but applicable | 75 |
| blank | 19,960 |

P. 096 Q15b

Do you have access to a refrigerator?

| 1 yes | 203 |
| :--- | ---: | ---: |
| 2 no | 84 |
| B blank but applycable | 75 |
| blank | 19.960 |

```
P.097 Q 15b
    Do you have access to a sink with piped water?
```

    1 ves 102
    2 nc 185
    B biank but applicable 75
    \(\begin{array}{ll}\text { blank } & 19,960\end{array}\)
    P.09日 Q15c
Is there piped water in this house (these living quarters)?
1 yes 25
2 no
160
8 blank but applicable 75
blank.
20,062


National Health and Nutrition Examination Survey II-Contirued

|  |
| :--- | :--- | :--- |

## National Health and Nutrition Examination Survey II-Continued

| Tape position(s), item descriptions, and codes | Counts |
| :---: | :---: |
|  |  |
| ```1 yes \\ 2 no \\ 8 blank but applicable blank``` | $\begin{array}{r} 1,311 \\ 3,187 \\ 649 \\ 15,175 \end{array}$ |
| P 120 Blank |  |
| P. 121-124 <br> If yes, how much? |  |
| 0012-6800 doliars B888 blank but applicable b] ank | $\begin{array}{r} 1.269 \\ 694 \\ 18,362 \end{array}$ |
| $\begin{aligned} & \text { F. } 125 \quad 022 \mathrm{c} \\ & \text { Unemployment compensation or workmen's compensation? } \end{aligned}$ |  |
| ```1 yes 2 no 8 blank but applicable blank``` | $\begin{array}{r} 347 \\ 4,152 \\ 648 \\ 15,175 \end{array}$ |
| P. 126 Blank |  |
|  |  |
| 0015-6640 aollars 8888 blank but applicable blank | $\begin{array}{r} 306 \\ 689 \\ 19.327 \end{array}$ |
| P. 131 Q22d <br> Government employee pension or private pensions? |  |
| 1 yes <br> 2 no <br> 8 blank but applicable blank | $\begin{array}{r} 256 \\ 4,240 \\ 651 \\ 15,175 \end{array}$ |
| P. 132 日lank |  |
| P. 133-136 <br> If yes, how much? |  |
| 0036-6000 dollars 8988 blank but applicable biank | $\begin{array}{r} 234 \\ 673 \\ 19,415 \end{array}$ |

National Health and Nutrition Examination Survey II-Continued

|  |
| :--- | :--- |



| Tape position(s), item descriptions, and codes | Counts |
| :---: | :---: |
| $\begin{aligned} & \text { F 173-176 } \\ & \text { Total amount (021 \& 022) } \end{aligned}$ |  |
| ```0200-6999 dollars 8888 blank but applicable blank``` | $\begin{array}{r} 4,036 \\ 1.111 \\ 15.175 \end{array}$ |
| D. 177 <br> Check item b <br> 2 food stamps available <br> 4 both food stamps and commodities | $\begin{array}{r} 20,080 \\ 242 \end{array}$ |
| P. 17B Q23a <br> Are you certified to participate in the food stamp program? |  |
| 1 ves <br> 2 no <br> B blank but applicable <br> 9 dont know | $\begin{array}{r} 2,349 \\ 16,921 \\ 4 \\ 1,048 \end{array}$ |
| $\text { P. } 179 \quad \text { Q23b }$ <br> Are you buying food stamps now? |  |
| 1 yes. regularly <br> 2 yes. occasionally <br> 3 no <br> 8 blank but applicable <br> blank | $\begin{array}{r} 1,740 \\ 117 \\ 457 \\ 39 \\ 17,969 \end{array}$ |
| P. 180 Q2Gc What is the main reason you are not participating in the program? |  |
| 1 no need | 77 |
| 2 not enough money at the time | 96 |
| 3 no transportation | 16 |
| 4 pride | 31 |
| 5 other | 201 |
| 8 blank but applicable blank | $\begin{array}{r} 75 \\ 19,826 \end{array}$ |
| P. 181 Q24a Are you certified for commodity distribution program? |  |
| ```1 yes 2 no g do not know blank``` | $\begin{array}{r} 17 \\ 215 \\ 10 \\ 20,080 \end{array}$ |
| P. 182 Q24b $\begin{aligned} & \text { Q } \\ & \text { A }\end{aligned}$ |  |
| ```1 yes, regulary 2 yes, occasionally 3 no blank``` | 2 1 14 20.305 |

National Health and Nutrition Examination Survey II-Continued
Tape position(s), item descriptions, and codes
P. 183 Q24c

Why aren't you participating in the program?
1 no need 4
2 no transporation 2
3 pride 3
4 other 4
$B$ blank but applicable 1
blank 20,308
P.184-185 Control Record

Date of exam -- month
01-12 month 20,322
P.186-197 Control Record

Date of exam -- day
01-31 day 20,322
P.188-189 Control Recora

Date of exam -- year
76-80 year
20,322
P. 190-191

Age at examination
00 less than 12 months or not examined 299
01-75 years 20.023
P.192-205 Blank
P. 206

Race/sex recode for sample person (see Detailed Notes)

| 1 male, white | 8,389 |  |
| :--- | ---: | ---: |
| 2 male, black | 1,341 |  |
| 3 male, other | 253 |  |
| 4 female, white | 8,716 |  |
| 5 female, black | 1,422 |  |
| 6 female, other | 201 |  |
| $\vdots$ |  |  |
| 207 (see Detailed Notes) |  |  |
| Farm, non-farm recode for sample person | 1,080 |  |
| 1 |  | 19,242 |

P. 208

Interview status
1 interviewed

| Tape position(s), item descriptions, and codes |  |  | Counts |
| :---: | :---: | :---: | :---: |
| P. 209 (see Detailed Notes) Region |  |  |  |
|  | Northeast |  | 4.396 |
|  | Midwest |  | 5.421 |
|  | South |  | 5.507 |
|  | West |  | 4,998 |
| P.210-212 (see Detailed Notes) Poverty index (x.xx) |  |  |  |
| $001-880$ <br> 999 unknown |  |  | $\begin{array}{r} 19,569 \\ 753 \end{array}$ |
| P.213-246 Blank |  |  |  |
| Head of household data (P.247-281) |  |  |  |
| P. 247-248 <br> Age |  |  |  |
| 15-99 years |  |  | 20,322 |
| P.249-250 Blank |  |  |  |
| $\begin{aligned} & \text { P. 251-252 } \begin{array}{l} \text { Q2 } \\ \text { Date of birth }--~ m o n t h ~ \end{array} \end{aligned}$ |  |  |  |
| 01-12 month <br> B日 blank but applicable |  |  | $\begin{array}{r} 20.267 \\ 55 \end{array}$ |
| $\begin{aligned} & \text { P. } 253-254 \\ & \text { Date of birth -- year } \end{aligned}$ |  |  |  |
| 00-99 year 88 blank but applicable |  |  | $\begin{array}{r} 20,301 \\ 21 \end{array}$ |
| $\begin{array}{r} \text { P. } 255 \\ \text { Sex } \end{array}$ |  |  |  |
| $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | male <br> female |  | $\begin{array}{r} 16,372 \\ 3,950 \end{array}$ |
| $\begin{aligned} & \text { P. } 256 \text { Q5 } \\ & \text { Race (see Detailed Notes) } \end{aligned}$ |  |  |  |
| 1 2 3 | white <br> black <br> other |  | $\begin{array}{r} 17,131 \\ 2,748 \\ 443 \end{array}$ |

National Health and Nutrition Examination Survey II-Continued


National Health and Nutrition Examination Survey II-Continued

| Tape position(s), item descriptions, and codes | counts |
| :--- | ---: |
|  |  |



National Health and Nutrition Examination Survey II-Continued

| Tape position(s), item descriptions, and codes | Counts |
| :---: | :---: |
| See Detalled Notes for positions 282-326 |  |
| P. 282-287 <br> Examıned final weight |  |
| 001218-079634 | 20.322 |
| ```F. 288-293 Medical history interview final weight``` |  |
| 001171-071969 | 20, 322 |
| ```P. 294-299 Glucose tolerance test final examined weight``` |  |
| $\begin{aligned} & 003502-084477 \\ & 000000 \end{aligned}$ | $\begin{array}{r} 5.903 \\ 14.419 \end{array}$ |
| P. 300-305 <br> Lead final examined weight |  |
| $\begin{aligned} & 001218-084115 \\ & 000000 \end{aligned}$ | $\begin{array}{r} 12,288 \\ 8,034 \end{array}$ |
| ```P.306-311 Carboxyhemoglobin final examined weight``` |  |
| $\begin{aligned} & 002546-110759 \\ & 000000 \end{aligned}$ | $\begin{array}{r} 9,365 \\ 10,957 \end{array}$ |
| P. 312-317 <br> Bile acids final examined weight |  |
| $\begin{aligned} & 003519-087638 \\ & 000000 \end{aligned}$ | $\begin{array}{r} 4,089 \\ 16,233 \end{array}$ |
| ```P. 318-323 Pesticides final examined weight``` |  |
| $\begin{aligned} & 003765-094847 \\ & 000000 \end{aligned}$ | $\begin{array}{r} 7,265 \\ 13,057 \end{array}$ |
| $\begin{gathered} \text { P. 324-325 } \\ \text { Strata } \end{gathered}$ |  |
| 01-32 | 20,322 |
| $\text { Р. } 326$ <br> Pseudo primary sampling unit |  |
| 1 or 2 | 20, 322 |

National Health and Nutrition Examination Survey II-Continued

Tape position(s), item descriptions, and codes
P. 327

Poverty non-poverty segments (see detailed notes)

| 1 non-poverty | 9.689 |
| :--- | ---: |
| 2 poverty | 10.633 |


| Position | National Health and Nutrition Physician Exa Item Description and Code | - NHAN <br> Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: |
| 401-404 | Catalog number |  |  |
|  | 5302 | 20, 322 |  |
| 405-406 | Blank | 20.322 |  |
| 407 | Physician's examination form blank |  | See detailed notes |
|  | t form is blank blank | $\begin{array}{r} 14 \\ 20,308 \end{array}$ |  |
| 408-410 | Puise |  | All ages See detailed |
|  | 033-200 beats per minute | 19.995 | notes |
|  | 888 blank but applicable | 313 |  |
|  | Dlank | 14 |  |
| 411-413 | Systolic blood pressure |  | Age 6 years and over |
|  | 065-300 mm Hg | 16. 109 | See detailed |
|  | 888 biank but applicable | 88 | notes |
|  | blank | 4.125 |  |
| 414-416 | Diastolic blood pressure |  |  |
|  | O35-150 mm Hg | 16055 |  |
|  | 888 blank but applicable | 142 |  |
|  | blank | 4.125 |  |
| 417 | Cuff width |  |  |
|  | 1 Adult | 14.462 | See detailed |
|  | 2 Child | 1,598 | notes |
|  | a blank but applicable | 137 |  |
|  | blank | 4,125 |  |
| 418-419 | Examiner number |  |  |
|  | 30-49 physician number | 16193 |  |
|  | 88 blank but applicable |  |  |
|  | blank | 4125 |  |
|  | HEAD, EYES, EARS, NOSE, AND THROAT |  |  |
| 420 | 1 findings | 15,713 | See detailed |
|  | 2 no findings | 4,593 |  |
|  | a blank but applicable | 2 |  |
|  | blank | 14 |  |
| 421 | Dry, staring nair |  |  |
|  | 1 yes | 4 |  |
|  | blank | 20.318 |  |
| 422 | Dyspigmented hair |  |  |
|  | 1 yes blank | $\begin{array}{r} 0 \\ 20.322 \end{array}$ |  |


| Position | National Health and Nutrition Physician Ex Item Description and Code | - NHAN <br> Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: |
| 423 | Easily pluckable harr |  |  |
|  | 1 yes | 2 |  |
|  | blank | 20,320 |  |
| 424 | Abnormal texture or loss of curl 1 yes | 5 |  |
|  | blank | 20,317 |  |
| 425 | Circumcorneal injection |  |  |
|  | 1 yes | 30 |  |
|  | blank | 20.292 |  |
| 42 E | conjunctival injection |  |  |
|  | 1 yes | 1,319 |  |
|  | blank | 19,003 |  |
| 427 | Angular blepharitis |  |  |
|  | 1 yes | 15 |  |
|  | blank | 20,307 |  |
| 428 | Pupils and iris |  |  |
|  | 1 yes | 73 |  |
|  | blank | 20,249 |  |
| 429 | Xerosis |  |  |
|  | 1 yes | 4 |  |
|  | blank | 20.318 |  |
| 430 | Lesions of cornea (other) |  |  |
|  | 1 yes | 42 |  |
|  | blank | 20,280 |  |
| 431 | Bitot's spots |  |  |
|  | 1 yes | 4 |  |
|  | blank | 20,318 |  |
| 432 | Conjugate gaze |  |  |
|  | 1 yes |  |  |
|  | blank | 20,316 |  |
| 423 | Keratomalacia |  |  |
|  | 1 yes |  |  |
|  | blank | 20,320 |  |
| 434 | Strabismus |  |  |
|  | 1 yes | 79 |  |
|  | blank | 20,243 |  |
| 435 | Xerophthalmia |  |  |
|  | 1 yes blank | $\begin{array}{r} 3 \\ 20,319 \end{array}$ |  |



| Position | National Health and Nutrit Physician Item Description and Code | - NHAN <br> Counts | II Source and Notes |
| :---: | :---: | :---: | :---: |
| 448 | Bleeding gums |  |  |
|  | 1 yes | 5 |  |
|  | blank | 20,317 |  |
| 449 | Diffuse marginal inflammation |  |  |
|  | 1 yes | 142 |  |
|  | blank | 20,180 |  |
| 450 | Swollen red papillae |  |  |
|  | 1 yes | 101 |  |
|  | blank | 20.221 |  |
| 451 | Recession |  |  |
|  | 1 yes | 535 |  |
|  | blank | 19.787 |  |
| 452 | Naso-labial seborrhea |  |  |
|  | 1 yes | 9 |  |
|  | blank | 20,313 |  |
| 453 | Visible enlarged parotids |  |  |
|  | o yes | 20 |  |
|  | blank | 20,302 |  |
| 454 | Bossing of skull |  |  |
|  | 1 yes | 2 B |  |
|  | blank | 20,294 |  |
| 455 | Blank | 20,322 |  |
|  | EXTERNAL EAR |  |  |
| 456 | Right ear |  | See detailed notes |
|  | 1 no findings | 16,261 |  |
|  | 2 findings | 4,044 |  |
|  | B blank but applicable | 3 |  |
|  | blank | 14 |  |
| 457 | Left ear |  | See detailed |
|  | 1 no findings | 15,966 |  |
|  | 2 findings | 4.339 |  |
|  | 8 blank but applicable | 3 |  |
|  | blank | 14 |  |
| 458 | Operative scar - Left mastoid |  |  |
|  | 1 yes blank | $\begin{array}{r} 20 \\ 20.302 \end{array}$ |  |



| Position | National Health and N Phys Item Description and Code | - NHAN <br> Counts | I I |
| :---: | :---: | :---: | :---: |
|  | DRUM |  |  |
| 470 | Right drum |  | See detailed notes |
|  | 1 no findings | 17,537 |  |
|  | 2 findings | 1.329 |  |
|  | 3 not visible | 1,439 |  |
|  | 8 blank but applicable | 3 |  |
|  | biank | 14 |  |
| 471 | Left Drum |  | See detailed notes |
|  | 1 no findings | 17,439 |  |
|  | 2 findings | 1,487 |  |
|  | 3 not visible | 1,379 |  |
|  | 8 blank but applicable | 3 |  |
|  | blank | 14 |  |
| 472 | Dull/Transparent - Right |  |  |
|  | 1 dull (opaque) | 407 |  |
|  | 2 transparent | 5 |  |
|  | blank | 19,910 |  |
| 473 | Du11/Transparent - Left |  |  |
|  | 1 dull (opaque) | 470 |  |
|  | 2 transparent | 6 |  |
|  | blank | 19,846 |  |
| 474 | Bulging/Retracted - Rignt |  |  |
|  | 1 bulging | 6 |  |
|  | 2 retracted | 92 |  |
|  | blank | 20,224 |  |
| 475 | Bulging/Retracted - Left |  |  |
|  | 1 bulging | 7 |  |
|  | 2 retracted | - 136 |  |
|  | blank | 20,179 |  |
| 476 | Calcium plaques - Right |  |  |
|  | 1 yes | 117 |  |
|  | blank | 20,205 |  |
| 477 | Calcium plaques - Left |  |  |
|  | 9 yes | 130 |  |
|  | blank | 20,192 |  |
| 478 | Red - Right |  |  |
|  | 1 red | 184 |  |
|  | 2 other discolorations | 41 |  |
|  | blank | 20,097 |  |



| Pasition | National Health and Nutrit Physician Item Description and Code | - NHANES <br> Counts | I Source and Notes |
| :---: | :---: | :---: | :---: |
| 491 | Obstruction - Left |  |  |
|  | 1 acute | 146 |  |
|  | 2 chronic | 86 |  |
|  | blank | 20,090 |  |
|  | Other Signlficant Findings |  |  |
| 492 | Deviated septum - Right |  |  |
|  | 1 yes | 453 |  |
|  | blank | 19.869 |  |
| 493 | Deviated septum - Left |  |  |
|  | 1 yes | 267 |  |
|  | blank | 20.055 |  |
| 494 | Swollen turbinates - Right |  |  |
|  | 1 yes | 1.457 |  |
|  | blank | 18,865 |  |
| 495 | Swollen turbinates - Left |  |  |
|  | 1 yes | 1,532 |  |
|  | blank | 18,790 |  |
| 496 | Chronic inflammation - Right |  |  |
|  | 1 yes | 343 |  |
|  | blank | 19,979 |  |
| 497 | Chronic inflammation - Left |  |  |
|  | 1 yes | 345 |  |
|  | blank | 19,977 |  |
| 498 | Polyps - Right |  |  |
|  | 1 yes | 20 |  |
|  | blank | 20,302 |  |
| 499 | Polyps - Left |  |  |
|  | 1 yes | 17 |  |
|  | blank | 20,305 |  |
| 500-501 | Blank | 20,322 |  |
|  | NECK |  |  |
| 502 | 1 no findings | 19,805 | See detailed note |
|  | 2 findings | 500 |  |
|  | B blank but applicable | 3 |  |
|  | biank | 14 |  |
| 503 | Adenopatny |  |  |
|  | 1 yes blank | $\begin{array}{r} 492 \\ 19.830 \end{array}$ |  |


| Position | National Health and Item Description and C | nd N Phys Code | $\therefore \text { NHAN }$ <br> Counts | II Source and Notes |
| :---: | :---: | :---: | :---: | :---: |
| 504 | Tracheal deviation |  |  |  |
|  | 1 yes |  | $B$ |  |
|  | blank |  | 20,314 |  |
| 505 | Blank |  | 20.322 |  |
|  | THYROID EVALUATION |  |  |  |
| 506 | WHO Classification |  |  |  |
|  | 1 Group 0 |  | 19,294 | See detailed |
|  | 2 Group 1 |  | 826 | notes |
|  | 3 Group 2 |  | 99 |  |
|  | 4 Group 3 |  | 15 |  |
|  | B blank but applicable |  | 74 |  |
|  | olank |  | 14 |  |
|  | Other thyraid findings |  |  |  |
| 507 | ```1 findings 2 no findings 8 blank but applicable blank``` |  | 117 | See detailed |
|  |  |  | 20,188 | notes |
|  |  |  | 3 |  |
|  |  |  | 14 |  |
| 508 | Tenderness |  |  |  |
|  | 1 right |  | B |  |
|  | 2 left |  | 0 |  |
|  | 3 both |  | 7 |  |
|  | blank |  | 20,307 |  |
| 509 | Nodule |  |  |  |
|  | 1 right |  | 55 |  |
|  | 2 left |  | 25 |  |
|  | 3 both |  | 15 |  |
|  | blank |  | 20,227 |  |
| 510 | Isthmus |  |  |  |
|  | 1 right |  | 22 |  |
|  | 2 left |  | 0 |  |
|  | 3 both |  | 0 |  |
|  | blank |  | 20,300 |  |
| 511 | Blank |  | 20,322 |  |
|  | CHEST EVALUATIDN |  |  |  |
| 512 | 1 findings |  | $\begin{array}{r} 723 \\ 19.570 \end{array}$ | See detailed notes |
|  | B blank but applicable |  | + 15 |  |
|  | blank |  | 14 |  |
| 513 | Beading of ribs |  |  |  |
|  | 1 yes |  | 9 |  |
|  | blank |  | 20,313 |  |


| Position | National Health and Nutrition Physician Exa Item Description and Code | - NHAN <br> Counts | II |
| :---: | :---: | :---: | :---: |
| 514 | Follicular hyperkeratosis of upper |  |  |
|  | 1 yes | 75 |  |
|  | blank | 20.247 |  |
| 515 | Wheezing on auscultation - Diffuse |  | See detailed notes |
|  | 1 yes | 193 |  |
|  | blank | 20,129 |  |
| 516 | Wheezing on auscultation - Focal |  | See detailed notes |
|  | 1 yes | 83 |  |
|  | blank | 20.239 |  |
| 517 | Decreased breath sounds (diffuse) |  | See detailed notes |
|  | 1 yes | 254 |  |
|  | blank | 20,068 |  |
| 518 | Masses (Dreast) |  |  |
|  | 1 right | 45 |  |
|  | 2 left | 50 |  |
|  | 3 both | 48 |  |
|  | blank | 20.179 |  |
| 519 | Auscultation |  | See detarled notes |
|  | 1 no findings | 19, 145 |  |
|  | 2 findings | 1,14B |  |
|  | a blank but applicable | 15 |  |
|  | blank | 14 |  |
|  | Right chest - Upper lobe |  |  |
| 520 | Breath sounds |  | See detailed notes |
|  | 1 diminished breath sounds | 203 |  |
|  | 2 absent breath sounds | 4 |  |
|  | blank | 20,115 |  |
| 521 | Bromenial breath sounds |  |  |
|  | 1 yes | 141 |  |
|  | blank | 20,181 |  |
| 522 | Rales |  |  |
|  | 1 yes blank | $\begin{array}{r} 101 \\ 20.221 \end{array}$ |  |
| 523 | Rhonch |  |  |
|  | 1 yes blank | $\begin{array}{r} 105 \\ 20,217 \end{array}$ |  |
| 524 | Wheeze |  |  |
|  | 1 yes blank | $\begin{array}{r} 168 \\ 20,154 \end{array}$ |  |



| Position | National Health and Nu Physi Item Description and Code | Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: |
|  | Left chest - Upper lobe |  |  |
| 535 | Breath sounds |  | See detailed notes |
|  | 1 diminished breath sounds | 199 |  |
|  | 2 absent breath sounds | 10 |  |
|  | blank | 20.113 |  |
| 536 | Bronchial breath sounds |  |  |
|  | 1 yes | 135 |  |
|  | blank | 20,187 |  |
| 537 | Rales |  |  |
|  | 1 yes | 112 |  |
|  | blank | 20.210 |  |
| 53 | Rnonchi |  |  |
|  | 1 yes | 107 |  |
|  | blank | 20.215 |  |
| 539 | Whaeze |  |  |
|  | 1 yes | 170 |  |
|  | blank | 20.143 |  |
|  | Left chest - Lower lobe |  |  |
| 540 | Breath sounds |  | See detailed notes |
|  | 1 diminished breath sounds | 139 |  |
|  | 2 absent breath sounds | 11 |  |
|  | blank | 20,172 |  |
| 541 | Bronchial breath sounds |  |  |
|  | 1 yes | 20.159 |  |
|  | blank | 20,163 |  |
| 542 | Rales |  |  |
|  | 1 yes | 20. 258 |  |
| 543 | Rhonch i |  |  |
|  | 1 yes | 149 |  |
|  | blank | 20,173 |  |
| 544 | Wheeze |  |  |
|  | 1 yes | 190 |  |
|  | blank | 20,132 |  |
| 545 | Blank | 20.322 |  |







| Position | National Health and N Phys Item Description and Code | - NHAN <br> Counts | II Source and Notes |
| :---: | :---: | :---: | :---: |
| 584 | Left dorsalis pedis |  |  |
|  | 1 normal | 10,815 |  |
|  | 2 scierotic | 365 |  |
|  | 3 tortuous | 10 |  |
|  | 4 sclerotic and tortuous | 22 |  |
|  | 5 absent | 686 |  |
|  | B blank but applicable | 601 |  |
|  | blank | 7.823 |  |
|  | Pulsations |  |  |
| 585 | Right radial |  |  |
|  | 1 normal | 12. 150 |  |
|  | 2 diminished | 201 |  |
|  | 3 Dounding | 86 |  |
|  | 4 absent | 28 |  |
|  | B blank but applicable | 34 |  |
|  | blank | 7.823 |  |
| 586 | Right femoral |  |  |
|  | 1 normal | 12.042 |  |
|  | 2 diminished | 251 |  |
|  | 3 bounding | 87 |  |
|  | 4 absent | 59 |  |
|  | B blank but applicable | 60 |  |
|  | blank | 7.823 |  |
| 587 | Right dorsalis pedis |  |  |
|  | 1 normel | 11.214 |  |
|  | 2 diminished | 404 |  |
|  | 3 bounding | 59 |  |
|  | 4 absent | 718 |  |
|  | 8 blank but applicable | 104 |  |
|  | blenk | 7.823 |  |
| 586 | Elank | 20,322 |  |
| 589 | Left radial |  |  |
|  | 1 normal | 12. 139 |  |
|  | 2 diminished | 205 |  |
|  | 3 bounding | 86 |  |
|  | 4 absent | 24 |  |
|  | \& blank but applicabie | 45 |  |
|  | blank | 7.823 |  |
| 590 | Left femoral |  |  |
|  | 1 normal | 12.029 |  |
|  | 2 alminished | 249 |  |
|  | 3 bonaing | 83 |  |
|  | 4 absent | 68 |  |
|  | 8 blank out applicable | 70 |  |
|  | Dlank | 7.823 |  |




| Position | National Health e Iter Description and | and Nutrit Physician Code | ion Examination Su Examination Data | - NHANES Counts | $I I$ <br> Source and | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 624 | Pain on motion |  |  |  |  |  |
|  | ```1 right 2 left 3 both blank``` |  |  | $\begin{array}{r} 90 \\ 61 \\ 91 \\ 20.080 \end{array}$ |  |  |
| 625 | Other |  |  |  |  |  |
|  | 1 right <br> 2 left <br> 3 both <br> blank |  |  | $\begin{array}{r} 13 \\ 9 \\ 4 \\ 20.296 \end{array}$ |  |  |
|  | Elbow |  |  |  |  |  |
| 626 | Tender |  | - |  |  |  |
|  | ```1 right 2 left 3 both blank``` |  |  | $\begin{array}{r} 25 \\ 13 \\ 44 \\ 20.240 \end{array}$ |  |  |
| 627 | Swelling |  |  |  |  |  |
|  | ```1 right 2 left 3 both blank``` |  |  | $\begin{array}{r} 5 \\ 5 \\ 7 \\ 20.305 \end{array}$ |  |  |
| 628 | Deformity |  |  |  |  |  |
|  | 1 right <br> 2 left <br> 3 both <br> blank |  |  | $\begin{array}{r} 34 \\ 17 \\ 8 \\ 20.263 \end{array}$ |  |  |
| 629 | Pain on motion |  |  |  |  |  |
|  | ```1 right 2 left O both blank``` |  |  | $\begin{array}{r} 34 \\ 19 \\ 46 \\ 20.223 \end{array}$ |  |  |
| 630 | Other |  |  |  |  |  |
|  | 1 right <br> 2 left <br> 3 both <br> blank |  |  | $\begin{array}{r} 3 \\ 3 \\ 1 \\ 20.315 \end{array}$ |  |  |
|  | Wrist |  |  |  |  |  |
| 631 | Tender |  |  |  |  |  |
|  | ```1 rlght 2 left 3 both blank``` |  |  | $\begin{array}{r} 29 \\ 12 \\ 40 \\ 20.241 \end{array}$ |  |  |



| Postition | National Health and Phys Item Description and Cod | Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: |
| 642 | Pain on motion - Right |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 65 \\ 20.257 \end{array}$ |  |
| 643 | Pain on motion - Left |  |  |
|  | 1-5 joints involved | 64 |  |
|  | blank | 20.258 |  |
| 644 | Other - Right |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 5 \\ 20.317 \end{array}$ |  |
| 645 | Other - Left |  |  |
|  | 1-5 joints involved blank | $20.317 \begin{array}{r} 5 \\ \hline \end{array}$ |  |
|  | Proximal Interphalangeal |  | Number involved |
| 546 | Tender - Right |  |  |
|  | 9-5 joints involved blank | $\begin{array}{r} 106 \\ 20.216 \end{array}$ |  |
| 647 | Tender - Left |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 95 \\ 20.227 \end{array}$ |  |
| 648 | Swelling - Right |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 10 日 \\ 20.214 \end{array}$ |  |
| 649 | Swelling - Left |  |  |
|  | 1-5 joints invoived blank | $\begin{array}{r} 98 \\ 20,224 \end{array}$ |  |
| 650 | Deformity - Right |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 230 \\ 20.092 \end{array}$ |  |
| 651 | Deformity - Left |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 198 \\ 20.124 \end{array}$ |  |
| 652 | Pain on motion - Right |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 102 \\ 20.220 \end{array}$ |  |
| 653 | Pain on motion - Left |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 92 \\ 20.230 \end{array}$ |  |


| Position | National Health and Phy Item Description and Cod | - NHAN <br> Counts | II Source | and | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 654 | Other - Right |  |  |  |  |
|  | 1-5 joints involved | ${ }^{4}$ |  |  |  |
| 655 | Diner - Left |  |  |  |  |
|  | 1-5 joints involved | 4 |  |  |  |
|  | blank | 20.318 |  |  |  |
|  | Distal Interphalangeal |  | Number involved |  |  |
| 656 | Tender - Right |  |  |  |  |
|  | t-5 joints involved blank | 79 20.243 |  |  |  |
| 657 | Tender - Left |  |  |  |  |
|  | 9-5 joints involved | 70 |  |  |  |
|  | blank | 20,252 |  |  |  |
| 658 | Swelling - Right |  |  |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 59 \\ 20.263 \end{array}$ |  |  |  |
| 659 | Swelling - Left |  |  |  |  |
|  | 1-5 joints invalved blank | $\begin{array}{r} 52 \\ 20.270 \end{array}$ |  |  |  |
| 660 | Deformity - Right |  |  |  |  |
|  | 1-5 joints involved | 175 |  |  |  |
| 669 | Deformity - Left |  |  |  |  |
|  | 1-5 joints involved blenk | $\begin{array}{r} 151 \\ 20.171 \end{array}$ |  |  |  |
| 662 | Heberden's nodes - Right |  |  |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 1.395 \\ 18,927 \end{array}$ |  |  |  |
| 663 | Heberden's nodes - Left |  |  |  |  |
|  | 1-5 joints involved Dlank | 19.277 |  |  |  |
| 664 | Pain on motion - Right |  |  |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 65 \\ 20.257 \end{array}$ |  |  |  |
| 665 | Pain on motion - Left |  |  |  |  |
|  | 1-5 joints involved blank | $\begin{array}{r} 62 \\ 20.260 \end{array}$ |  |  |  |


| Position | National Health Item Description and | and Nutrition Examination Su Physician Examination Data Code | - NHANES Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: | :---: |
| 666 | Other - Right |  |  |  |
|  | 1-5 joints involved blank |  | $\begin{array}{r} 6 \\ 20.316 \end{array}$ |  |
| 667 | Other - Left |  |  |  |
|  | 1-5 joints involved blank |  | $20,315$ |  |
|  | Ankle |  |  |  |
| 668 | Tender |  |  |  |
|  | 1 right |  | 30 |  |
|  | 2 left |  | 24 |  |
|  | 3 both |  | 55 |  |
|  | blank |  | 20.213 |  |
| 669 | Swelling |  |  |  |
|  | 1 right | $\cdot$ | 25 |  |
|  | 2 left |  | 23 |  |
|  | 3 both |  | 48 |  |
|  | blank |  | 20.226 |  |
| 670 | Deformity |  |  |  |
|  | 1 right |  | 37 |  |
|  | 2 left |  | 37 |  |
|  | 3 both |  | 37 |  |
|  | blank |  | 20.211 |  |
| 671 | Pain on motion |  |  |  |
|  | 1 right |  | 34 |  |
|  | 2 left |  | 19 |  |
|  | 3 both |  | 59 |  |
|  | blank |  | 20.210 |  |
| 672 | Dtner |  |  |  |
|  | 1 right |  | 6 |  |
|  | 2 left |  | 4 |  |
|  | 3 both |  | 4 |  |
|  | blank |  | 20.308 |  |
|  | Feet |  |  |  |
| 673 | Tender |  |  |  |
|  | 1 right |  | 17 |  |
|  | 2 left |  | 9 |  |
|  | 3 both |  | 52 |  |
|  | blank |  | 20.244 |  |
| 674 | Swelling |  |  |  |
|  | 1 right |  | 7 |  |
|  | 2 left 3 both |  | 5 28 |  |
|  | blank |  | 20.282 |  |


| Postiton | National Health a Item Description and | and Nutrition Examination Su Physician Examination Ds:a Code | - NHanes <br> Counts | II Source and Notes |
| :---: | :---: | :---: | :---: | :---: |
| 675 | Deformity |  |  |  |
|  | 1 right |  | 17 |  |
|  | 2 left |  | 14 |  |
|  | 3 both |  | 107 |  |
|  | blank |  | 20,184 |  |
| 676 | Pain on motion |  |  |  |
|  | 1 rignt |  | 13 |  |
|  | 2 left |  | 11 |  |
|  | 3 both |  | 51 |  |
|  | blank |  | 20.247 |  |
| 677 | Other |  |  |  |
|  | 1 right |  | 3 |  |
|  | 2 left |  | 2 |  |
|  | 3 both |  | 6 |  |
|  | blank |  | 20.311 |  |
|  | Knees | - |  |  |
| 678 | Tender |  |  |  |
|  | 1 right |  | 83 |  |
|  | 2 left |  | 69 |  |
|  | 3 both |  | 149 |  |
|  | blank |  | 20.021 |  |
| 679 | Swelling |  |  |  |
|  | 1 right |  | 50 |  |
|  | 2 left |  | 43 |  |
|  | 3 both |  | 86 |  |
|  | blank |  | 20.143 |  |
| 680 | Deformity |  |  |  |
|  | 1 right |  | 35 |  |
|  | 2 left |  | 41 |  |
|  | 3 both |  | 174 |  |
|  | Olank |  | 20.072 |  |
| 681 | Pain on motion |  |  |  |
|  | 1 right |  | 127 |  |
|  | 2 left |  | 93 |  |
|  | 3 both |  | 206 |  |
|  | blank |  | 19.896 |  |
| 682 | Other |  |  |  |
|  | 1 right |  | 24 |  |
|  | 2 left |  | 29 |  |
|  | 3 both |  | 76 |  |
|  | blank |  | 20.193 |  |






| National Health and Nutrition Examination Survey - NHANES II |
| ---: |
| Physician Examination Data |
| Position Item Description and Code Counts Source and Notes |

Pain on left rotation - Location
722 Thoracte
1 yes
Dlank
20. 224

723 Low back

| 1 yes | 195 |
| :--- | ---: |
| blank | 20.127 |
| Diffuse |  |
| 1 yes | 80 |
| blank | 20,242 |

725 Uncertain

| 1 yes | 2 |  |
| :--- | :--- | :--- |
| biank | $\cdots$ | 20,320 |

## STRAIGHT LEG RAISING TEST

726 Right leg

| 1 negative | 19.888 |
| :--- | ---: |
| 2 pasitive | 312 |
| 8 blank but applicable | 108 |
| blank | 14 |

727 Left leg

| 1 negative | 19,871 |
| :--- | ---: |
| 2 positive | 332 |
| B blank but applicable | 105 |
| blank | 14 |

Increase on ankle dorsifiexion
728 Right

| 1 yes | 208 |
| :--- | ---: |
| 2 no | 16.230 |
| B blank but appi icable | 3.870 |
| blank | 14 |
| Left |  |
| 1 yes | 224 |
| 2 no |  |
| B blank but applicable | 16.218 |
| blank | 3,866 |
| Blank | 14 |





| Position | National Health and Nutrition Examinat Physician Examination Iter. Description and Code | on Survey - NHANES Data Counts | II <br> Source and Note |
| :---: | :---: | :---: | :---: |
| SUMMARY OF DIAGNDSTIC IMPRESSIONS |  |  |  |
| 779 | ```1 normal: no abnormal findings 2 abnormal: significant findings nored B blank but applicable blank``` | $\begin{array}{r} 8,671 \\ 11.632 \\ 5 \\ 14 \end{array}$ | See detailed notes |
| Code ${ }^{\text {E }}$ |  |  |  |
| 780 | Severity |  |  |
|  | 1 minimal <br> 2 moderate <br> 3 severe <br> B Dlank but applicable blank | $\begin{array}{r} 4.806 \\ 5.304 \\ 1.360 \\ 162 \\ 8.690 \end{array}$ |  |
| 781 | Certainty |  |  |
|  | O Not at all certain - 9 Extremely certain "-" blank but applicable <br> blank | $\begin{array}{r} 11.047 \\ 135 \\ 8.690 \end{array}$ |  |
| 782-785 | ICDA code |  |  |
|  | ```Code a B8Be blank but applicable blank``` | $\begin{array}{r} 11,632 \\ 0 \\ 8,690 \end{array}$ |  |
|  | Code ${ }^{\text {b }}$ |  |  |
| 786 | Severity |  |  |
|  | ```1 minimal 2 moderate 3 severe B blank but applicable Dlank``` | $\begin{array}{r} 2.382 \\ 3.186 \\ 813 \\ 110 \\ 13.831 \end{array}$ |  |
| 787 | Certainty |  |  |
|  | O Not at all centain - E Extremely certain "-" blank but applicable blank | $\begin{array}{r} 6.439 \\ 52 \\ 13.831 \end{array}$ |  |
| 788-791 | ICDA code |  |  |
|  | Code b BABE blank but applicable blank | $\begin{array}{r} 6,491 \\ 0 \\ 13,831 \end{array}$ |  |
|  | Code 5 |  |  |
| 792 | Severity |  |  |
|  | 1 minimal <br> 2 moderate <br> 3 severe <br> 8 blank but applicable blank | $\begin{array}{r} 1.265 \\ 1.905 \\ 462 \\ 79 \\ 16.619 \end{array}$ |  |




| Position | National Health and Nutrition Examination Su Physician Examination Data Item Description and Code | Counts | II ${ }_{\text {Source and Notes }}$ |
| :---: | :---: | :---: | :---: |
| 824-827 | ICDA code |  |  |
|  | Code h <br> blank | $\begin{array}{r} 166 \\ 20.156 \end{array}$ |  |
|  | Code i |  |  |
| 828 | Severity |  |  |
|  | 1 minimal | 24 |  |
|  | 2 moderate | 45 |  |
|  | 3 severe | 17 |  |
|  | B blank but applicable | 4 |  |
|  | Dlenk | 20,232 |  |
| 829 | Certainty |  |  |
|  | O Not at all certain - 9 Extremely certain | 87 |  |
|  | '-' blank but applicable | 3 |  |
|  | blank | 20,232 |  |
| 830-833 | ICDA code |  |  |
|  | Code 1 | 90 |  |
|  | 8888 blank but applicable |  |  |
|  | blank | 20,232 |  |
|  | Code i |  |  |
| 834 | Severity |  |  |
|  | 1 minimal | 5 |  |
|  | 2 moderate | 19 |  |
|  | 3 severe 10 |  |  |
|  | 8 blank but applicable | 1 |  |
|  | blank | 20.287 |  |
| 835 | Certainty |  |  |
|  | O Not at all certain - 9 Extremely certain | 34 |  |
|  | '-' blank but applicable |  |  |
|  | blank | 20,287 |  |
| 836-839 | ICDA code |  |  |
|  | Code ${ }^{\text {j }}$ |  |  |
|  | blank | 20,287 |  |
|  | Code $k$ |  |  |
| 840 | Severlty |  |  |
|  | 9 minimal | 4 |  |
|  | 2 moderate | 6 |  |
|  | 3 severe | 3 |  |
|  | blank | 20.309 |  |
| 841 | Certainty |  |  |
|  | O Not at all certain - 9 Extremely certain blank | $\begin{array}{r} 13 \\ 20.309 \end{array}$ |  |




## IV. DETAILED NOTES

TAPE POSITION 11

## Size of Place

Size of place classification was derived from the 1970 decennial census of the population. According to the definition used in the 1970 census, the urban population comprised all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs (except Alaska), villages and towns (except towns in New York, New England states, and Wisconsin), but excluding those persons living in the rural portions of extended cities; (b) unincorporated places of 2,500 inhabitants or more; and (c) other territories included in urbanized areas. The remaining population was classified as rural.

Urban areas are further classified by population size for places within urbanized areas and other places outside urbanized areas.

Except in New England, a Standard Metropolitan Statistical Area is basically a county or a group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county or counties containing such a city or cities, contiguous counties are included in an SMSA if, according to the 1970 census, they are socially and economically integrated with the central city. Each SMSA must include at least one central city, and the complete title of an SMSA identifies the central city or cities. In New England, SMSA's consist of towns and cities, rather than counties.

## -85-

## TAPE POSITIONS 37-41

## Family Unit Number

All related sample persons in the same family unit have the same computergenerated family unit code. This will enable analysis of individual family units.

Race

The race of the respondent was marked by observation. The interviewers were instructed to assume that the race of all related persons was the same as the respondent unless otherwise learned. The race categories were "White", "Black" or "Other". If the appropriate category could not be marked by observation, then race was asked. Interviewers were instructed to record persons who responded with something other than White or Black, such as Japanese, Chinese, American Indian, Korean, Hindu, Eskimo, etc. as "Dther" and to include Mexicans, Puerto Ricans and other persons of Latin American descent in "White" unless definitely Black, American Indian, or of other nonwhite race.

## TAPE POSITIONS 57-58 AND 257-258

## United States

Name of Place Code
Alabama ..... 01
Alaska ..... 02
Arizona ..... 04
Arkansas ..... 05
California ..... 06
Colorado ..... 08
Connecticut ..... 09
Delaware ..... 10
District of Columbia ..... 11
Florida ..... 12
Georgia ..... 13
Hawai i ..... 15
Idaho ..... 16
lllinois ..... 17
Indiana ..... 18
lowa ..... 19
Kansas ..... 20
Kentucky ..... 21
Louisiana ..... 22
Maine ..... 23
Maryland ..... 24
Massachusetts ..... 25
Michigan ..... 26
Minnesota ..... 27
Mississippi ..... 28
Missouri ..... 29
Montana ..... 30
Nebraska ..... 31
Nevada ..... 32
New Hampshire ..... 33
New Jersey ..... 34
New Mexico ..... 35
New York ..... 36
North Carolina ..... 37
North Dakota ..... 38
Ohio ..... 39
Oklahoma ..... 40
Oregon ..... 41
Pennsylvania ..... 42
Rhode Island ..... 44
South Carolina ..... 45
South Dakota ..... 46
Tennessee ..... 47
Texas ..... 48

## TAPE POSITIONS 57-58 AND 257-258 (conit.)

Name of Place Code
Utah ..... 49
Vermont ..... 50
Virginia ..... 51
Washington ..... 53
West Virginia ..... 54
Wisconsin ..... 55
Wyoming ..... 56

## Outlying Areas of the United States

| Name of Place | Code | Description |
| :---: | :---: | :---: |
| American Samoa | 60 | U.S. territory in the Pacific |
| Canal Zone | 61 | Territory in Panama leased by U.S. |
| Canton and Enderbury Island | 62 | Under common US-UK administration |
| Guam | 66 | U.S. territory in the Pacific |
| Johnston Atoll |  | U.S. territory in the Pacific, includes Sand Island |
| Midway Islands | 71 | U.S. territory in the Pacific |
| Puerto Rico | 72 | Commonwealth associated with the U.S. |
| Swan Is lands | 74 | U.S. territory in the Carribean |
| Trust Territories of the Pacific Islands | 75 | U.S. administered, includes Caroline, Mariana, and Marshall Island groups |
| U.S. Miscellaneous Carribean Islands | 76 | Includes Navassa Islands, Quito Sueno Bank, Roncador Cay, Serrana Bank, Serranilla Bank |
| U.S. Miscellaneous Pacific Islands | 77 | Includes Kingman Reef, Howland, Baker and Jarvis Islands, Palmyra Atoll |
| Virgin lstands | 78 | U.S. territory in the Carribean |
| Wake 1sland | 79 | U.S. territory in the Pacific |

## Outside of United States

North America ..... 91
South America ..... 92
Europe ..... 93
Africa ..... 94
Asia ..... 95
Australasia ..... 96
Pacific Islands ..... 97

TAPE POSITIONS 73-75, 76-78, 273-275 AND 276-278

## Industry and Occupation Codes

Occupation may be defined as the principal job or business. For this survey, the principal job or business of a respondent is defined in one of the following ways: if the person worked during the two week interview period or had a job or business, the question concerning occupation (or work) applies to the job during that period. If the respondent held more than one job, the question is directed to the one at which the most time was spent. It refers to the one considered most important when equal time is spent at each job. A person who has not begun work at a new job, is looking for work, or is on layoff from work is questioned about the last full-time civilian job. A fulltime job is defined as one at which the person spent 35 or more hours per week and which lasted two consecutive weeks or more. A person who has a job but has not yet reported to it or a person who has never had a job or business is classified as a "new worker".

The 1970 census of population Alphabetical Index of Industries and Occupations was used in the coding of both the industry and occupation (Library of
Congress Number 74-612012, for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock Number 0301-2283).

## Family Income Group


#### Abstract

The respondent was, handed a caro with twelve income ranges listed as Group A


 to Group L and asked "Which of these income groups represents your totalcombined family income for the past 12 months, that is, yours, your ...'s, etc? Include income from all sources such as wages, salaries, social security or retirement benefits, help from relatives, rent from property and so forth."

If the respondent answered Group $A$ through $G$, that is with an income less than $\$ 7,000$, then questions 21 and 22 detailing exact sources and amounts of income were asked; otherwise, these questions were skipped.

No effort was made to reconcile amounts reported in detailed questions 21 and 22 with the categorical response to the family income group question. During the survey time period no adjustments to the income groups or $\$ 7,000$ value were made to account for inflation.

## TAPE POSITION 207

Farm, non-farm

This position contains a recode, which combines data on land use (position 25), size (position 26), and amount of sales of farm produce and livestock (positions 27 and 28).

Code 1: Farm: Rural land (coded 2 in position 25) which consisted of 10 or more acres (coded 1 in position 26) with crop sales of $\$ 50$ or more (coded 1 in position 27).

OR
Rural land (coded 2 in position 25) with crop sales of $\$ 250$ or more (coded 1 in position 28).

Code 2: Non-farm: All other rural land (coded 2 in position 25) as well as land classified as urban (coded 1 in position 25).

## TAPE POSITION 209

## Region

The United States was divided into four broad geographic regions of approximately equal population. Those regions, which deviate somewhat from the groups used by the Bureau of Census, are as follows:

| Region | States Included |
| :---: | :---: |
| Northeast | Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania |
| South | Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas |
| Midwest | Ohio, lllinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri |
| West | Washington, Oregon, California, Nevada, New Mexico, Arizona, Texas, Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, Hawaii |

TAPE POSITIONS 210-212

## Poverty Index

Income status was determined by the Poverty income Ratio (P|R). Poverty statistics published in the Bureau of the Census reports $10-14$ were based on the poverty index developed by the Social Security Administration (SSA) in 1964. (For a detailed discussion of the SSA poverty standards, see references 15 and 16.) Modifications in the definition of poverty were adopted in 1969.17 The standard data series in poverty for statistical use by all executive departments and establishments has been established. 18

The two components of the PIR are the total income of the household (numerator: the median of the income group for incomes $\$ 7,000$ and above; the sum of the component parts of the income questions for incomes under $\$ 7,000$ and a multiple of the total income necessary to maintain a family with given characteristics on a nutritionally adequate food plan ${ }^{9-13}$ (denominator). The dollar value of the denominator of the $P \mid R$ is constructed from a food plan (economy plan) necessary to maintain minimum recommended daily nutritional requirements. The economy plan is designated by the U.S. vepartment of Agriculture for "emergency or temporary use when funds are low."

For families of three or more persons, the poverty level was set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was adjusted by the relatively higher fixed expenses of these smaller households.

The denominator or poverty income cutoff adjusts the family poverty income maintenance requirements by the family size, the sex of the family head, the age of the family head in families with one or two members, and the place of
residence (farm, nonfarm). Annual revisions of the poverty income cutoffs are based on the changes in the average cost of living as reflected in the Consumer Price Index.

As shown in the tables, the annual income considered to be the poverty level increases as the family size increases. A family with any combination of characteristics and with the same income as shown in the table has been designated as having a PIR or poverty level of 1.0 . The same family with twice the income found in the table would have a PIR of 2.0. Ratios of less than 1.0 can be described as "below poverty" and ratios greater than or equal to 1.0 , as "at or above poverty".

Poverty thresholds are computed on a national basis only. No attempt has been made to adjust these thresholds for regional, State, or other variations in the cost of living (except for the farm, nonfarm difference). None of the noncash public welfare benefits such as food stamp bonuses are included in the income of the low income families receiving these benefits. PIR has been adjusted by year (see tables) and accounts in some part for inflation.

Weighted average thresholds--poverty cutoffs in 1976 , by $\operatorname{size}$ of family and sex of head, by farm-nonfarm residence

| Size of family unit | Nonfarm |  |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Male head (dollars) | Female head (dollars) | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Male head (dollars) | Female head (dollars) |
| 1 person (unrelated individual). | 2877 | 2884 | 3016 | 278 C | 2438 | 2532 | 2348 |
| 14 to 64 years...... | 2954 | 2959 | 3069 | 2 840 | 2542 | 2600 | 2413 |
| 65 years and over | 2720 | 2730 | 2758 | 2722 | 2322 | 2344 | 2313 |
| 2 persons. | 3688 | 3711 | 3721 | 3660 | 312 B | 3133 | 3033 |
| Head 14 to 64 years | 3806 | 3826 | 3846 | 3733 | 3267 | 3271 | 3159 |
| Head 65 years and over. | 3417 | 3445 | 3447 | 3428 | 2928 | 2928 | 2922 |
| 3 persons | 4 515 | 4540 | 4565 | 4414 | 3858 | 3864 | 3734 |
| 4 persons. | 5786 | 5815 | 5818 | 5.790 | 4950 | 4953 | 4840 |
| 5 persons | 6838 | 6876 | 6884 | 6799 | 5870 | 5871 | 5847 |
| 6 persons. | 7706 | 7760 | 7766 | 7709 | 6585 | 6584 | 6607 |
| 7 persons or more | 9505 | 9588 | 9622 | 9375 | B 072 | 8 068 | 8 428 |

B. Welghted average thresholds--poverty cutoffs in 1977, by size of family and sex of head, by farm-nonfarm residence

| Size of family unit |  | Nonfarm |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Male head (dollars) | Female head (dollars) | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Male head (dollars) | Female head (dollars) |
| 1 person (unrelated individual) | 3067 | 3075 | 3214 | 2969 | 2588 | 2672 | 2498 |
| 14 to 64 years. | 3147 | 3152 | 3267 | 3023 | 2709 | 2776 | 2569 |
| 65 years and over | 2895 | 2906 | 2936 | 2898 | 2475 | 2495 | 2563 |
| 2 persons | 3928 | 3951 | 3961 | 3907 | 3318 | 3325 | 3176 |
| Head 14 to 64 years. | 4054 | 4072 | 4095 | 3981 | 3466 | 3474 | 3278 |
| Head 65 ypars and over. | 3637 | 3666 | 3670 | 3545 | 3128 | 3131 | 3079 |
| 3 persons | 4806 | 4833 | 4860 | 4708 | 4093 | 4110 | 3893 |
| 4 persons | $6 \quad 157$ | 5191 | 6195 | 6162 | 5273 | 5274 | 5213 |
| 5 persons. | 7279 | 7320 | 7329 | 7230 | 6217 | 6247 | 6237 |
| 6 persons | 日 208 | B 261 | 8268 | B 197 | 7026 | 7026 | 70.10 |
| 7 persons or more... | $10 \quad 137$ | 10216 | 10249 | 9995 | - 708 | - 706 | $8 \quad 739$ |


| Size of famliy unit |  | Nonfarm |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total （dollars） | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Male head （dollars） | Female head （dollars） | Total <br> （dollars） | Male head （dollars） | Female head （dollars） |
| 1 person（unrelated individual） | 3302 | 3311 | 3460 | 3196 | 2795 | 2898 | 2690 |
| 14 to 64 years．．．．．．．．．．．．．．． | 3386 | 3392 | 3516 | 3253 | 2913 | 2987 | 2764 |
| 65 years and over．．．．．．．．． | 3116 | 3127 | 3159 | 3118 | 2661 | 2685 | 2550 |
| 2 persons． | 4225 | 4249 | 4 258 | 4206 | 3578 | 3582 | 3497 |
| Head 14 to 64 years． | 4363 | 438.3 | 4407 | 4286 | 3731 | 3737 | 3614 |
| Head 65 years and over | 3917 | 3944 | 3948 | 3923 | 3352 | 3354 | 3313 |
| 3 persons． | 5178 | 5201 | 5231 | 5065 | 4413 | 4430 | 4216 |
| 4 persons． | 6628 | 6662 | 6665 | 6632 | 5681 | 5683 | 5622 |
| 5 persons． | 7833 | 7880 | 7 日88 | 7806 | 6714 | 6714 | 6700 |
| 6 persons． | 8825 | B 891 | 8 895 | 8852 | 7541 | 7543 | 7462 |
| 7 persons or more． | 10926 | 11002 | 11 038 | 10765 | 9373 | 9386 | 8813 |

D．Weighted average thresholds－－poverty cutoffs in 1979．by size and type of famliy and farm－nonfarm residence

| Size of family unit | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ |  | Nonfarm |  |  |  |  |  | Farm |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{r} \text { To } \\ \text { folla } \end{array}$ |  | Families with female hhldr． no husband present 1 （dollars） |  | All other famllest （dollars） |  | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ |  | Famllies with female hhldr． no husband present 1 （dollars） |  | All other <br> famlifes2 <br> （dollars） |  |
| 1 person（unrelated tndividual）． | 3 | 683 | 3 | 689 | 3 | 556 | 3 | 855 | 3 | 138 | 3 | 001 |  | 236 |
| 15 to 64 years． | 3 | 773 | 3 | 778 | 3 | 619 | 3 | 912 | 3 | 254 | 3 | 076 | 3 | 324 |
| 65 years and over． | 3 | 472 | 3 | 479 | 3 | 469 | 3 | 515 | 2 | 963 | 2 | 948 | 2 | 988 |
| 2 persons | 4 | 702 | 4 | 725 | 4 | 669 | 4 | 737 | 3 | 987 | 3 | 917 | 3 | 991 |
| Householder 15 to 64 years | 4 | 858 | 4 | 878 | 4 | 762 | 4 | 905 | 4 | 156 | 4 | 027 | 4 | 163 |
| Householder 65 years and over． | 4 | 364 | 4 | 390 | 4 | 362 | 4 | 394 | 3 | 730 | 3 | 686 | 3 | 732 |
| 3 persons | 5 | 763 | 5 | 784 | 5 | 624 | 5 | 820 | 4 | 917 |  | 680 | 4 | 928 |
| 4 persons | 7 | 386 | 7 | 412 | 7 | 381 | 7 | 416 | 6 | 329 | 6 | 261 | 6 | 332 |
| 5 persons | － | 736 | 日 | 775 | 8 | 690 | 8 | 7月5 | 7 | 492 | 7 | 509 | 7 | 492 |
| 6 persons． | 9 | 849 |  |  | 9 | B43 | 9 | 922 | 8 | 424 | 8 | 309 | 8 | 428 |
| 7 persons or more． | 12 | 212 |  | 280 | 12 | 037 | 12 | 322 | 10 | 533 | 10 | 17 A |  | 547 |

1 Includes female unrelated incividuals．
2 Includes male unrelated individuals．
E. Welghted averaqe throsholds--poverty cutofis in 1980. by size and type of family, by farm-nonfarm residence

| Size of family unit |  | Nonfarm |  |  | Farm |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total (dollars) | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | ramilies with female hhldr. no husband present 1 (dollars) | All other families2 (dollars) | $\begin{array}{r} \text { Total } \\ \text { (dollars) } \end{array}$ | Families with female hhldr. no husband present 1 (dollars) | All other famflies? (dollars) |
| 1 person (unrelated Individual) | 4184 | 4190 | 4037 | 4379 | 3539 | 3392 | 3680 |
| 15 to 64 years.......... | 4286 | 4290 | 4109 | 4441 | 3693 | 3492 | 3773 |
| 65 years and over | 3941 | 3949 | 3938 | 3990 | 3359 | 3347 | 3392 |
| 2 persons. | 5 33B | 5363 | 5316 | 5373 | 4502 | 4302 | 4513 |
| Householder 15 to 64 years.. | 5518 | 5537 | 5415 | 5568 | 4714 | 4497 | 4721 |
| Householder 65 years and over. | 4954 | 4983 | 4946 | 4988 | 4233 | 4185 | 4237 |
| 3 persons. | 6599 | 6565 | 6386 | 6608 | 5573 | 5271 | 5587 |
| 4 persons. | 8385 | B 414 | B 382 | B 418 | 7170 | 7152 | 7170 |
| 5 persons. | 9923 | 9956 | 9 878 | 9976 | 8472 | - 373 | B 474 |
| 6 persons........ | 11215 | 11269 | 11227 | 11274 | 9613 | 9168 | 9625 |
| 7 persons or more. | 13 8B3 | 13955 | 13757 | 13986 | 11915 | 12133 | 11889 |

1 Includes female unrelated Individuals
2 Includes male unrelated individuals.

## TAPE POSITIONS 282-317

## Sample Weights

A multistage estimation procedure was used to calculate the various NHANES ll subsample sample weights that are necessary to use in any analysis of the data. The procedure has three basic components: 1) inflation by reciprocals of the probabilities of selection, 2) adjustment for nonresponse, and 3) poststratification ratio adjustment by age-sex-race. A brief description of each component is as follows:

Inflation by reciprocals of the sampling probabilities. Since the survey utilized a three-stage sample design, there were three probabilities of selection: 1) the probability of selecting the PSU, 2) the probability of selecting a segment and housing unit, and 3) the probability of selecting a sample person.

Adjustment for nonresponse. Estimates from the NHANES II data were adjusted to account for sample persons who were not examined. The estimates were inflated by a multiplication factor calculated within five selected income groups, three age groups, four regions, and standard metropolitan statistical area (SMSA) or non-SMSA. The numerator of these factors was the sum of the weights for sample persons resulting from the reciprocal of the probability of selection, and the denominator was the sum of the weights for examined persons also resulting from the reciprocals of the sampling probabilities.

Poststratification by age-sex-race. The estimates were ratio adjusted within each of 76 age-sex-race cells to an independent estimate, provided by the U.S. Bureau of the Census, of the population of each cell as of March 1, 1978, (approximate mid-point of the survey). The ratio adjustment was a multiplication factor of which the numerator was the U.S. population
and the denominator was the sum of the weights adjusted for nonresponse for examined persons. This ratio estimation process makes the sample more closely representative of the civilian, noninstitutionalized population of the U.S.

Potential bias of nonresponse. Usually a sizeable number of sample persons who initially are willing to complete the household information and some of the medical history questionnaire subsequently will not participate in the examination. This creates the potential for bias if these persons differ from other sample persons with respect to the variables being studied. Intense efforts were undertaken during NHANES II to develop and implement standard procedures and inducements that would reduce the number of nonrespondents and thereby reduce the patential for bias.

The user needs to be aware of and should explore the potential bias for nonresponse in any analysis of the NHANES II data.

## TAPE POSITION 407

## Physician's examination form blank

Survey participants who completed other components of the examination but for whom the physician's examination form is blank are indicated with a "l" in this position. Their records are blank in positions 408-900.

## TAPE POSITION 408

## Pulse

Any pulse value less than 30 was changed to " 888 ", blank but applicable. Pulse values greater than 150 were left as stated by the examiner; typically, values in the higher ranges were accompanied by comments such as "crying baby".

TAPE POSITIONS 411-417, 757-776

## Blood Pressure

At the beginning of the physical examination the physician took the sample person's blood pressure while the sample person was in a sitting position. The sample person's blood pressure was taken twice more at the end of the exam, once while the sample person was recumbent and again while sitting. The following guidelines, based on the American Heart Associations's "Recommendations for Human Blood Pressure Determinations by Sphygmomanometers" (Committee to Revise Standardization of High Blood Pressure. Readings, New York, American Heart Association, October 1951) were generally observed:

1. The cuff was at least 20 percent wider than the diameter of the arm or covered approximately two-thirds of the arm. (An adult 13 cm . cuff and a pediatric 9.5 cm. cuff were provided.)
2. The manometer was at eye level with the physician.
3. The meniscus of the mercury instruments was checked weekly for zerolevel calibration.
4. While measuring, the rate of falling pressure was maintained 2-3mm. Hg per heartbeat, which was slow enough to detect the first and last sounds but sufficiently rapid to avoid intermittent trapping of blood between systolic and diastolic levels.
5. For diastolic pressure, the level was recorded at the point of complete cessation of Korotkoff's sounds or, if there was no cessation, the point of muffiling.
6. Measurements were recorded to the nearest 2 mm . on the scale.

Cuff width was not edited for consistency with measured arm girth for anthropometric data.

$$
\begin{gathered}
\text { TAPE POSITIONS } 420,456,457,464,465,470,471,488,489,502,507, \\
512,519,546,554,573,593,620,688,699,731,737, \\
744,779
\end{gathered}
$$

"Blank" in these findings/ no findings fields represents participants for whom demographic data exist but for whom there is no examination data; these participants have a "l" in position 407.
"Blank but applicable" ("8") indicates a survey partially completed. This field and the range of tape positions subordinate to this field were not completed on the form; " 8 " is imputed in this field and the subordinate positions are left blank.

## -105-

TAPE POSITION 470, 471

## Ear Drum

If the auditory canal was indicated as "completely occluded", a "not visible" finding was imputed for the ear drum.

TAPE POSITION 506

## Thyroid Evaluation

The World Health Organization (WHO) criteria used for grading goiter are:

Group 0: Persons without goiter. By definition, these are persons whose thyroid glands are less than 4 to 5 times enlarged.

Group 1: Persons with palpable goiters. The thyoid is considered to be more that 4 to 5 times enlarged although not visible with head in normal position. Most of these will be readily visible with the head thrown back and the neck fully extended.

Group 2: Persons with visible goiters. Persons with goiters which are easily visible with the head in normal position, but which are smaller than those in Group 3. Palpation may be helpful in determining the mass of the gland, but is not needed for diagnosis.

Group 3: Persons with very large goiters. The goiters of persons in this category can be recognized at a considerable distance. They are grossly disfigured and may be of such size as to cause mechnical difficulties with respiration and the wearing of clothes.
(Perez, C., Scrimshaw, N.S., and Munoz, J.A., Technique of endemic goitre surveys. In endemic Goitre; p. 369, see esp. p. 376, World Health Organization Monograph Series No. 44, Geneva, 1960.)

## TAPE POSITION 515, 516, 517

## Wheezing on auscultation

No attempt was made to correlate wheezing on auscultation and decreased breath sounds with entries in section H.6, aseultation.

TAPE POSITION 520, 525, 530, 535, 540

Chest Evaluation

If breath sounds were "absent", the description of the breath sounds were left blank.

## TAPE POSITION 554

Heart Murmurs

No attempt was made to correlate the location of murmur with a type of murmur or origin of murmur.

## TAPE POSITION 579

## Pulse - Palpation

The form did not provide a place to record "absent palpation" in this section. Where "absent pulse" was recorded in the next question, "normal", "tortuous", or "blank" in this field were changed to a new code, "5", to indicate absent palpation.

The form does not provide any place to record missing limbs. Some observations on extremities may be missing because sample persons were amputees. Although we know that there are amputees in the sample population, the number is unknown.

## TAPE POSITION 606-610 and 613-617

## Area (s) of Mass (es) -- Positions 606-610

If masses were present, the number (s) of the location (s), using the numbers on the body diagram, were recorded. The number used was the one which located the center of the mass.

Area (s) of Surgical Sear (s) -- Positions 613-617

If scars were present the number (s) of the location (s), using the numbers on the body diagram, were recorded. The number used was the one which located the center of the scar.


## TAPE POSITION 762

Time - AM/PM

If this section was left blank, but a corresponding time was enterèd, a AM/PM value is imputed if appropriate. The rule followed is: between 12:00 and 07:00 - "PM" is imputed; between 09:00 and 11:59- "AM" is imputed; other ranges are ambiguous, and a value of "8", blank but applicable, is entered.

Physicians were instructed to record their findings of abnormal conditions on the examination form and to code these using the first 3 digits of the Eighth Revision of the International Classification of Diseases, Adapted for Use in the United States. Identified conditions were coded at the end of medical examination forms. Since the examination emphasized the cardiovascular, respiratory and musculoskeletal systems, codes relating to these systems are expected to be more frequent.

## V. APPENDIXA

## DATA COLLECTION TECHNIQUES AND CONTENT

The plan developed with respect to the content of NHANES II called for the following:
A. QUESTIONNAIRES COMPLETED IN THE HOUSEHOLD

1. Household questionnaire: This questionnaire included for each household member items on family relationships and certain demographic variables such as age, sex, race, education, occupation, and veteran status. Also obtained were information on selected housing characteristics, family income, and an indication of the family's participation in food stamp programs.
2. Medical history questionnaires:
a. For each sample person 6 months-11 years of age

The questionnaire included items on birth weight, prematurity, congenital conditions, medication, neurological conditions, lead poisoning, accidents, hospital care, disability, diarrhea, pica, vision, and a variety of chronic conditions. In addition, data were collected on allergies, kidney and bladder disease, anemia, speech and hearing, lung and chest conditions and participation in food programs.
b. For each sample person 12-74 years of age

The questionnaire included items on medication, hospital care, tuberculosis, a variety of acute and chronic diseases, tobacco usage, physical activity, weight, height, vision disability, eating and gastrointestinal problems, and participation in food programs. Detailed data were collected on anemia, diabetes, respiratory conditions, hearing and speech, liver and gallbladder conditions, kidney and bladder disease, allergies, hypertension, cardiovascular conditions, stroke and arthritis (stressing middle and upper back and neck problems).
B. QUESTIONNAIRES ADMINISTERED IN THE MOBILE EXAMINATION CENTER

1. Dietary Questionnaires
a. For each examined person, a 24-Hour Recall was administered by trained dietary interviewers. Specific and quantitative detail of every food or drink consumed during the previous day was recorded and calculated, thus providing estimates of calories, protein, carbohydrates, fat, unsaturated fats, cholesterol, and specific vitamins and minerals consumed.
b. For each examined person, a Food Frequency questionnaire was administered to ascertain usual patterns of food consumption. Daily and/or weekly consumption of foods within 26 subgroups were recorded. In addition, data were collected on usual vitamin-mineral supplement usage.
c. For each person 12-74 years of age, a Dietary Supplement form was self-administered and reviewed. This form provided information on special diets, recent medications and barriers to purchasing groceries or eating foods; it does not provide information on vitamin/mineral or other supplements to the diet.
2. Health History Supplement, for persons 12 through 74 years of age, included questions or, cardiovascular and respiratory conditions, kidney and bladder disease, and arthritis in addition to those asked in the household Medical History. Also included were questions on pesticide exposure, smoking for persons 12 through 17 years of age, and a menstrual and pregnancy history for females.
3. Medications/Vitamin Usage form collected information on the past week's usage of any medicines, vitamins or minerals for all examined persons.
4. Behavior Questionnaire elicited data on behavior which may be associated with coronary heart disease for examined persons 25 through 74 years of age.
C. EXAMINATION BY PHYSICIAN

A physician performed and recorded the results of a medical examination giving special attention to specified findings related to nutrition, to hearing, to the thyroid gland, and to the cardiovascular, respiratory, neurological and musculoskeletal systems.
D. SPECIAL CLINICAL PROCEDURES AND TESTS

A specially trained health technician carried out the following on examined persons in the designated age ranges:

1. Spirometry trials of examined persons 6 through 24 years of age were digitized and recorded on magnetic tape. Various pulmonary function indicators such as FVC (forced vital capacity), FEV, (forced expiratory volume in one second), and peak flow rate were subsequently derived from these data.
2. Electrocardiograms were made on examined persons 25 through 74 years of age. Electrocardiographic signals were digitized and recorded on magnetic tape, providing normative data on amplitude, duration, interval and axis measurements and permitting interpretations of heart disease according to the Minnesota classification code.
3. Body Measurements were made on all examinees and included standing height or recumbent length, depending on age; body weight; triceps and subscapular skinfolds; and several other anthropometric measurements.
4. Pure tone audiometry tests were carried out on examined persons between the ages of 4 and 19 years, permitting determination of threshold levels of hearing for frequencies of 500, 1000, 2000, and 4000 Hertz for right and left ears.
5. Speech recording, involving use of tape recording of the subject's repetition of specially developed sentences, was carried out on examined persons between the ages of 4 and 6 years, permitting interpretations as an indication of problems with articulation and language development.
6. Allergy tests, involving skin tests (prick test) with eight common allergens (house dust, alternaria, cat fur, dog fur, ragweed, oak, rye grass, and Bermuda grass). The tests were made on examined persons between the ages of 6 and 74 years, to obtain degrees of skin reaction.
E. X-RAYS

For examined persons 25 through 74 years of age, two x-rays were made. No x-rays were taken of pregnant women and no lumbar x-rays were taken on women under 50 years of age.

1. X-rays of the cervical and lumbar spine were taken to provide evidence of osteoarthritis and degenerative disc disease, and an
2. X-ray of the chest was taken to be used in the diagnosis of respiratory diseases and to serve as a measure of left ventricular enlargement.
F. URINE TESTS

Tests as follows were performed on casual samples of urine:

1. N-Multistix tests for qualitative protein, glucose, ketones, bilirubin, blood, urobilinogen, pH, and bacteriuria (nitrite test) were done for examir"sd persons 6 through 74 years of age.
2. Urinary sediments, including red cells, white cells, and casts, were measured for a subsample of examined adults 20 through 74 years of age.
3. Gonorrhea cultures of urinary sediments were performed for male and female examined persons 12 through 40 years of age. However, of those females who received the Glucose Tolerance Test (GTT), only those 20 through 24 years had the gonorrhea test performed.
4. Analyses for pesticide residue and metabolite levels were carried out on a subsample of examined persons 12 through 74 years of age, including measures of the body burdens from exposure to alkyl phosphate residues and metabolites, carbamate residues, phenolic compound residues and malathion metabolites.
G. TESTS ON BLOOD SAMPLES

Samples of blood provide a broad range of information related to health and nutrition. The particular tests performed varied with the specific target condition and age group as described on page 39 of the Series 1, No. 15 program description. ${ }^{8}$

1. Glucose tolerance test (GTT)

This test involved collection of blood specimens while in a fasting state as well as at one and two hours after glucose challenge. The test was performed on a subsample of examined adults 20 through 74 years of age to provide estimates of the prevalence of diabetes.
2. Tests related to liver function
a. A post-prandial liver bile acid test was performed to measure the ability of the liver to remove bile acids from the blood. This involved consumption of a food preparation, which induces eventual addition of bile acids to the blood via contraction of the gallbladder, and subsequent collection of blood specimens.
b. Liver biochemistries performed include bilirubin, SGOT, and alkaline phosphatase tests.
3. Anemia-related laboratory reste

The tests made to characierize anemia consisted of protoporphyrin, iron, total iron binding capacity (TIBC), zine, copper, red cell folates, serum folates, serum ferritin, $B_{12}$, and the determination of abnormal hemoglobin.
4. Other nutritional biochemistries

These tests included albumin, Vitamin $A$, and Vitamin $\mathbb{C}$.
5. Serum lipids

Because of their important relevance to cardiovascular disease, determinations were made of cholesterol, triglycerides, and high density lipoprotein (HDL).
6. Biochemistries for body burden from environmental exposures Determinations were made of body burden levels of lead and pesticide residues and metabolites. Tests were also performed for carboxyhemoglobin which reflects environmental exposure to carbon monoxide and the individual's smoking habits.
7. Hematology

The hematology included determinations of hemoglobin, hematocrit, red blood cell count, white blood cell count and differential leukocyte analysis, and red blood cell morphology and hemogiobin phenotyping.
B. Kidney function

The only quantitative test for kidney function performed on blood samples was the serum creatinine test.
9. Syphilis

The serology determinations for syphilis included qualitative and quantitative ART, a FTA-ABS and MHA-TP.

## APPENDIX B

## PHYSICIAN'S EXAMINATION

## General

HANFS is designed to gather data for statistical analysis. Rather than have a general clinical examination performed in the manner most familiar to the examining physician, we have a physical examination structured to gather data on physical conditions pertinent to nutrition and certain chronic diseases. This section of the manual, which describes the method of performing the examination and specifies the method of recording findings, should be followed explicitly.

Other chapters of the manual (Responsibilities of Examination Staff Members, and Emergency Medical Procedures) describe the other obligations and duties of the examining physician.

## Format for the Examination

Certain procedures are to be deleted on the basis of age and are indicated on the examination form.

## Sitting

Blood pressure and pulse
HEENT
Hair, skin, skull, glands
Ears
Nose
Eyes
Mouth
Neck
Nodes and trachea
Chest (including heart)
Inspect
Auscult

## Reclining

Heart
Inspect
Palpate
Auscult
Abdomen
Inspect
Percuss
Palpate
Arteries
Musculoskeletal
Knee

Hip Straight leg raising

Sitting
Extremities
Lower
Upper
Neurological
DTR's
Chvostek
Standing
Inguinal Hernia
Musculoskeletal
Back
Knees
Skin
General appearance and behavior
Supine and Sitting
Blood pressure

## Examination Procedure

1. Blood pressure and pulse: While the examinee is sitting, check his blood pressure and pulse in the right upper extremity. (Count the pulse for at least 30 seconds.)
2. HEENT examination: Perform a routine HEENT. Make a special note of characterizing the hair, checking the skin for seborrhea, the skull for bossing, and looking for parotid enlargement. Inspect the external ear and, with an otoscope, examine the auditory canal and tympanic membrane. Check each nostril for patency with inspiration during alternate unilateral occlusion and examine each nostril with an otoscope. Check the eyes (lids, conjunctiva, cornea) and mouth (lips, tongue, buccal mucosa) for findings linked with malnutrition and other pathology.
3. Neck examination: Observe the neck at rest for thyroid visibility during swallowing of small aliquots of water. Repeat with the neck extended to judge thyroid size and contour. Palpate the neck for thyroid contour and tenderness, lymph nodes, and tracheal deviation.
4. Chest examination: Inspect the chest paying particular attention to the skin of the upper back and to the costochondral junctions for signs attributable to malnutrition. Auscult the chest with care to cover representative areas for all lung segments.
5. Cardiovascular examination: While the examinee is sitting, and then when he is supine, palpate and auscult the heart. Check especially for cyanosis and venous distention. Check the peripheral pulses-note the character of the artery as well as the quality of the pulsation.
6. Abdominal examination: Inspect the abdomen for evidence of past surgery and for stigmata of malnutrition. During quiet respiration in the supine position, percuss the liver. Use palpation and fist percussion to elicit CVA
tenderness. With the examinee's knees and hips flexed to relax the abdominal musculature, palpate the abdomen. While he is standing erect, palpate for hernia.
7. Musculoskeletal examination: Examine the knees and hips for deformities and signs of inflammation, check for tenderness and for pain with active and passive motion, and perform the straight leg raising test. With the examinee seated check the legs for calf tenderness and check the extremities for evidence of arthritis and epiphyseal swelling. Also at this time check the extremities for pretibial edema, hyperpigmentation and pellagrous dermatitis, follicular hyperkeratosis, xerosis, mosaic skin, petechiae, and ecchymoses. With the examinee standing check the cervical, thoracic, and lumbar spine for deformities, limited range of motion, and pain with motion by having the examinee flex, extend, laterally bend, and rotate the spine. Check for sciatic notch and sacro-iliac tenderness. With the examinee bending forward (as in touching toes) check for exacerbation or relief of scoliosis (including rotary component). While the examinee is standing, again check the knees for deformities (and the legs for varicosities).
8. Neurological examination: While the examinee is seated test for knee jerks, ankle jerks, and facial spasm (Chvostek sign).
9. Dermatological examination: Check the skin regionally during the other parts of the examination as described previously-see "Folder I" on the trailer for illustrations of findings linked with malnutrition.
10. General appearance and behavior: Take special note of the general appearance and behavior of the examinee which might reflect organic or functional disorders (e.g., endocrine imbalance, chromosomal disorders, psychosis) which would confound evaluation of nutritional status or reflect malnutrition.
11. Blood pressure: At the close of the physician's examination the blood pressure should be taken while examinee is both in the supine and sitting positions.

## Recording of Findings

The examination forms contain spaces for structured responses, open ended responses, and summaries of diagnostic impressions. Since the structured responses will be used for computer analysis, certain criteria for and/or definitions of these responses will be given below to insure comparability of data collected by numerous physicians. The open ended responses are for recording both common and rare findings (which have not been put into structured form because of rarity or secondary importance to the goals of the survey) so that a more complete medical record will be available if information beyond the structured responses is needed in the future. The summary and diagnostic impressions allows a reviewer to quickly synthesize the physician's findings on a given examinee and to ascertain the physician's subjective as well as objective evaluations.

Unless otherwise noted in the instructions, positive responses should be recorded with checks in the appropriate boxes. A correction should be made by circling the response to be negated and checking the correct box.

Either the "Findings" or "No findings" box should be checked when they occur. If there are no findings for any section of the examination, check the "No findings" box; if there are findings check the "Findings" box as well as the individual boxes for whatever findings there are.

The letters "R" or "Rt.," "L" or "Lt.," and "B" mean right, left, and both, respectively.

At the end of the chart are forms for reporting findings to physicians. Record there any significant medical findings which need to be reported to a physician or check the box to indicate that there are no significant new medical findings to be reported.

## Criteria and Definitions

1. Pulse and blood pressure:

Record the pulse as the number of radical pulsations per minute and the systolic and diastolic blood pressure in even digits to the nearest 2 mm . pressure.
2. HEENT
a. Dry staring hair: Dry, wirelike, unkempt, stiff, and often brittle hair which sometimes may exhibit some bleaching of the normal color.
b. Dyspigmented hair: Definite change from normal pigment of the hair, most usually evident and best seen by carefully combing hair strands upward and viewing the orderly array of hair in good light. Dyspigmentation includes both change of pigment (usually lightening of color) and depigmentation-not to be confused with dyed or tinted hair. Dyspigmentation is always bandlike in character and is usually associated with some change in texture of hair in the dyspigmented band. In some ethnic groups, particularly Negroid groups, the pigment may be slightly reddish in color. In others, especially among straight black-haired peoples, the bandlike depigmentation ("flag sign") is common. Dyspigmentation is only rarely observed in adults.
c. Easily pluckable hair: A condition in which the shafts of hair are readily removed with a minimal tug when a few strands are grasped between the finger and thumb and gently pulled. In such cases there is no reaction from the child, indicating a lack of pain associated with removal of the hair.
d. Abnormal texture or loss of curl: Changes in texture of the hair to a soft, silklike hair. Loss of curl is self-explanatory.
e. Circumcorneal injection (bilateral): increase in vascularity by new ingrowth of capillary loops, with particular concentraiton around the cornea in the absence of obvious causes other than nutrition.
f. Conjunctival injection (bilateral): Generalized increase in the vascularity of the bulbar conjunctivae in the absence of obvious infection.
g. Angular blephanitis: A fissure located in the lateral palpebral angle of the eyelids which presents as a crack in the epidermis similar to the cracks found at the angles of the mouth in angular stomatitis.
h. Pupils and Iris: Irregularity of pupil contour.
i. Xerosis (conjunctivae): The conjunctivae, upon exposure when holding the examinee's lids open and having the examinee rotate his eyes, appear dull, lusterless, and exhibit a striated or roughened surface.
j. Lesions of cornea (other): Use oblique moving illumination with small flashlight to look for opacities, surface debris, deposits in the anterior chamber and cataract.
k. Bitot's spots: Small circumscribed, grayish or yellowish-gray, dull, dry,
foamy, superficial lesions of the conjunctivae. Seen most often at the lateral aspect of the bulbar conjunctivae of children. Usually bilateral. Not to be confused with pterygium.
I. Keratomalacia: Corneal softening with deformity, either localized (usually central part of lower half of cornea) or total.
m. Xerophthalmia: Xerophthalmia is recorded when the bulbar conjunctiva and cornea are dry and lusterless with a decreas in lacrimation. It is rarely associated with evidence of infection but in extreme cases is associated with keratomalacia.
n. Lids and Sclera: Lid edema, lid infection, and ptosis.
o. Angular lesions of lips: Record only if definitely present bilaterally when the examinee's mouth is held half open. May appear as pink or moist, whitish, macerated, angular lesions which blur the mucocutaneous junction. Angular lesions are recorded only when there is definite break in continuity of epithelium at the angles of the mouth.
p. Angular scars of lips: Scars at the angles which, if recent, may be pink; if old, may appear blanched.
q. Cheilosis: Different from ordinary chapping. The lips are swollen or puffy and appear as if the buccal mucosa extends out onto the lip. There may be desquamation. This category may be used to include vertical fissuring of the lips. If associated with herpes labialis, note under "Other findings."
r. Filiform papillary atrophy of tongue: The filiform papillae are exceedingly low or absent, giving the tongue a smooth or "slick" appearance which remains after scraping slightly with an applicator stick.
s. Fungiform papillary hypertrophy of tongue: The fungiform papillae can be seen and felt when a tongue blade is drawn lightly over the anterior two-thirds of the tongue.
t. Geographic tongue: Irregularly outlined and distributed areas of atrophy with irregular white patches resembling leukoplakia.
u. Fissures of tongue: Linear lesions or cracks with a definite break in the continuity of the epithelium.
v. Serrations or swelling of tongue: Tooth impressions at sides of tip, often noted when tongue is swollen.
w. Scarlet, beefy tongue: Entire tongue is red, angry in appearance, with or without denudation or fissures. Not just a modification of the natural color due to the loss of papillae. Associated almost always with subjective symptoms of hypersensitivity, burning, and even taste changes.
x. Magenta tongue: A tongue the color of alkaline phenolphthalein.
y. Nasolabial seborrhea: A definite greasy, yellowish scaling or filiform excrescences in the nasolabial area which become more pronounced on slight scratching with the fingernail or a tongue blade.
z. Visible enlarged parotids: Due to difficulties in assessing parotid enlargement, record as positive the presence of bilateral enlargement only if clearly visible.
aa. Bossing of skull: Record abnormal prominence or protrusion of frontal or parietal areas.
3. Thyroid evaluation

The World Health Organization (WHO) criteria used for grading goiter are:
Grade 0: Persons without goiter. By definition these are persons whose thyroid glands are less than 4 to 5 times enlarged.

Grade 1: Persons with palpable goiters. The thyroid is considered to be more than 4 to 5 times enlarged although not visible with head in normal position. Most of these will be readily visible with the head thrown back and the neck fully extended.
Grade 2: Persons with visible goiters. Persons with goiters which are easily visible with the head in normal position, but which are smaller than those in
Grade 3. Palpation may be helpful in determining the mass of the gland but is not needed for diagnosis.
Grade 3: Persons with very large goiters. The goiters of persons in this category can be recognized at a considerable diftance. They are grossly disfigured and may be of such a size as to cause mechanical difficulties with respiration and the wearing of clothes. (Perez, C., Scrimshaw, N.S., and Munoz, J.A.: Technique of endemic goitre surveys. In endemic Goitre; p. 369, see esp. p. 376, World Health Organization Monograph Series No. 44, Geneva, 1960.)

Other thyroid findings: Record any tenderness, nodularity, enlargement of the isthmus, or other abnormal thyroid findings not included in grading thyroid size.
4. Chest evaluation:
a. Beading of ribs: A definitely palpable and visible enlargement of the costochondral junctions.
b. Follicular hyperkeratosis of upper back. This lesion has been likened to "gooseflesh" which is seen on chilling, but it is not generalized and does not disappear with brisk rubbing of the skin. Readily felt, it presents a "nutmeg grater" feel. Follicular hyperkeratosis is more easily detected by the sense of touch than by the eye. The skin is rough, with papillae formed by keratotic plugs which project from the hair follicles. The surrounding skin is dry and lacks the usual amount of moisture or oiliness. Differentiation from adolescent folliculosis can usually be made by recognition of the normal skin between the follicles in the adolescent disorder. Follicular hyperkeratosis is distinguished from perifolliculosis by the ring of capillary congestion which occurs about each follicle in scorbutic perifoliculosis.
c. Wheezing on auscultation: Record any wheezing, inspiratory or expiratory, as focal or diffuse.
d. Decreased breath sounds: Record if there is diffusely decreased breath sounds. (Focal or discrete areas of decreased breath sounds should be recorded under "Other findings.")
e. Breast Masses: Palpate in both upright and supine positions. If a mass is found, characterize with regard to location, size, contour, consistency, tenderness and mobility.
5. Cardiovascular evaluation:
a. Cyanosis: Record definite cyanosis which is thought to be related to generalized hemoglobin desaturation. (Focal phenomena, e.g., one extremity cyanotic should be recorded under "Other findings.")
b. Irregular pulse: Record any irregularities of pulse except physiological variations.
c. Cardiac murmur: Record all murmurs. Grade, location, radiation, and any other pertinent description should be given as well as an opinion as to the origin of the murmur.
6. Abdominal evaluation:
a. Hepatomegaly: Record livers palpable 2 centimeters or more below the right costal margin.
b. Splenomegaly: Record all palpable spleens.
c. Uterine enlargement: Record all enlarged uteri including those enlarged secondary to pregnancy.
d. Umbilical hernia: Record all umbilical hernias. If a hydrocele is present write it in under "Summary of Diagnostic Impressions" with its ICDA code.
e. Inguinal and femoral hernias: Record all hernias and note next to boxes if bilateral.
f. Potbelly: Record if abdomen appears abnormally distended and enlarged with due recognition of the usual contour of the young child.
g. Masses: If masses are present, check box 287. Record the number(s) of the location(s) (see diagram for number of locations) of the mass(es) to the right of 288 . Use the number which locates the center of the mass. Check box 289 and write in a description of the masses, identify each by its number location, e.g., (7) 3 cm . diameter firm, fixed, nontender.
h. Scars: If scars are present, check box 290 . Record the number(s) of the location(s) of the scar(s) to the right of 291 . Use the number which locates the center of the scar. Check box 292 and write in a description of the scars, identifying each by its number location, e.g., (7) 3 cm well-healed appendectomy scar.
7. Musculoskeletal evaluation:
a. Bowed legs (genu varum): Bilateral concave deformities of the thighs and tibiae should be recorded, even if mild.
b. Knock knees (genu valgum): Bilateral convex deformities of the knees and tibiae should be noted only if marked.
c. Epiphysial enlargement of wrists: This can be more easily felt than seen and should be recorded, particularly if present at the ulnar epiphysis.
d. Ortolani's maneuver: With the infant lying supine, the examiner straightens and adducts the legs. The examiner's thumb rests along the inside and the other fingers extend along the outside of the infant's thigh. The hips and thighs are flexed to $90^{\circ}$ and one leg is then abducted with the examiner's fingers gently pressing the trochanter of the femur upward and forward. The normal hip in a relaxed infant can be abducted to almost $90^{\circ}$. If dislocation is present resistance may be felt between $45^{\circ}$ and $60^{\circ}$ and a click felt as the dislocated femoral head slips into the acetabulum.
8. Neurological evaluation
a. Absent knee jerks: Record bilaterally absent knee jerks-unilateral absence should be described under "Other findings."
b. Absent ankle jerks: Record bilaterally absent ankle jerks-unilateral absence should be described under "Other findings."
c. Positive Chvostek sign: When in tapping the malar process of the temporal bone on both sides of the face with a percussion hammer, a twitching of
the perioral muscles of the same side is elicited, this is a positive Chvostek sign. A positive sign indicates hyperirritability of the neuromuscular system as found in spasmophilia (tetany) due to calcium deficiency.
d. Apathy: This should be noted and recorded if it is marked, particularly in young children. It has importance in relation to protein-calorie deficiency (PCD).
e. Marked hyperirritability: This refers to behavior (not to reflexes) and should be recorded only if marked.

## 9. Skin evaluation

a. Follicular hyperkeratosis, arms: See 4b.
b. Hyperpigmentation, hands and face: Asymptomatic with no inflammatory component. It is seen most frequently on the dorsum of the hands and lower forearms, particularly when skin hygiene is poor. The skin is rough, dry, and often has a grayish, cyanotic base. There is not the sharp line of demarcation at the border of the lesion such as one sees in pellagra.
c. Dry or scaling skin (xerosis): Xerosis is a clinical term used to describe a dry and crinkled skin which is made more obvious by pushing the skin parallel to the surface. In more pronounced cases it is often mottled and pigmented and may appear as scaly or alligator-like pseudoplaques, usually not greater than 5 mm in diameter. The nutritional significance of it is not established. Differential diagnosis must be made between this condition and changes due to dirt, exposure, and ichthyosis.
d. Perifolliculosis: Congestion around the follicles which does not blanch upon pressure. (See discussion of follicular hyperkeratosis above.) There is an early ring of capillary engorgement around some hair follicles which does not disappear on pressure. It is more frequently encountered on the dependent parts such as the legs. Swelling and hypertrophy of the follicles may occur, at which time the skin becomes rough. Follicular hyperkeratosis and perifolliculosis may coexist.
e. Petechiae: Record petechiae which you as a physician judge to be due to abnormalities of the examinee. Do not record normal responses to minor trauma as positives. Qualify by describing distribution and severity, e.g., minimal pigmented purpuric eruption on the legs. If deemed contributory, a tourniquet test may be performed on the upper extremity with the blood pressure cuff adjusted between systolic and diastolic pressures for 5 minutes, and the results described.
f. Mosaic skin: This is usually found on the lower legs and constitutes a dry, atrophic alteration of the skin with a mosaic-like pattern and a certain luster of the surface. It is associated with conditions where the superficial layers of the skin are subject to stretching (increased tension) due to underlying edema, e.g., in protein deficiency.
g. Pellagrous dermatitis: Areas of dry dermatitis-like lesions on the dorsal surface of hands, cheeks, forehead, and if exposed on the neck (Casals necklace).
h. Ecchymoses: Record ecchymoses which you as a physician judge to be due to abnormalities of the examinee. Do not record normal minor responses to known minor trauma.
10. Examiner's subjective impression of nutritional status:

This will be the examining physician's subjective appraisal of the state of
nutrition of the examinee. Indicate whether or not you judge the examinee to have "normal nutrition" or "abnormal nutrition." Obesity is considered to be "abnormal nutrition."
11. External ear:

Record if the ears are pierced. Check "Operative scar" only for mastoid operation scars. Check and write under "other" additional findings which are significant cosmetically and/or which might impair hearing.
12. Auditory canal:

Check "Completely occluded" if there is not sufficient tympanic membrane visible to characterize the membrane under "Drum" (below), and check as "Partially occluded" all other cases in which there is obstruction of or protrusion into the auditory canal. For all positive responses check the cause of the obstruction; write cause under "Other" for causes other than cerumen.
13. Drum:

Check "Not visible" only if "Completely occluded" is checked above. Check as many structured responses as apply in the description of the membrane, e.g., dull, bulging, and fluid may all be checked under R ear. However, do not check two responses for one code number. If the membrane is perforated, check either "With discharge" or "Without discharge." Check "Other" and write in a description if the structured responses need to be supplemented.

## 14. Nares:

Check "Acute" or "Chronic" if the naris is obstructed (use physical appearance plus history to judge if obstruction is acute or chronic). Check as many responses under "Other significant findings" as are necessary to describe the nares.
Nasal Polyps-These are soft, smooth, pale, movable tumors usually multiple.
15. Neck:

Check "Adenopathy," "Tracheal deviation," or "Other (describe)" to describe significant clinical findings (except thyroid) in the neck.
16. Chest:

In the structured response chart check the columns corresponding to the observed abnormalities at the levels of the lobes over which the findings are observed. (If needed, see diagrams present in the MEC for normal distribution of pulmonary segments and lobes.) Other auscultatory findings, and findings on inspection, percussion, or palpation should be checked and written in under "Other chest findings."
17. Heart:
a. PMI: Check whether the PMI is "Felt" or "Not felt." If felt, check the number of the closest interspace and check the relationship to the mid-clavicular line.
b. Thrills: Check whether a thrill is "Absent" or "Present." If present, check systolic and/or diastolic to time the thrill, and check either base or apex to
ocate the maximum intensity of a given thrill. For multiple thrills, record only the most intense one.
c. Heart sounds: Check the structured response which best describes the first heart sound and the one which best describes the second heart sound.
d. Murmurs: Check "None" if no murmurs are heard. If a murmur or murmurs are heard, place checks under the appropriate period-systolic and/or diastolic-to indicate the timing when categorizing by type and location of the murmur(s) or the component(s) of murmur(s) within each period-systolic and diastolic. When typing systolic murmurs, check "Organic" if any systolic murmur or systolic component of a murmur is thought secondary to a cardiovascular lesion; and check "Functional" if no systolic murmur or systolic component of a murmur is thought secondary to a cardiovascular lesion. Check "Don't know" only if a reasonable clinical judgment cannot be made. Follow the same guidelines for typing diastolic murmurs. Note that "Functional," "Organic," and "Don't know" are to be considered mutually exclusive responses within each period (systole, diastole). In locating and grading a murmur, record the grade of the murmur by checking the grade as judged at its point of maximum intensity in the appropriate period column to the right of the structured location response which best approximates the location of its point of maximum intensity. Unless there are both systolic and diastolic components to a murmur, check only one grade-location response for each murmur; for multiple murmurs make multiple responses. (However, there should be only one response at a given location within a given period.) To locate the origin of each murmur or component thought secondary to a cardiovascular lesion ("Organic" will have been checked), check in the appropriate period column (systolic, diastolic, or both) to the right of the location of the cardiovascular lesion thought to be the origin of the murmur; e.g., for pulmonic stenosis check to the right of 254 in the box numbered 1. Make multiple responses for multiple murmurs of "Organic" origin. Check "Other" if the location of other than 251-256 and check "Don't know" if the murmur is thought to be organic but a reasonable clinical judgment of the origin cannot be made.
e. Other cardiac and cardiovascular findings: If there are significant cardiac or cardiovascular findings for which there are no other appropriate responses in either the heart or arterial evaluation sections, check "Yes" and then check the structured or open ended (under "Other") response which applies. Check "No" if this space is not needed to describe cardiac or cardiovascular findings.

## 18. Arterial evaluation:

Check the structured response ("Normal," "Sclerotic," "Tortuous," or "Sclerotic and Tortuous") which best characterizes each artery listed, and check the structured response ("Normal," "Bounding," "Diminished," or "Absent") which best characterizes each pulse listed. If the dorsalis pedis pulse is absent and the posterior tibial pulse is present, check "Absent" for dorsalis pedis and write in "posterior tibial" after "Other" and check its character. If the dorsalis pedis and posterior tibial pulses are both absent, check "Absent" for dorsalis pedis and write in "popliteal" after "Other" and check the character of the popliteal pulse.
19. Joints:

To record findings in joints, locate the box for the finding to be recorded (i.e., tender, swelling, deformity, limitation, Heberden's nodes, pain on motion, other) and the joint involved. Within the box check right, left, or both to indicate the location of involvement for shoulder, elbow, wrist, ankle, feet, knees, and hips and check the total number of digits involved on each side for the MP and DIP joints. Check the total number of digits involved on the right and on the left for each finding (note this is the total number of digits involved and not the digit involved).
a. Back: Check the described deformities if observed; check the location of any tenderness or limitation of motion. If there is pain with motion, check the location at the right of the motion which elicits the pain-"diffuse" should be checked if all three locations (cervical, thoracic, low back) are involved, but do not check thoracic or low back in these instances. "Uncertain" should be checked if pain occurs but the site cannot be specified. The severity of pain in flexion and extension of the neck is graded 0 -none, 1 -doubtful, 2 -minimal, 3 -moderate, and 4 -maximum. If there is limitation of motion on flexion of the lumbar spine, check box M4c(368) and describe as limitation of flexion, lumbar spine.
b. Straight leg raising: For the SLR test, check negative or positive for both the right and the left. Also, for "Increase with dorsiflexion," check either "Yes" or "No" for both the right and left.
20. Other systems:

Record here system findings which cannot be noted in other parts of the form, e.g., Reticuloendothelial-marked inguinal and axillary adenopathy plus cervical adenopathy, pallor, and petechiae previously noted. But if only petechiae and cervical adenopathy were observed, they would have previously been recorded and need not be recorded here.

## 21. Blood pressure:

Record the systolic and the diastolic blood pressures to the nearest even digit for both the recumbent and the sitting positions and note the time to the nearest minute of the determination.
22. Summary of diagnostic impressions

On the last page of the physical examination recording form under the heading "Summary of Diagnostic Impressions" findings should be summarized. Diagnostic impressions may be on the basis of physical exam, history, X-ray, laboratory findings, etc. Certainly not all findings should be listed, but those deemed significant in relation to disease or certain condition states should be listed. However, in order to facilitate data processing all entries under other categories should be listed and given ICD codes. It is preferable to summarize findings by condition such as "osteoarthritis" rather than by listing symptoms or signs. After completing the examination, indicate whether the examinee is "normal" or "abnormal." If abnormal, summarize findings according to the directions briefly outlined above. Cardiovascular (including venous disease), musculoskeletal, and respiratory findings should be listed in their appropriate sections with other findings below.

Following each such listing, indicate the seeming severity of each, checking whether it appears to be either minimal, moderate, or severe. This will be strictly subjective and based on your own appraisal. Should there arise some difficulty in deciding between two of the possible classifications, the lesser of the two should be selected.
Then indicate the certainty of the diagnosis using a scale ranging from 0 to 9 according to the following criteria:

> 0-not at all certain 2-little bit certain
> 4-somewhat certain
> 6-fairly certain
> 8-very certain
> 9-extremely certain

The range is continuous and any number representing a degree of certainty between two of the listed scale numbers may be selected. When selected, the number should be written in the appropriate space.
Each condition should finally be coded according to the Eighth Revision International Classification of Diseases, Adapted for Use in the United States, which has been modified for use in HANES. A complete listing of these HANES modified codes are kept in each caravan. Since the vast majority of examinees with findings will have one or more of a small number of common conditions, the more probable conditions with the appropriate code numbers are listed below:

## Modified ICDA Codes for Use in HANES

I. Infective and Parasitic Disease (000-136)
011.X Pulmonary Tuberculosis
044.X Polio, Late Effects of
111.0 Tinea Versicolor
II. Neoplasms (140-239)

See specific Neoplasms as classified
214.X Lipoma
227.0 Hemangioma of Skin
III. Endocrine, Nutritional and Metabolic Diseases (240-279)
240.X Simple Goiter
241.X Nontoxic Nodular Goiter
242.X Hyperthyroidosis (Hyperthyroidism) with or without Goiter
243.X Cretinism
244.X Hypothyroidism (acquired)
250.X Diabetes Mellitus
274.X Gout
277.X Obesity not specified as of Endocrine Origin
IV. Diseases of Blood and Blood Forming Organs (280-289)
280.X Iron Deficiency Anemias
282.X Hereditary Hemolytic Anemias including Sickle Cell Disease
287.X Purpura and other Hemorrhagic Conditions
V. Mental Disorders (290-315)
295.X Schizophrenia
296.X Affective Psychoses
300.X Neuroses
303.X Alcoholism
309.X Mental Disorders not specified as Psychotic; associated with Physical Conditions; includes Brain Syndrome
309.2 Due to Brain Trauma
309.3 Due to Circulatory Disturbance
309.6 Due to Senile or Presenile Brain Disease
VI. Diseases of the Nervous System and Sense Organs (320-389)
324.X Meningitis or Encephaslitis, late effects of
342.X Paralysis, Agitans (Parkinson's Syndrome)
343.X Cerebral Spastic Infantile Paralysis
344.X Other Cerebral Paralysis
344.1 Hemiplegia
345.X Epilepsy
346.X Migraine
350.X Facial Paralysis
353.X Neuralgia or Neuritis of Sciatic Nerve
360.X Conjunctivitis and Conjunctival Infection
367.X Retinitis
373.X Strabismus
374.X Cataract
375.X Glaucoma
377.0 Vascular Lesions of Retina
377.1 Degeneration of Retina
379.X Blindness
380.X Otitis Externa
381.X Otitis Media without Mastoiditis
382.X Otitis Media with Mastoiditis
VII. Diseases of Circulatory System (390-458)
394.X Disease of Mitral Valve
395.X Disease of Aortic Valve
401.X Essential Benign Hypertension
402.X Hypertensive Heart Disease
403.X Hypertensive Renal Disease
412.X Chronic Ischemic Heart Disease
413.X Angina Pectoris
427.0 Congestive Heart Failure
427.3 Heart Block
427.4 Atrial Fibrillation or Flutter
427.9 Other and Unspecified Disorders of Heart Rhythm(Other than PAT, AF, VF, Heart Block)
429.0 Cardiac Enlargement and Hypertrophy
436.X Stroke
440.X Arteriosclerosis
443.0 Raynaud's Syndrome
443.9 Intermittent Claudication, PVD, not otherwise specified
451.X Phlebitis and Thrombophlebitis
454.0 Varicose Veins, with Ulcer
454.1 Varicose Veins, with Stasis Dermatitis without Ulcer
454.9 Varicose Veins other, without Ulcer
VIII. Disease of Respiratory System (460-519)
460.X Cold
461.X Acute Sinusitis
462.X Acute Pharyngitis
463.X Acute Tonsillitis
464.X Acute Laryngitis and Tracheitis
465.X URI of unspecified or multiple site
466.X Acute Bronchitis
491.X Chronic Bronchitis
409.X Emphysema
493.X Asthma
500.X Hypertrophy of Tonsils and Adenoids
504.X Deviated Nasal Septum
505.X Nasal Polyp
507.X Hay Fever
507.1 ${ }^{\text {b }}$ Allergic Rhinitis
IX. Disease of Digestive System (520-577)
529.1 Geographic Tongue
533.X Peptic Ulcer, site unspecified
550.X Inguinal Hernia not obstructed
551.0 Femoral Hernia not obstructed
551.1 Umbilical Hernia not obstructed
551.3 Diaphragmatic Hernia, not obstructed
564.1 Irritable Colon
571.X Cirrhosis of Liver
573.0 Hepatitis, not otherwise specified
574.1 Cholelithiasis with Cholecystitis or Cholangitis (chronic)
574.9 Cholelithiasis without Cholecystitis or Cholangitis
575.X Cholecystitis, without mention of Calculus
X. Diseases of the Genitourinary System (580-629)
590.0 Chronic Pyelonephritis
XI. Complications of Pregnancy, Childbirth and the Puerperium (630-678)
XII. Diseases of the Skin and Subcutaneous Tissue (680-709)
680.X Boil and Carbuncle
684.X Impetigo
690.X Seborrheic Dermatitis
691.X Atopic Dermatitis, Infantile Eczema, Neurodermatitis

[^0]692.X Contact Dermatitis
695.2 Erythema Nodusum
696.X Psoriasis
706.1 Acne Vulgaris
708.9 Hives
709.9 Intertrigo, Vitiligo
XIII. Diseases of the Musculoskeletal System and Connective Tissue (710-738)
712.X Rheumatoid Arthritis
713.0 Osteoarthritis
714.0 Traumatic Arthritis
715.X Arthritis, unspecified
717.9 Fibrositis, Myalgia, Myositis
718.X Rheumatism, unspecified
725.0 Displaced Cervical Intervertebral Disc
725.1 Displaced Lumbar and Lumbosacral Intervertebral Disc
728.0 Pain in Neck
728.7 Low Back Pain
730.X Bunion
731.X Synovitis or Bursitis
735.0 Scoliosis
735.1 Kephosis
736.X Flat Foot
XIV. Congenital Anomalies (740-759)
752.1 Undescended Testicle
756.4 Pectus Excavatum
757.4 Congenital Clubnail
Miscellaneous
780.3 Abnormal Involuntary Movements (Atheosis, Tremor)
780.4 Disturbance of Coordination (Ataxia, Muscular Incoordination)
989.X Insect Bites

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[^0]:    ${ }^{\text {n }}$ This is an artificial code not included in the ICDA codes.

