

PROPERTY OF THE
PUBLICATIONS BRANCH
EDITORIAL LIBRARY

VITAL and HEALTH STATISTICS

DATA EVALUATION AND METHODS RESEARCH

Cooperation in Health Examination Surveys

A study of expressed willingness to accept a health examination for survey purposes.

Washington, D.C.

July 1965

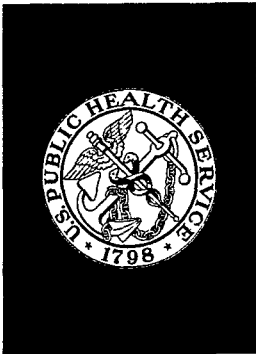
U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Anthony J. Celebrezze
Secretary

Public Health Service

Luther L. Terry
Surgeon General

This report was originally published in the series "Health Statistics from the U.S. National Health Survey," which has since been replaced by the "Vital and Health Statistics" series. This particular report is of continuing interest in relation to the reports now being published in the Vital and Health Statistics reports. It provides relevant background information for use in connection with the reports of findings. It is, therefore, being reprinted in its present form.



Public Health Service Publication No. 1000-Series 2-No. 9

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price 35 cents.

NATIONAL CENTER FOR HEALTH STATISTICS

FORREST E. LINDER, PH. D., *Director*

THEODORE D. WOOLSEY, *Deputy Director*

OSWALD K. SAGEN, PH. D., *Assistant Director*

WALT R. SIMMONS, M.A., *Statistical Advisor*

ALICE M. WATERHOUSE, M.D., *Medical Advisor*

JAMES E. KELLY, D.D.S., *Dental Advisor*

LOUIS R. STOLCIS, M.A., *Executive Officer*

OFFICE OF HEALTH STATISTICS ANALYSIS

IWAO M. MORIYAMA, PH. D., *Chief*

DIVISION OF VITAL STATISTICS

ROBERT D. GROVE, PH. D., *Chief*

DIVISION OF HEALTH INTERVIEW STATISTICS

PHILIP S. LAWRENCE, Sc. D., *Chief*

DIVISION OF HEALTH RECORDS STATISTICS

MONROE G. SIRKEN, PH. D., *Chief*

DIVISION OF HEALTH EXAMINATION STATISTICS

ARTHUR J. McDOWELL, *Chief*

DIVISION OF DATA PROCESSING

SIDNEY BINDER, *Chief*

COOPERATION OF THE BUREAU OF THE CENSUS

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies. For the Health Interview Survey the Bureau of the Census designed and selected the sample, conducted the household interviews, and processed the data in accordance with specifications established by the Public Health Service.

CONTENTS

	Page
Introduction-----	1
Design and Methodology of the Health Examination Co-operation Study-----	2
Summary of Findings-----	4
Analysis of Data-----	6
Respondent Status -----	6
Urban-Rural Residence and Region-----	7
Race and Sex-----	8
Age -----	9
Major Activity -----	9
Education of Family Head-----	10
Income -----	10
Interval Since Last Physician Visit-----	10
Health Status-----	10
Detailed Tables -----	12
Population -----	23
Appendix I. Technical Notes on Methods-----	29
Statistical Design of the Health Interview Survey -----	29
General Qualifications -----	29
Reliability of Estimates-----	30
Appendix II. Definitions of Certain Terms	
Used in This Report-----	31
Terms Relating to Health-----	31
Terms Relating to Disability-----	31
Medical Care Terms-----	32
Demographic, Social, and Economic Terms--	32
Location of Residence Terms-----	32
Appendix III. The Special Supplement Form and Questionnaire-----	35

CO-OPERATION IN HEALTH EXAMINATION SURVEYS

INTRODUCTION

The U. S. National Health Survey has a responsibility to collect survey data on the health of the population and on factors relating to health. Its survey program contemplates a variety of types of surveys, each differently designed according to the kinds of data to be collected and the sources from which such data can be obtained.

A major part of the U. S. National Health Survey Program is the collection of health data and related facts in a continuous health household interview survey. Each week a representative sample of households in the United States is interviewed and data on such things as illness, disability, medical care, and hospitalization are obtained. The results of these surveys are published in Series B and Series C of Health Statistics from the U. S. National Health Survey. The interview method provides a wide range of adequately reliable data relating to social, economic, and demographic aspects of health and for such topics as the amount of medical care and disability resulting from illnesses. However, the method has recognized limitations in the quality of diagnostic data obtained. In addition, the interview method cannot provide distributions of those clinical and physical measurements which must be based on actual tests.

Consideration has therefore been given to the development of a survey based on a specially designed health examination given to representative samples of the population. Before such a survey can be instituted, however, many problems must be solved such as standardization of procedures, the designing of a medical history questionnaire, logistics, and ways of getting the selected people to be examined. The medical history problem has been studied, and the results of the study are published in A Study of Special Purpose Medical-History Techniques.¹ The problem discussed in this report is that of persuading people to cooperate in a health examination survey.

The response problem is always an important consideration in any survey, as the validity of sample estimates is dependent upon the sample being representative of its parent population. A small nonresponse rate can be tolerated in most instances. For even if the characteristics being measured for nonrespondents are different from those of respondents, their biasing effect on the estimate may not be serious. (The amount of nonresponse that can be tolerated depends upon the subject matter. No arbitrary goal can be set.) Several community-wide health examination surveys²⁻⁴ indicate, however, that a large proportion of sample persons may not, for various reasons, submit themselves for an examination. The nonresponse rates for these studies ranged from about 30 to 40 percent. The results from these studies are not sufficient evi-

This report was prepared by Earl Bryant and James T. Baird, Jr., of the U.S. National Health Survey staff.

dence to predict that similar nonresponse rates would be encountered in a nationwide survey, but they do point out the need to learn the magnitude of nonresponse that might be expected in a national health examination survey.

To obtain certain information on how people in the United States feel about participating in a health examination survey, a special "supplement" question was added in January 1958 to the questionnaire which was regularly used for the health household interview survey. People were asked a hypothetical question as to their willingness to participate in a health examination survey. The responses to these questions were studied for population groups characterized by specific demographic and health attributes. By this means, groups of people who may tend to be less inclined to participate in a health examination could be identified. Although the responses received in the survey may not completely represent what people will actually do, it is believed that they do indicate peoples' attitudes toward co-operating in a health examination sufficiently well to identify groups likely to pose special problems in an actual survey.⁵

DESIGN AND METHODOLOGY OF THE HEALTH EXAMINATION CO-OPERATION STUDY

The methods of this special study are based largely on the procedures and techniques used in the Health Household-Interview Survey,⁶ which is a continuing survey of the civilian population of the United States. Each week, a sample of households throughout the United States is visited by a group of specially trained interviewers. Information on the social characteristics and health experience of all members of each household is recorded using standardized procedures.⁷ The instrument which the interviewer uses to elicit and transcribe this information is referred

to as the health household interview questionnaire, or simply, the questionnaire. In the interview, the interviewer obtains personal particulars and demographic and economic characteristics of each person in the household. After this, detailed information on each person's morbidity, medical care, and hospitalization experience during the past year is recorded. In the household interview all responsible adults who are at home at the time of interview are asked to respond for themselves on questions pertaining to health. If an individual is not available, certain related adults may supply the necessary information. In this case, the person answering the questions is referred to as a proxy respondent, and the individual to whom the information relates is referred to as a person with proxy respondent. When the person replying is the subject of the questions, he is called a self-respondent. For detailed definitions of terms see Appendix II. The information collected in this way, when inflated by appropriate sampling weights and otherwise processed, can be related to the entire civilian population of the United States or to any subgroup of this population.

The mechanism of the Health Interview Survey was used for this special study of expressed willingness to be examined in a health examination survey.

The data in this report are based on household interviews conducted during the eight-week period, January 27-March 30, 1958. During this time, information on willingness to participate in a health examination was obtained for persons 18 years of age and over. This was accomplished by appending a form containing two short questions to the basic questionnaire. The form is referred to as the health examination supplement (shown in Appendix III) and the questions as the supplement questions. Interviews were completed in approximately 5,000 households comprising 11,000 persons 18 years of age and over. The population

covered by the sample is the civilian population of the United States living at the time of the household interview. This report, however, does not include persons living as inmates of resident-type institutions although they are included in the sample. Additional information on the statistical design and variances for the sample statistics are given in Appendix I.

At the end of each household interview, after a brief explanation of a health examination survey that was being planned, the respondents were asked the supplement questions:

"If you are selected for this special free examination and the time and place are convenient will you be willing to come?"

If the respondent was also replying for a related adult, he then was asked;

"How about . . ., do you think he will be willing to come?"

For definite answers of yes or no, a checkmark in an appropriate box recorded the answer. However, if the answer was qualified in some way, it was recorded verbatim. The following criteria were used to classify the qualified answers as "yes" or "don't know."

Yes, qualified—answers which indicated an affirmative attitude toward taking the health examination. This includes all such verbatim answers even if the "don't know" box on the form was checked.

Don't know—answers which could not be clearly distinguished as affirmative. For example, the answer might have been, "I wouldn't know how to answer, she works every day," or "He might come, but I'm not sure."

The frequency of the "qualified" and "don't know" responses in relation to the "unqualified" yes and no responses may be examined in table A.

The "don't know" designation, as may be expected, occurred largely in the case of proxy responses (i.e., in instances where one member of a family was answering for another). Table B

Table A. Response pattern for health examination supplement questions

Response	Estimated population	
	Frequency	Percent
Total-----	97,970,000	100.0
Yes (favorable response)-----	69,550,000	71.0
Unqualified---	65,650,000	67.0
Qualified-----	3,900,000	4.0
No-----	24,420,000	24.9
Don't know-----	4,040,000	4.1

shows that the proportion of "don't knows" was about five times as great among proxy respondents as among self-respondents. This is demonstrated for both sexes.

It is obviously not feasible to provide a meaningful accounting of the very small proportions of "don't know's" and "qualified" responses for subpopulation groups. The primary axis of classification in the following detailed analysis of this report is the proportion of persons which may be expected to participate in a health examination survey. It therefore seems reasonable to pool the "qualified" answers with unqualified "yes" answers. This was the approach used, with the combination of these two categories being referred to as favorable response. The pooled result undoubtedly includes some persons who will not participate due in part to the nature of the qualifications in their reply. On the other hand, the complement of percentage favorable response includes the "don't know" as well as the "no" replies. The former may reasonably be expected to include a substantial number of persons who would, in fact, participate. This is especially true in view of the large proportion of persons with proxy respondents in this group, shown in table B.

Table B. "Don't know" responses and respondent status by sex: health examination supplement questions

Respondent status and sex	Percent of all persons	Percent with "don't know" response to health examination supplement questions	Percent of persons within sex group
Total-----	100	4.1	100
Self-----	60	1.4	60
Proxy-----	40	8.2	40
Male-----	47	5.5	100
Self-----	18	1.5	37
Proxy-----	30	7.9	63
Female-----	53	2.8	100
Self-----	42	1.4	81
Proxy-----	10	8.8	19

Percents may not add to total due to rounding.

SUMMARY OF FINDINGS

The evidence of this investigation is that 71 percent of the 98 million, noninstitutional population 18 years of age and over may be willing to come to a health examination if the time and place are convenient. On the basis of an individual's reply, or the reply of a related adult responding for him, 67 percent were credited with unqualified willingness to co-operate. The replies indicated that 25 percent would not come in, while 4 percent of the people were in the "don't know" category. The remaining four percent were people for whom a "qualified" yes answer was given.

In accordance with the objectives of the study it was possible to identify components of the population in which favorable response differed in degree from that of the total population and from other population groups. This, it is felt, is a necessary step in planning actions to reduce overall nonresponse in a health examination survey.

Results of the analysis of 11 variables in relation to favorable response are presented in this

report. Nine of these are demographic variables. Two are scales relating to the health of the individual. Over-all marginal totals of favorable response for the study variables and relative proportions of the population are shown in table C.

While some association with favorable response may be indicated for most of these variables, the following may be demonstrated to a more positive degree as some of the more important findings bearing on response to a health examination survey.

1. Persons responding for themselves on the household interview were more reluctant to commit others to a health examination than to commit themselves.

2. There is a decreasing rate of favorable response with increasing population size. Stated willingness to accept a health examination was highest among residents of rural areas, and lowest among people living in large metropolitan areas. Associated with this, to some extent, is a regional difference. Individuals in the Northeastern part of the United States were less inclined to co-operate than people in other areas.

Table C. Percent favorable response and population distribution by study variables

Variable	Percent favorable response	Percent of population ¹	Variable	Percent favorable response	Percent of population ¹
<u>Respondent status</u>			<u>Major activity</u>		
Self-respondents-----	76	60	Usually keeping house-----	77	32
Persons with proxy respondents-----	64	40	Usually working-----	71	60
<u>Urban-rural residence</u>			Other-----	73	8
Large metropolitan areas-----	64	24	<u>Education of family head</u>		
Small metropolitan areas-----	65	20	Less than 9 years of school-----	71	44
Other urban areas-----	74	18	9-12 years-----	72	40
Rural areas-----	78	38	College-----	67	16
<u>Region</u>			<u>Stated time interval since last physician visit</u>		
Northeast-----	62	26	Less than 3 months---	72	37
North Central-----	70	31	3-11 months-----	73	28
South-----	78	28	1-2 years-----	73	19
West-----	75	15	3+ years-----	63	16
<u>Age</u>			<u>Health status of individual</u>		
18-24-----	76	13	No chronic conditions, no physician visit within year-----	66	22
25-44-----	76	41	No chronic conditions, at least one physician visit within year--	71	24
45-64-----	68	32	At least one chronic condition, activity not limited-----	74	39
65+-----	58	14	At least one chronic condition, activity limited-----	70	15
<u>Race</u>					
White-----	70	90			
Nonwhite-----	83	10			
<u>Sex</u>					
Male-----	70	47			
Female-----	72	53			
<u>Family income</u>					
Under \$2,000-----	66	26			
\$2,000-4,999-----	75	34			
\$5,000-6,999-----	74	21			
\$7,000+-----	67	20			

NOTE: Population percent may not add to 100 due to rounding.

¹Refers to civilian noninstitutional population 18 years of age and over except for "major activity" which refers to 18-64 years of age only.

3. People over 45 years of age indicate less willingness to co-operate, especially those over 65.

4. There is a racial difference in stated willingness to co-operate. Nonwhite persons indicate a much higher degree of co-operation than white persons.

5. People in the extreme upper and lower income groups show less favorable response rates than those in the middle income groups.

Following the descriptive analysis of responses according to various population characteristics in the next section, a series of detailed tables presenting the results of the questioning will be found, as well as population estimates which were used in forming the ratios shown in this publication. Sampling variances for the data are tabulated in Appendix I.

ANALYSIS OF DATA

Respondent Status

The difference in favorable response by respondent status is the most easily demonstrated and clear-cut in the study. Self-respondents were less willing to commit others to a health examination than to commit themselves. This was true for nearly all variables and population groups studied. As indicated in table D, favorable response was about one fifth higher among self-respondents than among persons for whom another person responded. This difference is statistically significant.*

If the "don't knows" were distributed between the "yes" and "no" replies on a proportionate basis, the 12 points difference in the percentage of favorable responses shown in table D would be reduced to about seven points, a difference which would still be statistically significant.

* Statements of statistical significance throughout the text relate to a confidence level of 0.05.

Sixty percent of the persons included in the survey responded for themselves while 40 percent had proxy respondents. These proportions were substantially the same for metropolitan, other urban, and rural areas, as well as for all sections of the United States. For some population groups, however, the distribution of self-respondents may be quite different. For example, table E shows that more than twice as many females as males responded for themselves. This is, of course, an expected result in many household surveys that admit proxy respondents.

Thus a substantial differential by respondent status exists for both sex groups. For males, favorable response is 18 percent or about one fifth higher among self-respondents than among persons with proxy respondents. For females, it is nearly a third higher. In both cases the difference is statistically significant. While similar distinctions may be made for some of the other study variables, the general pattern is that favorable response is substantially higher among self-respondents than among persons with proxy respondents for each population group, that is, the trends for the two response groups are generally similar. For this reason, respondent status is not shown in tables 2-15, although references appear in the text where applicable.

Table D. Distribution of response by respondent status

Respondent status	Percent response		
	Yes (favorable response)	No	Don't know
Total----	71	25	4
Self-respondents-----	76	23	1
Persons with proxy respondents----	64	28	8

Table E. Percent favorable response by sex of subject¹ and respondent status

Sex of subject	Respondent status		Percent self-respondents
	Self-respondents	Persons with proxy respondents	
Male-----	78	66	36
Female-----	75	57	81

¹Subject is the person to whom the response applies.

Urban-Rural Residence and Region

Indications are that one of the factors that is most influential in determining the extent of favorable response to an invitation to be examined is the size of the place of residence. The trend toward better response as the population size decreases may be seen in table F.

In the rural areas, which include about 38 percent of the total population, the proportion of "yes" answers was about one sixth higher than the response rate obtained from the urban population. In rural areas, people seem to be more willing to commit someone else to an examination than they are in urban places, as indicated in table F. The affirmative response rate among

persons with proxy respondents is about one fifth higher in rural areas than in urban places, but only one seventh higher in the case of self-respondents.

The inverse relationship of willingness to be examined and population size is further demonstrated for the different urban size of place groupings. For both self and proxy respondents, the indications are that the best co-operation in urban areas would be received in the small urban places and the poorest in the metropolitan centers, i.e., in urban areas composed of about 50,000 or more people.

Relatively speaking, the higher rural favorable response is somewhat more marked for the older age groups, as illustrated in table G. For example, favorable response for persons 18-24 years of age in rural areas is about 14 percent or one seventh higher than in urban areas, while for persons 65 years of age and over, it is about 24 percent or one fourth higher.

Table H shows the trend for persons 18-64 years of age specific for geographical region and urban-rural residence.

The increase in favorable response with decreasing population appears to be somewhat more clear-cut in the South and the West. These are the two regions with the highest over-all favorable response.

Also, there is some indication that the response pattern would be affected by the part of

Table F. Percent favorable response by urban-rural residence by respondent status

Respondent status	Urban-rural residence					
	Total	All urban	Large metropolitan	Small metropolitan	Other urban	Rural
Total-----	71	67	64	65	74	77
Self-----	76	72	70	72	77	82
Proxy-----	64	59	53	57	69	71

Table G. Percent favorable response by age, urban-rural residence, and respondent status

Re-spond-ent status	18-24 years			25-64 years			65+ years		
	Urban	Rural	Percent relative difference	Urban	Rural	Percent relative difference	Urban	Rural	Percent relative difference
Total-	72	82	14	68	79	16	53	66	24
Self----	79	87	10	74	84	14	59	71	20
Proxy---	65	78	20	61	72	18	39	54	40

Table H. Percent favorable response by urban-rural residence and region, persons 18-64 years of age

Region	Urban-rural residence				
	Total	Large metropolitan	Small metropolitan	Other urban	Rural
Total-----	73	66	67	77	79
Northeast-----	65	60	56	69	75
North Central-----	73	72	69	75	75
South-----	79	60	69	81	85
West-----	76	71	75	78	81

the United States in which people live. For example, people in the large metropolitan cities of the West and North Central regions expressed much more willingness to be examined than did persons of similar residence status in the South and Northeast regions. This is further indicated by the fact that people in the Northeast, except those in large metropolitan cities, were less cooperative for any particular population size than the people in other regions.

No substantial difference in urban-rural favorable response can be demonstrated for the nonwhite population. For white persons 18-64 years of age the rural favorable response rate was about one sixth higher than the urban, but this is not statistically significant due to the low frequencies of rural individuals in the sample. For nonwhite persons the two rates are about the

same. Further information on urban-rural residence and region is available in tables 1-10.

Race and Sex

No important differences by sex in stated willingness to participate in a health examination are indicated by the study. Although table 5 shows a slightly higher favorable response among females, this can be accounted for by the larger proportion of self-respondents among them. About 78 percent of the males responding for themselves indicated a willingness to co-operate, which is slightly more than the 75 percent among female self-respondents (table E).

Race, however, is apparently a highly relevant and significant factor. Table 5 indicates that the proportion of favorable replies is about one fifth greater among nonwhite than among white

persons. This relationship varies greatly among regions—there being almost no difference in the West region, but in the Northeast the favorable response rate for nonwhite persons was about 40 percent higher than for white persons. The effect of this difference on the total response rate is negligible, however, even in the South where about 19 percent of all persons 18 years of age and over is nonwhite.

Age

Willingness to participate in a health examination tends to decrease with increasing age. Favorable response is higher among persons under 45 years of age. The rate of 76 percent for this group is about one third higher than that for persons 65 years and over as shown in figure 1.

The same general age pattern shown in figure 1 can also be demonstrated for specific regions as well as for urban and rural areas of the United States. Persons over 45 years of age, where problems of obtaining co-operation in a health examination appear to be greatest, comprise almost half of the total adult population. Older individuals, of course, will contribute a substantial proportion of positive findings in a health examination. For example, 78 percent of the persons

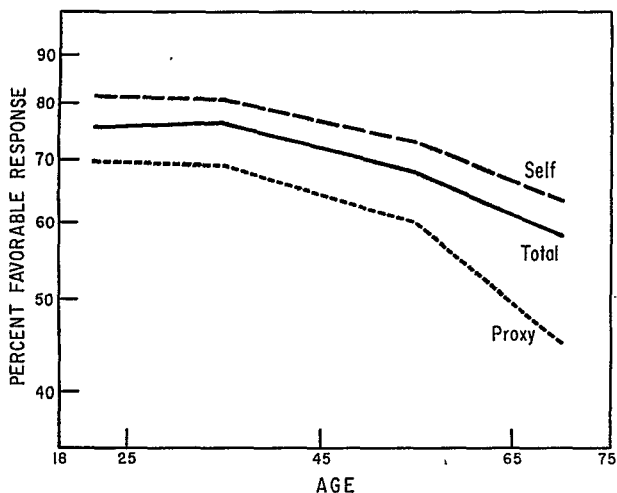


Figure 1. Percent favorable response by age and respondent status.

65 years of age and over, but only 32 percent of those 18-24 reported at least one chronic condition as defined in this study.

Major Activity

Persons 18-64 years of age were classified by their major activity during the 12 months preceding the household interview. The objective of this was to delineate population groups which may have different health problems. The methods of classification, which are specified in Appendix II of this report were, therefore, not designed to be comparable with similar classifications in official labor force statistics. The broad tabulation rubrics were "usually working," "usually keeping house," and "other."

Favorable response rates for persons with proxy respondents show practically no variation among these three categories which range from 65 to 68 percent. For self-respondents, the rates are the same for each category. It may be seen from table I that the favorable response rate for all persons whose major activity was "usually keeping house" is higher than it is for the other two categories. The reason for this is that persons who "usually keep house" are largely self-respondents.

Table 11 shows a difference in the "major activity" pattern by urban and rural areas.

Table I. Percent favorable response by major activity and respondent status, persons 18-64 years of age

Respondent status	Major activity		
	Usually working	Usually keeping house	Other
Total---	71	77	73
Self-----	78	78	78
Proxy-----	65	68	68

Education of Family Head

It may be seen in table 6 that there is no conclusive correlation between favorable response and educational attainment of the family head. There may be, however, some slight tendency toward poorer co-operation for persons in families in which the head of the household had some college education. This pattern is consistent for both self-respondents and persons with proxy respondents.

Table 12 shows that a somewhat different distribution by level of education apparently exists between urban and rural areas for persons 18-64 years of age.

Income

In general, the populations with either very low or very high reported family incomes have lower favorable response rates than people with family incomes closer to the median. This trend appears to be slightly greater for persons with proxy respondents than for persons responding for themselves. The "peaked" distribution reflected in table J remains about the same for other population groups in the study.

The substantially lower favorable response in the "under \$2,000" income group may be largely the result of the higher proportion of persons over 65 years of age in this group.

Table J. Percent favorable response by family income and urban-rural residence

Family income	Urban-rural residence		
	Total	Urban	Rural
Total-----	71	67	77
Under \$2,000-----	66	60	73
\$2,000-4,999-----	75	71	81
\$5,000-6,999-----	74	70	81
\$7,000+-----	67	65	72

Interval Since Last Physician Visit

This variable refers to the elapsed interval between the individual's last physician visit and the date of the household interview as stated by the respondent. Although undoubtedly errors occur in respondents' efforts to remember dates of last physician visits, similar trends were observed for both self-respondents and persons with proxy respondents. The favorable response rate decreases 13 percent between the "under 3 months" and "3 years and over" groups, or from 72 to 63 percent (table 10).

The trends observed for specific age, urban-rural residence, and family income groups are not inconsistent with the above.

Health Status

Obviously the state of a person's health may be an important factor influencing his desire to participate in a health examination. It can be hypothesized that persons with recent manifest health problems might reasonably be expected to be more inclined to participate than people who have not had such experiences. On the other hand, some persons with painful chronic conditions and activity limitation may be less willing to make the necessary effort to undergo the examination.

In an attempt to develop a rough index of the health status of an individual three different variables were considered collectively. These were the respondents' statements of:

1. Presence or absence of a chronic condition
2. Any limitation of activity in cases where a chronic condition was reported
3. Visiting a physician during the 12 months preceding household interview

(For a precise definition of physician visit see Appendix II.)

This structuring provided a means of ranking people according to their degrees of health. In

general, persons in the first category in table K probably have the poorest health, those in the last category, the best.

The detailed results of this classification are shown in tables 3, 7, and 9. The pattern shown in table K is fairly consistent for specific urban-rural residence and income groups.

Naturally, the age distribution is quite different for each of the four categories of the health status index. For example, three percent of the

persons with chronic conditions and activity limitation were 18-24 years of age, while the corresponding figure for people with no chronic conditions and no physician visits during the past year was 14 percent. Table K shows the trend by health status for the expected favorable response which would occur if the age distributions of each health status category were the same as the age distribution of the total population.

Table K. Index of health status and percent favorable response

Index	Percent favorable response	
	Unadjusted	Age adjusted
1. Persons with chronic conditions, activity limited----	70	76
2. Persons with chronic conditions, activity not limited-----	74	75
3. Persons with no chronic conditions but a physician was visited within the past year-----	71	68
4. Persons with no chronic conditions and no physician visited within the past year-----	66	65

REFERENCES

¹U. S. National Health Survey. A Study of Special Purpose Medical-History Techniques. Health Statistics. Series D-1. Public Health Service Publication No. 584-D1. Public Health Service, Washington, D. C., Jun. 1960.

²Commission on Chronic Illness in 1953-54. Chronic Illness in a Large City. The Baltimore Study (Chronic Illness in the United States, Vol. IV). Harvard University Press, Cambridge, Mass., 1957.

³Commission on Chronic Illness: Chronic Illness in a Rural Area; The Hunterdon Study (Chronic Illness in the United States, Vol. III). Harvard University Press, Cambridge, Mass., 1959.

⁴Cobb, S.; Thompson, D. J.; Rosenbaum, J.; Warren, J.E.; and Merchant, W.R.: On the Measurement of Prevalence of Arthritis and Rheumatism From Interview Data. J. Chron. Dis. Vol. 3, No.2. Feb. 1960.

⁵Borsky, P. N., and Sagen, O. K.: Motivations Toward Health Examinations. Am. J. Pub. Health. Vol. 49: No. 4, April 1959.

⁶For detailed information on the sample design see: U.S. National Health Survey. The Statistical Design of the Health Household-Interview Survey. Health Statistics. Series A-2. Public Health Service Publication No. 584-A2. Public Health Service, Washington, D.C., July 1958.

⁷For specifics of the complex and highly technical interviewing process and precise definitions of concepts refer to: U.S. National Health Survey. Concepts and Definitions in the Health Household-Interview Survey. Health Statistics. Series A-3. Public Health Service Publication No. 584-A3. Public Health Service, Washington, D.C., Sept. 1958.

DETAILED TABLES

	Page
Table 1. Percent distribution of response, persons 18 years of age and over, by respondent status and urban-rural residence-----	13
2. Percent distribution of response by age and urban-rural residence-----	13
3. Percent distribution of response, persons 18 years of age and over, by health status and region-----	14
4. Percent distribution of response by age and region-----	15
5. Percent distribution of response, persons 18 years of age and over, by race, sex, and region-----	16
6. Percent distribution of response, persons 18 years of age and over, by education of family head and region-----	17
7. Percent distribution of response by health status, urban-rural residence, and age-----	18
8. Percent distribution of response, persons 18 years of age and over, by time interval since last physician visit, urban-rural residence, and family income----	19
9. Percent distribution of response, persons 18 years of age and over, by health status, urban-rural residence, and family income-----	20
10. Percent distribution of response, persons 18 years of age and over, by time interval since last physician visit, urban-rural residence, and age-----	21
11. Percent distribution of response, persons 18-64 years of age, by major activity and urban-rural residence-----	22
12. Percent distribution of response, persons 18-64 years of age, by education of family head and urban-rural residence-----	22
<u>POPULATION</u>	
13. Population used in obtaining percents shown in this publication by respondent status, age, urban-rural residence, and region-----	23
14. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by race, sex, and region-----	24
15. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by education of family head and region-----	24
16. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, urban-rural residence, and region-----	25
17. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, time interval since last physician visit, urban-rural residence, and age-----	26
18. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, time interval since last physician visit, urban-rural residence, and family income-----	27
19. Population used in obtaining percents shown in this publication, persons 18-64 years of age, by major activity and urban-rural residence-----	28

Table 1. Percent distribution of response, persons 18 years of age and over, by respondent status and urban-rural residence

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence	Response and respondent status								
	Yes			No			Don't know		
	Total	Self	Proxy	Total	Self	Proxy	Total	Self	Proxy
All areas-----	71	76	64	25	23	28	4	1	8
All urban-----	67	72	59	29	26	33	4	2	8
Large metropolitan-----	64	70	53	33	28	39	4	2	7
Small metropolitan-----	65	72	57	30	28	34	5	1	9
Other urban-----	74	77	69	22	22	22	4	2	9
Rural-----	77	82	71	19	17	21	4	1	8

Table 2. Percent distribution of response by age and urban-rural residence

(See headnote on table 1)

Urban-rural residence	Age and response				
	All ages 18+	18-24	25-44	45-64	65+
	Yes				
All areas-----	71	76	76	68	58
Large metropolitan-----	64	65	69	62	48
Small metropolitan-----	65	70	73	59	53
Other urban-----	74	83	80	70	59
Rural-----	77	82	81	77	66
	No				
All areas-----	25	20	20	28	38
Large metropolitan-----	33	31	27	34	50
Small metropolitan-----	30	28	22	36	42
Other urban-----	22	15	16	25	36
Rural-----	19	12	16	19	31
	Don't know				
All areas-----	4	4	4	5	4
Large metropolitan-----	4	4	4	4	2
Small metropolitan-----	5	2	5	5	4
Other urban-----	4	2	4	5	5
Rural-----	7	6	3	4	4

Table 3. Percent distribution of response, persons 18 years of age and over, by health status and region

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Region	Total	Health status and response			
		Persons with chronic conditions		Persons with no chronic conditions	
		Activity		Physician	
		Limited	Not limited	Visited within 1 year	Not visited within 1 year
Yes					
All regions-----	71	70	74	71	66
Northeast-----	62	60	66	64	57
North Central-----	70	66	73	72	67
South-----	78	78	82	76	73
West-----	75	75	78	75	68
No					
All regions-----	25	28	22	25	28
Northeast-----	33	38	29	33	36
North Central-----	26	31	24	25	28
South-----	18	19	15	19	21
West-----	21	23	19	22	25
Don't know					
All regions-----	4	3	4	4	6
Northeast-----	5	2	5	3	8
North Central-----	4	3	4	3	5
South-----	4	3	3	5	6
West-----	4	1	3	3	7

Table 4. Percent distribution of response by age and region

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Region	Age and response				
	All ages 18+	18-24	25-44	45-64	65+
	Yes				
All regions-----	71	76	76	68	58
Northeast-----	62	67	70	59	45
North Central-----	70	73	77	68	54
South-----	78	82	80	76	69
West-----	75	80	78	71	68
	No				
All regions-----	25	20	20	28	38
Northeast-----	33	31	25	36	53
North Central-----	26	24	19	28	41
South-----	18	13	16	19	26
West-----	21	16	18	25	29
	Don't know				
All regions-----	4	4	4	5	4
Northeast-----	5	2	5	5	3
North Central-----	4	4	3	4	5
South-----	4	5	4	5	5
West-----	4	4	4	4	3

Table 5. Percent distribution of response, persons 18 years of age and over, by race, sex, and region

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Region	Race, sex, and response								
	Total	Race		Sex		Race and sex			
		White	Non-white	Male	Female	White		Nonwhite	
						Male	Female	Male	Female
	Yes								
All regions-----	71	70	83	70	72	69	70	82	84
Northeast-----	62	61	86	62	62	61	61	85	87
North Central-----	70	69	81	69	71	68	70	77	85
South-----	78	76	85	77	78	75	77	85	84
West-----	75	75	78	73	77	73	76	76	80
	No								
All regions-----	25	26	13	24	26	26	27	13	13
Northeast-----	33	34	12	31	34	33	36	12	12
North Central-----	26	27	16	26	26	27	27	18	14
South-----	18	20	11	17	19	19	20	9	12
West-----	21	22	17	22	21	22	22	16	17
	Don't know								
All regions-----	4	4	4	6	3	6	3	5	3
Northeast-----	5	5	2	6	3	6	3	3	1
North Central-----	4	4	3	5	3	5	3	5	1
South-----	4	4	5	6	3	6	3	5	4
West-----	4	4	5	5	2	5	2	7	4

Table 6. Percent distribution of response, persons 18 years of age and over, by education of family head and region

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11. The supplement form and questionnaire are given in Appendix 111]

Region	Response and education of family head			
	All educational groups	Less than 9 years	9-12 years	College
	Yes			
All regions-----	71	71	72	67
Northeast-----	62	60	67	59
North Central-----	70	69	74	66
South-----	78	81	75	69
West-----	75	75	75	76
	No			
All regions-----	25	24	24	30
Northeast-----	33	35	29	37
North Central-----	26	26	24	31
South-----	18	14	21	28
West-----	21	22	21	22
	Don't know			
All regions-----	4	5	3	3
Northeast-----	5	5	4	4
North Central-----	4	5	2	4
South-----	4	5	4	3
West-----	4	4	4	3

Table 7. Percent distribution of response by health status, urban-rural residence, and age

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III.]

Urban-rural residence and age	Response and health status											
	Yes				No				Don't know			
	Persons with chronic conditions		Persons with no chronic conditions		Persons with chronic conditions		Persons with no chronic conditions		Persons with chronic conditions		Persons with no chronic conditions	
	Activity		Physician		Activity		Physician		Activity		Physician	
	Limited	Not limited	Visited within 1 year	Not visited within 1 year	Limited	Not limited	Visited within 1 year	Not visited within 1 year	Limited	Not limited	Visited within 1 year	Not visited within 1 year
<u>All areas</u>												
All ages-18+---	70	74	71	66	28	22	25	28	3	4	4	6
18-24-----	83	83	73	71	16	15	22	24	1	2	5	5
25-44-----	82	80	75	69	17	17	21	23	1	3	3	8
45-64-----	74	70	64	63	24	25	32	32	3	5	4	5
65+-----	58	62	49	55	39	35	45	42	3	4	7	4
<u>Large metropolitan</u>												
All ages-18+---	63	67	63	59	34	29	35	35	3	4	2	7
18-24-----	55	80	64	54	40	18	31	42	5	2	5	4
25-44-----	73	73	70	62	26	23	29	29	2	3	2	9
45-64-----	71	62	58	57	26	33	41	38	3	5	2	5
65+-----	47	53	21	55	50	46	79	44	3	1	-	1
<u>Small metropolitan</u>												
All ages-18+---	63	68	64	62	35	27	32	32	3	5	3	6
18-24-----	43	75	67	72	57	23	32	24	-	2	1	4
25-44-----	82	76	72	67	18	19	26	25	1	5	3	8
45-64-----	64	62	53	56	34	33	41	38	3	6	6	6
65+-----	53	56	48	52	43	40	46	43	3	5	6	5
<u>Other urban</u>												
All ages-18+---	69	76	78	70	29	20	19	23	3	4	4	7
18-24-----	80	91	76	83	20	8	22	13	-	2	2	4
25-44-----	80	80	83	75	20	17	13	16	-	3	4	9
45-64-----	72	72	74	63	24	24	21	32	4	5	5	5
65+-----	59	59	57	56	38	34	35	36	3	7	8	8
<u>Rural</u>												
All ages-18+---	76	82	78	71	22	16	17	23	3	3	5	6
18-24-----	95	87	82	75	5	11	10	18	-	2	9	7
25-44-----	88	85	78	73	10	13	18	21	2	2	4	6
45-64-----	79	79	74	70	19	17	22	24	2	4	4	6
65+-----	64	72	64	56	33	26	25	42	4	3	1	3

Table 8. Percent distribution of response, persons 18 years of age and over, by time interval since last physician visit, urban-rural residence, and family income

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and family income	Response and time interval since last physician visit											
	Yes				No				Don't know			
	Months		Years		Months		Years		Months		Years	
	Less than 3	3-11	1-2	3+	Less than 3	3-11	1-2	3+	Less than 3	3-11	1-2	3+
<u>All areas</u>												
All income groups-----	72	73	73	63	25	23	25	31	3	4	4	7
Less than \$2,000-----	69	67	71	57	27	28	26	35	5	4	3	8
\$2,000-4,999-----	77	77	75	67	21	18	20	28	2	5	5	5
\$5,000-6,999-----	73	77	76	68	25	19	22	25	2	4	2	7
\$7,000+-----	67	69	68	61	30	29	27	32	4	3	5	8
<u>Large metropolitan</u>												
All income groups-----	65	65	65	55	32	32	32	36	3	3	3	9
Less than \$2,000-----	60	46	62	56	38	53	36	37	3	1	2	7
\$2,000-4,999-----	66	69	67	58	31	26	31	38	4	5	2	5
\$5,000-6,999-----	72	75	67	56	27	22	32	30	1	3	1	14
\$7,000+-----	62	62	64	50	35	37	30	39	3	1	7	11
<u>Small metropolitan</u>												
All income groups-----	66	68	68	57	31	28	27	36	3	5	5	7
Less than \$2,000-----	60	54	66	44	37	44	32	48	3	3	2	9
\$2,000-4,999-----	73	73	75	62	25	20	17	31	2	7	8	7
\$5,000-6,999-----	63	73	73	65	34	21	23	29	3	6	5	5
\$7,000+-----	65	65	57	62	32	32	38	32	3	2	5	7
<u>Other urban</u>												
All income groups-----	73	78	76	64	24	18	19	29	3	4	5	7
Less than \$2,000-----	66	81	67	60	30	16	26	30	4	3	7	10
\$2,000-4,999-----	79	79	77	64	19	17	18	30	2	5	5	6
\$5,000-6,999-----	75	75	78	71	20	20	20	26	5	4	2	3
\$7,000+-----	68	75	85	68	30	20	12	26	2	5	3	7
<u>Rural</u>												
All income groups-----	79	80	78	70	18	16	18	25	3	4	4	5
Less than \$2,000-----	76	75	77	63	18	18	20	31	6	7	3	7
\$2,000-4,999-----	84	84	79	74	14	14	15	22	2	3	6	4
\$5,000-6,999-----	79	84	85	82	21	13	14	16	1	3	2	2
\$7,000+-----	73	75	71	67	21	22	26	27	6	3	4	6

Table 9. Percent distribution of response, persons 18 years of age and over, by health status, urban-rural residence, and family income

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III.]

Urban-rural residence and family income	Response and health status											
	Yes				No				Don't know			
	Persons with chronic conditions		Persons with no chronic conditions		Persons with chronic conditions		Persons with no chronic conditions		Persons with chronic conditions		Persons with no chronic conditions	
	Activity		Physician		Activity		Physician		Activity		Physician	
	Limited	Not limited	Visited within 1 year	Not visited within 1 year	Limited	Not limited	Visited within 1 year	Not visited within 1 year	Limited	Not limited	Visited within 1 year	Not visited within 1 year
<u>All areas</u>												
All income groups--	70	74	71	66	28	22	25	28	3	4	4	6
Less than \$2,000-----	69	70	65	60	28	26	29	33	3	4	6	7
\$2,000-4,999-----	71	78	76	71	27	18	21	23	2	4	3	6
\$5,000-6,999-----	73	78	72	70	26	19	25	25	1	3	4	5
\$7,000+-----	65	70	67	62	31	27	29	32	4	3	4	7
<u>Large metropolitan</u>												
All income groups--	63	67	63	59	34	29	35	35	3	4	2	7
Less than \$2,000-----	63	55	47	58	37	41	52	35	-	4	1	7
\$2,000-4,999-----	63	70	66	61	33	64	32	36	4	5	3	3
\$5,000-6,999-----	66	73	74	60	31	27	23	31	3	1	3	9
\$7,000+-----	58	65	59	55	38	30	39	38	4	5	2	6
<u>Small metropolitan</u>												
All income groups--	63	68	64	62	35	27	32	32	3	5	3	6
Less than \$2,000-----	51	59	59	51	46	37	39	43	3	4	2	6
\$2,000-4,999-----	69	73	71	70	29	20	25	22	2	7	3	7
\$5,000-6,999-----	83	71	63	65	17	24	33	30	-	6	4	5
\$7,000+-----	64	67	61	59	31	32	35	34	5	1	4	7
<u>Other urban</u>												
All income groups--	69	76	78	70	29	20	19	23	3	4	4	7
Less than \$2,000-----	68	70	77	63	28	25	17	28	4	5	5	9
\$2,000-4,999-----	74	80	78	70	25	16	19	24	7	4	3	7
\$5,000-6,999-----	65	77	79	74	35	18	16	23	-	4	6	4
\$7,000+-----	61	72	77	78	34	25	21	17	6	4	2	5
<u>Rural</u>												
All income groups--	76	82	78	71	22	16	17	23	3	3	5	6
Less than \$2,000-----	75	78	72	63	21	18	18	30	4	4	1	7
\$2,000-4,999-----	76	84	84	78	23	14	12	17	1	2	4	5
\$5,000-6,999-----	81	87	73	81	20	11	24	17	-	1	3	2
\$7,000+-----	76	74	77	60	21	23	17	32	3	3	6	8

Table 10. Percent distribution of response, persons 18 years of age and over, by time interval since last physician visit, urban-rural residence, and age

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and age	Response and time interval since last physician visit											
	Yes				No				Don't know			
	Months		Years		Months		Years		Months		Years	
	Less than 3	3-11	1-2	3+	Less than 3	3-11	1-2	3+	Less than 3	3-11	1-2	3+
<u>All areas</u>												
All ages-18+-----	72	73	73	63	25	23	23	31	3	4	4	7
18-24-----	80	75	72	72	17	21	23	21	3	3	4	6
25-44-----	78	78	78	67	20	18	18	24	2	4	4	9
45-64-----	69	70	69	62	27	26	26	33	4	4	5	5
65+-----	59	59	64	50	38	36	33	45	3	5	4	5
<u>Large metropolitan</u>												
All ages-18+-----	65	65	65	55	32	32	32	36	3	3	3	9
18-24-----	75	64	54	65	20	34	44	25	5	2	2	10
25-44-----	72	70	71	58	26	26	27	29	2	4	2	13
45-64-----	62	63	63	56	34	34	33	37	4	3	4	7
65+-----	45	48	63	39	54	50	32	59	4	2	6	3
<u>Small metropolitan</u>												
All ages-18+-----	66	68	68	57	31	28	27	36	3	5	5	7
18-24-----	74	68	73	57	26	30	23	34	-	2	3	9
25-44-----	73	75	80	58	26	18	15	34	1	7	5	8
45-64-----	58	62	56	58	37	34	38	35	5	5	6	6
65+-----	60	45	49	51	38	50	45	42	3	5	6	6
<u>Other urban</u>												
All ages-18+-----	73	78	76	64	24	18	19	29	3	4	5	7
18-24-----	82	84	81	88	17	15	12	12	1	1	7	-
25-44-----	80	83	81	71	17	14	14	19	3	3	5	10
45-64-----	72	74	74	58	24	20	23	37	4	6	3	6
65+-----	55	63	64	55	41	30	32	33	4	8	5	7
<u>Rural</u>												
All ages-18+-----	79	80	78	70	18	16	18	25	3	4	4	5
18-24-----	84	85	80	75	11	9	15	18	6	7	5	6
25-44-----	82	82	81	76	16	15	17	18	2	3	3	6
45-64-----	78	79	78	69	18	18	16	27	4	3	6	4
65+-----	67	70	69	52	29	25	30	44	4	5	2	4

Table 11. Percent distribution of response, persons 18-64 years of age, by major activity and urban-rural residence

[Due to rounding, the detailed figures may not add to 100 percent. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence	Major activity and response (18-64 years)			
	Total	Usually working	Keeping house	Other
	Yes			
All areas-----	73	71	77	73
Urban-----	69	67	73	68
Rural-----	79	77	83	82
	No			
All areas-----	23	24	21	25
Urban-----	27	27	25	30
Rural-----	17	18	15	14
	Don't know			
All areas-----	4	6	2	3
Urban-----	4	6	2	2
Rural-----	4	5	2	4

Table 12. Percent distribution of response, persons 18-64 years of age, by education of family head and urban-rural residence

(See headnote on table 11)

Urban-rural residence	Education of family head and response (18-64 years)			
	All educational groups	Less than 9 years	9-12 years	College
	Yes			
All areas-----	73	74	74	69
Urban-----	69	67	72	67
Rural-----	79	82	79	72
	No			
All areas-----	23	21	23	28
Urban-----	27	28	25	29
Rural-----	17	13	18	27
	Don't know			
All areas-----	4	5	3	3
Urban-----	4	5	4	4
Rural-----	4	5	3	2

POPULATION

Tables 13-19 contain estimates of the civilian noninstitutional population of the United States 18 years of age and over based on interviews conducted by the U. S. National Health Survey during the period, January 27-March 30, 1958. These estimates have been used as denominators for the percentages shown in this report. They are included in the publication for the purpose of

determining the appropriate standard errors of the statistics. They are not official population estimates.

For official population estimates, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20.

Table 13. Population used in obtaining percents shown in this publication by respondent status, age, urban-rural residence, and region

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and region	Total	Respondent status		Age			
		Self	Proxy	18-24	25-44	45-64	65+
Population in thousands							
All areas-----	97,970	58,890	39,080	12,420	40,140	32,040	13,370
All urban-----	60,870	37,100	23,770	7,850	24,380	20,410	8,220
Large metropolitan-----	23,260	14,190	9,070	2,690	9,590	8,240	2,750
Small metropolitan-----	19,820	12,020	7,800	2,720	7,980	6,380	2,720
Other urban-----	17,790	10,890	6,900	2,440	6,810	5,790	2,750
Rural-----	37,110	21,790	15,320	4,570	15,760	11,630	5,150
Northeast-----	25,400	14,810	10,590	2,610	10,780	8,720	3,290
North Central-----	30,340	18,580	11,760	3,630	11,960	10,220	4,530
South-----	27,680	16,210	11,470	4,320	11,150	8,570	3,630
West-----	14,550	9,290	5,260	1,830	6,240	4,550	1,930

Table 14. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by race, sex, and region

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Region	Race and sex						
	Total	White	Nonwhite	White		Nonwhite	
				Males	Females	Males	Females
	Population in thousands						
All regions-----	97,970	88,000	9,970	41,700	46,300	4,700	5,270
Northeast-----	25,400	24,020	1,390	11,160	12,860	650	740
North Central-----	30,340	27,920	2,420	13,400	14,520	1,230	1,190
South-----	27,680	22,480	5,210	10,750	11,730	2,380	2,830
West-----	14,550	13,590	960	6,420	7,170	440	520

Table 15. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by education of family head and region

(See headnote on table 14)

Region	Education of family head			
	All educational groups	Less than 9 years	9-12 years	College
	Population in thousands			
All regions-----	97,970	43,120	38,690	16,170
Northeast-----	25,400	10,980	10,290	4,130
North Central-----	30,340	12,850	12,620	4,870
South-----	27,680	14,820	9,110	3,750
West-----	14,550	4,470	6,660	3,420

Table 16. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, urban-rural residence, and region

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and region	Health status					
	Persons with chronic conditions			Persons with no chronic conditions		
	Total	Activity		Total	Physician	
		Limited	Not limited		Visited within 1 year	Not visited within 1 year
	Population in thousands					
All areas-----	53,040	15,020	38,020	44,930	23,520	21,410
All urban-----	32,120	8,620	23,500	28,740	15,310	13,430
Large metropolitan-----	11,930	3,340	8,590	11,340	6,090	5,250
Small metropolitan-----	10,060	2,350	7,710	9,750	5,210	4,540
Other urban-----	10,140	2,930	7,210	7,640	4,000	3,640
Rural-----	20,920	6,410	14,510	16,190	8,210	7,980
Northeast-----	12,610	3,530	9,080	12,780	6,950	5,830
North Central-----	17,070	4,750	12,320	13,270	6,490	6,780
South-----	14,830	4,490	10,340	12,860	6,810	6,050
West-----	8,520	2,250	6,270	6,030	3,270	2,760

Table 17. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, time interval since last physician visit, urban-rural residence, and age

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and age	Health status				Time interval since last physician visit			
	Persons with chronic conditions		Persons with no chronic conditions		Less than 3 months	3-11 months	1-2 years	3+ years
	Activity		Physician					
	Limited	Not limited	Visited within 1 year	Not visited within 1 year				
Population in thousands								
<u>All areas</u>								
All ages-18+-----	15,020	38,020	23,520	21,410	35,870	27,600	18,610	15,880
18-24-----	460	3,560	5,410	2,990	4,210	4,540	2,320	1,350
25-44-----	3,230	15,900	11,560	9,450	14,010	12,230	7,960	5,930
45-64-----	5,610	13,800	5,490	7,140	11,870	7,910	6,170	6,100
65+-----	5,720	4,770	1,050	1,820	5,780	2,910	2,160	2,510
<u>Large metropolitan</u>								
All ages-18+-----	3,340	8,590	6,090	5,250	8,710	6,530	4,460	3,550
18-24-----	70	700	1,180	720	860	980	580	240
25-44-----	840	3,420	2,950	2,380	3,380	2,850	1,860	1,510
45-64-----	1,320	3,470	1,700	1,760	3,340	2,030	1,580	1,290
65+-----	1,110	990	260	380	1,120	680	440	510
<u>Small metropolitan</u>								
All ages-18+-----	2,350	7,710	5,210	4,540	6,750	6,170	3,410	3,490
18-24-----	40	880	1,330	490	850	1,260	400	220
25-44-----	540	3,200	2,320	1,930	2,610	2,650	1,500	1,220
45-64-----	7,740	2,620	1,360	1,640	2,100	1,730	1,160	1,400
65+-----	1,010	1,020	200	490	1,180	540	340	660
<u>Other urban</u>								
All ages-18+-----	2,930	7,210	4,000	3,640	6,820	4,810	3,550	2,610
18-24-----	60	850	1,040	500	930	870	430	210
25-44-----	500	2,930	1,830	1,550	2,520	1,970	1,450	870
45-64-----	1,210	2,400	910	1,280	2,040	1,400	1,230	1,120
65+-----	1,150	1,040	230	320	1,330	570	440	420
<u>Rural</u>								
All ages-18+-----	6,410	14,510	8,210	7,980	13,610	10,090	7,200	6,190
18-24-----	300	1,130	1,870	1,280	1,560	1,430	910	670
25-44-----	1,370	6,340	4,460	3,600	5,500	4,770	3,150	2,340
45-64-----	2,310	5,320	1,530	2,480	4,400	2,750	2,190	2,280
65+-----	2,440	1,720	350	630	2,160	1,120	950	920

Table 18. Population used in obtaining percents shown in this publication, persons 18 years of age and over, by health status, time interval since last physician visit, urban-rural residence, and family income

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence and family income	Health status				Time interval since last physician visit			
	Persons with chronic conditions		Persons with no chronic conditions		Less than 3 months	3-11 months	1-2 years	3+ years
	Activity		Physician					
	Limited	Not limited	Visited within 1 year	Not visited within 1 year				
Population in thousands								
<u>All areas</u>								
All income groups---	15,020	38,020	23,520	21,410	35,870	27,600	18,610	15,880
Less than \$2,000-----	6,420	8,650	4,490	5,620	8,850	6,290	4,650	5,390
\$2,000-4,999-----	5,080	12,570	8,200	7,250	12,200	9,570	6,260	5,070
\$5,000-6,999-----	1,980	8,810	5,290	4,470	7,550	6,270	3,790	2,940
\$7,000+-----	1,550	8,010	5,540	4,040	7,280	5,470	3,900	2,490
<u>Large metropolitan</u>								
All income groups---	3,340	8,590	6,090	5,250	8,710	6,530	4,460	3,550
Less than \$2,000-----	1,010	1,350	970	1,070	1,620	1,050	760	970
\$2,000-4,999-----	1,240	2,550	1,940	1,500	2,700	2,220	1,410	890
\$5,000-6,999-----	620	2,270	1,480	1,480	2,180	1,650	1,050	990
\$7,000+-----	460	240	1,700	1,200	2,200	1,630	1,240	710
<u>Small metropolitan</u>								
All income groups---	2,350	7,710	5,210	4,540	6,750	6,170	3,410	3,490
Less than \$2,000-----	930	1,400	890	1,100	1,400	1,220	610	1,090
\$2,000-4,999-----	860	2,400	1,630	1,520	2,110	2,000	1,130	1,180
\$5,000-6,999-----	290	2,220	1,220	880	1,600	1,600	740	680
\$7,000+-----	280	1,670	1,480	1,040	1,650	1,360	920	530
<u>Other urban</u>								
All income groups---	2,930	7,210	4,000	3,640	6,820	4,810	3,550	2,610
Less than \$2,000-----	1,150	1,640	820	950	1,600	1,200	900	850
\$2,000-4,999-----	1,020	2,600	1,540	1,400	2,590	1,740	1,280	940
\$5,000-6,999-----	410	1,430	740	610	1,230	970	640	360
\$7,000+-----	350	1,570	900	690	1,400	910	730	470
<u>Rural</u>								
All income groups---	6,410	14,510	8,210	7,980	13,610	10,090	7,200	6,190
Less than \$2,000-----	3,340	4,260	1,810	2,500	4,230	2,830	2,390	2,470
\$2,000-4,999-----	1,970	5,010	3,100	2,850	4,790	3,620	2,460	2,050
\$5,000-6,999-----	650	2,880	1,850	1,510	2,550	2,060	1,350	910
\$7,000+-----	460	2,360	1,460	1,120	2,040	1,580	1,000	770

Table 19. Population used in obtaining percents shown in this publication, persons 18-64 years of age, by major activity and urban-rural residence

[Due to rounding, the detailed figures may not add to the total. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II. The supplement form and questionnaire are given in Appendix III]

Urban-rural residence	Major activity (18-64 years)			
	Total	Usually working	Keeping house	Other
	Population in thousands			
All areas-----	84,300	50,590	27,170	6,540
Urban-----	52,420	32,290	15,910	4,220
Rural-----	31,880	18,300	11,260	2,320

APPENDIX I

TECHNICAL NOTES ON METHODS

Statistical Design of the Health Interview Survey

General plan.—The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian population of the United States. At the time of this study the first stage of this design consisted of an area sample of 372 from among approximately 1,900 geographically defined Primary Sampling Units (PSU's) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a Standard Metropolitan Area.

With no loss in general understanding, the remaining stages can be telescoped and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined, also geographically, in such a manner that each segment contains an expected six households in the sample. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in those segments persons are interviewed concerning illnesses, injuries, chronic conditions, disability, and other factors related to health.

The household members interviewed each week are a representative sample of the population so that samples for successive weeks can be combined into larger samples for, say a calendar quarter, or a year. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population, and through the larger consolidated samples more detailed analysis of less common characteristics and smaller categories. The continuous collection has administrative and operational advantages, as well as technical assets, since it permits field work to be handled with an experienced, stable staff.

Collection of data.—The field operations for the household survey are performed by the Bureau of the Census under specifications established by the Public Health Service. In accordance with these specifications the Bureau of the Census designs and selects the sample, conducts the field interviewing acting as collecting agent for the Public Health Service, and edits and codes the questionnaires. Tabulations are prepared by the Public Health Service using the Bureau of the Census electronic computers.

Estimating methods.—Each statistic produced by the survey—for example, the incidence of acute illnesses in a specified period—is the result of two stages of ratio estimation. In the first of these, the ratio factor is 1950 decennial population count to estimated population for 1950 for the U. S. National Health Survey's first-stage sample of PSU's. These factors are applied for 132 color-residence classes.

Later, ratios of sample-produced estimates of the population to official Bureau of the Census figures for current population in 76 age-sex-color classes are computed, and serve as second-stage factors for ratio estimating.

The effect of the ratio estimating process is to make the sample more closely representative of the population by age, sex, color, and residence, thus reducing sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of that population. Consolidation of samples over a time period, say a calendar quarter, produces estimates of average characteristics of the U. S. population for that calendar quarter.

The interviewing and estimation procedures, as noted earlier, are designed to reproduce the experience in the reference period of the questionnaire for the population living at the time of interview.

General Qualifications

Nonresponse.—Data were adjusted for nonresponse by a procedure which imputed to persons in a household not interviewed the characteristics of interviewed persons in the same segment. The total noninterview rate was 6 percent; 1 percent was refusal, and the remainder was accounted for by all other reasons, such as failure to find any household respondent after repeated trials.

The interview process.—The statistics presented in this report are based on replies secured in interview of persons in the sampled households. Each person 18 years and over, available at the time of interview, was interviewed individually. Proxy respondents within the household were employed for adults not available at the time of the interview provided the respondent was closely related to the person about whom information was being obtained.

Rounding of numbers.—The original tabulations on which data in this report are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables the figures are shown in thousands, although they are not necessarily accurate to that detail.

Population figures.—Some of the published tables include population figures for specified categories. These figures are based on the sample of households in the U. S. National Health Survey, are given solely for the purpose of providing denominators for rate computation and for entering the sampling error table. They are more appropriate for use with the accompanying measures of health characteristics than any other data that may be available. In some instances, they will permit users to recombine published data into classes more suitable to their specific needs. The population figures are not official estimates, in some cases being themselves subject to considerable variability, and as such should be used only for the purposes stated in connection with data given in this report. For fuller details on population estimates see Bureau of the Census reports in the P-20 series.

Table I. Standard error of estimated percentages (body of table expressed in percentage points)

Population estimate (denominator of percentage)	Estimate of percentage willing (or unwilling) to be examined									
	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	35 or 65	40 or 60	45 or 55	50
	Standard error of percentage									
200,000-----	10.5	12.4	14.0	15.5	16.9	18.1	18.9	19.3	19.5	19.6
500,000-----	6.0	7.6	8.8	9.8	10.6	11.2	11.6	12.0	12.2	12.3
800,000-----	5.2	6.2	7.1	7.8	8.4	8.9	9.3	9.6	9.7	9.8
1,000,000-----	4.1	5.0	5.7	6.5	7.1	7.6	8.1	8.4	8.6	8.7
2,000,000-----	3.1	3.9	4.6	5.0	5.3	5.6	5.8	6.0	6.1	6.2
3,000,000-----	2.5	3.0	3.6	4.1	4.4	4.7	4.9	5.0	5.1	5.2
4,000,000-----	2.0	2.5	2.9	3.4	3.8	4.0	4.2	4.3	4.4	4.4
5,000,000-----	1.7	2.2	2.5	2.9	3.2	3.4	3.5	3.6	3.7	3.7
6,000,000-----	1.5	1.9	2.2	2.5	2.8	3.1	3.2	3.2	3.3	3.3
7,000,000-----	1.3	1.7	2.0	2.3	2.6	2.8	2.9	3.0	3.1	3.2
8,000,000-----	1.3	1.6	1.9	2.1	2.3	2.6	2.8	2.9	3.0	3.1
9,000,000-----	1.2	1.5	1.8	2.0	2.2	2.5	2.7	2.8	2.9	3.0
10,000,000-----	1.2	1.4	1.7	1.9	2.1	2.3	2.5	2.7	2.8	2.9
15,000,000-----	1.0	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.6
20,000,000-----	0.9	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.4
25,000,000-----	0.9	1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.1	2.2
30,000,000-----	0.8	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9
35,000,000-----	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.7
40,000,000-----	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
45,000,000-----	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.4
50,000,000-----	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.3
75,000,000-----	0.5	0.6	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0
100,000,000-----	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9

Illustration of the use of table I.—An estimated 64 percent of the persons living in large metropolitan cities said they would be willing to co-operate in a health examination survey. The estimated number of persons living in large metropolitan cities is 23,260,000 as shown in table 13. Thus, for a denominator of 23,260,000, table I shows that an estimate of 64 percent has a standard error of approximately 1.9 percent.

Reliability of Estimates

Since the estimates are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures. As in any survey, the results are also subject to measurement error.

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might lie in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

The estimates of standard errors shown in table I are approximations for the 372-area sample. Table I shows the average estimates of standard errors of percentages as obtained from 8 weeks of sampling. In order to derive standard errors which would be applicable to

a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, table I should be interpreted as providing an estimate of approximate standard error rather than as the precise standard error for any specific percentage.

The standard errors shown in table I are not directly applicable to differences between two sample estimates. The standard error of a difference is approximately the square root of the sum of the squares of each standard error considered separately. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics, although it is only a rough approximation in most other cases.

The reliability of an estimated rate or percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the rate and the size of the total upon which the rate is based. Generally, estimated rates are relatively more reliable than the corresponding absolute estimates of the numerator of the rate, particularly if the rate is high. Table I shows approximate standard errors of estimated rates or percentages when the characteristic used to form the numerator of the percentage or rate is a subclass of the base or denominator.

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Health

Health status.—Health status is structured so as to provide a means of ranking people, though in a crude sense, by degrees of health. Persons in the first of the following four categories, in general, probably have the poorest health, and those in the last category probably have the best health.

1. Persons with chronic conditions, activity limited
2. Persons with chronic conditions, activity not limited
3. Persons with no chronic conditions, physician visited within one year
4. Persons with no chronic conditions, physician not visited within one year

Condition.—A morbidity condition, or simply a condition, is any entry on the questionnaire which describes a departure from a state of physical or mental well-being. It results from a positive response to one of a series of "illness-recall" questions. In the coding and tabulating process, conditions are selected or classified according to a number of different criteria, such as, whether they were medically attended; whether they resulted in disability; whether they were acute or chronic; or according to the type of disease, injury, impairment, or symptom reported.

Chronic condition.—A condition is considered to be chronic if (1) it is described by the respondent in terms of one of the chronic diseases on the "Check List of Chronic Conditions" (see Appendix III) or in terms of one of the types of impairments on the "Check List of Impairments," or (2) the condition is described by the respondent as having been first noticed more than 3 months before the week of the interview.

Terms Relating to Disability

Chronic activity limitation.—Persons with chronic conditions are classified into 4 categories according to the extent to which their activities are limited at present as a result of these conditions. Since the major activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the descriptions of the 4 categories below:

1. Persons unable to carry on major activity for their group

Preschool children: inability to take part in ordinary play with other children.

School-age children: inability to go to school.
Housewives: inability to do any housework.

Workers and all other persons:

inability to work at a job or business.

2. Persons limited in the amount or kind of major activity performed

Preschool children: limited in the amount or kind of play with other children, e.g., need special rest periods, cannot play strenuous games, cannot play for long periods at a time.

School-age children: limited to certain types of schools or in school attendance, e.g., need special schools or special teaching, cannot go to school full time or for long periods at a time.
Housewives: limited in amount or kind of housework, e.g., cannot lift children, wash or iron, or do housework for long periods at a time.

Workers and all other persons:

limited in amount or kind of work, e.g., need special working aids or special rest periods at work, cannot work full time or for long periods at a time, cannot do strenuous work.

3. Persons not limited in major activity but otherwise limited

Preschool children: not classified in this category.

School-age children: not limited in going to school but limited in participation in athletics or other extracurricular activities.

Housewives: not limited in housework but limited in other activities, such as church, clubs, hobbies, civic projects, or shopping.

Workers and all other persons:

not limited in regular work activities but limited in other activities, such as church, clubs, hobbies, civic projects, sports, or games.

4. Persons not limited in activities

Includes persons with chronic conditions whose activities are not limited in any of the ways described above.

Medical Care Terms

Physician visit.—A physician visit is defined as consultation with a physician, in person or by telephone, for examination, diagnosis, treatment, or advice. The visit is considered to be a physician visit if the service is provided directly by the physician or by a nurse or other person acting under a physician's supervision. For the purpose of this definition "physician" includes doctors of medicine and osteopathic physicians. The term "doctor" is used in the interview, rather than "physician," because of the need to keep to popular usage. However, the concept toward which all instructions are directed is that which is described here.

Physician visits to hospital inpatients are not included.

If a physician is called to the house to see more than one person, the call is considered to be a separate physician visit for each person about whom the physician was consulted.

A physician visit is associated with the person about whom the advice was sought, even if that person did not actually see or consult the physician. For example, if a mother consults a physician about one of her children, the physician visit is ascribed to the child.

Interval since last physician visit.—The interval since the last physician visit is the length of time prior to the week of interview since a physician was last consulted in person or by telephone for treatment or advice of any type whatsoever. (See definition of "Physician visit.")

The interval is recorded to the nearest month for periods of a month or more but less than a year, and to the nearest year for periods of a year or more.

Demographic, Social, and Economic Terms

Age.—The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending upon the purpose of the table.

Race.—Race is recorded as "White," "Negro," or "Other." "Other" includes American Indian, Chinese, Japanese, and so forth. Mexican persons are included with "White" unless definitely known to be Indian or other nonwhite race.

Income of family or of unrelated individuals.—Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated individual) in the 12-month period ending with the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, help from relatives, and so forth.

Major activity.—All persons 6 years old or over are classified according to their major activity during the 12-month period prior to the week of interview. This report, however, refers only to persons aged 18 and over. The "major activity," in case more than one is reported is the one at which the person spent the most time during the 12-month period.

The categories of major activity are: usually working, usually keeping house, and other. For several reasons these categories are not comparable with somewhat similarly named categories in official Federal

labor force statistics. In the first place, the responses concerning major activity are accepted without detailed questioning, since the objective of the question is not to estimate the numbers of persons in labor force categories but to identify crudely certain population groups which may have differing health problems. In the second place, the figures represent the major activity over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually one week. Finally, in the definitions of the specific categories which follow, certain marginal groups are classified in a different manner to simplify the procedures.

1. Usually working includes paid work as an employee for someone else; self-employment in own business, or profession, or in farming; and unpaid work in a family business or farm. Work around the house, or volunteer or unpaid work, such as for church, Red Cross, etc., is not counted as working.
2. Usually keeping house includes any activity described as "keeping house" which cannot be classified as "working" or "going to school."
3. Other, in this report, includes all persons not classified as "usually working" or "usually keeping house."

Location of Residence Terms

Urban-rural residence.—This term refers to the urban or rural place of residence of the interview subjects. The definition of urban and rural areas used in the U. S. National Health Survey is the same as that used in the 1950 Census. According to this definition, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages; (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin where "Towns" are simply minor civil divisions of counties; (c) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe. The remaining population is classified as rural.

Large metropolitan.—Refers to urban areas comprising 1,000,000 or more population.

Small metropolitan.—Urban areas with less than 1,000,000 people which are composed of central cities of 50,000 or more.

Other urban.—This category includes the remainder of the urban population as defined above. In general it includes urban populations of less than 50,000.

Geographic region.—The regions referred to in this report correspond to those used by the Bureau of the Census, and are composed of the following States:

<u>Region</u>	<u>States Included</u>
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania
North Central	Michigan, Ohio, Illinois, Indiana, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina,

South—Continued

South Carolina, Georgia,
Florida, Kentucky, Tennessee,
Alabama, Mississippi, Arkansas,
Louisiana, Oklahoma, Texas

West

Montana, Idaho, Wyoming,
Colorado, New Mexico, Arizona,
Utah, Nevada, Washington,
Oregon, California

APPENDIX III

THE SPECIAL SUPPLEMENT FORM AND QUESTIONNAIRE

The supplement form and pertinent parts of the questionnaire used in this study are shown below. The coding and classification of the answers to the supplement questions were done by the National Opinion Research Center of the University of Chicago.

Coding of the data on the basic questionnaire was then done at the Bureau of the Census, using procedures regularly followed for the continuing Health Interview Survey.

A. THE HEALTH EXAMINATION SUPPLEMENT FORM

NHS-5-1-Supplement 1 (1-23-58)		U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS		Ident. Code	Sub-sample weight	Sample	PSU	Segment No.	Serial No.
HEALTH EXAMINATION SUPPLEMENT									
Last name →	1	2	3	4	5	6	7		
First name →									
Age (Question 5)	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year	Age <input type="checkbox"/> Under 1 year
(Ask for all adults): As part of the Health Survey, the Public Health Service will provide a free health examination to some of the people we are interviewing. As you would expect, we cannot learn all we need to know about health just by asking questions--for some things we need actual measurements and tests. The examination will involve only one visit to a nearby place.									
1. If you are selected for this special free examination and the time and place are convenient, will you be willing to come? (a) How about... (each related adult), do you think he will be willing to come?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Qualified (verbatim) <input type="checkbox"/> Don't know (verbatim)
2. Who was the respondent for question 1?	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____	<input type="checkbox"/> Self Col. No. _____
Footnotes:									

USCOMM-DC 23127

B. PERTINENT PARTS OF THE BASIC QUESTIONNAIRE USED IN THE SURVEY

3. Race (Check one box for each person)	<input type="checkbox"/> White <input type="checkbox"/> Negro <input type="checkbox"/> Other																		
4. Sex (Check one box for each person)	<input type="checkbox"/> Male <input type="checkbox"/> Female																		
5. How old were you on your last birthday?	Age _____ <input type="checkbox"/> Under 1 year																		
If 14 years old or over, ask: 8. What is the highest grade you completed in school? (Circle highest grade completed or check "None")	<input type="checkbox"/> Under 14 years Elem: 1 2 3 4 5 6 7 8 High: 1 2 3 4 College: 1 2 3 4 5+ <input type="checkbox"/> None																		
If 6 years old or over, ask: 10. (a) What were you doing most of the past 12 months -- (For males over 16): working, looking for work, or doing something else? (For females over 16): working, looking for work, keeping house, or doing something else? (For children 6 - 16): going to school or doing something else? If "Something else" checked, and person is 50 years old or over, ask: (b) Are you retired?	<input type="checkbox"/> Under 6 years <input type="checkbox"/> Working <input type="checkbox"/> Looking for work <input type="checkbox"/> Keeping house <input type="checkbox"/> Going to school <input type="checkbox"/> Something else ----- <input type="checkbox"/> Yes <input type="checkbox"/> No																		
We are interested in all kinds of illness, whether serious or not -- 11. Were you sick at any time LAST WEEK OR THE WEEK BEFORE? (a) What was the matter? (b) Anything else?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
12. Last week or the week before did you have any accidents or injuries, either at home or away from home? (a) What were they? (b) Anything else?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
13. Last week or the week before did you feel any ill effects from an earlier accident or injury? (a) What were these effects? (b) Anything else?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
14. Last week or the week before did you take any medicine or treatment for any condition (besides...which you told me about)? (a) For what conditions? (b) Anything else?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
15. AT THE PRESENT TIME do you have any ailments or conditions that have continued for a long time? (If "No") Even though they don't bother you all the time? (a) What are they? (b) Anything else?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
16. Has anyone in the family - you, your--, etc. - had any of these conditions DURING THE PAST 12 MONTHS? (Read Card A, condition by condition; record any conditions mentioned in the column for the person)	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
17. Does anyone in the family have any of these conditions? (Read Card B, condition by condition; record any conditions mentioned in the column for the person)	<input type="checkbox"/> Yes <input type="checkbox"/> No																		
18. (a) LAST WEEK OR THE WEEK BEFORE did anyone in the family - you, your--, etc.- talk to a doctor or go to a doctor's office or clinic? Anyone else? If "Yes" (b) How many times during the past 2 weeks? (c) Where did you talk to the doctor? (d) How many times at -- (home, office, clinic, etc.)? (Record total number of times for each type of place)	<input type="checkbox"/> Yes <input type="checkbox"/> No (skip to q. 20) ----- _____ No. of times <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Place</th> <th style="text-align: left;">Times</th> </tr> </thead> <tbody> <tr> <td>At home.....</td> <td>_____</td> </tr> <tr> <td>At office.....</td> <td>_____</td> </tr> <tr> <td>Hospital clinic.....</td> <td>_____</td> </tr> <tr> <td>Company or industry...</td> <td>_____</td> </tr> <tr> <td>Over telephone.....</td> <td>_____</td> </tr> <tr> <td>Other (Specify).....</td> <td>_____</td> </tr> </tbody> </table>	Place	Times	At home.....	_____	At office.....	_____	Hospital clinic.....	_____	Company or industry...	_____	Over telephone.....	_____	Other (Specify).....	_____				
Place	Times																		
At home.....	_____																		
At office.....	_____																		
Hospital clinic.....	_____																		
Company or industry...	_____																		
Over telephone.....	_____																		
Other (Specify).....	_____																		
19. What did you have done? If more than one visit or telephone call: What did you have done on the { first } visit (or telephone call)? { second } { etc. }	<table style="width: 100%; border: none;"> <tr> <td>(1) <input type="checkbox"/></td> <td>(2) <input type="checkbox"/></td> <td>(3) <input type="checkbox"/> Diag. or treatment</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Pre/post natal care</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Gen'l check-up</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Immun./Vacc.</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Eye exam. (glasses)</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Other (Specify)</td> </tr> </table>	(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/> Diag. or treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pre/post natal care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Gen'l check-up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Immun./Vacc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Eye exam. (glasses)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other (Specify)
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/> Diag. or treatment																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Pre/post natal care																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Gen'l check-up																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Immun./Vacc.																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Eye exam. (glasses)																	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other (Specify)																	
20. If "No" to q. 18a, ask: How long has it been since you last talked to a doctor?	_____ Mos. or _____ Yrs. <input type="checkbox"/> Less than 1 mo. <input type="checkbox"/> Never																		

Table I - ILLNESSES, IMPAIRMENTS AND ACCIDENTS

Line Number	Col. No. of person	Question No.	Did you ever talk to a doctor about ...?	What did the doctor say it was? -- did he use any medical terms? (If doctor not talked to - "No," in col. (c) - record respondent's description) (If ill-effects of earlier accident also fill Table A) For an accident or injury occurring during past 2 weeks, ask: What part of the body was hurt? What kind of injury was it? Anything else? (Also, fill Table A)	If an impairment or symptom, ask:		What kind of ... trouble is it? (If kind of trouble already entered in col. (d-1), circle "X" without asking the question)	What part of the body was affected? (If part of body can be determined from entries in cols. (d-1) through (d-4), circle "X" without asking the question)	LAST WEEK OR THE WEEK BEFORE did ... cause you to cut down on your usual activities for as much as a day?
					What was the cause of ...? (If cause is already entered in (d-1) circle "X" without asking the question) (If accident or injury, fill Table A)	(If eye trouble of any kind and 6 years old or over, ask: Can you read ordinary newspaper print with glasses?			
(a)	(b)	(c)	(d-1)	(d-2)	(d-3)	(d-4)	(d-5)	(e)	(f)
1		<input type="checkbox"/> Yes <input type="checkbox"/> No			X	<input type="checkbox"/> Yes <input type="checkbox"/> No	X	X	

How many days, including the 2 weekends?	How many of these -- days were you in bed all or most of the day?	If 6 years old or over, ask:		Did you first notice ... DURING THE PAST 3 MONTHS or before that time?		To interviewer: If Col. (k) is checked or the condition is on either one of Cards A or B, continue; otherwise, STOP	Did you first notice ... DURING THE PAST 12 MONTHS or before that time? (If during past 12 months, ask: Which month?)	When did you last talk to a doctor about ...? (Month and Year - Year only if prior to 1956)	Do you still take any medicine or treatment that the doctor prescribed for ...? Or, follow any advice he gave?	About how many days during the past 12 months, has ... kept you in bed for all or most of the day?	Please look at this card and read each statement. Then tell me which statement fits you best. (Show Cards C-F, as appropriate)	If "1," or "2," or "3" in Col. (r) ask: Please look at this card and tell me which of these statements fits you best. (Show Card G)	Line Number
		Last week or the week before would you have been working at a job or business (going to school) except for ...?	If "Yes" in col. (i): How many days did ... keep you from work (going to school)?	Check one	Did ... start during the past 2 weeks or before that time?								
(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	
	Days or <input type="checkbox"/> None	<input type="checkbox"/> Yes <input type="checkbox"/> No	Days or <input type="checkbox"/> None			<input type="checkbox"/> Last <input type="checkbox"/> Before 2 wks. <input type="checkbox"/> Week before	Mo. _____ Yr. _____ <input type="checkbox"/> before <input type="checkbox"/> Birth	Mo. _____ Yr. _____ <input type="checkbox"/> No Dr.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Dr.	Days or <input type="checkbox"/> None			1

27. During the past 12 months in which group did the total income of your family fall, that is, your's, your---'s, etc.? (Show Card H) Include income from all sources, such as wages, salaries, rents from property, pensions, help from relatives, etc.

Group No.

Card A

NATIONAL HEALTH SURVEY

Check List of Chronic Conditions

- | | |
|--------------------------------------|---|
| 1. Asthma | 14. Stomach ulcer |
| 2. Any allergy | 15. Any other chronic stomach trouble |
| 3. Tuberculosis | 16. Kidney stones or other kidney trouble |
| 4. Chronic bronchitis | 17. Arthritis or rheumatism |
| 5. Repeated attacks of sinus trouble | 18. Prostate trouble |
| 6. Rheumatic fever | 19. Diabetes |
| 7. Hardening of the arteries | 20. Thyroid trouble or goiter |
| 8. High blood pressure | 21. Epilepsy or convulsions of any kind |
| 9. Heart trouble | 22. Mental or nervous trouble |
| 10. Stroke | 23. Repeated trouble with back or spine |
| 11. Trouble with varicose veins | 24. Tumor or cancer |
| 12. Hemorrhoids or piles | 25. Chronic skin trouble |
| 13. Gallbladder or liver trouble | 26. Hernia or rupture |

Card C

NATIONAL HEALTH SURVEY

For:
Workers and other persons except Housewives
and Children

1. Cannot work at all at present
2. Can work but limited in amount or kind of work.
3. Can work but limited in kind or amount of outside activities.
4. Not limited in any of these ways.

Card D

NATIONAL HEALTH SURVEY

For: Housewife

1. Cannot keep house at all at present.
2. Can keep house but limited in amount or kind of housework.
3. Can keep house but limited in outside activities.
4. Not limited in any of these ways.

Card E

NATIONAL HEALTH SURVEY

For:
Children from 6 to 16 years old and others
going to school

1. Cannot go to school at all at present time.
2. Can go to school but limited to certain types of schools or in school attendance.
3. Can go to school but limited in other activities.
4. Not limited in any of these ways.

Card F

NATIONAL HEALTH SURVEY

For: Children under 6 years old

1. Cannot take part at all in ordinary play with other children.
2. Can play with other children but limited in amount or kind of play.
4. Not limited in any of these ways.

Card H

NATIONAL HEALTH SURVEY

Family income during past 12 months

1. Under \$500 (Including loss)
2. \$500 - \$999
3. \$1,000 - \$1,999
4. \$2,000 - \$2,999
5. \$3,000 - \$3,999
6. \$4,000 - \$4,999
7. \$5,000 - \$6,999
8. \$7,000 - \$9,999
9. \$10,000 and over

REPORTS FROM THE NATIONAL CENTER FOR HEALTH STATISTICS
Public Health Service Publication No. 1000

Series 1. Programs and collection procedures

- No. 1. **Origin, Program, and Operation of the U.S. National Health Survey.** 35 cents.
- No. 2. **Health Survey Procedure: Concepts, Questionnaire Development, and Definitions in the Health Interview Survey.** 45 cents.
- No. 3. **Development and Maintenance of a National Inventory of Hospitals and Institutions.** 25 cents.
- No. 4. **Plan and Initial Program of the Health Examination Survey.**

Series 2. Data evaluation and methods research

- No. 1. **Comparison of Two-Vision Testing Devices.** 30 cents.
- No. 2. **Measurement of Personal Health Expenditures.** 45 cents.
- No. 3. **The One-Hour Glucose Tolerance Test.** 30 cents.
- No. 4. **Comparison of Two Methods of Constructing Abridged Life Tables.** 15 cents.
- No. 5. **An Index of Health: Mathematical Models.**
- No. 6. **Reporting of Hospitalization in the Health Interview Survey.**
- No. 7. **Health Interview Responses Compared With Medical Records.**
- No. 8. **Comparison of Hospitalization Reporting in Three Survey Procedures.**
- No. 9. **Cooperation in Health Examination Surveys.**
- No. 10. **Hospital Utilization in the Last Year of Life.**

Series 3. Analytical studies

- No. 1. **The Change in Mortality Trend in the United States.** 35 cents.
- No. 2. **Recent Mortality Trends in Chile.** 30 cents.

Series 4. Documents and committee reports

No reports to date.

Series 10. Data From the Health Interview Survey

- No. 1. **Acute Conditions, Incidence and Associated Disability, United States, July 1961-June 1962.** 40 cents.
- No. 2. **Family Income in Relation to Selected Health Characteristics, United States.** 40 cents.
- No. 3. **Length of Convalescence After Surgery, United States, July 1960-June 1961.** 35 cents.
- No. 4. **Disability Days, United States, July 1961-June 1962.** 40 cents.
- No. 5. **Current Estimates From the Health Interview Survey, United States, July 1962-June 1963.** 35 cents.
- No. 6. **Impairments Due to Injury, by Class and Type of Accident, United States, July 1959-June 1961.** 25 cents.
- No. 7. **Disability Among Persons in the Labor Force, by Employment Status, United States, July 1961-June 1962.** 40 cents.
- No. 8. **Types of Injuries, Incidence and Associated Disability, United States, July 1957-June 1961.** 35 cents.
- No. 9. **Medical Care, Health Status, and Family Income, United States.** 55 cents.
- No. 10. **Acute Conditions, Incidence and Associated Disability, United States, July 1962-June 1963.** 45 cents.
- No. 11. **Health Insurance Coverage, United States, July 1962-June 1963.** 35 cents.
- No. 12. **Bed Disability Among the Chronically Limited, United States, July 1957-June 1961.** 45 cents.
- No. 13. **Current Estimates From the Health Interview Survey, United States, July 1963-June 1964.** 40 cents.
- No. 14. **Illness, Disability, and Hospitalization Among Veterans, United States, July 1957-June 1961.** 35 cents.
- No. 15. **Acute Conditions, Incidence and Associated Disability, United States, July 1963-June 1964.** 40 cents.
- No. 16. **Health Insurance, Type of Insuring Organization and Multiple Coverage, United States, July 1962-June 1963.** 35 cents.
- No. 17. **Chronic Conditions and Activity Limitations, United States, July 1961-June 1963.** 35 cents.

Series 11. Data From the Health Examination Survey

- No. 1. **Cycle I of the Health Examination Survey: Sample and Response, United States, 1960-1962.** 30 cents.
- No. 2. **Glucose Tolerance of Adults, United States, 1960-1962.** 25 cents.
- No. 3. **Binocular Visual Acuity of Adults, United States, 1960-1962.** 25 cents.
- No. 4. **Blood Pressure of Adults, by Age and Sex, United States, 1960-1962.** 35 cents.
- No. 5. **Blood Pressure of Adults, by Race and Region, United States, 1960-1962.** 25 cents.
- No. 6. **Heart Disease in Adults, United States, 1960-1962.** 35 cents.
- No. 7. **Selected Dental Findings in Adults, United States, 1960-1962.** 30 cents.
- No. 8. **Weight, Height, and Selected Body Dimensions of Adults, United States, 1960-1962.**
- No. 9. **Findings on the Serologic Test for Syphilis in Adults, United States, 1960-1962.**

Series 12. Data From the Health Records Survey

No reports to date.

Series 20. Data on mortality

No reports to date.

Series 21. Data on natality, marriage, and divorce

- No. 1. **Natality Statistics Analysis, United States, 1962.** 45 cents.
- No. 2. **Demographic Characteristics of Persons Married Between January 1955 and June 1958, United States.** 35 cents.

Series 22. Data from the program of sample surveys related to vital records.

No reports to date.

PUBLIC HEALTH SERVICE PUBLICATION NO. 1000 - SERIES 2 - NO. 9