

VITAL and HEALTH STATISTICS
DATA FROM THE NATIONAL HEALTH SURVEY

prevalence of
**Chronic Conditions
and Impairments**
**Among Residents of Nursing
and Personal Care Homes**
United States - May - June 1964

Statistics on specific chronic conditions and impairments, limitation of mobility, time interval since last saw doctor, length of stay, primary type of service, nurse or nurse's aide on duty, supervisory nurse in nursing and personal care homes. Based on data collected from institutions during the period May-June 1964.

Washington, D. C.

July 1967

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
John W. Gardner
Secretary

Public Health Service
William H. Stewart
Surgeon General



Public Health Service Publication No. 1000-Series 12-No. 8

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20402 - Price 30 cents

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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.

In accordance with specifications established by the National Center for Health Statistics, the Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.

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IN THIS REPORT residents of nursing and personal care homes are described in terms of their health and related characteristics and certain health services available to them in these homes. Health and related characteristics of the residents include chronic conditions and impairments, mobility status, and length of stay in the home. Measures of health services include time interval since resident last saw a doctor in the home, primary type of service provided in the home, nurse or nurse's aide on duty, and a supervisory nurse.

At the time of the survey, the Nation's 17,400 nursing and personal care homes had an estimated 554,000 residents, 15 percent of whom were 85 years of age and over. On the average there were 3.1 conditions per resident, and only 4 percent had no chronic conditions or impairments.

The highest prevalence rates among residents were for the major cardiovascular conditions, vascular lesions affecting central nervous system and diseases of the heart. Males had higher prevalence rates than females for such chronic conditions as diseases of the heart, malignant neoplasms, and for most types of impairments. Females had higher prevalence rates for diabetes mellitus, vascular lesions, advanced senility, and arthritis and rheumatism.

Over one-third of the residents with impairments due to stroke were bedridden as compared with one-fourth with vascular lesions (with or without mention of impairments) and one-fifth with diseases of the heart.

The shortest median lengths of stay were for residents with malignant neoplasms, diabetes mellitus, and fracture of the femur (old). Only a small proportion of the residents had not seen a doctor since entering the home.

In homes having a nurse on duty 24 hours the highest prevalence rates prevailed for residents with vascular lesions, diseases of the heart, advanced senility, and arthritis and rheumatism. For those with a nurse on duty less than 24 hours the leading conditions were other mental disorders, diseases of the heart, hearing impairments, and vascular lesions.

The conditions most closely related to increasing age included advanced senility, diseases of the heart, arthritis and rheumatism, severe visual impairments, and hearing impairments.

SYMBOLS

Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Quantity more than 0 but less than 0.05----	0.0
Figure does not meet standards of reliability or precision-----	*

PREVALENCE OF CHRONIC CONDITIONS AND IMPAIRMENTS AMONG RESIDENTS OF NURSING AND PERSONAL CARE HOMES

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SELECTED FINDINGS

An estimated 554,000 persons were residents or patients of the Nation's 17,400 nursing and personal care homes during the period May-June 1964. These persons were predominantly the aged and chronically ill who commonly had conditions and impairments characteristic of advanced age and often had more than one condition. On the average there were about 3.1 conditions per resident. Only 4 percent of the residents had no chronic conditions.

An appreciable proportion of the population 75 years and over were residents of nursing and personal care homes (table A). About 15 percent

of those 85 years and over and 4 percent of those 75-84 were in these homes. There were more females than males in each age category except for those under 65.

About two-thirds of the residents 65 years and over and three out of every five under 65 were residents of homes where the primary and predominant type of service is nursing care.

The conditions which affected the greatest number of residents were the two major cardiovascular conditions vascular lesions affecting central nervous system and disease of the heart.

Males had higher prevalence rates than females for diseases of the heart and malignant neoplasms; for diseases related to the respiratory

Table A. Selected data on residents of nursing and personal care homes, by age: United States, May-June 1964

Age	Number of residents per 1,000 population	Ratio of females per 100 male residents	Percent of all residents in nursing care homes
All ages-20 years and over-----	5	186	67
20-64 years-----	1	83	61
65-74 years-----	9	158	69
75-84 years-----	43	212	67
85 years and over-----	147	255	70

system, the digestive system, and the urinary system; and for most types of impairments. Some of the conditions for which females had higher prevalence rates were vascular lesions, advanced senility, arthritis and rheumatism, diabetes mellitus, and fracture of the femur (old).

The conditions and impairments which were most closely related to increasing age were advanced senility, diseases of the heart, arthritis, and rheumatism, severe visual impairments and hearing impairments.

The proportion of bedridden residents with certain conditions varied according to the severity of the disease. More than one-third of the residents with malignant neoplasms and more than one-third with impairments due to stroke were bedridden, while a smaller proportion (one-fourth) with vascular lesions, with or without mention of impairments, were bedridden. A high proportion, one-fifth, of the residents with diseases of the heart was also bedridden.

The proportion of persons who were room limited was uniformly high for all conditions shown in table B. When considering the conditions restricting the greatest proportion of bed-limited and room-limited residents, the leading condi-

tions were paralysis, palsy due to stroke; severe visual impairments; advanced senility; malignant neoplasms; and vascular lesions.

In regard to length of time spent in the home, residents with malignant neoplasms, diabetes mellitus, and fracture of the femur (old) had the shortest median lengths of stay. Residents with conditions of varying severity had exceptionally long lengths of stay—epilepsy, varicose veins, sinus and other respiratory conditions, and paralysis or palsy due to other causes.

Only a small proportion of the residents had not seen a doctor since entering the home. The median number of months since the residents last saw a doctor varied by type of condition from about 1 to 1½ months.

There is some relationship between the type of service provided in the homes and the conditions prevalent among residents of the homes. In homes where the primary and predominant type of service is nursing care, four-fifths of all residents had vascular lesions, three-fourths had diseases of the heart, and four-fifths had paralysis or palsy due to stroke. Likewise, four-fifths of the residents with advanced senility were in nursing care homes as was a large proportion with

Table B. Number and percent of specified chronic conditions and impairments among residents of nursing and personal care homes, by mobility status and other selected characteristics: United States, May-June 1964

Chronic conditions and impairments	All residents	Mobility status		Primary type of service		Length of stay under 6 months	Last saw doctor within last month	Resident in home with RN supervisor
		Bed limitation	Room limitation	Nursing care	Personal care with nursing			
Major cardiovascular diseases		Percent of residents						
Vascular lesions affecting central nervous system-----	188,100	26	25	81	17	18	42	70
Diseases of the heart-----	156,500	21	23	76	21	22	48	70
Hypertension without mention of heart-----	35,100	8	19	58	34	13	34	69
General arteriosclerosis-----	43,500	12	21	72	24	21	40	74
Mental conditions and senility								
Advanced senility-----	121,000	25	28	82	15	19	38	68
Senility, not psychotic-----	27,400	14	21	70	25	17	37	67
Other mental disorders-----	100,700	15	17	62	29	17	37	56
Other selected chronic conditions								
Malignant neoplasms-----	18,500	36	16	80	18	27	51	74
Diabetes mellitus-----	44,300	18	20	76	22	22	46	71
Other chronic conditions of the digestive system-----	68,900	23	23	75	22	17	43	68
Arthritis and rheumatism-----	122,300	19	26	70	26	15	39	69
Selected impairments								
Visual impairment: inability to read newspaper with glasses-----	66,800	28	29	73	23	16	39	63
Hearing impairments-----	103,900	20	25	71	23	18	38	67
Paralysis, palsy due to stroke-----	66,600	35	22	81	17	20	43	68
Paralysis, palsy due to other causes-----	26,000	26	21	76	19	15	45	72
Impairments, limbs, back, trunk-----	75,200	21	27	74	22	14	37	69

malignant neoplasms, fracture of the femur (old), Parkinson's disease, hemorrhoids, and speech impairments.

Considerable variation existed in the proportion of residents with different conditions who were in homes with a registered nurse (RN) as nursing supervisor and those with 24-hour nursing service. In the extreme situation with regard to the level of nursing services, 98 percent of the residents with fracture of the femur (old) were in homes with a nurse or nurse's aide on duty 24 hours, and 78 percent were in homes with an RN supervisor. A comparatively small percent of residents with "other mental disorders" and with epilepsy were in homes with an RN supervisor (57 percent) or in homes with a nurse or nurse's aide on duty 24 hours (83 percent).

SOURCE AND QUALIFICATION OF DATA

The data in this report are based on the findings of a sample survey of institutions in the United States which provide nursing or personal care to the aged and chronically ill. The survey, commonly referred to as Resident Places Survey-2 (RPS-2), was conducted during May and June 1964 by the Division of Health Records Statistics in cooperation with the U.S. Bureau of the Census.

The scope of RPS-2 included such institutional establishments as nursing homes, homes for the aged, and similar types of places as well as geriatric hospitals. Two basic criteria for including an establishment in the survey were (1) it must routinely provide some level of nursing or personal care and (2) it must maintain three beds or more for residents or patients. Thus homes providing room and board only were not within the scope of the survey.

RPS-2 was a multiple-purpose survey, collecting statistics about establishments, residents or patients domiciled in the establishments, and the employees. Reports have been published on the number and types of employees and on their work experience, special training, wages, and on chronic illness of residents as reflected by the number of chronic conditions and impairments.^{1,2,3} This report accounts for the health of residents as reflected by the specific chronic

conditions and impairments reported for them and on health service provided them by the establishments.

In order to interpret the statistics presented in this report properly, the reader should become familiar with the material in the appendixes. In Appendix I a general description of the survey, the sampling frame used, the sample design, and the survey procedures are given. Also discussed are imputation procedures, estimation techniques, and sampling variation. Tables and charts of standard errors are provided with illustrations of their use. Definitions of terms, the procedure for classifying establishments, and rules for diagnostic coding are shown in Appendix II.

It is important to note that classification of establishments in the study is based on the type of service provided in the home and on the availability of nursing staff rather than on what the home might be called or how it is licensed by the State.

Facsimiles of questionnaires and forms used in the survey are reproduced in Appendix III. The study did not include an attempt to determine the prevalence of all types of chronic conditions and impairments; rather, it was directed toward those thought to have special significance for the aged population. These conditions are listed on Cards D and E in Appendix III. By the use of these flash cards, health data were obtained from nurses or other respondents who were said to be best acquainted with the health of the residents. The respondent was also asked to refer to the available medical records. The amount of medical data in the records varied considerably in the presence or absence of medical information. However, it is not known for what proportion of homes records were actually used for medical information in the survey.

Since much of this report is based on an analysis of certain specified chronic conditions and impairments, the procedures followed in coding conditions are especially important. In general, the International Classification of Diseases⁴ was used in coding conditions, supplemented by a special procedure for classifying impairments. The list of conditions and impairments used in the coding process appears in Appendix II.

Most residents had one or more of the conditions contained in the list. However, this report

does not attempt to establish relationships among the reported conditions although certain of the conditions are recognized as being more serious than others and as having more adverse consequences on a person's well-being. The possibility exists, therefore, that with certain given conditions the person's health might be seriously impaired regardless of the other types of illness he might have. This report will treat conditions separately and will relate individual conditions to other characteristics of the individual.

PREVALENCE OF CHRONIC CONDITIONS AND IMPAIRMENTS

As shown in table C, cardiovascular conditions were responsible for much of the chronic illness among residents of nursing and personal care homes—more than one-third had vascular lesions affecting central nervous system, and almost three-tenths had some form of heart disease. A large proportion of the residents had mental conditions—about one-fourth had advanced senility, and more than one-sixth had some other mental disorder. Nearly one-fourth of the residents had arthritis or rheumatism.

Impairments were a frequent result of illness among residents. One-eighth had paralysis or palsy due to stroke, and a slightly higher pro-

portion had paralysis or palsy due to other causes. About one-fifth of the residents had hearing impairments, one-eighth had severe visual impairments, and one-tenth speech impairments.

Sex

Prevalence rates for chronic conditions present a contrasting picture by sex of resident. This was true for cardiovascular conditions (table 1). The prevalence rate for vascular lesions was higher for females than for males (350 per 1,000 for females and 336 for males). The reverse was true for diseases of the heart, for which the prevalence rate was 307 per 1,000 for males and 284 for females. The differences were not statistically significant, however. For hypertension without mention of heart the rate was higher for females as it was for general arteriosclerosis.

Further evidence of contrasting patterns by sex are shown in the rates for mental conditions and senility. More females than males had advanced senility (239 per 1,000 females and 208 per 1,000 males), and males had about the same rate as females for other mental disorders (166 per 1,000 males and 168 per 1,000 females).

Females had higher rates than males for arthritis and rheumatism; and higher rates also prevailed among females for such conditions as diabetes mellitus, chronic diseases of the eye, and fracture of the femur (old).

Rates for males were higher for asthma, bronchitis and emphysema, ulcer of stomach and duodenum, and hernia of abdominal cavity. With the exception of severe visual impairments and impairments of the limbs, back, and trunk, males had higher rates for the different types of impairments but not significantly higher in every instance.

Age and Sex

The prevalence of some conditions increased with age while others showed a varying relationship to age (table 1 and fig. 1). Principal chronic conditions showing an increasing rate by age were advanced senility, diseases of the heart, general arteriosclerosis, and arthritis and rheumatism. Severe visual impairments and hearing impairments were similarly related to increasing age. Conditions and impairments inversely related

Table C. Percent of residents in nursing and personal care homes with specified chronic conditions and impairments: United States, May-June 1964

Chronic conditions and impairments	Percent
Vascular lesions affecting central nervous system-----	34
Diseases of the heart-----	28
Arthritis and rheumatism-----	22
Advanced senility-----	22
Hearing impairments-----	19
Other mental disorders-----	18
Impairments, limbs, back, trunk-----	14
Other chronic conditions of the digestive system-----	12
Visual impairment: inability to read newspaper with glasses--	12
Paralysis, palsy due to stroke--	12

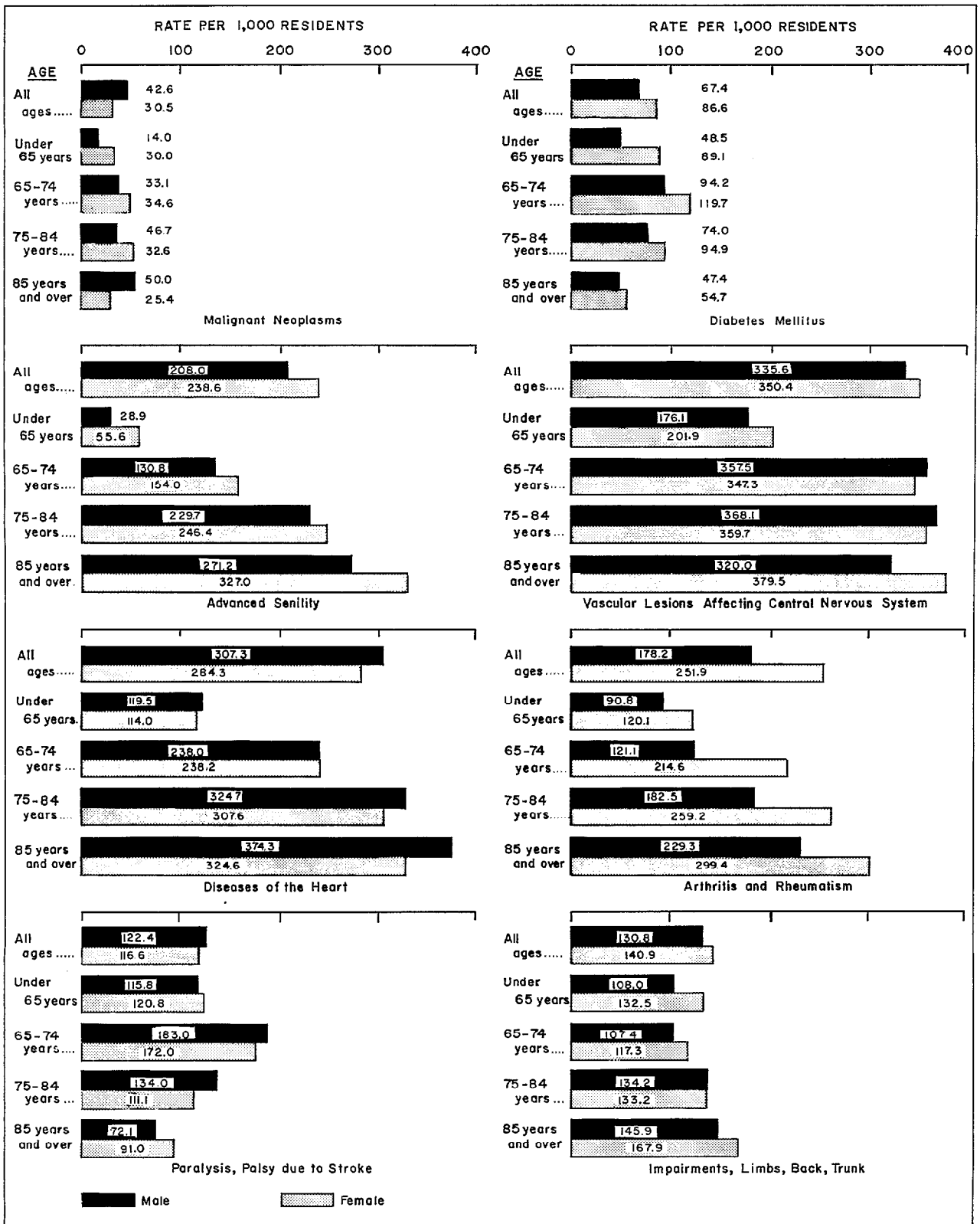


Figure 1. Number of residents in nursing and personal care homes per 1,000 population with specified chronic conditions and impairments, by sex and age.

to age included other mental disorders, epilepsy, speech impairments, and paralysis or palsy due to other causes.

Variable relationships to age existed for other conditions. The prevalence rate for diabetes reached a peak at ages 65-74 and then declined at each succeeding age group. For vascular lesions the prevalence rate was lowest for ages under 65 years and highest (rates of about an equal magnitude) for ages 65 and over. This is in contrast with paralysis or palsy due to stroke, for which the rate was highest at ages 65-74 and lowest at ages 85 and over.

Generally, the age patterns for specific conditions were similar for both males and females, but there were some differences. For malignant neoplasms there was an increasing rate by age for males and not for females. For diabetes mellitus the general pattern by age and sex was similar, but the greatest difference by sex was at age group under 65 years. For chronic diseases of the eye there was more of a relationship to age for females than for males. For hernia of the abdominal cavity there was an increasing rate by age for males and females but to a lesser extent for females. For diseases of the urinary system there was a close relationship by age for males but not for females.

For certain conditions where the rate differed by sex the differences by age were not consistent. For example, the female rate for malignant neoplasms was higher than the male rate at ages under 65, and the rates were about the same at ages 65-74. The male rate for vascular lesions was higher in the middle-aged groups even though the total rate was higher for females. Similar differences in certain age groups also characterized males and females with general arteriosclerosis, other diseases of the digestive system, diseases of the urinary system, speech and hearing impairments, and paralysis or palsy due to stroke.

Mobility Status

The respondent was asked the following questions about the resident's mobility status: "Does he stay in bed most of the day?"; "Does he stay in his own room all or most of the day?"; and "Does he go off the premises just to walk, shop, or visit with friends or relatives and so

forth?" The residents for whom "yes" was checked for the question, "Does he stay in bed all or most of the day?" are defined in this report as being bed limited. Those for whom "yes" was checked for "Does he stay in his room all or most of the day?" are defined as being room limited. The remaining residents for whom "yes" or "no" was checked for "Does he go off the premises just to walk, shop, or visit with friends or relatives and so forth?" are defined as being neither bed nor room limited. Residents who were routinely taken out of the room in a wheelchair for most of the day were considered as being neither bed nor room limited and were therefore included as a part of this last group.

Pronounced mobility restriction existed among residents with a number of conditions having widespread prevalence and also conditions of lesser magnitude; this was true of the principal cardiovascular diseases—vascular lesions and diseases of the heart (table 2). It likewise characterized advanced senility and such impairments as those related to hearing disability, speech loss, and particularly paralysis or palsy due to stroke. The rate for bed-limited residents with vascular lesions was considerably higher than the rate for room-limited residents and was almost twice that of residents not limited to room or bed. Again, for diseases of the heart a somewhat similar pattern existed with the prevalence rate being nearly 1½ times the rate for those who were not limited. For advanced senility the prevalence rate for bedridden residents was double the rate for those not restricted to bed or room. Arthritis and rheumatism differed in that the prevalence rate for room-limited residents was above that for those who were bed limited. Other conditions that were similar to arthritis and rheumatism in mobility restriction were ulcer of the stomach and duodenum and chronic diseases of the eye.

Conditions for which there was a large proportion of bed-limited residents without increased room limitation were malignant neoplasms and absence of major extremities (fig. 2).

For other conditions the relationship to mobility was not clear-cut, and for some there was an inverse relationship. Conditions for which there were increasing prevalence rates with higher mobility were hypertension without mention of heart, general arteriosclerosis, varicose veins, and other visual impairments.

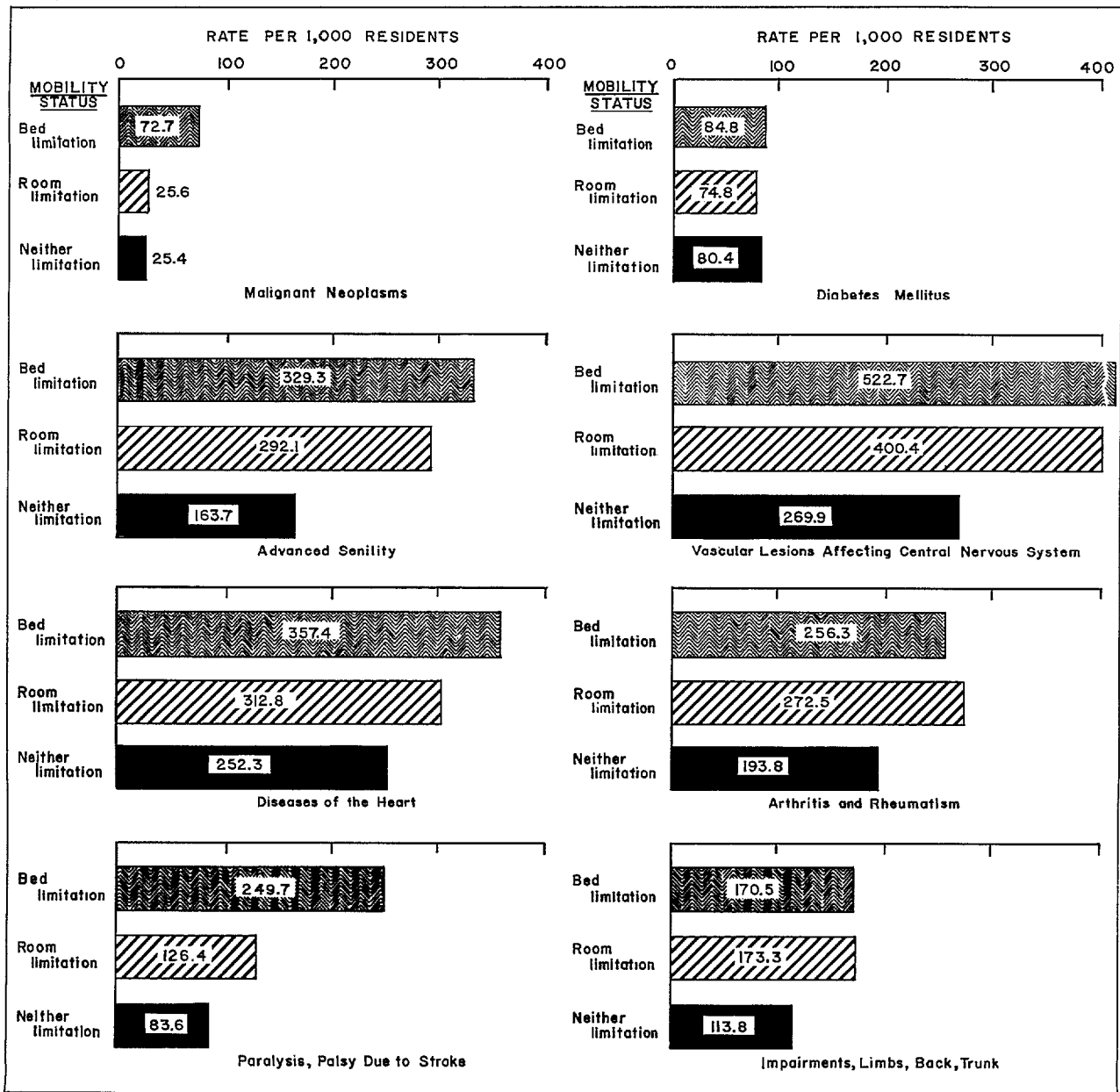


Figure 2. Number of residents in nursing and personal care homes per 1,000 population with specified chronic conditions and impairments, by mobility status.

COMPARISON WITH GENERAL POPULATION

Data on the distribution of chronic conditions and impairments among the aged in the general civilian, noninstitutional population have been available for some time through the National

Health Survey.^{5,6} These data were collected through household interviews and described persons in terms of their major activity limitation (ability to work, keep house). Although there are different sources of measurement error in the two surveys, individual comparisons of specific conditions do give a rough indication of differences in

Table D. A comparison of the prevalence of selected chronic conditions among persons with limitation of major activity¹ in the civilian, noninstitutional population and among residents of nursing and personal care homes, for persons 65 years and over: United States

Chronic conditions and impairments	Limited persons in civilian, noninstitutional population		Residents of nursing and personal care homes	
	Number in thousands	Prevalence per 100 population	Number in thousands	Prevalence per 100 population
Malignant neoplasms-----	194	2.9	17	3.5
Diabetes mellitus-----	476	7.0	40	8.2
Mental and nervous conditions-----	955	14.0	214	43.9
Vascular lesions affecting central nervous system-----	484	7.1	176	36.0
Diseases of the heart-----	1,926	28.3	149	30.5
Hypertension without mention of heart--	1,128	16.6	22	4.6
Ulcer of stomach and duodenum-----	254	3.7	9	1.8
Hernia of abdominal cavity-----	593	8.7	2	0.4
Other chronic conditions of the digestive system-----	1,108	16.3	66	13.5
Conditions of genitourinary system-----	867	12.7	45	9.2
Arthritis and rheumatism-----	2,781	40.9	115	23.7
Visual impairment: inability to read newspaper with glasses-----	1,534	22.5	93	19.1
Hearing impairments-----	2,002	29.4	99	20.3
Paralysis, palsy due to stroke-----	354	5.2	77	15.7
Orthopedic impairments-----	1,669	24.5	74	15.1

¹These estimates were derived from data collected in the Health Interview Survey during the period July 1961-June 1963. Major activity refers to ability to work or keep house.

NOTE: Prevalence rates are based on 6,803,000 limited persons 65 years and over in the civilian, noninstitutional population and on 488,000 residents of nursing and personal care homes 65 years and over during May-June 1964.

the distribution of disabling conditions in the institutional and noninstitutional population. In the Health Interview Survey the questions were somewhat more thorough, possibly because household members were the respondents. For example, the respondent was asked if anyone in the family had any of a list of selected conditions during the past 12 months. This type of probing possibly resulted in more complete reporting in the household than in nursing and personal care homes.

Residents 65 years of age and over in nursing and personal care homes were generally sicker than persons who were restricted in their major activity in the general population as shown by the comparisons of prevalence rates for selected

conditions in table D. Although the definitions of chronic limitation differ for the two surveys, the fact that 96 percent of the residents had one condition or more and that about 45 percent of these were bed or room limited is evidence that this population would generally meet the requirements for the distribution of persons classified as limited in their major activity.

The prevalence rate among residents was five times that of nonresidents for vascular lesions and three times that for paralysis, palsy due to stroke. Mental and nervous conditions were likewise of much higher prevalence in nursing and personal care homes. Prevalence rates were slightly higher for malignant neoplasms, diabetes mellitus, and heart conditions.

Higher rates prevailed among the general population for the balance of the conditions. The greatest difference was represented by much higher rates for high blood pressure and hernia. Substantial differences also existed for arthritis and rheumatism, peptic ulcer, hearing impairments, and orthopedic impairments.

LENGTH OF STAY

Residents with such conditions as malignant neoplasms, diabetes mellitus, and fracture of the femur (old) had a relatively short median length of stay of about 1½ years (table 3). Likewise, residents with diseases of the heart, ulcer of stomach and duodenum, diseases of urinary system, diseases of prostate and other male genital organs, paralysis or palsy due to stroke, and absence of major extremities had short median

lengths of stay. In contrast, residents with no reported conditions and some with certain minor conditions had long lengths of stay. This possibly reflects the influence of a longer life span on length of stay.

In terms of the actual length of stay, more than one-fourth of the residents with the following conditions had lengths of stay under 6 months: malignant neoplasms, diseases of the prostate and other male genital organs, and fracture of the femur (old) (table 3 and fig. 3). About one-fourth of the residents with the following conditions had lengths of stay of 5 years or more: epilepsy, varicose veins, sinus and other respiratory conditions, and paralysis or palsy due to other causes.

A comparison of the lengths of stay for residents with vascular lesions, advanced senility, and arthritis and rheumatism illustrates some of the differences in periods of stay. A slightly higher median length of stay was indicated for those with arthritis and rheumatism (2.1 years) than for those with vascular lesions (1.8 years) or advanced senility (1.8 years). Around one-third of residents with vascular lesions and advanced senility had a length of stay of less than 1 year as compared with 28 percent of those with arthritis and rheumatism. At the other end of the scale 16 percent of the residents with vascular lesions or advanced senility had lengths of stay of 5 years or more compared with 21 percent of the residents with arthritis and rheumatism.

TIME INTERVAL SINCE LAST SAW DOCTOR

A small proportion of the residents with chronic conditions and impairments had not seen a doctor since entering a home (table 4 and fig. 4). This ranged from 1 percent of the residents with bronchitis and emphysema to 5 percent of those with "other mental disorders." In direct contrast, almost one-fifth of the residents with no reported conditions had not seen a doctor.

Over one-half of the residents with neoplasms, either malignant or benign, had seen a doctor within the past month. This was also true for residents who were impaired due to absence of major extremities. Between 45 and 50 percent of the residents with the following conditions had seen a doctor during the past month: diabetes mellitus, diseases of the heart, Parkinson's

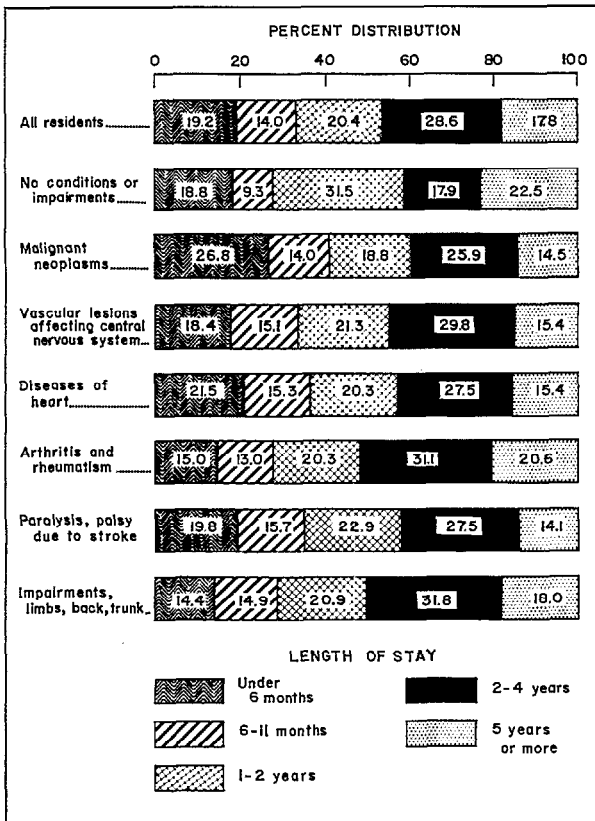


Figure 3. Percent distribution of residents in nursing and personal care homes, by specified chronic conditions and impairments according to length of stay.

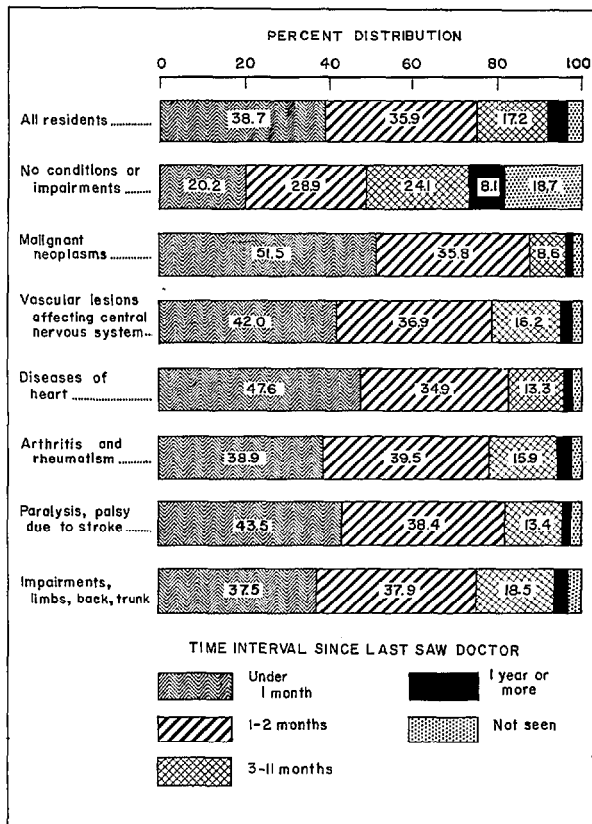


Figure 4. Percent distribution of residents in nursing and personal care homes, by time interval since last saw a doctor in the home according to specified chronic conditions and impairments.

disease, bronchitis and emphysema, sinus and other respiratory conditions, diseases of the urinary system, fracture of the femur (old) and paralysis or palsy due to other causes.

When those residents who had seen a doctor in a 3-month period (which includes the above residents), a high proportion of residents had seen a doctor during this time period. Leading were residents with malignant neoplasms (87 percent), benign and unspecified neoplasms (85 percent), fracture of the femur (old) (85 percent), varicose veins (84 percent), diseases of the heart (83 percent), and absence, major extremities (83 percent).

A high proportion of residents with senility and mental conditions had not seen a doctor for

an extended period of time, varying from 6-11 months to 1 year or more. These included residents with advanced senility (9 percent), senility, not psychotic (10 percent), and other mental disorders (13 percent). Other conditions in this category were epilepsy (12 percent), hypertension without mention of heart (12 percent), sinus and other respiratory conditions (11 percent), and certain impairments.

PRIMARY TYPE OF SERVICE

Residents in nursing care homes had much higher prevalence rates than those in personal-care-with-nursing homes or personal care homes for the following conditions: malignant neoplasms, advanced senility, vascular lesions, diseases of urinary system, fracture of the femur (old), and paralysis or palsy due to stroke (table 5).

The conditions for which the prevalence rates for residents in personal-care-with-nursing homes exceeded those for residents in nursing care homes or personal care homes were: benign and unspecified neoplasms and chronic diseases of the eye.

For some of the conditions rates were about the same for residents of nursing care homes and personal-care-with-nursing homes. These conditions were epilepsy, chronic diseases of the eye, sinus and other respiratory conditions, arthritis and rheumatism, other visual impairments.

The only condition for which the prevalence rate was higher for residents in personal care homes than for those in other types of homes was other mental disorders.

Table E shows the conditions and impairments affecting the greatest number of residents in nursing and personal care homes. The prevalence rates for all conditions listed in this table except other mental disorders were higher for residents in nursing care homes. It was slightly higher for arthritis and rheumatism for residents in nursing than in personal-care-with-nursing homes. When compared with personal care homes, the picture is the same for personal-care-with-nursing homes except for higher rates in personal care homes for residents with other mental

Table E. Number of persons with specified chronic conditions and impairments among residents of nursing and personal care homes per 1,000 residents, by primary type of service: United States, May-June 1964

Chronic conditions and impairments	Total	Primary type of service		
		Nursing care	Personal care with nursing	Personal care
		Rate per 1,000 residents		
Vascular lesions affecting central nervous system-----	340	408	214	132
Diseases of the heart-----	283	319	221	146
Arthritis and rheumatism-----	221	229	219	142
Advanced senility-----	218	267	123	94
Hearing impairments-----	188	199	162	175
Other mental disorders-----	182	166	203	263
Impairments, limbs, back, trunk-----	136	149	116	81
Other chronic conditions of the digestive system-----	124	138	105	64
Visual impairment: inability to read newspaper with glasses-----	121	131	106	65
Paralysis, palsy due to stroke-----	120	145	77	38

disorders and hearing impairments. An almost equal number of residents in personal-care-with-nursing homes had vascular lesions, diseases of the heart, arthritis and rheumatism, and other mental disorders. In contrast, the highest prevalence rates within personal care homes were for residents with other mental disorders. This was followed in order by hearing impairments, diseases of the heart, arthritis and rheumatism, and vascular lesions.

SUPERVISORY NURSE AND NURSE OR NURSE'S AIDE ON DUTY

The questions were asked in the survey "Is the person who supervises nursing care a registered professional nurse, a licensed practical nurse, or someone else?" And "Is there a nurse or nurse's aide on duty 24 hours?" In homes that had a nurse or nurse's aide on duty 24 hours and also had an RN supervisor, moderately higher prevalence rates prevailed for residents with malignant neoplasms, asthma, diabetes mellitus, Parkinson's disease, chronic diseases of the eye, hypertension without mention of heart, general arteriosclerosis, varicose veins, bronchitis and emphysema, fracture of the femur (old), and absence, major extremities (table 6).

For homes with an LPN supervisor higher prevalence rates existed for residents with advanced senility, vascular lesions, epilepsy, ulcer of stomach and duodenum, diseases of the urinary system, and most types of impairments. Prevalence rates for diseases of the heart and impairments of limbs, back, and trunk were about the same among residents in homes with an RN supervisor and in homes with an LPN supervisor. In homes where the supervisor was a nurse's aide prevalence rates were higher among residents with benign or unspecified neoplasms; senility, not psychotic; other mental disorders; and arthritis and rheumatism. These differences were all moderate.

In regard to conditions of highest prevalence, the pattern among residents of homes with a nurse or nurse's aide on duty less than 24 hours was not clearly defined. Generally speaking, the rates were more variable and not entirely consistent with those for residents in homes with a nurse or nurse's aide on duty 24 hours. This was due in part to the smaller frequencies. The prevalence rates were generally lower for residents in homes with no nurse or nurse's aide on duty. The one condition for which the rate was higher in homes where nursing care was not provided was hypertension without mention of heart.

The distribution of conditions with the highest overall frequencies among residents in homes with a nurse or nurse's aide on duty and an RN or LPN supervisor indicates some contrasts in the types of conditions prevalent among patients cared for by the different nursing staffs (table F). Residents in homes not providing nursing care were excluded from this table, and this exclusion affects the comparison of individual rates with the overall rates.

In homes having a nurse on duty 24 hours, as compared with those having a nurse on duty less than 24 hours, more residents had vascular lesions; arthritis and rheumatism; advanced senility; other chronic conditions of the digestive system; impairments of limbs, back, and trunk; paralysis or palsy due to stroke; and diseases of the heart. The difference in prevalence rates was not as great for diseases of the heart and

impairments of limbs, back, and trunk as for the other conditions. The conditions with the highest prevalence rates in homes having a nurse or nurse's aide on duty less than 24 hours were other mental disorders (289); diseases of the heart (238); and hearing impairments, all types (182).

The prevalence rates in homes with an RN or LPN in charge of nursing care were generally of the same magnitude. The greatest differences were the higher rates for other mental disorders and severe visual impairments among residents in homes that had an LPN supervisor. The rates for diseases of the heart, hearing impairments, and impairments of limbs, back, and trunk were about the same. Except for arthritis and rheumatism, moderately higher rates prevailed for most conditions among residents in homes having an LPN in charge.

Table F. Number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by nurse or nurse's aide on duty and supervisory nurse: United States, May-June 1964

Chronic conditions and impairments	Total	Nurse or nurse's aide on duty		Supervisory nurse	
		24 hours	Under 24 hours	RN	LPN
Rate per 1,000 residents					
Vascular lesions affecting central nervous system-----	340	364	170	361	370
Diseases of the heart-----	283	295	238	300	293
Arthritis and rheumatism-----	221	231	143	232	212
Advanced senility-----	218	233	124	226	252
Hearing impairments-----	188	189	182	192	201
Other mental disorders-----	182	170	289	154	215
Impairments, limbs, back, trunk-----	136	141	117	142	142
Other chronic conditions of the digestive system-----	124	132	75	128	140
Visual impairment: inability to read newspaper with glasses-----	121	123	151	115	159
Paralysis, palsy due to stroke-----	120	129	72	124	143

REFERENCES

¹National Center for Health Statistics: Employees in nursing and personal care homes. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 12-No. 5. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1966.

²National Center for Health Statistics: Employees in nursing and personal care homes: number, work experience, special training, and wages. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 12-No. 6. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1967.

³National Center for Health Statistics: Chronic illness among residents of nursing and personal care homes. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 12-No. 7. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1967.

⁴World Health Organization: *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Based on the Recommendations of the Seventh Revision Conference, 1955, Vol. 1. Geneva, Switzerland, 1957.

⁵U.S. National Health Survey: Chronic conditions causing limitation of activities. *Health Statistics*. PHS Pub. No. 584-

B36. Public Health Service. Washington. U.S. Government Printing Office. Oct. 1962.

⁶National Center for Health Statistics: Chronic conditions and activity limitation. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 10-No. 17. Public Health Service. Washington. U.S. Government Printing Office, May 1965.

⁷National Center for Health Statistics: Development and maintenance of a national inventory of hospitals and institutions. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 1-No. 3. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1965.

⁸National Center for Health Statistics: Origin, program, and operation of the U.S. National Health Survey. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 1-No. 1. Public Health Service. Washington. U.S. Government Printing Office, Aug. 1963.

⁹National Center for Health Statistics: *Medical Coding Manual and the Short Index*. NHS-HIS-1000, FY 1965. Public Health Service, Washington, D.C. July 1964.



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Table 1. Number of residents and number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by sex and age: United States, May-June 1964

Chronic conditions and impairments	Both sexes				
	All ages ¹	Under 65 years	65-74 years	75-84 years	85 years and over
	Number of residents				
All residents-----	554,000	66,200	104,500	230,900	152,400
	Rate per 1,000 residents				
Malignant neoplasms-----	33.3	21.2	34.0	37.1	32.4
Benign and unspecified neoplasms-----	12.3	12.0	10.6	13.3	12.2
Asthma-----	29.7	30.4	31.2	28.1	31.0
Diabetes mellitus-----	80.0	66.9	109.8	88.2	52.7
Advanced senility-----	218.4	41.0	145.0	241.1	311.3
Senility, not psychotic-----	49.5	13.8	41.3	55.0	62.4
Other mental disorders-----	181.9	473.5	244.1	131.8	88.5
Vascular lesions affecting central nervous system-----	339.5	187.8	351.2	362.4	362.7
Parkinson's disease-----	22.6	33.9	31.1	22.7	11.7
Epilepsy-----	21.1	83.1	30.2	10.5	4.1
Chronic diseases of the eye-----	62.5	32.7	48.5	65.5	80.3
Diseases of the heart-----	282.6	117.0	238.1	313.1	338.6
Hypertension without mention of heart-----	63.3	40.1	63.7	71.2	61.1
General arteriosclerosis-----	78.5	23.9	58.3	83.6	108.5
Varicose veins-----	32.0	21.2	28.1	37.1	31.7
Hemorrhoids-----	38.2	27.2	31.1	38.3	47.6
Bronchitis and emphysema-----	40.2	55.9	36.8	36.9	40.7
Sinus and other respiratory conditions-----	19.4	27.5	20.8	17.2	18.4
Ulcer of stomach and duodenum-----	17.6	18.5	15.7	18.9	16.7
Hernia of abdominal cavity-----	35.5	26.7	26.3	38.9	40.3
Other chronic conditions of the digestive system-----	124.4	97.8	107.6	120.4	153.5
Diseases of urinary system-----	58.2	50.0	58.0	58.2	62.0
Diseases of prostate and other male genital organs-----	95.2	25.0	77.1	110.0	103.7
Arthritis and rheumatism-----	220.8	104.1	178.4	234.6	279.6
Fracture, femur (old)-----	31.1	4.0	25.6	30.8	47.0
All other chronic conditions-----	148.7	186.9	170.9	138.3	132.4
Visual impairment: inability to read newspaper with glasses-----	120.5	59.3	87.5	113.5	180.5
Other visual impairments-----	60.2	44.7	44.1	71.6	60.8
Hearing impairments-----	187.6	73.2	103.5	176.1	312.2
Speech impairments, all types-----	98.6	200.3	129.5	85.0	53.8
Paralysis, palsy due to stroke-----	120.3	118.1	176.3	118.4	85.6
Paralysis, palsy due to other causes-----	46.9	124.2	50.3	37.1	25.8
Absence, major extremities-----	20.9	28.5	32.2	19.1	12.5
Impairments, limbs, back, trunk-----	135.8	119.1	113.5	133.5	161.7
All other impairments-----	13.7	16.6	15.7	13.8	10.9

¹Male rates are adjusted to age distribution of females in nursing and personal care homes, except for diseases of prostate and other male genital organs.

Table 1. Number of residents and number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by sex and age: United States, May-June 1964—Con.

Male					Female				
All ages ¹	Under 65 years	65-74 years	75-84 years	85 years and over	All ages	Under 65 years	65-74 years	75-84 years	85 years and over
Number of residents									
193,800	36,200	40,400	74,100	43,100	360,200	30,000	64,000	156,800	109,300
Rate per 1,000 residents									
42.6	14.0	33.1	46.7	50.0	30.5	30.0	34.6	32.6	25.4
13.4	9.7	19.9	13.5	10.6	11.7	14.8	4.7	13.2	12.8
38.6	33.2	44.7	42.4	31.0	25.0	26.9	22.7	21.3	30.9
67.4	48.5	94.2	74.0	47.4	86.6	89.1	119.7	94.9	54.7
208.0	28.9	130.8	229.7	271.2	238.6	55.6	154.0	246.4	327.0
47.8	8.4	44.0	54.6	51.2	53.0	20.2	39.5	55.2	66.8
165.6	461.9	261.8	123.3	88.8	167.9	487.4	232.9	135.8	88.4
335.6	176.1	357.5	368.1	20.0	350.4	201.9	347.3	359.7	379.5
20.2	28.1	23.7	23.9	10.7	23.1	40.9	35.8	22.2	12.1
18.5	71.7	38.2	9.0	6.0	18.5	96.8	25.3	11.3	3.3
53.2	36.1	39.3	59.7	56.8	68.9	28.5	54.3	68.3	89.5
307.3	119.5	238.0	324.7	374.3	284.3	114.0	238.2	307.6	324.6
51.8	35.2	41.9	61.7	47.8	70.7	46.1	77.4	75.6	66.4
88.7	19.8	67.3	89.0	119.7	118.6	28.7	52.5	81.0	104.1
38.4	29.5	38.8	43.5	33.4	29.0	11.3	21.4	34.1	31.0
36.0	29.0	30.0	34.0	44.2	40.2	25.0	31.8	40.3	49.0
67.9	82.3	56.5	65.9	73.6	24.9	24.1	24.3	23.3	27.7
21.9	30.6	20.2	21.8	20.7	17.6	23.7	21.2	15.0	17.5
28.6	24.0	22.8	30.2	30.8	12.3	11.8	11.1	13.6	11.1
72.0	43.3	48.3	77.4	85.9	18.6	6.6	12.4	20.7	22.4
110.9	84.6	73.0	22.4	123.9	134.6	113.8	129.4	119.5	165.1
65.9	37.9	56.3	69.0	74.9	56.3	64.6	59.0	53.0	57.0
95.2	25.0	77.1	110.0	103.7
178.2	90.8	121.1	182.5	229.3	251.9	120.1	214.6	259.2	299.4
21.6	2.9	17.5	19.1	32.6	37.7	5.4	30.7	36.4	52.6
140.2	177.3	177.7	129.7	123.2	149.5	198.5	166.6	142.4	136.1
118.2	51.2	79.3	113.4	166.2	128.1	69.1	92.6	113.5	186.1
63.3	47.3	42.2	78.7	57.8	60.1	41.6	45.4	68.2	62.1
219.7	69.4	125.7	195.2	351.0	185.3	77.7	89.5	167.1	296.9
105.2	195.3	171.7	102.0	46.1	86.2	206.4	102.8	77.0	56.9
22.4	115.8	183.0	134.0	72.1	116.6	120.8	172.0	111.1	91.0
45.8	128.0	53.7	41.7	24.4	41.7	119.5	48.1	35.0	26.3
32.5	42.4	36.8	29.8	31.2	13.8	11.8	29.2	14.0	5.1
130.8	108.0	107.4	134.2	145.9	140.9	132.5	117.3	133.2	167.9
22.9	16.9	25.4	20.4	26.8	9.1	16.3	9.5	10.6	4.6

Table 2. Number of residents and number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by mobility status: United States, May-June 1964

Chronic conditions and impairments	Total	Mobility status		
		Bed limitation	Room limitation	Neither limitation
Number of residents				
All residents-----	554,000	92,200	116,900	344,900
Rate per 1,000 residents				
Malignant neoplasms-----	33.3	72.7	25.6	25.4
Benign and unspecified neoplasms-----	12.3	16.8	15.5	10.1
Asthma-----	29.7	32.9	32.7	27.9
Diabetes mellitus-----	80.0	84.8	74.8	80.4
Advanced senility-----	218.4	329.3	292.1	163.7
Senility, not psychotic-----	49.5	41.2	49.6	51.7
Other mental disorders-----	181.9	160.8	147.8	199.1
Vascular lesions affecting central nervous system-----	339.5	522.7	400.4	269.9
Parkinson's disease-----	22.6	31.2	26.8	18.9
Epilepsy-----	21.1	22.3	17.7	22.0
Chronic diseases of the eye-----	62.5	56.3	66.8	62.6
Diseases of the heart-----	282.6	357.4	312.8	252.3
Hypertension without mention of heart-----	63.3	30.2	58.0	73.9
General arteriosclerosis-----	78.5	55.4	79.4	84.4
Varicose veins-----	32.0	25.2	31.7	34.0
Hemorrhoids-----	38.2	47.6	44.3	33.6
Bronchitis and emphysema-----	40.2	38.0	39.7	41.0
Sinus and other respiratory conditions-----	19.4	19.5	19.1	19.5
Ulcer of stomach and duodenum-----	17.6	14.2	21.2	17.3
Hernia of abdominal cavity-----	35.5	31.7	37.2	35.9
Other chronic conditions of the digestive system-----	124.4	175.3	137.7	106.3
Diseases of urinary system-----	58.2	109.2	57.8	44.7
Diseases of prostate and other male genital organs-----	30.0	39.8	31.3	27.0
Arthritis and rheumatism-----	220.8	256.3	272.5	193.8
Fracture, femur (old)-----	31.1	50.7	39.7	22.9
All other chronic conditions-----	148.7	187.2	159.2	134.8
Visual impairment: inability to read newspaper with glasses-----	120.5	199.8	166.1	83.9
Other visual impairments-----	60.2	47.1	59.5	64.0
Hearing impairments-----	187.6	222.2	226.0	165.3
Speech impairments, all types-----	98.6	172.7	107.4	75.8
Paralysis, palsy due to stroke-----	120.3	249.7	126.4	83.6
Paralysis, palsy due to other causes-----	46.9	73.6	46.6	39.8
Absence, major extremities-----	20.9	27.1	19.5	19.6
Impairments, limbs, back, trunk-----	135.8	170.5	173.3	113.8
All other impairments-----	13.7	18.1	12.3	12.9

Table 3. Number and percent distribution of residents of nursing and personal care homes, by length of stay according to specified chronic conditions and impairments: United States, May-June 1964

Chronic conditions and impairments	Number of residents	Length of stay							Median years
		All lengths of stay	Under 6 months	6-11 months	1 year	2 years	3-4 years	5 years or more	
		Percent distribution							
All residents-----	554,000	100.0	19.2	14.0	20.4	13.7	14.9	17.7	1.8
Malignant neoplasms-----	18,500	100.0	26.8	14.0	18.8	11.5	14.4	14.4	1.5
Benign and unspecified neoplasms----	6,800	100.0	19.6	11.7	21.0	12.0	17.0	18.7	1.9
Asthma-----	16,500	100.0	13.3	15.6	18.7	18.7	14.4	19.2	2.1
Diabetes mellitus-----	44,300	100.0	21.5	17.1	22.2	13.4	12.8	13.0	1.5
Advanced senility-----	121,000	100.0	18.6	14.6	20.8	14.5	15.3	16.2	1.8
Senility, not psychotic-----	27,400	100.0	17.1	14.7	21.7	15.0	17.9	13.6	1.8
Other mental disorders-----	100,700	100.0	17.1	13.6	22.3	13.3	14.5	19.2	1.9
Vascular lesions affecting central nervous system-----	188,100	100.0	18.4	15.1	21.3	14.8	15.0	15.5	1.8
Parkinson's disease-----	12,500	100.0	19.2	13.2	23.3	14.8	14.4	15.0	1.8
Epilepsy-----	11,700	100.0	17.3	11.9	19.4	10.8	14.3	26.3	2.1
Chronic diseases of the eye-----	34,600	100.0	17.0	13.0	21.1	12.4	16.4	20.2	2.0
Diseases of the heart-----	156,500	100.0	21.5	15.3	20.3	14.6	12.9	15.4	1.7
Hypertension without mention of heart-----	35,100	100.0	13.3	14.3	21.7	13.2	17.2	20.4	2.1
General arteriosclerosis-----	43,500	100.0	21.1	13.7	20.1	13.6	14.8	16.7	1.8
Varicose veins-----	17,700	100.0	19.3	10.9	16.0	14.4	16.3	23.1	2.3
Hemorrhoids-----	21,200	100.0	13.7	13.4	18.8	18.3	15.4	20.4	2.2
Bronchitis and emphysema-----	22,300	100.0	14.0	18.1	17.7	17.4	15.2	17.6	2.0
Sinus and other respiratory conditions-----	10,800	100.0	10.3	13.6	20.9	15.9	14.6	24.6	2.3
Ulcer of stomach and duodenum-----	9,800	100.0	22.8	12.4	19.8	16.7	11.6	16.6	1.7
Hernia of abdominal cavity-----	19,600	100.0	19.7	12.0	17.1	17.2	15.5	18.6	2.1
Other chronic conditions of the digestive system-----	68,900	100.0	17.0	13.1	18.5	16.6	15.9	18.9	2.1
Diseases of urinary system-----	32,200	100.0	21.0	13.9	22.4	12.9	15.6	14.1	1.7
Diseases of prostate and other male genital organs-----	16,600	100.0	25.5	12.1	20.0	12.7	13.1	16.7	1.6
Arthritis and rheumatism-----	122,300	100.0	15.0	13.0	20.3	14.8	16.3	20.6	2.1
Fracture, femur (old)-----	17,200	100.0	26.6	15.2	18.7	15.0	11.4	13.2	1.4
All other chronic conditions-----	82,300	100.0	19.3	14.3	19.4	14.9	14.9	17.3	1.8
Visual impairment: inability to read newspaper with glasses-----	66,800	100.0	16.0	12.7	20.0	15.1	17.7	18.5	2.1
Other visual impairments-----	33,400	100.0	17.8	11.7	22.0	16.1	15.7	16.7	1.9
Hearing impairments-----	103,900	100.0	17.9	13.2	19.1	14.8	16.6	18.4	2.0
Speech impairments, all types-----	54,600	100.0	17.8	15.7	19.5	13.8	15.2	17.9	1.8
Paralysis, palsy due to stroke-----	66,600	100.0	19.8	15.6	22.9	13.0	14.5	14.1	1.6
Paralysis, palsy due to other causes-----	26,000	100.0	15.0	13.0	19.0	12.2	17.9	23.0	2.2
Absence, major extremities-----	11,500	100.0	18.9	18.6	18.5	13.6	10.8	19.5	1.7
Impairments, limbs, back, trunk-----	75,200	100.0	14.4	14.9	20.9	15.3	16.5	18.0	2.0
All other impairments-----	7,600	100.0	23.4	9.3	19.3	10.1	16.5	21.3	1.9

Table 4. Number and percent distribution of residents of nursing and personal care homes, by time interval since last saw doctor in the home according to specified chronic conditions and impairments: United States, May-June 1964

Chronic conditions and impairments	Number of residents	Time interval since last saw doctor in home							Median months
		All inter-vals	Not seen	Under 1 month	1-2 months	3-5 months	6-11 months	1 year or more	
Percent distribution									
All residents-----	554,000	100.0	4.3	38.7	35.9	11.1	6.1	3.9	1.5
Malignant neoplasms-----	18,500	100.0	2.2	51.5	35.8	6.4	2.2	1.9	0.9
Benign and unspecified neoplasms-----	6,800	100.0	1.5	53.5	31.1	8.0	5.1	0.8	0.9
Asthma-----	16,500	100.0	1.8	42.4	38.4	9.4	3.9	4.0	1.3
Diabetes mellitus-----	44,300	100.0	1.6	46.3	38.1	8.4	3.7	1.8	1.1
Advanced senility-----	121,000	100.0	2.9	38.3	37.3	12.3	6.4	2.8	1.5
Senility, not psychotic-----	27,400	100.0	2.3	37.0	39.1	11.6	5.7	4.4	1.6
Other mental disorders-----	100,700	100.0	5.3	36.5	35.0	10.6	7.2	5.4	1.6
Vascular lesions affecting central nervous system-----	188,100	100.0	2.2	42.0	36.9	10.4	5.8	2.7	1.4
Parkinson's disease-----	12,500	100.0	3.2	47.2	31.6	9.0	5.3	3.6	1.1
Epilepsy-----	11,700	100.0	4.8	36.4	38.4	8.2	6.3	5.8	1.6
Chronic diseases of the eye-----	34,600	100.0	2.1	41.5	39.1	9.8	4.6	3.0	1.4
Diseases of the heart-----	156,500	100.0	2.1	47.6	34.9	9.1	4.2	2.2	1.1
Hypertension without mention of heart-----	35,100	100.0	2.7	34.0	39.4	12.1	7.1	4.8	1.7
General arteriosclerosis-----	43,500	100.0	4.0	39.8	35.4	12.5	4.8	3.6	1.5
Varicose veins-----	17,700	100.0	1.6	42.2	41.6	8.3	4.0	2.3	1.3
Hemorrhoids-----	21,200	100.0	1.4	38.6	42.6	11.6	3.4	2.4	1.5
Bronchitis and emphysema-----	22,300	100.0	0.9	45.7	34.3	10.7	5.9	2.4	1.2
Sinus and other respiratory conditions-----	10,800	100.0	1.4	46.0	34.1	7.4	5.5	5.6	1.2
Ulcer of stomach and duodenum-----	9,800	100.0	1.6	44.0	35.0	10.6	4.6	4.3	1.3
Hernia of abdominal cavity-----	19,600	100.0	1.9	42.8	39.0	9.8	4.6	1.9	1.3
Other chronic conditions of the digestive system-----	68,900	100.0	2.0	43.1	36.5	11.1	4.8	2.6	1.3
Diseases of urinary system-----	32,200	100.0	2.3	45.6	36.5	10.6	2.5	2.5	1.2
Diseases of prostate and other male genital organs-----	16,600	100.0	3.0	48.4	33.3	8.7	4.3	2.2	1.0
Arthritis and rheumatism-----	122,300	100.0	2.3	38.9	39.5	10.7	5.2	3.4	1.5
Fracture, femur (old)-----	17,200	100.0	2.1	45.8	38.8	6.5	5.0	1.8	1.2
All other chronic conditions-----	82,300	100.0	2.0	48.6	34.1	9.1	4.2	1.9	1.0
Visual impairment: inability to read newspaper with glasses-----	66,800	100.0	2.8	38.8	37.9	11.0	5.3	4.2	1.5
Other visual impairments-----	33,400	100.0	2.3	41.3	39.1	9.0	5.5	2.8	1.4
Hearing impairments-----	103,900	100.0	3.3	38.4	37.5	11.3	6.1	3.5	1.5
Speech impairments, all types-----	54,600	100.0	3.7	41.1	34.6	10.4	6.0	4.3	1.4
Paralysis, palsy due to stroke-----	66,600	100.0	2.4	43.5	38.4	9.4	4.0	2.3	1.3
Paralysis, palsy due to other causes-----	26,000	100.0	2.5	44.6	33.5	10.3	4.9	4.2	1.2
Absence, major extremities-----	11,500	100.0	1.8	51.4	31.7	7.5	4.9	2.7	1.0
Impairments, limbs, back, trunk-----	75,200	100.0	3.4	37.5	37.9	12.3	6.2	2.7	1.6
All other impairments-----	7,600	100.0	2.0	36.0	42.0	9.4	5.2	5.4	1.6

Table 5. Number of residents and number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by primary type of service: United States, May-June 1964

Chronic conditions and impairments	Primary type of service			
	All types	Nursing care	Personal care with nursing	Personal care
	Number of residents			
All residents-----	554,000	373,300	145,400	35,300
	Rate per 1,000 residents			
Malignant neoplasms-----	33.3	39.7	22.5	10.1
Benign and unspecified neoplasms-----	12.3	12.1	15.3	2.9
Asthma-----	29.7	33.6	21.7	22.2
Diabetes mellitus-----	80.0	89.7	65.6	36.3
Advanced senility-----	218.4	267.2	123.1	94.4
Senility, not psychotic-----	49.5	51.8	46.3	38.7
Other mental disorders-----	181.9	166.1	202.6	263.0
Vascular lesions affecting central nervous system-----	339.5	407.8	214.5	132.5
Parkinson's disease-----	22.6	26.7	15.1	10.1
Epilepsy-----	21.1	21.0	21.3	21.5
Chronic diseases of the eye-----	62.5	62.7	65.2	48.7
Diseases of the heart-----	282.6	319.4	221.3	145.6
Hypertension without mention of heart-----	63.3	54.7	81.5	79.5
General arteriosclerosis-----	78.5	83.8	70.4	56.1
Varicose veins-----	32.0	36.8	24.3	13.7
Hemorrhoids-----	38.2	44.9	27.7	10.9
Bronchitis and emphysema-----	40.2	45.2	32.8	17.8
Sinus and other respiratory conditions-----	19.4	19.3	19.8	19.5
Ulcer of stomach and duodenum-----	17.6	20.0	11.6	18.0
Hernia of abdominal cavity-----	35.5	38.4	28.6	32.9
Other chronic conditions of the digestive system-----	124.4	137.8	104.7	63.8
Diseases of urinary system-----	58.2	68.2	41.4	22.1
Diseases of prostate and other male genital organs-----	30.0	33.2	26.0	13.8
Arthritis and rheumatism-----	220.8	228.7	219.4	142.5
Fracture, femur (old)-----	31.1	37.1	21.4	7.8
All other chronic conditions-----	148.7	165.4	122.2	80.7
Visual impairment: inability to read newspaper with glasses-----	120.5	131.3	106.3	65.4
Other visual impairments-----	60.2	60.5	59.4	61.2
Hearing impairments-----	187.6	198.9	161.6	175.0
Speech impairments, all types-----	98.6	111.2	74.6	64.0
Paralysis, palsy due to stroke-----	120.3	144.8	77.5	37.8
Paralysis, palsy due to other causes-----	46.9	53.0	34.8	32.1
Absence, major extremities-----	20.9	24.1	13.4	16.7
Impairments, limbs, back, trunk-----	135.8	148.8	115.7	80.8
All other impairments-----	13.7	13.1	15.0	13.9

Table 6. Number of residents and number of specified chronic conditions and impairments per 1,000 residents of nursing and personal care homes, by nurse or nurse's aide on duty and supervisory nurse: United States, May-June 1964

Chronic conditions and impairments	Total	Nurse or nurse's aide on duty						Nursing care not provided
		24 hours			Less than 24 hours			
		RN supervisor	LPN supervisor	Neither RN nor LPN	RN supervisor	LPN supervisor	Neither RN nor LPN	
Number of residents								
All residents-----	554,000	356,300	99,600	34,900	6,500	5,100	16,300	35,300
Rate per 1,000 residents								
Malignant neoplasms-----	33.3	37.7	30.7	32.2	38.0	19.9	9.5	10.1
Benign and unspecified neoplasms-----	12.3	12.0	13.2	15.9	7.6	7.8	8.6	2.9
Asthma-----	29.7	32.2	27.1	26.2	7.7	19.9	27.2	22.2
Diabetes mellitus-----	80.0	86.9	70.4	64.4	69.1	87.2	116.5	36.3
Advanced senility-----	218.4	228.1	255.6	213.3	115.1	175.7	111.1	94.4
Senility, not psychotic-----	49.5	50.3	50.4	54.4	61.6	17.5	45.5	38.7
Other mental disorders-----	181.9	153.3	207.4	233.5	215.1	356.9	297.3	263.0
Vascular lesions affecting central nervous system-----	339.5	362.7	374.9	346.0	243.9	276.3	107.1	132.5
Parkinson's disease-----	22.6	27.0	16.5	20.3	14.8	-	6.8	10.1
Epilepsy-----	21.1	18.2	25.8	21.8	30.5	85.6	30.5	21.5
Chronic diseases of the eye-----	62.5	66.8	48.5	60.1	76.4	133.2	60.9	48.7
Diseases of the heart-----	282.6	300.6	301.4	218.9	256.7	122.8	266.3	145.6
Hypertension without mention of heart-----	63.3	66.8	53.7	48.8	69.1	31.7	48.4	79.5
General arteriosclerosis-----	78.5	89.0	64.3	60.6	75.9	-	49.3	56.1
Varicose veins-----	32.0	36.8	33.3	12.7	14.8	-	17.4	13.7
Hemorrhoids-----	38.2	39.2	49.4	47.0	7.7	-	12.3	10.9
Bronchitis and emphysema-----	40.2	49.5	23.8	30.8	22.9	19.9	18.6	17.8
Sinus and other respiratory conditions-----	19.4	20.1	20.2	13.3	15.3	-	21.1	19.5
Ulcer of stomach and duodenum-----	17.6	16.6	26.7	7.1	-	21.6	12.4	18.0
Hernia of abdominal cavity-----	35.5	37.1	40.0	17.7	30.9	27.5	18.7	32.9
Other chronic conditions of the digestive system-----	124.4	128.9	144.6	121.2	83.2	48.8	79.7	63.8
Diseases of urinary system-----	58.2	60.1	69.1	63.8	54.0	29.3	26.6	22.1
Diseases of prostate and other male genital organs-----	30.0	33.4	28.4	34.1	14.5	18.3	2.9	13.8
Arthritis and rheumatism-----	220.8	233.0	218.1	245.7	98.6	87.6	137.4	142.5
Fracture, femur (old)-----	31.1	37.3	24.9	29.5	15.2	-	3.4	7.8
All other chronic conditions-----	148.7	167.3	109.7	146.1	167.5	118.9	133.9	80.7
Visual impairment: inability to read newspaper with glasses-----	120.5	116.2	152.3	105.4	67.9	291.8	133.9	65.4
Other visual impairments-----	60.2	59.0	65.2	42.2	99.9	82.8	71.2	61.2
Hearing impairments-----	187.6	190.7	199.8	138.5	265.9	218.8	137.1	175.0
Speech impairments, all types-----	98.6	97.5	119.3	91.2	67.7	110.6	93.9	64.0
Paralysis, palsy due to stroke-----	120.3	125.3	142.4	127.2	67.7	145.4	51.2	37.8
Paralysis, palsy due to other causes--	46.9	51.4	36.0	52.7	60.8	-	43.3	32.1
Absence, major extremities-----	20.9	23.7	16.1	12.8	23.5	10.2	15.0	16.7
Impairments, limbs, back, trunk-----	135.8	142.7	144.8	109.2	107.2	95.8	128.2	80.8
All other impairments-----	13.7	14.6	13.6	7.0	15.9	-	11.9	13.9

APPENDIX I

A. TECHNICAL NOTES ON METHODS

Survey Design

General.—The Resident Places Survey-2 (RPS-2) was conducted during May and June 1964 by the Division of Health Records Statistics in cooperation with the U.S. Bureau of the Census. It was a survey of resident institutions in the United States providing nursing or personal care to the aged and chronically ill, of their patients or residents, and of their employees. The institutions within the scope of the survey included such places as nursing homes, convalescent homes, rest homes, homes for the aged, other related facilities and geriatric hospitals. To be eligible for the survey an establishment must have maintained three beds or more and must have provided some level of nursing or personal care. The procedure for classifying establishments for the RPS-2 universe is described in Appendix II-B.

This appendix presents a brief description of the survey design, general qualifications of the data, and the reliability of estimates presented in this report. Succeeding appendixes are concerned with classification procedures, definitions, and questionnaires used in the survey for collecting information about employees.

Sampling frame.—A "multiframe" technique was used in establishing the sampling universe for RPS-2. The principal frame was the Master Facility Inventory (MFI) which contained the names, addresses, and descriptive information for about 90-95 percent of the nursing and personal care homes in the United States. Establishments not listed in the MFI were, theoretically, on another list referred to as the Complement Survey. A description of the MFI and the Complement Survey has been published.⁷

The Complement Survey is based on an area probability design, using the sample design of the Health Interview Survey (HIS).⁸ In the HIS, interviewers make visits each week to households located in probability samples of small segments of the United States. In addition to collecting information about the health of the household members, the interviewers are instructed to record the names and addresses of hospitals and institutions located wholly or partially within the specified areas. The Complement Survey list is composed of the establishments identified in these sample

areas between January 1959 and July 1963 which were not listed in the MFI but which were in business as of July 1, 1962. The Complement Survey sample for RPS-2 included four establishments representing an estimated total of about 800 such facilities in the United States not included in the Master Facility Inventory.

Sample design.—The sample design was a stratified, two-stage probability design. The first stage was a selection of establishments from the MFI and the Complement Survey, and the second stage was a selection of employees and residents from registers of the sample establishments. In preparation for the first-stage sample selection, the MFI was divided into two groups on the basis of whether or not current information was available about the establishment. Group I was composed of establishments which had returned a questionnaire in a previous MFI survey. Group II contained places which were possibly within the scope of RPS-2 but which were not confirmed in the MFI survey, e.g., nonresponses and questionnaires not delivered by the post office because of insufficient addresses. Group I was then sorted into three type-of-service strata: nursing care homes, including geriatric hospitals; personal-care-with-nursing homes; and personal care homes. Group II was treated as a fourth type-of-service stratum. Each of these four strata was further sorted into four bed-size groups, producing 16 primary strata as shown in table I. Within each primary stratum, the listing of establishments was ordered by type of ownership, State, and county. The sample of establishments was then selected systematically after a random start within each of the primary strata.

Table I shows the distribution of establishments in the MFI and in the sample by primary strata and the final disposition of the sample places with regard to their response and in-scope status. Of the 1,201 homes originally selected, 1,085 were found to be in business and within the scope of the survey.

The second-stage sample selection of residents was carried out by the Bureau of the Census interviewers in accordance with specific instructions given for each sample establishment as contained in the Resident Questionnaire (HRS-3c, Appendix III). All residents on the register of the establishment on the day of the survey were listed on the Establishment Question-

Table I. Distribution of institutions for the aged in the Master Facility Inventory and in the RPS-2 sample by primary strata (type of service and size of institution) and by response status to the RPS-2: United States

Type of service and size of institution	Number of homes in the MFI ¹	Number of homes in sample			
		Total homes ¹	Out of scope or out of business	In scope and in business	
				Nonre- sponding homes	Re- sponding homes
All types-----	19,520	1,201	116	12	1,073
Nursing care ² -----	8,155	634	37	8	589
Under 30 beds-----	4,400	179	21	5	153
30-99 beds-----	3,247	260	11	3	246
100-299 beds-----	448	135	3	-	132
300 beds and over-----	60	60	2	-	58
Personal care with nursing-----	4,972	381	12	2	367
Under 30 beds-----	3,168	128	10	1	117
30-99 beds-----	1,423	114	1	1	112
100-299 beds-----	345	103	1	-	102
300 beds and over-----	36	36	-	-	36
Personal care-----	3,621	113	13	2	98
Under 30 beds-----	3,187	64	11	-	53
30-99 beds-----	402	32	-	1	31
100-299 beds-----	29	14	2	1	11
300 beds and over-----	3	3	-	-	3
Group II ³ -----	2,772	73	54	-	19
Under 25 beds-----	2,578	52	37	-	15
25-99 beds-----	185	15	12	-	3
100-299 beds-----	6	3	3	-	-
300 beds and over-----	3	3	2	-	1

¹The universe for the RPS-2 sample consisted of the MFI and the Complement Survey. Included in the RPS-2 sample were 4 homes from the Complement Survey.

²Includes geriatric hospitals.

³Group II consists of those institutions assumed to be in scope of the RPS-2 survey but for which current data were not available.

naire (HRS-3a). The interviewers were furnished with the numbers of predetermined sample lines for each home (e.g., every seventh line). The first three sample designations were entered on the questionnaire worksheet, and the interviewer entered the remaining predetermined numbers until the last selected number exceeded the total number then on the register. The name of the sample resident (patient) was entered opposite the sample designation number. For each sample resident a questionnaire was completed by the interviewer from information furnished by the respondent. The total sample selected from establishments in the survey consisted of 10,560 residents.

Survey procedure.—The Bureau of the Census employed about 140 of their regular interviewers for the survey. All were experienced in the continuing surveys conducted by the Bureau of the Census; about half were employed in the Health Interview Survey—one of the major programs of the National Center for Health Statistics—and about half in other surveys. Since the interviewers were well trained in general survey methodology, it was relatively easy to train them in the specific methods used in RPS-2. Briefly, their training consisted of home study materials and observation by the Census Regional Supervisor on the first interview assignment.

The initial contact with an establishment was a letter signed by the Director of the Bureau of the Census. The letter (HRS-3f, Appendix III) notified each administrator about the survey, requested his cooperation, and stated that a representative would contact him for an appointment. The interviewer's telephone call usually followed within 3 or 4 days.

During the course of the interview, the interviewer collected data about the establishment, the residents, and

the employees. The establishment and resident information was obtained by personal interview, and the staff information was collected by personal interview and by means of a self-enumeration questionnaire. The respondent for the Resident (Patient) Questionnaire (HRS-3c) was a member of the staff who had close contact with the resident, thus having firsthand knowledge of the resident's health condition. This was usually a nurse who was responsible for the individual sample resident. One nurse might have completed questionnaires for all residents in a small home or shared the responsibility in a large home. The interviewer was instructed to encourage maximum use of records by the respondent. For data on chronic conditions and impairments, medical records, if available, were routinely used to supplement the information provided by the respondent.

The Census regional offices also performed certain checks during the course of the survey to insure that the interviewers were conducting the survey according to specified procedures. They reviewed all questionnaires for completeness prior to transmittal to the Washington office and made inquiries as necessary to obtain the missing information.

The completed questionnaires were edited and coded by the National Center for Health Statistics, and the data were processed on an electronic computer. This processing included assignment of weights, ratio adjustments, and other related procedures necessary to produce national estimates from the sample data. It also included matching with basic identifying information contained in the Master Facility Inventory as well as carrying out internal edits and consistency checks to eliminate "impossible" responses and errors in editing, coding, or processing.

B. GENERAL QUALIFICATIONS

Nonresponse and imputation of missing data.—The survey was conducted in 1,073 homes, or about 89 percent of the original sample. About 7 percent of the sample places were found to be out of business, and an additional 3 percent were found to be out of scope of the survey, that is, they either did not provide nursing or personal care to their residents or maintained fewer than three beds. Only 12 homes, or about 1 percent of the sample, refused to cooperate in the survey (table 1). The response rate for the in-scope sample was 98.9 percent.

Statistics presented in this report were adjusted for the failure of a home to respond by use of a separate nonresponse adjustment factor for each service-size stratum further stratified by three major ownership groups. This factor was the ratio of all in-scope sample homes in a stratum to the responding in-scope sample homes in the stratum.

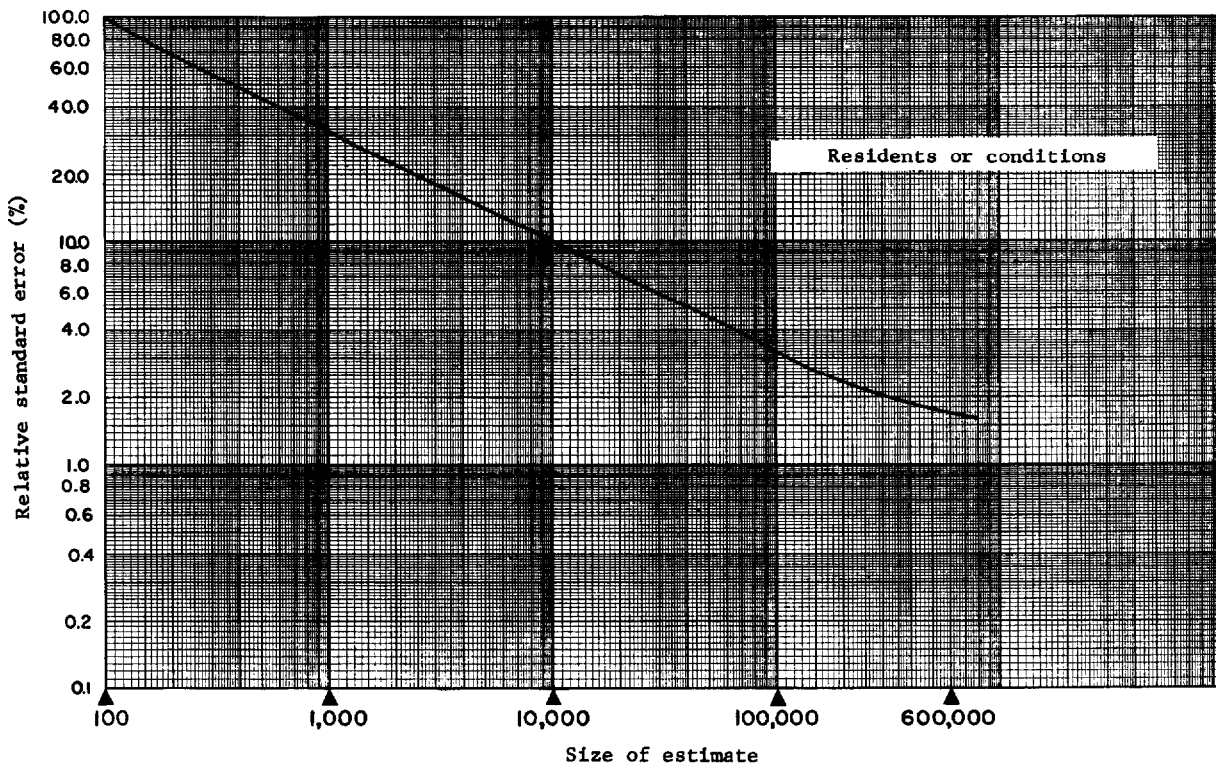
Data were also adjusted for nonresponse of sample residents within an establishment by a procedure which

imputed to residents for whom data were not obtained the characteristics of residents of the same age and in the same type of home. For item nonresponse on age, the adjustment was restricted to characteristics of residents in the same type of home. Adjustment for nonresponse in resident data for responding homes ranged from 0.7 percent for age to 3.5 percent for date last saw doctor.

Rounding of numbers.—Estimates relating to residents have been rounded to the nearest hundred, and homes to the nearest ten. For this reason detailed figures within the tables do not always add to totals. Percents were calculated using the original unrounded figures and will not necessarily agree with percents which might be calculated from rounded data.

Estimation procedure.—Statistics reported in this publication are the result of two stages of ratio adjustments, one at each stage of selection. The purpose of ratio estimation is to take into account all relevant information in the estimation process, thereby reducing

Figure I. Approximate relative standard errors of estimated numbers of residents and conditions shown in this report



Example of use of figure I: An estimate of 100,000 total conditions has a relative standard error of 3.3 percent (read from scale at left side of figure). The estimate has a standard error of 3,300 (3.3 percent of 100,000).

the variability of the estimate. The first-stage ratio adjustment was included in the estimation of establishment and resident data for all primary service-size strata from which a sample of homes was drawn. This factor was a ratio, calculated for each stratum. The numerator was the total beds according to the Master Facility Inventory for all homes in the stratum. The denominator was the estimate of the total beds obtained through a simple inflation of the Master Facility Inventory data for the sample homes in the stratum. The effect of the first-stage ratio adjustment was to bring the sample in closer agreement with the known universe of beds. The second-stage ratio adjustment was included in the estimation of resident data for all primary strata. For resident data, the second-stage ratio adjustment is the product of two fractions: the first is the ratio of the total number of residents in the establishment to the number of residents for whom questionnaires were completed within the home; the second is the sampling fraction for residents upon which the selection is based.

Reliability of estimates.—Since statistics presented in this report are based on a sample, they will differ somewhat from figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and procedures.

As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures.

The sampling error (or standard error) of a statistic is inversely proportional to the square root of the number of observations in the sample. Thus, as the sample size increases, the standard error decreases. The standard error is primarily a measure of the variability that occurs by chance because only a sample rather than the entire universe is surveyed. As calculated for this report, the standard error also reflects part of the measurement error, but it does not measure any systematic biases in the data. The chances are about two out of three that an estimate from the sample differs from the value which would be obtained from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times as large.

Relative standard errors of aggregates shown in this report can be determined from figure I of this appendix. The relative standard error of an estimate is obtained by dividing the standard error of the esti-

Table II. Approximate standard errors of percentages shown in this report for residents (patients) and conditions

Base of per- cent (number of residents)	Estimated percent				
	2 or 98	5 or 95	10 or 90	25 or 75	50
	Standard error expressed in percentage points				
1,000-----	4.4	6.9	9.5	13.6	15.8
2,500-----	2.8	4.4	6.0	8.6	10.0
5,000-----	2.0	3.1	4.2	6.1	7.1
10,000-----	1.4	2.2	3.0	4.3	5.0
20,000-----	1.0	1.5	2.1	3.0	3.5
30,000-----	0.8	1.3	1.7	2.5	2.9
40,000-----	0.7	1.1	1.5	2.1	2.5
50,000-----	0.6	1.0	1.3	1.6	2.2
80,000-----	0.5	0.8	1.1	1.5	1.8
100,000-----	0.4	0.7	0.9	1.0	1.6
200,000-----	0.3	0.5	0.7	0.8	1.1
500,000-----	0.2	0.3	0.4	0.5	0.7

mate by the estimate itself and is expressed as a percent of the estimate. An example of how to convert the relative error into a standard error is given with figure I. Standard errors of estimated percentages are shown in table II.

To determine the standard error of a mean value, of a median value, or of the difference between two statistics, the following rules may be used.

Standard error of prevalence rates for conditions.—From figure I, obtain the relative standard error of the estimated number of conditions and of the estimated number of persons on which the rate is based. The square root of the sum of the squares of these two relative standard errors provides an approximation for the relative standard error of the desired rate. The standard error of the rate may be obtained by multiplying the relative standard error by the rate. For example, for a rate of 50.0 per 1,000 persons based on a denominator of 50,000 residents, the standard error may be obtained as follows:

1. The relative standard error of 2,500 residents with the condition is about 20.0 percent, or .20.
2. The relative standard error of 50,000 residents is about 4.6 percent, or .046.
3. The relative standard error of the rate of 50.0 per 1,000 persons is $\sqrt{(.20)^2 + (.046)^2} = .205$
4. The standard error is $.205 \times 50.0 = 10.3$ per 1,000 persons.

Standard error of a median.—The medians shown in this report were calculated from grouped data. Ap-

proximate confidence intervals for these estimated medians can be computed as follows:

- (a) Determine the standard error of a 50-percent characteristic whose denominator is equal to the estimated number of persons in the frequency distribution on which the median is based. For example, the median length of stay of residents with malignant neoplasms is 1.5 years. The estimated number of residents with malignant neoplasms is 18,500 (table II). The standard error of a 50-percent characteristic whose base is 18,500 is shown in table II by interpolation to be 3.73 percentage points.
- (b) Apply this standard error to the cumulative frequency distribution to obtain a confidence interval around the median. The steps are as follows: for the above example, using the 95-percent level of confidence, determine the points on the cumulative frequency distribution corresponding to the 42.5 percent (50 percent minus two standard errors) and 57.5 percent (50 percent plus two standard errors). The points are 7,863 ($42.5 \times 18,500$) and 10,638 ($57.5 \times 18,500$). From table 3 determine the lengths of stay that correspond to these points. They are 1.1 and 1.9 years, respectively. Therefore, the confidence limit for the estimated median age of 1.5 years is 1.1 - 1.9 years at the 95-percent level of confidence.

It is possible to investigate whether an observed difference between two estimated medians can be attributed to sampling error alone by obtaining the upper 68-percent confidence limit, U_1 of the smaller observed median, M'_1 , and the lower 68-percent confidence limit, L_2 , of the larger median, M'_2 . These limits may be found by using the method outlined above, but by using one standard error instead of two. The square root of the sum of the squared differences between M'_1 and U_1 and M'_2 and L_2 is the standard error of the difference between M'_1 and M'_2 ; that is

$$S_{(M'_1 - M'_2)} = \sqrt{(M'_1 - U_1)^2 + (M'_2 - L_2)^2}$$

For the purpose of this report any difference between M'_1 and M'_2 greater than $2 S_{(M'_1 - M'_2)}$ is considered statistically significant.

Standard error of a difference between two 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.

APPENDIX II

A. DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Resident:

A resident is defined as a person who has been formally admitted to an establishment but not discharged. All such persons were included in the survey even though they were not physically present.

Chronic conditions and impairments:

These are defined as the conditions and impairments contained in Cards D and E of Appendix III. This list was expanded, based on the further query "Does he have any other chronic conditions listed in his record you have not told me about?" and on additional questions about specified conditions. The expanded list is contained in Appendix II-C as a basic list of diagnostic categories used for coding purposes.

Condition:

This term is used synonymously with the term "chronic conditions and impairments" since no distinction has been made between the two groups in this report.

Mobility status:

Restriction in mobility is defined in this report as being limited to bed or room. All other residents,

including those who were routinely taken out of the room in a wheelchair for most of the day, were considered neither bed nor room limited.

Length of stay:

Length of stay is defined as the current period of stay in the institution. The period of stay starts with the date of last admission to the institution and ends with the date of the survey.

Time interval since last saw doctor:

This is defined as the period of time from the date the resident last saw a doctor in the institution during his current stay to the date-of-the survey.

Supervisory nurse:

This is defined as the person in charge of the daily nursing activities provided in the home, such as the head nurse.

Nurse or nurse's aide on duty 24 hours a day:

Nursing service is routinely provided at all hours of the day or night by either a nurse or a nurse's aide. A person is not "on duty" if she is available to provide care only upon call or in emergencies.

B. CLASSIFICATION OF HOMES BY TYPE OF SERVICE

For purposes of stratification of the universe prior to selection of the sample, the homes on the MFI were classified as nursing care, personal-care-with-nursing, personal care, or domiciliary care homes. The latter two classes were combined to produce the three types of service classes shown in table I, Appendix I. Details of the classification procedure in the MFI have been published.⁷

Due to the 2-year interval between the MFI survey and the RPS-2 survey, it was felt that, for producing statistics by type of service from the RPS-2 survey, the homes should be reclassified on the basis of the current data collected in the survey. This classification procedure is essentially the same as the MFI scheme. The three types of service classes delineated for RPS-2 are defined as follows:

1. A *nursing care home* is defined as one in which 50 percent or more of the residents received

nursing care (see definition, Appendix II-A) during the week prior to the survey in the home, with an RN or LPN employed 15 hours or more per week. In this report, geriatric hospitals are included with the nursing care homes.

2. A *personal-care-with-nursing home* is defined as one in which either (a) over 50 percent of the residents received nursing care during the week prior to the survey, but there were no RN's or LPN's on the staff; or (b) some, but less than 50 percent, of the residents received nursing care during the week prior to the survey regardless of the presence of RN's or LPN's on the staff.
3. A *personal care home* is defined as one in which residents routinely received personal care, but no residents received nursing care during the week prior to the survey.

C. RULES FOR CODING CHRONIC CONDITIONS AND IMPAIRMENTS

The list of diagnostic categories which was used for coding chronic conditions and impairments is shown below. This list represents an expansion of the two lists (Cards D and E) furnished to the interviewers. The classification scheme was based on the International Classification of Diseases, with some modifications. Certain medical coding principles developed by the Health Interview Survey (HIS), from which statistics on the institutional population of the United States are derived,⁹ were used in coding the data for RPS-2. The medical coding consisted of assigning a code to each codable chronic condition and impairment reported for a resident. All codable conditions which were not specified as chronic but which could be acute or chronic (i.e., sinusitis, bronchitis, gastritis, or a hearing or visual disturbance) were assumed to be chronic.

The medical coding principles developed by the HIS were adapted to the coding of chronic diseases and impairments as follows: Impairments were coded in the same general manner as for the HIS, but in less detail.

Symptoms and conditions said to be due to other conditions were coded for the most part as for HIS. Heart, hypertensive, and arteriosclerotic conditions were combined as for HIS.

The coding rules allow for the assignment of one or more chronic conditions and impairments for each resident, with some loss of detail due to the restricted number of diagnostic categories. Some restriction exists for the assignment of impairments which are a result of the chronic condition. Some chronic conditions are not reported separately, but are combined with other categories under coding rules.

Special coding procedures were followed in coding categories related to senility and mental conditions. Injuries and traumatic origin of chronic conditions were not identified as such except in cases of fracture of the hip. Also, specific coding procedures for other individual chronic conditions and impairments were followed.

D. BASIC LIST OF DIAGNOSTIC CATEGORIES REPORTED FOR RESIDENTS IN NURSING AND PERSONAL CARE HOMES

<i>Condition Group</i>	<i>International Classification of Diseases Code Numbers, 1955 Revision</i>
Malignant neoplasms, without mention of surgery-----	140-205
Malignant neoplasms, with mention of surgery-----	140-205
Benign and unspecified neoplasms-----	210-239
Asthma -----	241
Diseases of thyroid gland-----	250-254
Diabetes mellitus-----	260
Avitaminoses and other nutritional weight problems---	280-283,285,286 ¹
Mental retardation without mention of senility ¹	
Mental retardation with mention of senile psychosis ¹	
Mental retardation with senility not specified as psy- chotic ¹	
Senile psychosis with or without other mental condition-	304
Senility without mention of psychosis-----	794
Specified mental disorders-----	300-303,305-324
Vascular lesions affecting central nervous system----	330-334
Multiple sclerosis-----	345
Parkinson's disease (paralysis agitans)-----	350
Epilepsy -----	353
Other nervous system disorders-----	340-343,354-357,361-369
Cataract -----	385
Glaucoma -----	387
Other diseases of the eye-----	370-379,380-384,386,388
Diseases of the ear-----	390-396
Diseases of the heart-----	410-443,782.1,782.2,782.4
Hypertension without mention of heart-----	444-447
General arteriosclerosis-----	450
Varicose veins-----	460,462
Hemorrhoids-----	461
Other conditions of circulatory system-----	400-403,451-456,463-468,782.0,782.3,782.5-782.9
Chronic sinusitis-----	513
Bronchitis, with emphysema-----	502.0
Bronchitis, without emphysema-----	502.1
Emphysema without mention of bronchitis-----	527.1
Other chronic respiratory conditions-----	510.0,512,514-526,527.0,527.2,783
Ulcer of stomach and duodenum-----	540-542
Hernia of abdominal cavity-----	560,561
Diseases of gallbladder and bile ducts-----	584-586
Other chronic conditions of the digestive system-----	530-539,543-545,552,553,570,572-574,577,578,580- 583,587,784
Incontinence (urine or feces)-----	785.7,786.2
Diseases of urinary system-----	591-594,600-609,786.0,786.1,786.3-786.5,789
Diseases of male genital organs-----	610-617,786.6
Diseases of breast and female genital organs-----	620,621,623,625,626,630-637,786.7
Diseases of skin and other subcutaneous tissue-----	700-716
Arthritis -----	720-725
Rheumatism -----	726.0,726.1,726.3,727
Other specified diseases of bones and organs of move- ment -----	730.1,730.3,731-733,735,738,740-744
Fracture, femur (old)-----	N820.9,N821.9
All other chronic conditions, excluding impairments---	Residual

Visual impairment: inability to read newspaper with
glasses¹
Other visual impairments¹
Hearing impairments¹
Speech impairments due to stroke¹
Speech impairments due to other or unspecified
causes¹
Paralysis, palsy due to stroke¹
Paralysis, palsy due to other unspecified causes¹
Absence, fingers and/or toes¹
Absence, major extremities¹
Impairment, limbs, back, trunk¹
All other impairments¹

¹Selected conditions and all impairments are classified by means of a special supplementary code developed for the Household Interview Survey. The details of this classification are contained in the Medical Coding Manual and Short Index, NIS-HIS-1000, 1965.



APPENDIX III

FORMS AND QUESTIONNAIRES

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON, D.C. 20233

Dear Administrator:

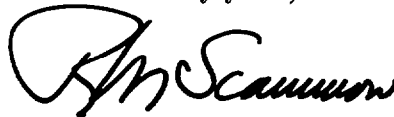
The Bureau of the Census, acting as the collecting agent for the United States Public Health Service, is conducting a nationwide survey of nursing homes, homes for the aged, and other establishments providing nursing, personal, and domiciliary care to the aged and infirm. The purpose of this survey is to collect much needed statistical information on the health of residents and on the types of employees in these homes. This survey is part of the National Health Survey program authorized by Congress because of the urgent need for up-to-date statistics on the health of our people.

The purpose of this letter is to request your cooperation and to inform you that a representative of the Bureau of the Census will visit your establishment within the next week or so, to conduct the survey. Prior to his visit, the Census representative will call you to arrange for a convenient appointment time.

All the information given to the Census representative will be kept strictly confidential by the Public Health Service and the Bureau of the Census, and will be used for statistical purposes only.

Your cooperation in this important survey will be very much appreciated.

Sincerely yours,



Richard M. Scammon
Director
Bureau of the Census

CONFIDENTIAL - This information is collected for the U.S. Public Health Service under authority of Public Law 652 of the 84th Congress (70 Stat. 489; 42 U.S.C. 305). All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any other purposes (22 FR 1687).

FORM HRS-3a
(4-1-64)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
ACTING AS COLLECTING AGENT FOR THE

U.S. NATIONAL HEALTH SURVEY
ESTABLISHMENT QUESTIONNAIRE

(Verify name and address and make any necessary corrections)

<p>3. During the past 7 days how many of these -- residents (patients) received nursing care? By nursing care we mean any of the services listed on this card. (Show card A)</p>	<p>Number</p>	<p>OR <input type="checkbox"/> None (Go to q. 7)</p>	
<p>4. Is the person who supervises NURSING CARE a registered professional nurse, a licensed practical nurse, or someone else?</p>	<p>1 <input type="checkbox"/> Registered professional nurse</p>	<p>2 <input type="checkbox"/> Licensed practical nurse</p>	<p>3 <input type="checkbox"/> Someone else</p>
<p>5. Does she work full-time or part-time? By full-time we mean 40 or more hours a week.</p>	<p>1 <input type="checkbox"/> Full-time</p>	<p>2 <input type="checkbox"/> Part-time</p>	
<p>6. Is there a nurse or nurse's aide ON DUTY 24 hours a day?</p>	<p>1 <input type="checkbox"/> Yes</p>	<p>2 <input type="checkbox"/> No</p>	

	Budget Bureau No. 68-R620.R2; Approval Expires December 31, 1964		
Establishment number	Resident's (patient's) line No.		
1. What is the month and year of this resident's (patient's) birth?	Month	Year	
2. Sex	1 <input type="checkbox"/> Male (Ask question 3) 2 <input type="checkbox"/> Female (Go to question 4)		
3a. Has he served in the Armed Forces of the United States?	1 <input type="checkbox"/> Yes (Ask Q. 3b) 2 <input type="checkbox"/> No (Go to Q. 4) 3 <input type="checkbox"/> Unknown	3c. NOTE TO INTERVIEWER: Source of veteran status information 1 <input type="checkbox"/> Record 2 <input type="checkbox"/> Sample person 3 <input type="checkbox"/> Respondent	
b. Did he serve in World War I?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 3 <input type="checkbox"/> Unknown		
4. Is this resident (patient) married, widowed, divorced, separated, or never married?	1 <input type="checkbox"/> Married 3 <input type="checkbox"/> Divorced 5 <input type="checkbox"/> Never married 2 <input type="checkbox"/> Widowed 4 <input type="checkbox"/> Separated		
5. In what month and year was he (last) admitted to this home?	Month	Year	
6. With whom did he live at the time of his admission? (Check the FIRST box that applies)	1 <input type="checkbox"/> Spouse only 7 <input type="checkbox"/> In another nursing home or related facility 2 <input type="checkbox"/> Children only 8 <input type="checkbox"/> In mental hospital 3 <input type="checkbox"/> Spouse and children 9 <input type="checkbox"/> In a long-term specialty hospital (except mental) 4 <input type="checkbox"/> Relatives other than spouse or children 10 <input type="checkbox"/> In a general or short-stay hospital 5 <input type="checkbox"/> Lived in apartment or own home—alone or with unrelated persons 11 <input type="checkbox"/> Other place (Specify) 6 <input type="checkbox"/> In boarding home		
7. How often do friends or relatives visit him? (Check the FIRST box that applies)	1 <input type="checkbox"/> At least once a week 3 <input type="checkbox"/> Less than once a month 2 <input type="checkbox"/> Less often than once a week but at least once a month 4 <input type="checkbox"/> Never		
8a. Does he stay in bed all or most of the day?	1 <input type="checkbox"/> Yes (Go to question 9) 2 <input type="checkbox"/> No (Ask question 8b)		
b. Does he stay in his own room all or most of the day?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (Ask question 8c)		
c. Does he go off the premises just to walk, shop, or visit with friends or relatives and so forth?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		
9. Which of these special aids does this resident (patient) use? (Show card C)	(Check all that apply) 1 <input type="checkbox"/> Hearing aid 4 <input type="checkbox"/> Braces 7 <input type="checkbox"/> Eye glasses 2 <input type="checkbox"/> Walker 5 <input type="checkbox"/> Wheel chair OR 3 <input type="checkbox"/> Crutches 6 <input type="checkbox"/> Artificial limb(s) 8 <input type="checkbox"/> None of these aids used		
10. During his stay here when did he last see a doctor for treatment, medication, or for an examination by the doctor?	Month	Year	<input type="checkbox"/> Never saw doctor while here
11a. During his stay here, has he seen a dentist?	1 <input type="checkbox"/> Yes (Ask question 11b) 2 <input type="checkbox"/> No (Go to question 12)		
b. When was the last time he saw a dentist?	Month	Year	
12a. Has he lost ALL of his teeth?	1 <input type="checkbox"/> Yes (Ask question 12b) 2 <input type="checkbox"/> No (Go to question 13)		
b. Does he wear full upper and lower dentures?	3 <input type="checkbox"/> Yes 4 <input type="checkbox"/> No		
13. Does this resident (patient) have any of these conditions? (Show card D. Record in Table 1 each condition which the patient has)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		
14. Does he have any of these conditions? (Show card E. Record in Table 1 each condition which the patient has)	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		
15a. Does he have any other CHRONIC conditions listed in his record that you have not told me about?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		
If "Yes," ask: b. What are they? (Record in Table 1 each chronic condition mentioned)			

Table 1		
Enter conditions from questions 13, 14 or 15	For the following conditions ask these questions	
Enter the words used by the respondent to describe the condition. (a)	ILL EFFECTS OF STROKE. . . . What are the present ill effects? SPEECH DEFECT What caused the speech defect? PARALYSIS, PERMANENT STIFFNESS What part of the body is affected? TUMOR, CYST, OR GROWTH What part of the body is affected? Is it malignant or benign? DEAFNESS, HEARING TROUBLE, OR ANY EYE CONDITION. Is one or both ears (eyes) affected? (Include glaucoma and cataracts)	Do not write in this column (c)
	1.	
	2.	
	3.	
	4.	
	5.	
	6.	
	7.	
	8.	
16. If any eye conditions have been recorded in Table 1, ask: <input type="checkbox"/> No eye condition reported (Go to question 17) You told me about this resident's (patient's) eye condition. Can he see well enough to read ordinary newspaper print with glasses? 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No		
17. During the past 7 days which of these services did this resident (patient) receive? (Show card F and check each one mentioned)	1 <input type="checkbox"/> Help with dressing, shaving, or care of hair 2 <input type="checkbox"/> Help with tub bath or shower 3 <input type="checkbox"/> Help with eating (feeding the resident (patient)) 4 <input type="checkbox"/> Rub and massage 5 <input type="checkbox"/> Administration of medications or treatment 6 <input type="checkbox"/> Special diet 7 <input type="checkbox"/> Application of sterile dressings or bandages	8 <input type="checkbox"/> Temperature-pulse-respiration 9 <input type="checkbox"/> Full-bed bath 10 <input type="checkbox"/> Enema 11 <input type="checkbox"/> Catheterization 12 <input type="checkbox"/> Bowel and bladder retraining 13 <input type="checkbox"/> Blood pressure 14 <input type="checkbox"/> Irrigation 15 <input type="checkbox"/> Oxygen therapy 16 <input type="checkbox"/> Hypodermic injection
		17 <input type="checkbox"/> Intravenous injection 18 <input type="checkbox"/> Intramuscular injection 19 <input type="checkbox"/> Nasal feeding OR 20 <input type="checkbox"/> None of the above services received
18. At the time this resident (patient) was admitted to this home, what kind of care did he receive—primarily nursing care, primarily personal care, or room and board only? (Check one box only)		
	1 <input type="checkbox"/> Primarily nursing care	2 <input type="checkbox"/> Primarily personal care
		3 <input type="checkbox"/> Room and board only
19. What was the TOTAL charge for this resident's (patient's) care last month?		Amount \$
20a. What is the PRIMARY source of payment for his care? (Check ONE box only)		
1 <input type="checkbox"/> Own income or family support (Include private plans, retirement funds, social security, etc.) 2 <input type="checkbox"/> Church support 3 <input type="checkbox"/> Veterans benefits 4 <input type="checkbox"/> Public assistance or welfare 5 <input type="checkbox"/> Initial payment - life care 6 <input type="checkbox"/> Other (Please describe)		
20b. Are there any additional sources of payment? (Check ALL boxes that apply)		
1 <input type="checkbox"/> Own income or family support (Include private plans, retirement funds, social security, etc.) 2 <input type="checkbox"/> Church support 3 <input type="checkbox"/> Veterans benefits 4 <input type="checkbox"/> Public assistance or welfare 5 <input type="checkbox"/> Initial payment - life care 6 <input type="checkbox"/> Other (Please describe)		
OR 7 <input type="checkbox"/> No additional sources		

Card D

LIST OF CHRONIC CONDITIONS

Does this resident have any of these conditions?

1. Asthma
2. CHRONIC bronchitis
3. REPEATED attacks of sinus trouble
4. Hardening of the arteries
5. High blood pressure
6. Heart trouble
7. Ill effects of a stroke
8. TROUBLE with varicose veins
9. Hemorrhoids or piles
10. Tumor, cyst or growth
11. CHRONIC gall bladder or liver trouble
12. Stomach ulcer
13. Any other CHRONIC stomach trouble
14. Bowel or lower intestinal disorders
15. Kidney stones or CHRONIC kidney trouble
16. Mental illness
17. CHRONIC nervous trouble
18. Mental retardation
19. Arthritis or rheumatism
20. Diabetes
21. Thyroid trouble or goiter
22. Epilepsy
23. Hernia or rupture
24. Prostate trouble
25. ADVANCED senility

Card E

LIST OF SELECTED CONDITIONS

Does this resident have any of these conditions?

1. Deafness or SERIOUS trouble hearing with one or both ears
2. SERIOUS trouble seeing with one or both eyes even when wearing glasses
3. Any speech defect
4. Missing fingers, hand, or arm--toes, foot, or leg
5. Palsy
6. Paralysis of any kind
7. Any CHRONIC trouble with back or spine
8. PERMANENT stiffness or any deformity of the foot, leg, fingers, arm, or back

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