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Chronic Conditions and Impairments of Nursing Home Residents:

United States - 1969

Statistics on six major chronic conditions (heart conditions, cerebrovascular diseases, arteriosclerosis, diabetes, senility, and arthritis or rheumatism) and two major types of impairments (vision and hearing), how they affect nursing home residents and how this compares to the general noninstitutional population. Based on data collected from June through August 1969.

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CHRONIC CONDITIONS AND IMPAIRMENTS OF NURSING HOME RESIDENTS

Alvin Sirrocco, *Division of Health Resources Statistics*

INTRODUCTION

A chronic condition, by definition, is one that is prolonged, lingering, and recurrent. Consequently, chronic conditions often cause people to miss work, restrict their everyday activities and, with the elderly in particular, cause confinement to a wheelchair or a bed. Therefore, in discussing the health of any individual or any group of individuals, of primary importance would be the answers to the following questions:

Does he or she have any chronic conditions or impairments?

If so, what are they?

How severe are they?

Some chronic conditions are acquired early in life while others are acquired at a much later stage. Because of the recurrent nature of chronic conditions, many of those that are acquired early in life are carried into middle and old age. As a result, the older population (45 years and over) is much more affected by chronic conditions and impairments than the younger population (under 45). Table 1 shows this quite clearly.

These three questions become even more relevant when discussing the health of nursing home residents, since most nursing home residents are of this older population and more prone to chronic ailments. For example, there were an estimated 815,130 residents in nursing homes in 1969. Almost 90 percent (88.6 to be exact) were 65 years of age or older and only 2 percent were under age 45.

Accordingly, these questions were asked (using different wording) of the nursing home residents in the 1969 Resident Places Survey-3. When it was discovered that 98 percent of the residents had chronic conditions or impairments, the responses to the second and third questions—what are they and how severe are they—took on added importance. This report deals with those responses.

BACKGROUND

The data presented in this report are based on the third Resident Places Survey (RPS-3) conducted by the Division of Health Resources Statistics. The survey was conducted in cooperation with the U.S. Bureau of the Census during June-August of 1969.

RPS-3 is the fourth in a series of *ad hoc* surveys of institutional health facilities which are part of the National Health Survey program to

provide current health statistics on the Nation.[1] The first of these surveys was conducted in April-June 1963 and collected sample data on nursing homes, chronic disease and geriatric hospitals, and nursing home units and chronic disease wards of general and mental hospitals. Further information on the Resident Places Survey-1, including a description of its design and methodology, may be found in several previously published reports.[2-6] The Resident Places Survey-2, which was conducted in May-June 1964, is the second of these *ad hoc* surveys; it concentrated mainly on a sample of nursing homes and geriatric hospitals. This second survey collected more detailed information about each institution, its residents, and its employees.[7-15] The 1968 Nursing Home Survey, conducted during April-September 1968, was the third survey. It was a census of all nursing homes in the United States. It collected detailed information on the characteristics of the facilities.[16-21] The fourth survey—RPS-3—was multipurpose, collecting information about the nursing home, its residents, and its employees. This report is one of several on the data collected in RPS-3.[22-26]

This report deals with the chronic conditions and impairments that afflicted nursing home residents in 1969. The conditions and impairments of each resident were reported by a member of the nursing home staff who was familiar with the resident.

One of the chronic conditions listed on the questionnaire is "other mental disorders," which includes mental illness or retardation and excludes senility. Because of the wide range of symptoms covered under this heading, comparisons between the nursing home population and the general population are virtually impossible. Therefore "other mental disorders" will not be discussed in the text of this report but will be included in the detailed tables.

Although RPS-3 obtained diagnostic information, the results indicated an apparent underreporting of chronic conditions and impairments. One explanation for this underreporting can be found in a publication which compares reported conditions to diagnosed conditions and concludes that a physician will list on a patient's record conditions that are active but may not list other conditions that are present but inactive at the time of the visit.[27] Thus reported rather than diagnosed conditions are used in the present report. The conditions and impairments are classified according to the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA),[28] with certain modifications. The chronic conditions and impairments and their codes are listed in appendix II.

SOURCES AND QUALIFICATIONS OF DATA

Nursing homes, homes for the aged, and similar facilities of this kind were included in RPS-3. Two basic criteria for including a facility 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. Thus homes providing only room and board or domiciliary care to aged people were not within the scope of the survey.

A description of RPS-3, the sampling frame used, the sample design, and the survey procedures are presented in appendix I. Appendix I also includes imputation procedures, estimation techniques, and estimates of sampling variation. Since the data in this report are national estimates based on a sample, they are subject to sampling errors.

Appendix II presents definitions of terms and the procedure for classifying establishments. Reference to the definitions is essential to the interpretation of data in this report. Special attention is called to the procedure for classifying institutions by level of nursing service. The classification of establishments as nursing homes, personal care homes with nursing, and personal care homes is based on the services provided in the home rather than on what the home may be called or how it may be licensed by the State.

Facsimiles of questionnaires and forms used in the survey are shown in appendix III.

PREVALENCE OF CONDITIONS

Table A lists the 10 most common types of conditions suffered by nursing home residents in 1969. (Table 2 gives the prevalence figures for these conditions by age and sex of the residents.)

Table A. Percent of residents in nursing homes with reported chronic conditions: United States, 1969

Chronic condition[1]	Percent
Arteriosclerosis	57.5
Senility (including advanced)	56.4
Heart trouble	36.3
Arthritis or rheumatism	33.2
Cerebrovascular disease (stroke effects)	25.1
Permanent stiffness or deformity (limbs or back)	23.8
Diabetes	11.9
Chronic trouble with back or spine	10.0
Paralysis or palsy not due to a stroke	9.8
Chronic conditions of digestive system	8.6

[1]ICDA codes can be found in appendix II.

From table A it is apparent that arteriosclerosis and senility were the two most prevalent conditions, occurring in more than half of the residents. Heart conditions and arthritis or rheumatism were the next most commonly occurring conditions, with each being prevalent in approximately one-third of the residents.

It should be pointed out that if senility and advanced senility were separated the percents would be 34.2 for advanced senility and 22.2 for senility. They have been combined because of the difficulty in many cases of determining the resident's degree of senility.

The bulk of this report will deal with only six of the 10 conditions listed in table A. These six are arteriosclerosis, senility, heart trouble, arthritis or rheumatism, cerebrovascular diseases, and diabetes. The remaining four conditions will be shown in some detailed tables, but because of their complexity and the difficulty in comparing them with other surveys, they will not be discussed.

These six conditions probably are the most studied and publicized of all chronic conditions. The reason for this can be traced to the thousands and in some instances millions of people in the United States affected by these conditions. For instance:

- An estimated 27,130,000 people in 1969 were afflicted by cardiovascular diseases.[29] This included heart conditions, arteriosclerosis, and strokes.
- An estimated 4.4 million people had diabetes.[30]
- An estimated 50 million people suffered from arthritis or rheumatism; 17 million suffered severely enough to require medical care.[31]
- In 1969, 739,265 people died from heart diseases, the number 1 cause of death.[39]
- In 1969, 33,063 people died from arteriosclerosis.[39]
- In 1969, 207,179 people died from cerebrovascular diseases (the number 3 cause of death).[39]
- In 1969, 38,541 people died from diabetes mellitus.[39]

The sheer magnitude of these numbers illustrates the problem these conditions represent for the people in the United States. Add to it old age and institutionalization and you have the even bigger problem faced by residents of nursing homes. As evidence, table 1 shows that older people were more likely to have these conditions than younger people, and table B shows that nursing home residents were more likely to have the conditions than noninstitutionalized people. In fact, 65 percent of the residents had three or more conditions.[32]

The table shows marked differences in rates for the noninstitutional population (which were based on household interview responses) and the rates for the nursing home population. The ratio of rates ranged from about 2.1 for arthritis and rheumatism to 35.1 for senility.

Table B. Number and rate of selected chronic conditions in limited persons aged 65 years and over in the noninstitutionalized population and in the nursing home population: United States, 1969

Selected chronic conditions	Civilian noninstitutionalized population 65 years and over limited in any activity[1]		Nursing home population 65 years and over			
			Residents with conditions		Residents with conditions limited in mobility	
	Number in thousands	Rate per 1,000 population	Number in thousands	Rate per 1,000 residents	Number in thousands	Rate per 1,000 residents
Heart trouble	1,628	87.3	285	394.7	168	232.9
Cerebrovascular diseases (stroke effects)	376	20.2	183	253.5	146	202.1
Arthritis or rheumatism	1,691	90.6	259	358.7	152	210.6
Diabetes	354	19.0	88	121.9	50	69.2
Senility (including advanced)	[2]241	[2]12.9	445	616.3	294	406.6
Arteriosclerosis	[3]338	[3]18.1	453	627.4	276	381.7

[1]See reference 51 at end of text.
[2]Includes other types of mental and nervous conditions.
[3]Includes other conditions of the circulatory system.

MALE - FEMALE COMPARISON

A comparison of the prevalence rates of male and female residents in nursing homes for each of the six conditions is shown in figure 1.

The figure shows that women had significantly higher prevalence rates than men for arteriosclerosis, arthritis or rheumatism, and senility. Although the women also showed higher prevalence rates for heart conditions and diabetes, the rates were not significantly higher. Men, on the other hand, had significantly higher prevalence rates than women for effects of a stroke.

Perhaps the most striking characteristic in figure 1 is the difference in the number of men and women with arthritis or rheumatism. The women's rate is 105 per 1,000 female residents higher than the men's rate. In terms of numbers, 205,401 women had arthritis or rheumatism while just 65,586 men had it--a ratio of more than 3 to 1. Is this characteristic unique to nursing homes or is it a characteristic of the population in general?

Looking again at table 1 we find that there is in fact a rather substantial difference between the number of women and the number of men affected by arthritis and rheumatism. Of the 3,265,000 noninstitutionalized people who had to limit their activities because of arthritis and rheumatism, 2,170,000 of them were women--almost twice as many as men. The prevalence rate for men 65 years and over was 144 per 1,000 men, and for women 65 and over it was 271 per 1,000. Although these rates were not as high as the corresponding rates in nursing homes, they reflect the same picture--that many more women than men suffer from arthritis. Arthritis and rheumatism are discussed in greater detail in the next section of this report.

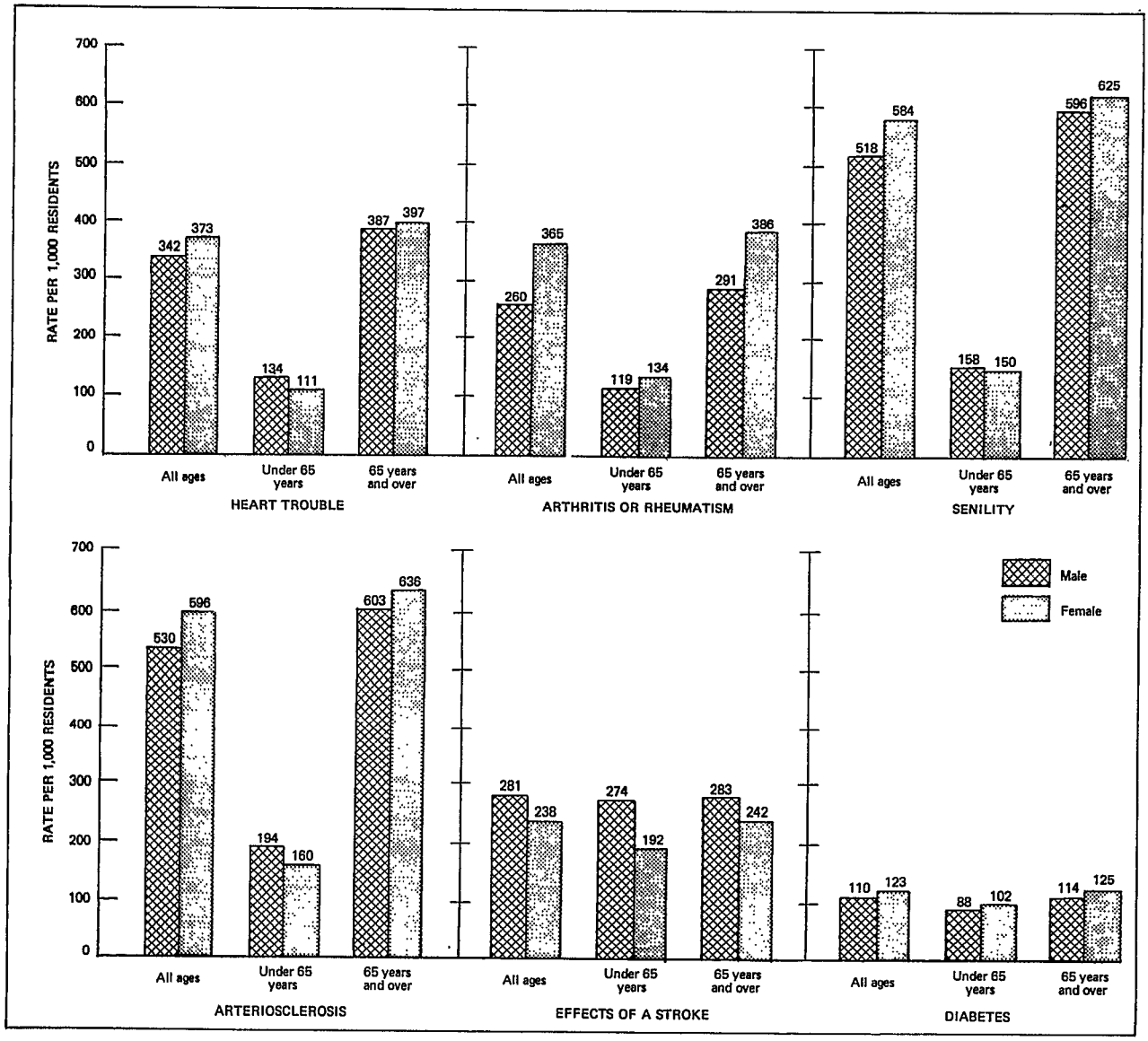

Figure I. Prevalence rates per 1,000 residents of nursing homes for six chronic conditions, by age and sex: 1969

THE SIX MAJOR CONDITIONS

In this section each of the six major conditions will be defined and discussed. Statistics are presented showing the impact these conditions had on nursing home residents in 1969 and whenever possible their impact on the population of the United States in general. Because of the interrelationship that exists between heart conditions, stroke, and arteriosclerosis, a brief discussion will be presented for each; followed by a more detailed analysis of the three together.

Heart Trouble

The term "heart trouble" is so broad it must be defined by ICDA codes. "Heart trouble" and "heart conditions" are used synonymously in this report. The codes for this and other conditions used in this report can be found in appendix I. In general, in this report "heart conditions"

refers to rheumatic heart disease, hypertensive heart disease, and ischemic heart disease. These are all cardiovascular diseases (diseases of the blood vessels of the heart) and are defined as follows:

Rheumatic heart disease occurs when rheumatic fever causes heart damage by scarring and deforming the valves of the heart.

Hypertensive heart disease occurs when high blood pressure (hypertension) persists at such a high level that the heart, which must now pump harder to push blood through the circulatory system, grows larger and weaker from the demands put on it and loses its efficiency.

Ischemic heart disease occurs when there is inadequate blood supply to certain areas of the heart due to blockage in the coronary arteries. If the blockage is slight, the result could be angina pectoris or "angina" (pains in the chest). If the blockage becomes more severe the result could be coronary insufficiency. However, if the blockage becomes complete and the blood supply cut off, the result is a myocardial infarction, more commonly referred to as a heart attack.

The mortality and prevalence figures in table C show the magnitude of these three diseases in 1969.[29] The 669,829 deaths for ischemic heart disease—the largest number of deaths for any single cause in 1969—were primarily the result of heart attacks.

Table C. Mortality and prevalence figures for rheumatic, hypertensive, and ischemic heart disease: United States, 1969

Heart diseases	Deaths[1]	Prevalence
Rheumatic heart disease	15,432	1,670,000
Hypertensive heart disease	24,712	21,790,000
Ischemic heart disease	669,829	4,040,000

[1]See reference 39 at end of text.

Although data are not available on the prevalence of heart conditions in older people for 1969, evidence has shown that older people (65 and over, for example) have higher rates of heart conditions than younger people. According to information reported in household interviews, for instance, in 1967 approximately 1 percent of the noninstitutionalized population under 45 years of age had heart conditions, while 7 percent of those 45 to 64 and 19 percent of those 65 years and over had heart conditions.[33]

Having established the magnitude of the problem of heart conditions in the general population, the next step is to compare these statistics with the statistics on heart conditions for the nursing home population.

Detailed table 2 shows that in 1969 over 296,000 nursing home residents were reported to have heart conditions. That was more than a third of all nursing home residents. Of those residents 65 years and over, approximately 39 percent had heart conditions, a higher rate than the 19 percent that was experienced by the general noninstitutionalized population in 1967. Some of the difference between these two figures may be explained by the differing procedures that were used in collecting the data for these surveys. Therefore, in order to substantiate that heart conditions were more common to nursing home residents than they were to the noninstitutionalized population, it is necessary to consider those persons who were limited by heart conditions.

Table 1 indicates there were approximately 3,148,000 noninstitutionalized persons 45 years and over who were limited in activity in 1969-70 partly or solely because of heart conditions. Roughly speaking, that was about 5 percent of the noninstitutionalized population 45 years and over. Of the residents in nursing homes (98 percent of which were 45 years and over), 173,653, or about 24 percent, were limited partially or solely because of their heart conditions (table 3). Although the figures for nursing home residents' limitations were based on mobility and those for the noninstitutionalized population's limitations were based on activity, it must be remembered that for older people activity and mobility are often synonymous.

Before leaving this discussion on heart conditions, there is one other area that bears mentioning. In discussions of the various heart

conditions in medical literature, a basic concept that is repeatedly brought out is that heart attacks are primarily the result of heart diseases becoming severely worse (i.e., heart attacks are fairly slow in developing). But what about the deaths from heart attacks that frequently happen to people who had no known history of heart conditions—the sudden cardiac deaths. The following discussion sums up what has generally been learned about this medical phenomenon:

> By sudden cardiac death is meant death occurring within one hour from the onset of a sudden and unexpected acute cardiac event. Because of the time element involved in the definition, such an event obviously requires a witness....
>
> Subsequent anatomic studies have amply demonstrated the prominent place of coronary artery disease in patients dying suddenly. The recent data, chiefly derived from the experiences of medical examiners, show that coronary atherosclerosis is present in the overwhelming majority and that it is diffusely distributed.... In the patients in whom death was actually witnessed and could be judged to be instantaneous, the infrequency of fresh or recent thrombosis has been confirmed.[a, 34]

Hence most "sudden cardiac deaths" are not as abrupt as they appear but instead are often caused by atherosclerosis (the most common form of arteriosclerosis). The next two topics deal with cerebrovascular diseases and arteriosclerosis and how they affect nursing home residents.

Stroke

Cerebrovascular diseases and vascular lesions affecting the central nervous system are the technical terms for what most people refer to as "stroke." Cerebrovascular diseases are diseases affecting the blood vessels in the brain (cerebro meaning brain and vascular referring to blood vessels).

A stroke occurs when the blood supply to a part of the brain is cut off depriving the nerve cells in that area of the blood they need to function. Since those nerve cells control body movements, the part of the body they control may become paralyzed or otherwise unresponsive. A stroke can also occur as a result of hemorrhage.

[a] By permission of Grune and Stratton, Inc. Medical and Scientific Publishers.

In 1969, over 207,000 people in the United States died from strokes and another 1,620,000 people were afflicted by them.[29] Although it is not known how many nursing home residents died from strokes, it is known that one-fourth (204,655) of the residents were afflicted by them (table 2). These afflictions took the form of paralysis, speech defects, and other ill effects of a stroke.

These figures show that almost 13 percent of those persons afflicted by strokes resided in nursing homes. (By comparison, less than one-half of 1 percent of all the people in the United States resided in nursing homes.) Further analysis shows that the 1,620,000 afflicted persons in the United States represented less than 1 percent of the total population. In fact, even if every one of these afflicted persons were over 65 (it is not known how many actually were), they would only make up 8 percent of the population 65 years and over. In nursing homes, by comparison, 25 percent of all the residents and 25 percent of those 65 years and over were afflicted by strokes.

It seems quite apparent from these figures that nursing homes play an important role to the stroke patient. A look at table 3 helps to explain why. This table shows that of the nearly 205,000 residents suffering from the effects of a stroke, less than 22 percent were able to move about freely. In fact, more than half of these 205,000 residents were confined or restricted to bed. The remaining 27 percent were either confined to the premises or needed a wheelchair to get about. Thus of all the conditions listed in table 3, stroke appears to be the most limiting.

As with heart conditions, multiple disease factors must be considered when discussing the patient who has had a stroke, for risk of stroke has been found to be higher in persons with a history of hypertension (2.1 times as high), coronary heart disease (2.4 times), diabetes (1.9 times), or angina pectoris (2.3 times).[35]

Nursing home residents with multiple diseases is one of the subjects covered in the following section on arteriosclerosis.

Arteriosclerosis

Heart attacks and strokes have much in common. In addition to the crippling and deadly aspects of each, they can both be caused when a

blockage occurs in the arteries and the blood supply is cut off. If the blockage occurs in the arteries leading to the heart (coronary arteries), a heart attack results; if the blockage occurs in the arteries leading to the brain, a stroke results.

The blockage referred to is usually caused by arteriosclerosis. Actually the term arteriosclerosis is very general and refers to *all* types of degenerative changes in the arterial wall. The most common type of arteriosclerosis is atherosclerosis—generally known as "hardening of the arteries." Atherosclerosis is the process by which the inner linings of the arteries become thickened and roughened by deposits of fat, fibrin, cellular debris, and calcium, thus interfering with both the smooth flow of blood and the amount of blood carried through the artery. The inner walls become thick and heavy, lose their ability to expand and contract, and may eventually block the channel completely. (To avoid confusion, *arteriosclerosis* will be used throughout this section.)

As mentioned before, when the arteries are completely blocked, heart attacks and strokes occur; when they are partially blocked, the lesser (but still painful and dangerous) heart and cerebrovascular diseases occur.

As an indication of its prevalence, it is estimated that arteriosclerosis, as an underlying cause, contributes directly to more than 850,000 deaths a year from heart attacks and strokes.[29] It is not known how many millions of people are afflicted with arteriosclerosis, but because of the nature of the arteriosclerotic process elderly people usually experience it the most.

This relationship that exists between arteriosclerosis and aging is one of the most written and talked about aspects of the disease. It is generally agreed that arteriosclerosis is not necessarily a process of aging.[36] Nevertheless, all experience tends to show that the number of arteriosclerotic patients, the severity of the disease, and its fatal complication all increase with age. On the other hand, these relationships are not linear (though these relationships show a general increase with age, they do not increase at each age level) as would be expected in a normal natural occurrence.[37]

Though prevalence figures are not available for the general population, they are available for the nursing home population. As mentioned earlier in this report, in 1969 arteriosclerosis was *the* most prevalent condition in nursing homes, affecting more than 469,000 residents (over 57 percent of all the residents). Of those residents 65 years and over, almost 63 percent had arteriosclerosis.

In 1969, 293,330 residents of nursing homes died.[25] Unfortunately neither the cause of death nor the conditions these residents suffered from before death are known, but many of these residents were surely among the aforementioned 850,000 deaths a year from heart attacks and strokes due to arteriosclerosis.

Equally apparent is the fact that the 469,000 residents with arteriosclerosis were in a high risk situation because of the disease and their age. In addition, to make matters worse, many of them were also suffering from heart conditions and the effects of a stroke (table 4).

From table 4 it can be found that 261,917 (56 percent) of the residents with arteriosclerosis also suffered from either heart conditions, the effects of a stroke, or both. Table 4, in conjunction with table 2, can also be used to determine how many residents had *either* heart conditions, stroke, arteriosclerosis, or any combination of these. Appropriate manipulations will reveal that more than three-fourths (76.7 percent) of the residents had one, two, or all three of these conditions.

One can see from table 4 the extent to which nursing home residents had multiple disorders. Considering the fact that this table includes only the six major conditions, it is not surprising that 65 percent of the residents had three or more of any type of chronic condition.[32] However, because of the effect multiple disorders had on residents, it is difficult to determine which of the disorders was *most* responsible for the residents' mobility limitations.

Table D, which is derived from table 4, shows combinations of the six major conditions crossed with the two severest mobility limitations—restricted or confined to bed. This table indicates that whenever the condition effects of a stroke are present, the percentage of those residents severely limited is between 55 and 60 and that whenever this condition is not present, the percentage drops to about 30. This informa-

Table D. Number of residents in nursing homes having specified multiple chronic conditions, and number and percent with mobility status D or E: United States, 1969

Multiple chronic conditions	Residents	Residents with mobility status D or E[1]	
		Number	Percent
Stroke, heart trouble, arteriosclerosis	37,390	21,996	58.8
Stroke, heart trouble	45,634	26,101	57.2
Stroke, arteriosclerosis	74,848	42,777	57.2
Heart trouble, arteriosclerosis	224,459	69,923	31.2
Stroke, heart trouble, arthritis-rheumatism	17,504	10,100	57.7
Stroke, heart trouble	45,634	26,101	57.2
Stroke, arthritis-rheumatism	36,502	20,556	56.3
Heart trouble, arthritis-rheumatism	121,022	35,583	29.4
Stroke, arteriosclerosis, arthritis-rheumatism	29,481	17,377	58.9
Stroke, arteriosclerosis	74,848	42,777	57.2
Stroke, arthritis-rheumatism	36,502	20,556	57.2
Arteriosclerosis, arthritis-rheumatism	195,816	58,741	30.0
Stroke, heart trouble, diabetes	6,809	3,650	53.6
Stroke, heart trouble	45,634	26,101	57.2
Stroke, diabetes	14,411	8,084	56.1
Heart trouble, diabetes	42,108	12,220	29.0
Stroke, arteriosclerosis, diabetes	9,203	5,260	57.2
Stroke, arteriosclerosis	74,848	42,777	57.2
Stroke, diabetes	14,411	8,084	56.1
Arteriosclerosis, diabetes	56,404	16,810	29.8
Stroke, senility (including advanced), arteriosclerosis	57,079	34,540	60.5
Stroke, senility (including advanced)	73,239	43,399	59.3
Stroke, arteriosclerosis	74,848	42,777	57.2
Senility (including advanced), arteriosclerosis	334,064	115,022	34.4
Heart trouble, arteriosclerosis, diabetes	30,854	9,444	30.6
Heart trouble, arteriosclerosis, senility (including advanced)	159,245	58,733	36.9
Heart trouble, arteriosclerosis, arthritis-rheumatism	100,234	30,653	30.6

[1]Mobility status categories D and E are as follows:
D = Generally confined to bed but is in wheelchair for at least a few hours a day.
E = Restricted to total bed rest.

tion combined with that in table 3 demonstrates fairly conclusively that the condition most prominent in causing mobility restrictions is the effect of a stroke.

The prominent role played by arteriosclerosis in heart disease and stroke has been discussed. The next two sections reveal two more conditions which can be caused or aggravated by arteriosclerosis.

Diabetes

Diabetes mellitus is the technical term for what is generally referred to as diabetes. It is defined usually as a chronic disorder of car-

bohydrate metabolism characterized by hyperglycemia and glycosuria.[38] It is also defined in terms of a deficiency of insulin.

Although the exact cause of diabetes has not been found, contributing factors such as heredity and obesity have been recognized.

It has been estimated that approximately 4.4 million people are diabetics, with females having a higher prevalence than males.[30] In nursing homes in 1969, approximately 12 percent of the residents of each sex were diabetics (table 2).

Of major concern in the study of diabetes is its association with arteriosclerosis. Findings indicate that together with hypertension, diabetes mellitus is the principal precursor to arteriosclerosis. It has been said that there is no other disease with which arteriosclerosis is so frequently associated and that there can no longer be any doubt that arteriosclerosis, with its resulting diseases, is the main cause of death to diabetics.[37]

Indeed, studies have shown that the incidence of death from cardiovascular complications has risen from 32 to 65 percent among diabetics.[52] However, in addition to diabetics dying from heart conditions, many die from diabetes itself, as evidenced by the fact that in 1969 over 38,000 deaths were attributed to diabetes mellitus.[39]

Although no cause-of-death data are available for nursing home residents, figures are available on the numbers of diabetic residents with arteriosclerosis and/or heart conditions. Tabulations show that 67,658 (70 percent) of the residents with diabetes also had either arteriosclerosis, heart conditions, or both (table 4). Similar tabulations for residents 65 years and over revealed a percentage (73) of diabetics having one or both of these disorders. Based on the above incidence of death figures, if an actuarial table of diseases were drawn up, these residents would undoubtedly fall into the highest risk category.

Senility

Because of the difficulty encountered in classifying residents as senile or advanced senile, the two have been combined for the purposes of this report. However, for the benefit of the reader, they are defined separately here.

Advanced senility is the layman's term for senile psychosis and chronic brain syndrome—two terms which themselves fall under the overall heading of senile dementia. Advanced senility (using the definition for chronic brain syndrome) is a syndrome characterized by essentially irreversible impairment of cerebral functions, i.e., memory deficit (primarily for recent events), loss of orientation, affective disturbance, and decline of intellect and judgment.

Cerebral arteriosclerosis is the most frequent cause of chronic brain syndrome. It usually begins between the ages of 50 and 60 and is characterized by acute episodes of confusion and excitement followed by partial remissions, so deterioration progresses in a step-wise pattern. Senile dementia rarely occurs before age 60 and follows a steady progressive course.[52]

Senility is a shortened version of senility without mention of psychosis or presenile brain disease. Senility is a mental disorder associated with cerebral atrophy or degeneration which causes debility (feebleness) and aphasia (loss of the power to articulate speech). Both senility and advanced senility are known as diseases of old age. From here on, senility and advanced senility will be combined and referred to as senility.

Though prevalence figures on senility for the general population are not available, institutionalized population rates are moderately high for people over 60. In nursing homes, for instance, 459,672 residents were reported as senile. That represented 56 percent of all the nursing home

Table E. Number and percent of nursing home residents with senility, by age: United States, 1969

Age	Residents with senility	
	Number	Percent
Under 45 years	1,020	5.6
Under 65 years	14,333	15.4
65-74 years	62,518	45.1
75-84 years	197,435	61.3
85 years and over	185,386	70.8

residents. Table E shows a steady increase with age in the percent of senility of nursing home residents.

Referring back to table 4, it can be seen that of the residents with senility, 73 percent also had arteriosclerosis. It should also be noted that of the residents with arteriosclerosis, 71 percent were reported as senile. Thus for nursing home residents, these two diseases seem highly associated with each other.

At the beginning of this section mention was made of the difficulty encountered between classifying residents as senile or advanced senile. It must also be mentioned that the classifying of a resident as senile or *not* senile is often just as hard, as noted in the following excerpt:

> It is difficult to determine which aspects of the older person's behavior are the result of his aging and which are the result of his diminished social contacts, his relative lack of education, his loss of employment, or the poor state of his health.[40]

Another factor to be considered is how physical changes that occur with age relate to behavioral changes occurring during the same period. For example, an older resident whose vision and hearing are beginning to fail may show marked behavioral changes which might be interpreted as signs of senility. This same incorrect interpretation might result from many kinds of physical changes that occur.

That old age and senility are very closely related can be witnessed by the following observation:

> Psychologists and scholars in various fields have observed pronounced changes in the behavior of the aging organism. Among these are deficits in sensation and perception, in muscular strength, in the ability to react quickly to stimuli. . .and among persons over 60, deficits in the ability to remember, learn, and respond with intelligence.[41]

Many of the deficits mentioned are found in the definition of senility, in particular those involving perception and the ability to remember. In the area of perception, however, old age and senility may not be the only factors present:

> Various experiments indicate a tendency for older persons to perceive time as moving more rapidly than it actually does. But this tendency appears to be at least partially a function of the environment and attitudes rather than simply a result of increasing age per se.[41]

The nursing home environment along with the resident's attitude towards it might very well contribute to this loss of perception. One of the experiments conducted, for instance, indicated that older institutionalized subjects underestimated time intervals of 30 to 300 seconds to a greater extent than the older noninstitutionalized subjects did. At the same time, the study demonstrated there were no differences between young, middle-aged, and older noninstitutionalized groups.[41]

Arthritis and Rheumatism

Arthritis is the inflammation of one or more joints due to infectious, metabolic, or constitutional causes. Rheumatism is a condition which causes inflammation or pain in muscles, joints, or fibrous tissue. The most common forms of these two related conditions are rheumatoid arthritis, osteoarthritis, and gout.

In terms of age distribution, rheumatoid arthritis (the most devastating and crippling form of arthritis) can affect both young and old alike, but usually occurs in later years. About five million Americans have it. Osteoarthritis is associated with aging and degeneration of joint tissue, thus affecting the older population. About 10 million people suffer from it. Gout affects about one million people and apparently can be acquired at any age.[31]

For simplicity's sake, the term arthritis will be used from here on to describe arthritic and rheumatoid conditions.

It is estimated that at least 50 million people in the United States have arthritis to some extent, of which 17 million have it severely enough to require medical care.[31] Arthritis ranks second only to heart diseases as the major cause of

activity limitation, affecting over 3.2 million people (table 1).

In 1969 almost 271,000 nursing home residents had arthritis—one-third of the nursing home population. Depending on whether one uses the 50 million or the 17 million estimate, between one-fourth and one-twelfth of the general population had arthritis.

In terms of mobility, approximately 58 percent of the residents with arthritis had some form of mobility restriction, with 28 percent confined to bed most or all of the time (table 3). However, it is difficult to determine how much of this restriction was due to other conditions being present.

IMPAIRMENTS

Vision Impairments

Before discussing vision impairments of older people, it should be mentioned that the aging process has a detrimental effect on vision. According to *May's Manual of the Diseases of the Eye,* the power of accommodation needed to bring near objects into clear focus gradually diminishes with age, due chiefly to loss of elasticity of the lens. The physiological change becomes most pronounced when nearing the age of 45. Distance vision is not similarly affected.[41]

From 1960 through 1962, as part of the nationwide Health Examination Survey of noninstitutionalized people aged 18 through 79 years, visual acuity tests were administered.[42] These eye examinations revealed, as May's Manual suggested, that visual acuity does decline with age from about 45 years on and that near vision tends to be more deficient than distance vision.

Eye examinations are the most accurate means of detecting vision deficiencies. However, the personnel and equipment that are necessary in administering these tests are usually not available. As a result, most surveys are forced to rely on other means of measuring vision deficiencies. This can be done through a series of questions.

For example, can this person read ordinary newspaper print, can he see across the street, can he identify moving objects, can he see light, and so on. These are typical questions that might be asked of a person concerning his vision. But even if these questions could be arranged in some logical order whereby "no" answers indicate an ever-lessening degree of sight, additional information would be needed in order to determine the extent of the impairment.

For instance, does this person wear glasses and, if so, were his answers based on his sight while wearing his glasses or while not wearing them? In other words, if a person has a vision impairment but his glasses correct the problem, is he still considered visually impaired?

If a person has impaired vision in one eye but has perfect vision in the other eye, is his vision impaired? What about the extreme case when a person is blind in one eye but can see perfectly with the other one?

These are just a few of the problems encountered when trying to measure vision impairment by means other than eye examinations. Although interviews may not be as accurate as actual eye examinations, they nevertheless produce valuable information of their own.

In a survey of the civilian noninstitutionalized population conducted from July 1963 to June 1964 the questions concerning vision dealt with the person's ability to read newsprint, see features and/or objects, see a friend across the street, and see light.[43] The survey also determined whether one or both eyes were involved.

The results of the survey indicated that an estimated 5,029,000 persons aged 6 and over were visually impaired in one or both eyes. Of these, 2,415,000 were 65 years and over. For visually impaired persons aged 6 through 64 the rate per 1,000 population (noninstitutionalized) was 18.2, while for the people 65 years and over the rate was 141.9. Table 5 gives the numbers and rates of visually impaired persons by various age groups.

The 1969 RPS-3, on which this report is based, used the following set of questions to determine the vision impairment of nursing home residents. The questions were directed to a member of the nursing home staff who was familiar with the resident in question.

Does he USE eyeglasses? yes no

How well can he see?

Table F. Number of nursing home residents with ability to see with and without glasses, by age and sex: United States, 1969

Ability to see	All residents	Under 65 years	65 years and over	Male		Female	
				Under 65 years	65 years and over	Under 65 years	65 years and over
Total	815,130	92,866	722,264	44,766	207,102	48,100	515,162
Uses eyeglasses and:							
a. Can read ordinary newspaper print	336,355	25,546	310,809	10,608	77,498	14,938	233,311
b. Can watch television across the room (8 to 12 feet)	82,245	4,027	78,218	1,922	20,399	2,105	57,819
c. Can recognize the features of people he knows if they are within 2 to 3 feet	68,821	2,082	66,739	636	15,191	1,446	51,548
Does not use eyeglasses and:							
a. Can read ordinary newspaper print	153,264	40,594	112,670	21,411	43,330	19,183	69,340
b. Can watch television across the room (8 to 12 feet)	67,473	11,988	55,485	5,907	23,065	6,081	32,420
c. Can recognize the features of people he knows if they are within 2 to 3 feet	70,886	5,184	65,702	2,143	18,654	3,041	47,048
Blind	36,086	3,445	32,641	2,139	8,965	1,306	23,676

(a) Can read ordinary newspaper print with or without glasses — yes — no
(b) Can watch television across the room (8 to 12 feet) — yes — no
(c) Can recognize the features of people he knows if they are within 2 to 3 feet — yes — no
(d) Is blind — yes — no

For the second question, the interviewer proceeded from (a) to (d) until a "yes" answer was obtained. A person's vision was considered to be seriously impaired if a "yes" answer was given to either (c) or (d).

Approximately 22 percent of the residents had seriously impaired vision. The 487,421 residents who wore glasses represented 60 percent of all residents. (It was also discovered in the 1963-64 survey that 60 percent of all nursing home residents wore glasses.)[13]

Table F shows the results of combining the answers to the questions, some of which are as follows:

- That 487,421 residents wore glasses.

- That 489,619 residents could read ordinary newspaper print with or without glasses.
- That 149,718 residents could watch television across the room (8 to 12 feet).
- That 139,707 residents could recognize the features of people they know if they were within 2 to 3 feet.
- That 36,086 residents were blind.

When discussing blindness it should be remembered that there are two definitions of blindness—the medical definition and the legal definition. According to the medical definition blindness is the lack or loss of ability to see, lack of perception of visual stimuli due to disorders of the organs of sight or to lesions in certain areas of the brain.

The legal definition of blindness represents an economic definition derived from Title X of the Social Security Act which is based on an arbitrary point below which individuals are presumed to be unable to perform economically.[31]

Using this legal definition, an estimated 435,000 Americans were legally blind in 1969, 34,200 of these were new cases of blindness which occurred in 1969. On the average this meant that 94 times every day of the year an American man, woman, or child lost his or her sight.[31]

The most common causes of blindness are senile cataracts (15.6 percent of all blindness), glaucoma (13.5 percent), diabetes (11.2 percent), and the vascular diseases hypertension, arteriosclerosis, and nephritis (combine for 7.6 percent).[31]

The 36,086 blind nursing home residents shown in table F were classified as such based on the nursing home staff's definition of blindness, which more than likely corresponded to the medical rather than the legal definition. For this reason, it is possible that some residents who might have been *legally* blind were placed in answer category (c) rather than (d) because (c) best described how well they could see.

Hearing Impairments

Aging has a detrimental effect on hearing as well as vision.

> The increasing age of our population is probably the greatest single factor for the increased incidence of hearing loss. People developing the sclerotic changes of old age have a far higher incidence of sensorineural deafness than people in the younger groups. The degree of hearing loss seems proportional to the degree of the aging process.[31]

Deafness is defined as a lack or loss, complete or partial, of the sense of hearing. Similarly, a deaf person is someone lacking the sense of hearing or not having the full power of hearing. For this reason, to state that a person is deaf is not enough, instead it must be stated whether he is *partially* or *totally* deaf. As might be expected, the difference in prevalence between the two is tremendous. Approximately 236,000 Americans are totally deaf, and an estimated 20,000,000 Americans are partially deaf.[31]

The two major types of hearing loss are 1) middle ear or conductive hearing loss and 2) sensorineural hearing losss. The first one usually occurs early in life (at birth or early school age), when children are subjected to upper respiratory infections. The second one is associated with the dangers of being brought into the world or the degenerative changes of old age and as such, occurs at the beginning and near the end of life.[31]

In the survey of the civilian noninstitutionalized population from 1963 to 1965 in which hearing impairments were defined as "deafness or serious trouble hearing with one or both ears," it was found that over 8.5 million persons were so afflicted.[44] Table 6 indicates the numbers and rates of these people by age groups. The table shows the marked increase in the rates in the older age group.

The RPS-3 used the following set of questions to determine hearing deficiencies of the residents in nursing homes. Again these questions were directed to a member of the staff who was familiar with the resident.

Does he USE a hearing aid? yes no

How well can he hear?

(a) Can hear a telephone conversation on an ordinary telephone (no amplifier) yes no

Table G. Number of nursing home residents with ability to hear with and without hearing aid, by age and sex: United States, 1969

Ability to hear	All residents	Under 65 years	65 years and over	Male		Female	
				Under 65 years	65 years and over	Under 65 years	65 years and over
Total	815,130	92,866	722,264	44,766	207,102	48,100	515,162
Uses a hearing aid and:							
a. Can hear a telephone conversation on an ordinary phone (no amplifier)	10,243	543	9,700	310	2,288	233	7,412
b. Can hear most of the things a person says	11,594	94	11,500	48	2,914	46	8,586
c. Can hear a few words a person says	6,721	81	6,640	42	1,730	39	4,910
d. Can hear only loud noises	6,378	176	6,202	42	1,900	134	4,302
Does not use a hearing aid and:							
a. Can hear a telephone conversation on an ordinary phone (no amplifier)	457,615	70,087	387,528	34,423	105,124	35,664	282,404
b. Can hear most of the things a person says	230,519	17,145	213,374	7,563	66,876	9,582	146,498
c. Can hear a few words a person says	47,622	1,449	46,173	783	14,078	666	32,095
d. Can hear only loud noises	29,892	1,185	28,707	298	8,686	887	20,021
Can't hear anything	14,546	2,106	12,440	1,257	3,506	849	8,934

(b) Can hear most of the things a person says — yes no
(c) Can hear a few words a person says — yes no
(d) Can hear only loud noises — yes no
(e) Can't hear anything — yes no

Once again the interviewer proceeded in the second question from (a) to (e) until a "yes" answer was obtained. Persons whose hearing ability fell within answer categories (c), (d), or (e) were considered to be seriously impaired. Table G indicates the extent to which the nursing home residents had hearing problems.

Table G indicates that approximately 35,000 residents used hearing aids, which was 4.3 percent of all the residents. (In 1964 virtually the same percent (4.4) of nursing home residents used hearing aids.[13]) Most of the residents had little or no trouble hearing. Over 688,000 (84.4 percent) heard sufficiently with no hearing aid to be grouped in answer categories (a) or (b). Only 14,546 (1.8 percent) of the residents could not hear anything, i.e., were totally deaf.

OTHER FACTORS

This report has demonstrated the high occurrence in nursing home residents of arteriosclerosis and its associated cardiovascular and cerebrovascular diseases. Certain outside factors are known to aggravate these diseases; among them are stress, lack of exercise, smoking, and obesity. Smoking and obesity are individual rather than group oriented and as such cannot be related to the nursing home population. Stress and lack of exercise on the other hand are factors which can be related to the nursing home population.

Lack of exercise is a common problem for nursing home residents. Although exercise is a difficult factor to measure, it has been found that:

> In general it appears that moderate activities exert a favorable influence upon heart disease and that inactivity may have some deleterious effects.[b, 45]

Stress is generally accepted as an important factor in the arteriosclerotic process. It has been the subject of considerable discussion in the medical literature:

> There seems to be evidence that individuals living under constant stress and tension are subject to more frequent heart attacks than those with well-regulated lives.[45]

In many instances institutionalization creates stress.

> Life in an institution—any institution—has a profound effect upon the resident. Human experiences take place within its walls which are helpful or harmful to recovery. For most it was neither choice nor wish to establish residency in the institution. Yet thousands, young and old, face the prospect of spending years, perhaps even a lifetime in an institution. . . .
>
> The person who newly enters into situations where others have been before him, tends to feel lonely, isolated, often unwanted and generally endangered.[46]

While some new residents may react calmly in these situations, others may show signs of stress, anxiety, tension, and perhaps even fear.

> A number of investigators have studied the effects of radical environmental changes on the psychological well-being and physical survival of the aged. Many of these studies have involved changes from community living to life in an institution; others have studied relocation from one institutional setting to another. . . . The majority of these studies . . . showed that changing the environment of elderly persons sharply increased the death rate. Although more precision is required in understanding which conditions and what types of aged will experience such environmental changes as severe crises, overall the evidence suggests that radical environmental change for the aged leads to destructive physical processes and has noxious psychological effects.[47]

The foregoing discussion is not meant to downgrade nursing homes. Indeed, nursing homes are extremely valuable and have much to offer the elderly. The purpose of the discussion was to point out that certain factors which might exist in nursing homes could have potentially dangerous side effects on the nursing home resident. An awareness of this could in time be beneficial.

SUMMARY

This report dealt with the chronic conditions and impairments which affected nursing home residents in 1969 and related the prevalence figures for the nursing home population to the figures for the noninstitutionalized population. The six basic chronic conditions discussed were heart trouble, stroke, arteriosclerosis, diabetes, senility, and arthritis or rheumatism. The impairments discussed were those of vision and of hearing. The conditions and impairments of each resident were reported by a member of the nursing home staff who was familiar with the resident.

[b] Originally published by the University of California Press; reprinted by permission of The Regents of the University of California.

Since it would be impossible to present all of the findings within the contents of this summary, only one or two important findings for each condition and impairment are presented here.

- Of the nursing home residents in 1969 who were 65 years and over, 39 percent had heart trouble. Of the noninstitutionalized population 65 years and over in 1967 (the closest prevalence data available) about 19 percent had heart trouble.
- About a fourth of all nursing home residents in 1969 were afflicted by strokes. These afflictions took the form of paralysis, speech defects, and other ill effects of a stroke. In 1969, less than 8 percent of the total United States population 65 years and over were afflicted by strokes, whereas 25 percent of the nursing home residents 65 years and over were so afflicted.
- It is estimated that arteriosclerosis, as an underlying cause, contributes directly to more than 850,000 deaths a year from heart attacks and strokes.
- Arteriosclerosis and its cardiovascular complications are highly prevalent among persons with diabetes. Approximately 70 percent of the nursing home residents with diabetes also had either arteriosclerosis or heart trouble or both.
- In 1969, 56 percent of all nursing home residents were reported as senile. Age seemed to be a definite factor among nursing home residents reported as senile. Only 15 percent of the residents under 65 years of age were senile, whereas 71 percent of the residents 85 years and over were senile.
- Almost 271,000 nursing home residents (a third of all the residents) had arthritis or rheumatism in 1969. More women than men suffered from arthritis or rheumatism in both nursing homes and the general population.
- Approximately 22 percent of the nursing home residents had seriously impaired vision in 1969.
- Approximately 16 percent of the nursing home residents had seriously impaired hearing in 1969.

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Table 1. Average number of civilian noninstitutionalized population with limitation of activity due to selected chronic conditions, by sex and age: United States, 1969-70

[Data are based on information reported in household interviews of the civilian noninstitutionalized population during the Health Interview Surveys of 1969 and 1970]

Persons limited in activity	Both sexes				Male				Female			
	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over
	Average number in thousands											
Total civilian noninstitutionalized population	197,422	138,022	40,742	18,658	95,002	67,610	19,402	7,990	102,420	70,414	21,399	10,667
Selected chronic conditions												
Mental and nervous conditions	1,033	389	403	241	477	188	192	97	556	200	212	144
Cerebrovascular disease	604	*	206	376	335	*	127	197	270	*	79	179
Heart trouble	3,609	461	1,520	1,628	1,937	216	917	804	1,672	245	603	824
Hypertension without heart involvement	1,059	132	416	510	351	51	152	147	708	81	264	363
Other conditions of circulatory system	694	114	242	338	324	47	126	151	370	67	115	188
Arthritis and rheumatism	3,265	321	1,254	1,691	1,096	122	442	532	2,170	199	812	1,159
Diabetes	865	115	396	354	356	59	157	140	509	56	238	215
Paralysis, complete or partial	817	279	254	284	470	168	146	156	347	111	108	128
Impairments (except paralysis) of back or spine	1,613	771	622	220	859	410	363	86	754	361	258	134
Impairments (except paralysis and absence) of upper extremities and shoulders	431	196	156	80	285	145	105	35	146	50	50	45
Impairments (except paralysis and absence) of lower extremities and hips	1,551	648	480	423	887	449	281	157	664	199	199	266
Visual impairments	1,115	259	302	554	623	188	178	257	492	70	125	297
Hearing impairments	431	211	101	119	267	140	64	63	165	71	38	56
Malignant neoplasms	358	54	178	125	161	*	80	63	197	36	98	62
Emphysema	566	31	252	282	455	*	201	238	111	*	51	44
Asthma, with or without hay fever	1,010	595	260	154	574	343	133	98	435	252	127	56

Table 2. Number of nursing home residents with selected chronic conditions, by sex and age: United States, 1969

Selected chronic conditions	All residents	Male					Female				
		All ages	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
Total	815,130	251,868	44,766	52,263	90,734	64,105	563,262	48,100	86,229	231,101	197,832
Senility (including advanced)	459,672	130,586	7,093	23,977	55,102	44,414	329,086	7,240	38,541	142,333	140,972
Other mental disorders	147,705	54,064	23,431	14,852	11,838	3,943	93,641	27,859	23,038	27,869	14,875
Effects of a stroke	204,655	70,820	12,283	20,215	24,943	13,379	133,835	9,236	28,390	58,108	38,101
Heart trouble	296,129	86,249	6,009	15,855	36,047	28,338	209,880	5,345	26,059	90,486	87,990
Arteriosclerosis	469,011	133,578	8,708	25,583	56,289	42,998	335,433	7,700	41,503	147,043	139,187
Paralysis or palsy not due to a stroke	79,604	28,220	8,517	6,110	8,996	4,597	51,384	8,817	10,297	19,067	13,203
Arthritis or rheumatism	270,987	65,586	5,334	11,890	25,692	22,670	205,401	6,433	25,220	87,891	85,857
Diabetes	96,759	27,572	3,964	6,580	11,494	5,534	69,187	4,913	14,880	31,113	18,281
Chronic trouble with back or spine	81,720	20,795	4,041	4,149	7,020	5,585	60,925	4,298	8,465	24,683	23,479
Permanent stiffness or any deformity (limbs or back)	194,404	57,583	12,542	12,537	19,775	12,729	136,821	12,269	22,889	53,022	48,641
Chronic conditions of digestive system (excluding stomach ulcer, hernia of abdominal cavity, liver or gallbladder trouble	70,351	20,904	3,562	3,495	7,640	6,207	49,447	2,565	6,920	22,319	17,643

Table 3. Number and percent distribution of nursing home residents with selected chronic conditions by mobility status: United States, 1969

Selected chronic conditions	All residents	Mobility status[1]				
		A	B	C	D	E
	Number					
Senility (including advanced)	459,672	158,430	100,422	50,237	121,325	29,258
Other mental disorders	147,705	70,593	36,689	10,123	22,808	7,492
Effects of a stroke	204,655	44,863	23,345	31,516	80,689	24,242
Heart trouble	296,129	122,476	53,051	34,103	68,591	17,908
Arteriosclerosis	469,011	184,511	92,402	53,399	110,920	27,779
Paralysis or palsy not due to a stroke	79,604	23,219	10,442	11,757	25,943	8,243
Arthritis or rheumatism	270,987	113,085	47,759	33,481	61,543	15,119
Diabetes	96,759	42,620	15,656	12,448	21,166	4,869
Chronic trouble with back or spine	81,720	28,925	14,385	11,864	21,322	5,224
Permanent stiffness or any deformity (limbs or back)	194,404	56,545	25,514	34,190	60,946	17,209
Chronic conditions of digestive system (excluding stomach ulcer, hernia of abdominal cavity, liver or gallbladder trouble)	70,351	29,142	12,308	8,289	15,502	5,110
	Percent distribution					
Senility (including advanced)	100.0	34.5	21.8	10.9	26.4	6.4
Other mental disorders	100.0	47.8	24.8	6.9	15.4	5.1
Effects of a stroke	100.0	21.9	11.4	15.4	39.4	11.8
Heart trouble	100.0	41.4	17.9	11.5	23.2	6.0
Arteriosclerosis	100.0	39.3	19.7	11.4	23.6	5.9
Paralysis or palsy not due to a stroke	100.0	29.2	13.1	14.8	32.6	10.4
Arthritis or rheumatism	100.0	41.7	17.6	12.4	22.7	5.6
Diabetes	100.0	44.0	16.2	12.9	21.9	5.0
Chronic trouble with back or spine	100.0	35.4	17.6	14.5	26.1	6.4
Permanent stiffness or any deformity (limbs or back)	100.0	29.1	13.1	17.6	31.4	8.9
Chronic conditions of digestive system (excluding stomach ulcer, hernia of abdominal cavity, liver or gallbladder trouble)	100.0	41.4	17.5	11.8	22.0	7.3

[1]Mobility status categories are as follows:

A = Capable of going off the premises with or without assistance.
B = Confined to the premises but does not use a wheelchair.
C = Needs a wheelchair but requires minimal help in getting around.
D = Generally confined to bed but is in wheelchair for at least a few hours a day.
E = Restricted to total bed rest.

Table 4. Number of nursing home residents with specified multiple chronic conditions by sex, age, and mobility status: United States, 1969

Multiple chronic conditions	All residents	Male		Female		Mobility status[1]				
		Under 65 years	65 years and over	Under 65 years	65 years and over	A	B	C	D	E
Heart trouble, stroke	45,634	1,927	13,579	1,065	29,063	8,497	4,621	6,415	20,160	5,941
Heart trouble, arteriosclerosis	224,459	3,470	60,824	2,502	157,663	86,733	40,763	27,040	55,634	14,289
Heart trouble, diabetes	42,108	1,151	10,105	1,014	29,838	17,630	6,943	5,315	10,107	2,113
Heart trouble, senility (including advanced)	190,558	1,790	31,002	1,474	134,518	62,915	37,865	21,355	55,108	13,315
Heart trouble, arthritis-rheumatism	121,022	1,236	27,548	1,774	90,464	49,422	20,716	15,301	28,357	7,226
Stroke, arteriosclerosis	74,848	3,071	21,880	1,698	48,199	12,726	8,904	10,441	32,478	10,299
Stroke, diabetes	14,411	963	3,633	871	8,944	3,214	1,100	2,013	6,462	1,622
Stroke, senility (including advanced)	73,239	1,853	21,118	1,147	49,121	11,765	9,055	9,020	33,298	10,101
Stroke, arthritis-rheumatism	36,502	1,169	9,487	1,015	24,831	6,044	4,549	5,353	15,555	5,001
Arteriosclerosis, diabetes	56,404	1,216	14,504	1,418	39,266	22,723	9,621	7,250	13,674	3,136
Arteriosclerosis, senility (including advanced)	334,064	3,672	89,325	3,451	237,616	110,652	71,305	37,085	92,954	22,068
Arteriosclerosis, arthritis-rheumatism	195,816	2,414	45,358	2,359	145,685	76,954	35,903	24,218	47,413	11,328
Diabetes, senility (including advanced)	52,360	868	13,544	1,113	36,835	18,105	9,310	6,545	14,839	3,561
Diabetes, arthritis-rheumatism	30,933	490	6,024	857	23,562	13,726	4,772	3,893	6,718	1,824
Senility (including advanced), arthritis-rheumatism	175,146	1,389	41,163	1,650	130,944	58,664	34,744	21,321	49,010	11,407
Arteriosclerosis, heart trouble, stroke	37,390	1,418	11,278	489	24,205	6,170	3,861	5,363	16,886	5,110
Arteriosclerosis, heart trouble, diabetes	30,854	740	7,710	582	21,822	12,105	5,412	3,893	7,888	1,556
Arteriosclerosis, heart trouble, arthritis-rheumatism	100,234	895	23,259	1,125	74,955	39,370	17,230	12,981	24,499	6,154
Arteriosclerosis, heart trouble, senility (including advanced)	159,245	1,285	43,737	970	113,253	51,147	31,229	18,136	47,119	11,614
Arteriosclerosis, stroke, diabetes	9,203	528	2,026	386	6,263	1,916	808	1,219	4,099	1,161
Arteriosclerosis, arthritis-rheumatism, stroke	29,481	868	7,723	459	20,431	4,298	3,845	3,961	13,199	4,178
Arteriosclerosis, senility (including advanced), stroke	57,079	1,550	16,374	615	38,540	8,217	7,308	7,014	26,336	8,204
Heart trouble, stroke, diabetes	6,809	376	1,646	203	4,584	1,649	700	810	3,056	594
Heart trouble, stroke, arthritis-rheumatism	17,504	523	5,118	291	11,572	2,940	2,107	2,357	7,609	2,491
Arteriosclerosis, heart trouble, stroke, senility (including advanced)	28,907	630	8,804	121	19,352	4,010	3,252	3,240	14,137	4,268
Arteriosclerosis, heart trouble, stroke, arthritis-rheumatism	15,759	481	4,717	85	10,476	2,497	1,978	1,871	7,105	2,308

[1]Mobility status categories are as follows:

A = Capable of going off the premises with or without assistance.
B = Confined to the premises but does not use a wheelchair.
C = Needs a wheelchair but requires minimal help in getting around.
D = Generally confined to bed but is in wheelchair for at least a few hours a day.
E = Restricted to total bed rest.

Table 5. Number and rate per 1,000 persons in total population, and number and percent distribution of visually impaired persons aged 6 years and over by degree of impairment, according to sex and age: United States, July 1963-June 1964

[Data are based on information reported in household interviews of the civilian noninstitutionalized population during the Health Interview Survey of July 1963 to June 1964]

Sex and age	Total population	Total visually impaired persons[1]	Degree of visual impairment			
			Both eyes involved			One eye involved
			Total[2]	Cannot read newsprint	Can read newsprint	
Both sexes	Number in thousands					
6 years and over	160,824	5,029	2,666	969	1,687	2,281
6-64 years	143,802	2,614	1,159	290	865	1,411
6-16 years	40,956	314	131	24	107	174
17-44 years	65,244	910	310	73	236	588
45-64 years	37,602	1,391	719	193	522	649
65 years and over	17,022	2,415	1,507	679	822	870
65-74 years	11,120	1,087	590	188	401	484
75 years and over	5,903	1,328	916	491	421	386
Male						
6 years and over	77,398	2,270	1,005	348	651	1,229
6-64 years	69,855	1,325	490	118	369	816
6-16 years	20,830	171	63	*	*47	105
17-44 years	30,872	475	127	*25	101	346
45-64 years	18,153	679	301	77	221	364
65 years and over	7,544	945	514	229	282	413
65-74 years	5,031	442	194	65	128	244
75 years and over	2,512	502	320	165	154	170
Female						
6 years and over	83,426	2,759	1,661	621	1,036	1,052
6-64 years	73,948	1,289	669	171	496	595
6-16 years	20,126	142	68	*	60	68
17-44 years	34,373	435	183	*48	135	242
45-64 years	19,449	712	418	116	301	284
65 years and over	9,479	1,471	992	449	540	457
65-74 years	6,088	645	396	123	273	241
75 years and over	3,390	826	596	326	267	216

[1]Includes unknown whether both eyes involved or one eye.
[2]Includes unknown whether or not can read newsprint.

Table 5. Number and rate per 1,000 persons in total population, and number and percent distribution of visually impaired persons aged 6 years and over by degree of impairment, according to sex and age: United States, July 1963-June 1964—Con.

[Data are based on information reported in household interviews of the civilian noninstitutionalized population during the Health Interview Survey of July 1963 to June 1964]

Sex and age	Total population	Total visually impaired persons[1]	Degree of visual impairment			
			Both eyes involved			One eye involved
			Total[2]	Cannot read newsprint	Can read newsprint	
Both sexes	Rate per 1,000 persons	Percent distribution				
6 years and over	31.3	100.0	53.0	19.3	33.5	45.4
6-64 years	18.2	100.0	44.3	11.1	33.1	54.0
6-16 years	7.7	100.0	41.7	7.6	34.1	55.4
17-44 years	13.9	100.0	34.1	8.0	25.9	64.6
45-64 years	37.0	100.0	51.7	13.9	37.5	46.7
65 years and over	141.9	100.0	62.4	28.1	34.0	36.0
65-74 years	97.8	100.0	54.3	17.3	36.9	44.5
75 years and over	225.0	100.0	69.0	37.0	31.7	29.1
Male						
6 years and over	29.3	100.0	44.3	15.3	28.7	54.1
6-64 years	19.0	100.0	37.0	8.9	27.8	61.6
6-16 years	8.2	100.0	36.8	*	*27.5	61.4
17-44 years	15.4	100.0	26.7	*5.3	21.3	72.8
45-64 years	37.4	100.0	44.3	11.3	32.5	53.6
65 years and over	125.3	100.0	54.4	24.2	29.8	43.7
65-74 years	87.9	100.0	43.9	14.7	29.0	55.2
75 years and over	199.8	100.0	63.7	32.9	30.7	33.9
Female						
6 years and over	33.1	100.0	60.2	22.5	37.5	38.1
6-64 years	17.4	100.0	51.9	13.3	38.5	46.2
6-16 years	7.1	100.0	47.9	*	42.3	47.9
17-44 years	12.7	100.0	42.1	*11.0	31.0	55.6
45-64 years	36.6	100.0	58.7	16.3	42.3	39.9
65 years and over	155.2	100.0	67.4	30.5	36.7	31.1
65-74 years	105.9	100.0	61.4	19.1	42.3	37.4
75 years and over	243.7	100.0	72.2	39.5	32.3	26.2

[1]Includes unknown whether both eyes involved or one eye.
[2]Includes unknown whether or not can read newsprint.

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

Table 6. Average number of persons with hearing impairments, percent distribution, and rate per 1,000 persons in total noninstitutionalized population, by age and sex: United States, July 1963-June 1965

[Data are based on information reported in household interviews of the civilian noninstitutionalized population during the Health Interview Survey of July 1963 to June 1965]

Sex and age	Average number in thousands	Percent distribution	Rate per 1,000 population
Both sexes			
All ages	8,549	100.0	45.7
Under 25 years	823	9.6	9.5
25-44 years	1,341	15.7	29.6
45-64 years	2,673	31.3	70.5
65-74 years	1,808	21.1	162.1
75 years and over	1,904	22.3	317.2
Male			
All ages	4,785	100.0	52.8
Under 25 years	444	9.3	10.3
25-44 years	787	16.4	36.4
45-64 years	1,591	33.2	87.1
65-74 years	1,046	21.9	207.9
75 years and over	916	19.1	359.9
Female			
All ages	3,764	100.0	39.0
Under 25 years	379	10.1	8.7
25-44 years	554	14.7	23.4
45-64 years	1,081	28.7	55.1
65-74 years	763	20.3	124.6
75 years and over	987	26.2	285.4

APPENDIX I

TECHNICAL NOTES ON METHODS

Survey Design

The Resident Places Survey-3 (RPS-3) was conducted during June-August 1969 by the Division of Health Resources Statistics in cooperation with the U.S. Bureau of the Census. This was a sample survey of nursing and personal care homes in the conterminous United States which provide care to the aged and infirm. Data about the sample establishment itself, about the health of a sample of the patients or residents, about the administrator of the establishment, and about a sample of the employees were collected in the survey.

Sampling frame.—The universe for RPS-3 consisted of all institutions classified as nursing homes in the 1967 survey of the Master Facility Inventory (MFI). A detailed description of how the MFI was developed, its content, maintenance plans, and a procedure for assessing the completeness of its coverage has been published.[48,49] The MFI includes the names, addresses, and certain descriptive information about "all" hospitals and resident institutions in the United States. It was originally developed by collating a large number of published and unpublished lists of establishments and surveying these establishments by mail to obtain information on their nature and status of business.

Since the MFI serves as a sampling frame for institutions within the scope of the various health facilities surveys, it is imperative that it be kept as current as possible. To aid in accomplishing this purpose, a mechanism known as the Agency Reporting System (ARS) has been developed to provide information on new institutions. This information is incorporated into the MFI at regular intervals. A report on the origin and development of the ARS has been published.[50]

Although it was conducted in 1969, it should be noted that estimates from RPS-3 will not correspond precisely with figures from the 1969 MFI survey. This is because the two surveys used different data collection mechanisms; RPS-3 data are subject to sampling variability, and the RPS-3 universe did not include all MFI facilities. In general, however, the data from the two sources are compatible.

Sample design.—The sample was a stratified two-stage probability design; the first stage was a selection of establishments and their administrators and the second stage a selection of residents and employees of the sample establishments. In preparation for the first-stage sample selection, establishments listed in the MFI were sorted into three types of service strata: nursing care homes, personal care homes with nursing, and personal care homes. (The classification scheme for homes is described in appendix II.) "Births" (newly opened homes identified by the Agency Reporting System as not in the MFI) were treated as a fourth type of service stratum. Each of these four strata was sorted into seven bed-size groups, producing the 28 primary strata shown in table I. MFI establishments were ordered by type of ownership, State, and county. The sample of MFI establishments and the "births" were then selected systematically after a random start within each primary stratum. Table I shows the distribution of establishments in the sampling frame and the final disposition of the sample with regard to response and inscope status.

The second-stage selection of residents and employees was carried out by Bureau of Census interviewers at the time of their visit to the establishments in accordance with specific instructions given for each sample establishment. The sampling frame for residents was the total number of residents on the register of the establishment on the day of the survey. The sampling frame for employees was the Staff Information and Control Record (HRS-4e, appendix III), on which the interviewer listed the names of all employees of the establishment; he sampled only professional and semiprofessional employees, using predesignated sampling instructions that appeared at the head of each column of this form.

Survey procedures.—The Bureau of Census collected the data according to specifications of the Division of Health Resources Statistics. The initial contact with an establishment was a letter (HRS-4g-1, appendix III) signed by the Director of the Bureau of the Census and mailed prior to a personal visit to each sample facility. This letter was accompanied by the facility and administrator questionnaires (HRS-4a and HRS-4b, appendix III). The respondent for the facility questionnaire was usually the administrator or another member of the staff designated by the operator of the establishment. The administrator questionnaire was self-enu-

Table I. Distribution of homes in the Resident Places Survey-3 universe and disposition of sample homes according to primary strata (type of service and bed size of home): United States, June-August 1969

[Excludes Alaska and Hawaii]

Type of service and bed size of home	Homes in universe[1] (sampling frame)	Homes in sample			
		Total	Out of scope or out of business	In scope and in business	
				Nonresponding	Responding
All types of service	21,301	2,088	153	81	1,854
Nursing care	10,480	1,289	48	66	1,175
Less than 15 beds	858	21	4	2	15
15-24 beds	1,756	88	13	3	72
25-49 beds	3,448	260	16	10	234
50-99 beds	3,166	477	4	24	449
100-199 beds	1,062	316	9	24	283
200-299 beds	126	64	1	2	61
300 beds or more	64	63	1	1	61
Personal care with nursing	3,608	402	35	7	360
Less than 15 beds	941	24	6	-	18
15-24 beds	767	37	9	-	28
25-49 beds	828	62	7	1	54
50-99 beds	612	92	3	3	86
100-199 beds	332	100	6	2	92
200-299 beds	82	41	1	-	40
300 beds or more	46	46	3	1	42
Personal care	4,725	183	42	3	138
Less than 15 beds	2,937	60	16	-	44
15-24 beds	988	40	11	-	29
25-49 beds	561	35	5	-	30
50-99 beds	183	24	3	1	20
100-199 beds	48	17	5	2	10
200-299 beds	6	5	2	-	3
300 beds or more	2	2	-	-	2
"Births"[2]	2,488	214	28	5	181
Unknown beds[3]	473	-	-	-	-
Less than 15 beds	304	6	2	-	4
15-24 beds	255	11	3	-	8
25-49 beds	492	31	3	1	27
50-99 beds	681	83	4	3	76
100-199 beds	241	58	7	1	50
200-299 beds	30	13	3	-	10
300 beds or more	12	12	6	-	6

[1]The universe for the RPS-3 sample consisted of the nursing and personal care homes included in the Master Facility Inventory and the Agency Reporting System.

[2]"Births" consist of homes which were assumed to be in scope of RPS-3 but for which current data were not available.

[3]"Births" of unknown bed size were inadvertently excluded from frame.

merative, and it was completed by the person who was designated as "administrator" by the owner or operator of the sample facility. These two forms were later collected by an interviewer during the personal visit to the facility and were edited for completeness and consistency at that time. The resident information was obtained during the personal interview at the sample establishment. The sample of residents within an establishment was selected systematically according to predetermined sampling schemes. The interviewer was asked to list on the back of the Current Patient Questionnaire (HRS-4f, appendix III) all the residents, or patients, in the sample and to complete the health information for each of the sample patients from the patient's medical record and/or from the personal knowledge of a staff member of the establishment who had close contact with the resident and firsthand knowledge of the resident's health condition.

Staff information was obtained by means of a self-enumerative questionnaire (HRS-4c, appendix III), which the interviewer left at the facility with instructions for return by mail.

The usual checks and followups were performed during the course of the survey. 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.

General Qualifications

Nonresponse and adjustment for missing data.—Statistics presented in this report were adjusted for failure of a home to respond. Data were also adjusted for nonresponse which resulted from failure to complete one of the questionnaires or from failure to complete an item on a questionnaire.

Estimating 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 the variability of the estimate. The first-stage ratio adjustment is 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 is a ratio calculated for each stratum. The numerator is the total number of beds according to the Master Facility Inventory for all homes in the stratum. The denominator is 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 is to bring the sample in closer agreement with the known universe of beds. The second-stage ratio adjustment is 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 on which the selection is based.

Reliability of estimates.—As in any survey, the results are 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. 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.

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. It 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.

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 2 out of 3 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. The relative standard error of an estimate is obtained by dividing the standard error of the estimate 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 and those of estimated numbers in table III.

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

Standard error of a median.—The medians shown in this report were calculated from grouped data. Approximate 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 age of males is 77.7 years. The estimated number of males is 193,784 (table 2). The standard error of a 50-percent characteristic whose base is 193,784 is shown in table III, by interpolation, to be 1.13 percentage points.

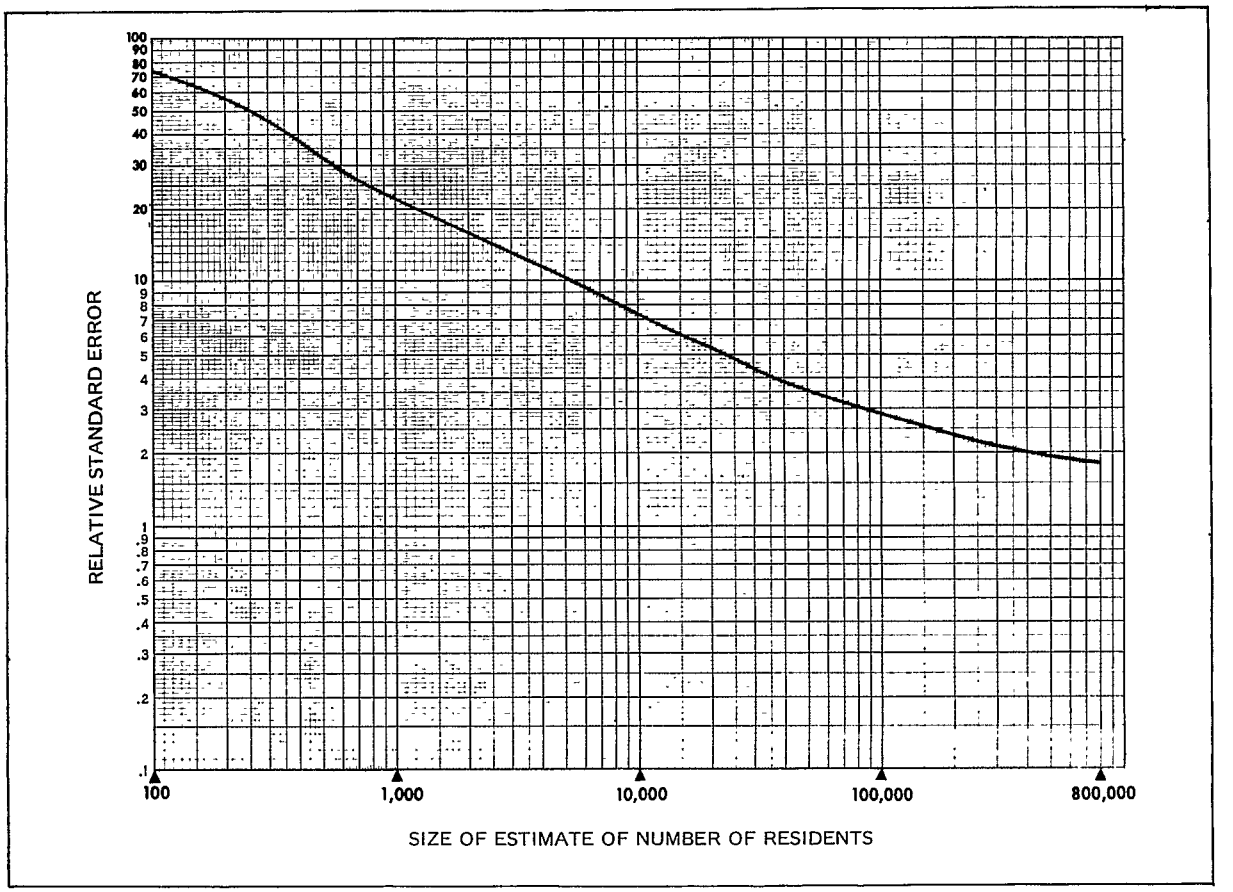

Figure I. Approximate relative standard errors of estimated numbers of residents shown in this report.

Example of the use of figure I: An estimate of 100,000 total residents has a relative standard error of 2.8 percent (read from scale at left side of figure). The estimate has a standard error of 2,800 (2.8 percent of 100,000).

Table II. Approximate standard errors of percentages of residents: RPS-3, June-August 1969

Base of estimated percent (number of residents)	Estimated percent						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
	Standard error expressed in percentage points						
1,000------	3.2	4.9	6.8	9.0	10.3	11.1	11.3
2,000------	2.2	3.5	4.8	6.4	7.3	7.8	8.0
5,000------	1.4	2.2	3.0	4.0	4.6	4.9	5.0
10,000-----	1.0	1.6	2.1	2.9	3.3	3.5	3.6
20,000-----	0.7	1.1	1.5	2.0	2.3	2.5	2.5
30,000-----	0.6	0.9	1.2	1.6	1.9	2.0	2.1
40,000-----	0.5	0.8	1.1	1.4	1.6	1.7	1.8
50,000-----	0.4	0.7	1.0	1.3	1.5	1.6	1.6
80,000-----	0.4	0.6	0.8	1.0	1.2	1.2	1.3
100,000----	0.3	0.5	0.7	0.9	1.0	1.1	1.1
200,000----	0.2	0.3	0.5	0.6	0.7	0.8	0.8
500,000----	0.1	0.2	0.3	0.4	0.5	0.5	0.5
600,000----	0.1	0.2	0.3	0.4	0.4	0.5	0.5
800,000----	0.1	0.2	0.2	0.3	0.4	0.4	0.4

Table III. Approximate relative standard errors of estimated numbers of residents: RPS-3, June-August 1969

Size of estimate	Relative standard error in percent	Size of estimate	Relative standard error in percent
100---------	71.4	80,000-----	3.0
500---------	32.0	90,000-----	2.9
1,000-------	22.6	100,000----	2.8
2,500-------	14.4	200,000----	2.3
5,000-------	10.2	300,000----	2.1
10,000------	7.3	400,000----	2.0
20,000------	5.3	500,000----	1.9
30,000------	4.4	600,000----	1.8
40,000------	3.9	700,000----	1.8
50,000------	3.6	800,000----	1.8
60,000------	3.3	900,000----	1.8
70,000------	3.1		

(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 47.74 percent (50 percent minus two standard errors) and 52.26 percent (50 percent plus two standard errors). The points are 92,512 (47.74 x 193,784) and 101,272 (52.26 x 193,784). From table 2, determine the ages that correspond to these points. They are 77.1 and 78.3 years, respectively. Therefore the confidence limit for the estimated median age of 77.7 years is 77.1-78.3 years at the 95-percent level of confidence.

It is possible to investigate whether the observed differences between two estimated medians can be attributed to sampling error alone by obtaining the upper 68-percent confidence limit, U_1' of the smaller 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 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 $2S(M_1' - M_2')$ has been considered a significant difference.

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.

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APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Residents

Age.—Age is defined as age at last birthday.

Resident.—A resident is a person who has been formally admitted to an establishment but not discharged. All such persons were included in the survey whether or not they were physically present at the time.

Classification of Homes by Type of Service

For purposes of stratification of the universe prior to selection of a sample, the homes on the MFI have been classified as nursing care homes, personal care homes with nursing, and personal care homes. The classification scheme for type of service was based on the following four criteria:

1. The number of persons receiving nursing care during the "past 7 days." Nursing care is defined as the provision of one or more of the following services:

   Taking of temperature-pulse-respiration or blood pressure
   Full bed bath
   Application of dressing or bandages
   Catheterization
   Intravenous injection
   Intramuscular injection
   Nasal feeding
   Irrigation
   Bowel and bladder retraining
   Hypodermic injection
   Oxygen therapy
   Enema

2. The presence or absence of nurses on the staff.

3. Whether or not the institution provides administration of medications or supervision over self-administered medications.

4. The number of activities for daily living for which the institution offers assistance. These include provisions of rub and massage, help with tub bath or shower, help with dressing, correspondence, or shopping; help with walking or getting about; and help with feeding.

The type of service provided by a home might have changed during the 2-year interval between the 1967 MFI survey (used as the basic sampling universe) and the RPS-3. To produce reliable statistics by type of service from the RPS-3, the homes were reclassified by type of service on the basis of the data collected in RPS-3. This classification procedure is essentially the same as the MFI scheme. The three types of service classes delineated for RPS-3 are defined as follows:

Nursing care home.—Home in which 50 percent or more of the residents received nursing care during the week before the survey and in which a registered nurse (RN) or licensed practical nurse (LPN) was employed at least 35 hours or more per week.

Personal care home with nursing.—Home in which either (a) some but less than 50 percent of the residents received nursing care during the week before the survey and at least one full-time RN or LPN was employed or (b) some of the residents received nursing care during the week before the survey, no RN or LPN was employed, and at least one of the following conditions was met:

The institution provided administration of medicine or supervision over self-administered medicines.

The institution provided assistance with three or more activities for daily living.

Personal care home.—Home in which one or more of the following criteria were met: (a) some of the residents received nursing care during the week before the survey, no full-time RN or LPN was employed, the institution did not provide administration of medicine or supervision over self-administered medicines, and the institution provided assistance with one or two activities for daily living; or (b) none of the residents received nursing care during the week before the survey, at least one full-time RN or LPN was employed, and at least one of the following conditions was met:

Table IV. Classification of institutions by type of service

Classification variables	Classification criteria													
Percent of total residents who received nursing care during the week prior to day of survey	50 percent or more					Some but less than 50 percent					None			
Number of registered or licensed practical nurses	1+	None				1+	None				0+			
Does the institution provide: (a) Administration of medicine or treatments according to doctor's orders or (b) Supervision over self-administered medicine?	...	Yes	No			...	Yes	No			Yes	No		
Does the institution offer assistance with three activities or more for daily living?	...	...	Yes	No		...	...	Yes	No		...	Yes	No	
Does the institution offer assistance with one or two activities for daily living?	...	...	...	Yes	No	...	...	...	Yes	No	...	...	Yes	No
Does the institution offer room and/or board as its only service?	...	...	...	...	Yes	...	...	...	...	Yes	...	...	...	Yes
Institution[1]	Nc	Pcn	Pcn	Pc	D	Pcn	Pcn	Pcn	Pc	D	Pc	Pc	D	B

[1] Nc=Nursing care home
Pcn=Personal care with nursing home
Pc=Personal care home
D=Domiciliary care home (out of scope)
B=Boarding or rooming house (out of scope)

The institution provided administration of medicine or supervision over self-administered medicines.

The institution provided assistance with three or more activities for daily living.

Institutions which provided assistance with one or two activities for daily living or offered room and board as the only service were classified as out of scope of the RPS-3. Table IV shows in detail the scheme for classifying institutions according to type of service.

Condition	*ICDA Code Numbers*
Advanced senility	290.0
Senility, not psychotic	309.6, 794
Other mental conditions (such as mental illness and retardation)	290.1-309.5, 309.7-315, 790
Cerebrovascular diseases	
Speech defect or paralysis (palsy) due to a stroke	438, 781.5
Other ill effects of stroke	430-436
Heart trouble	390-398, 400.1, 402, 404, 410-429, 782.1, 782.2, 782.4
Hardening of the arteries	440
Paralysis or palsy not due to a stroke	342, 343, 344, 348, 349.1-349.5, 350, 787.0, 780.3
Arthritis or rheumatism	710-718
Diabetes	250
Any chronic trouble with back or spine	353, 722.0, 725, 726, 728, 729.0, 729.1, 731.0, 735, 756.1, 756.2
Permanent stiffness or any deformity of the foot, leg, fingers, arm, or back	722.1, 727, 729.4, 736, 737, 738.2-738.9, 754, 755
Chronic conditions of digestive system (excluding stomach ulcer, hernia of abdominal cavity, liver or gallbladder trouble)	530, 535-537, 540-543, 560-569, 577.1-577.9, 750.1-751.9, 754.1-754.5
Auditory impairments	388, 389
Vision impairments	370.9, 378.9, 379

Figure II.

Coding Ranges for Chronic Conditions

The chronic conditions and impairments used in this report and their International Classification code numbers[28] are listed in figure II. (An explanation of the categories used in table 1 may be found in appendix II of *Vital and Health Statistics*, Series 10, Number 80.[51])

APPENDIX III

RESIDENT PLACES SURVEY-3: FORMS AND QUESTIONNAIRES

Introductory Letter

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

OFFICE OF THE DIRECTOR

HRS-4g-1 (4-69)

Dear Sir:

The Bureau of the Census, acting for the United States Public Health Service, is conducting a survey of nursing homes, homes for the aged, and other establishments which provide nursing care, personal care, or domiciliary care for the aged or infirm. The purpose of this survey is to collect much needed information about both the facilities and the employees and patients. This activity is part of the National Health Survey program authorized by Congress because of the urgent need for more comprehensive and up-to-date health statistics.

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 obtain the needed information. Prior to this visit, the Census representative will call you to arrange for a convenient appointment time. Meanwhile, to save time, I should appreciate your completing the two enclosed questionnaires which request some information about you and your establishment. Our Census representative will pick up these questionnaires when she visits you to obtain the additional desired information.

All the information provided on the questionnaires and 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,

A. Ross Eckler

A. Ross Eckler
Director

2 Enclosures

Staff Information and Control Record

FORM HRS-4e (3-27-69) U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

STAFF INFORMATION AND CONTROL RECORD

NOTICE – All information which would permit identification of the individual will be held in strict confidence, 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 purposes.

Budget Bureau No. 68-S69022
Approval Expires August 31, 1969

Establishment No.

Line No.	STAFF List below the names of all persons who work in this facility. Include members of religious organizations and orders who provide their services. Note: Be sure to list administrator and assistant administrator. (a)	SEX M – Male F – Female (b) 1 M	2 F	RACE W–White N–Negro O–Other (c) 1 W	2 N	3 O	OCCUPATIONS *Enter number from Card A* 1–11 Professional *Circle all persons* (d)	12 Professional SW_____ TE_____ *Circle sample persons* (e)	13–20 Semi-professional SW_____ TE_____ *Circle sample persons* (f)	21–24 Non-professional *Do not fill staff questionnaire* (g)	DISPOSITION OF STAFF QUESTIONNAIRE (h) Completed	Left	Date received in R.O.	Line No.
1														1
2														2
3														3
4														4
5														5
6														6
7														7
8														8
9														9
10														10
11														11
12														12
13														13
14														14
15														15
16														16
17														17
18														18
19														19
20														20

Budget Bureau No. 68-S69022; Approval Expires August 31, 1969

NOTICE – All information which would permit identification of the facility will be held in strict confidence, 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 purposes.

FORM HRS-4a
(4-3-69)

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

FACILITY QUESTIONNAIRE

(Please correct any error in name and address including ZIP code)

1. What was the number of inpatients in this facility on December 31, 1968? — Number

2. During the seven days prior to December 31, 1968, how many of the PERSONS in question 1 received "Nursing care"? Count each person only once. Consider that an inpatient received nursing care if he received any of the following services:

Nasal feeding	Catheterization	Irrigation
Oxygen therapy	Full bed-bath	Enema
Hypodermic injection	Intravenous injection	Temperature-pulse-respiration
Blood pressure	Application of dressing or bandage	Bowel and bladder retraining

No. of persons _____

3. In 1968, what was the total inpatient days of care provided? (The sum of the number of days of care given to each patient from 1/1/68 through 12/31/68) — Days

4. In 1968, how many admissions did this facility have? — Number

5. In 1968, how many of the admissions were Medicare patients? — Number

6a. In 1968, how many discharges, excluding deaths, did this facility have? — Number

b. How many patients were discharged to the following places –	Total No.	How many were Medicare patients?
(1) general or short-stay hospital?		___ ☐ None
(2) long-term specialty hospital (except mental)?		___ ☐ None
(3) mental hospital?		___ ☐ None
(4) another nursing home?		___ ☐ None
(5) personal care or domiciliary home?		___ ☐ None
(6) patient's home or family?		___ ☐ None
(7) other places? *(Specify place)* _____		___ ☐ None

7. In 1968, how many persons died while patients of this facility? — ___ ☐ None

8. What is the total number of patient beds regularly maintained (set up and staffed for use) in this facility? — Beds

9. What is the total NUMBER OF INPATIENTS (patients or residents) who stayed in your facility last night? *(DO NOT INCLUDE EMPLOYEES OR OWNERS)* — Number

10. During the past seven days, how many of the INPATIENTS in question 9 received "Nursing care"? Count each person only once. Consider that an inpatient received nursing care if he received any of the following services:

Nasal feeding	Catheterization	Irrigation
Oxygen therapy	Full bed-bath	Enema
Hypodermic injection	Intravenous injection	Temperature-pulse-respiration
Blood pressure	Application of dressing or bandage	Bowel and bladder retraining

No. of persons _____

Please continue on reverse side

11. Which of the following services are **ROUTINELY** provided?	
a. Supervision over medications which may be self-administered	1 ☐ Yes 2 ☐ No
b. Medications and treatments administered in accordance with physicians' orders	1 ☐ Yes 2 ☐ No
c. Rub and massage	1 ☐ Yes 2 ☐ No
d. Help with dressing	1 ☐ Yes 2 ☐ No
e. Help with correspondence or shopping	1 ☐ Yes 2 ☐ No
f. Help with walking or getting about	1 ☐ Yes 2 ☐ No
g. Help with eating	1 ☐ Yes 2 ☐ No
OR h. None of the above services **ROUTINELY** provided, room and board provided only	☐
12. Is this **FACILITY** participating in the Medicare program?	1 ☐ Yes 2 ☐ No (Skip to 16)
13. How many beds are certified for Medicare?	Number
14a. For how many patients is this facility now receiving Medicare payments?	Number
b. How many of these Medicare patients lived (had their home) in this State when admitted to this facility?	Number
15. In addition to two physicians, does the Utilization Review Committee include –	
a. the nursing director?	1 ☐ Yes 2 ☐ No
b. a social worker?	1 ☐ Yes 2 ☐ No
c. the nursing home administrator?	1 ☐ Yes 2 ☐ No
d. a physical therapist?	1 ☐ Yes 2 ☐ No
e. any other members? *(Specify occupation)*	1 ☐ Yes 2 ☐ No
16. How many persons are employed in this facility? *(Include members of religious organizations and orders who provide their services.)*	Total employees

17. Last month, were the following services provided on a regular basis through contracts or other fee arrangements?			How many persons provided this service?	Last month, how many hours did they spend providing this service?
			No. of persons	Hours
a. Physician (M.D. or D.O.)	2 ☐ No	1 ☐ Yes →		
b. Dental	2 ☐ No	1 ☐ Yes →		
c. Pharmaceutical	2 ☐ No	1 ☐ Yes →		
d. Physical therapy	2 ☐ No	1 ☐ Yes →		
e. Occupational therapy	2 ☐ No	1 ☐ Yes →		
f. Recreational therapy	2 ☐ No	1 ☐ Yes →		
g. Speech therapy	2 ☐ No	1 ☐ Yes →		
h. Social worker	2 ☐ No	1 ☐ Yes →		
i. Dietary (Dietitian)	2 ☐ No	1 ☐ Yes →		
j. Food service (meal preparation)	2 ☐ No	1 ☐ Yes →		
k. Housekeeping	2 ☐ No	1 ☐ Yes →		
l. None of above	☐			

FORM HRS-4a (4-3-69) USCOMM-DC

Administrator Questionnaire

Budget Bureau No. 68-S69022; Approval Expires August 31, 1969

NOTICE – All information which would permit identification of the individual will be held in strict confidence, 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 purposes.

FORM HRS-4b (4-4-69)

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

ADMINISTRATOR QUESTIONNAIRE

A. Name of administrator

B. Establishment No.

The U.S. National Health Survey of the Public Health Service is conducting a nationwide survey in nursing homes, homes for the aged, and other related types of establishments. The purpose of the survey is to obtain certain information about the staff employed in these establishments as well as about the health of patients or residents in the establishments.

Your answers will be given confidential treatment by the U.S. National Health Survey and the Bureau of the Census. The information will be used for statistical purposes only, and will be presented in such a manner that no individual person or establishment can be identified.
Thank you for your cooperation.

1. When were you born?	Month	Year
2. In what State (or foreign country) were you born?	State or foreign country	
3. How long have you been the administrator –		
a. in this facility?	No. of years	No. of months
b. in other nursing homes, homes for the aged, or similar facilities?	No. of years	No. of months
c. in hospitals?	No. of years	No. of months
4a. Are you the administrator for more than one NURSING HOME?	1 ☐ Yes *(4b)* 2 ☐ No *(Skip to Q.5)*	
b. For how many other NURSING HOMES?	Number	
c. What is the number of patient beds in EACH of the other NURSING HOMES?		
5a. How many hours did you work LAST WEEK IN THIS FACILITY ONLY?	Hours	
b. How many of these hours did you spend LAST WEEK performing EACH of the following services IN THIS FACILITY ONLY –		
(1) administration of the facility?	____	☐ None
(2) nursing care?	____	☐ None
(3) medical and dental care?	____	☐ None
(4) physical therapy?	____	☐ None
(5) occupational therapy?	____	☐ None
(6) recreational therapy?	____	☐ None
(7) speech and hearing therapy?	____	☐ None
(8) social work?	____	☐ None
(9) clerical work?	____	☐ None
(10) kitchen/dietary work, grocery shopping?	____	☐ None
(11) housekeeping services?	____	☐ None
(12) other? *(Specify service)* ____	____	☐ None
6. Besides the hours worked IN THIS FACILITY, how many additional hours did you work in your profession LAST WEEK?	____	☐ None
7. As an administrator, are you self-employed or a salaried employee?	1 ☐ Self-employed 2 ☐ Employee 3 ☐ Both	

Please continue on reverse side

8. What is the highest grade you completed in school?

Circle highest grade completed

a. Elementary school 1 2 3 4 5 6 7 8
b. High school 1 2 3 4

} *Skip to Q. 10*

c. Junior college 1 2

d. Nursing school (diploma). . . . 1 2 3

e. College . . . . . 1 2 3 4 5 or more

9. Which of the following degrees do you have?

Mark all that apply

	Major field of study
☐ Associate degree or certificate	
☐ Bachelor's degree	
☐ Master's degree	
☐ Doctorate (M.D., D.O., or Ph.D., etc.)	

☐ None of these

10. Which of the following professional degrees, licenses, or association registrations do you have?

Mark all that apply

☐ Physician (M.D.)

☐ Physician (D.O.)

☐ Registered Nurse (R.N.)

☐ Licensed Practical or Vocational Nurse (L.P.N. or L.V.N.)

☐ Registered Physical Therapist (R.P.T.)

☐ Registered Occupational Therapist (O.T.R.)

☐ Other professional degree, license, or association registration *(Specify)*

_____

☐ None of the above

11a. Have you ever taken any courses in nursing home administration?	1 ☐ Yes *(11b)* 2 ☐ No *(Skip to Q. 12a)*
b. How many of these courses have you taken?	Number
c. What were the TOTAL hours of class instruction? (For each course, number of hours per week times number of weeks attended)	Hours
12a. Did you ever receive any "on-the-job" training to be a nursing home administrator?	1 ☐ Yes *(12b)* 2 ☐ No *(Skip to Q. 13)*
b. How long did this training last?	Months
c. Where did you receive this training?	Name of place
13. Have you had any other education or training in nursing home administration?	1 ☐ Yes — *Describe below* 2 ☐ No

FORM HRS-4b (4-4-69) USCOMM-DC

HRS-4f

Current Patient Questionnaire

Name of sample person			Line No.
1. What is -- date of birth?	Month	Day	Year OR Age

2. Sex — 1 ☐ Male 2 ☐ Female

3. Race — 1 ☐ White 2 ☐ Negro 3 ☐ Other nonwhite

4a. What was his marital status at admission? . . . — 1 ☐ Married 2 ☐ Widowed 3 ☐ Divorced 4 ☐ Separated 5 ☐ Never married

b. What is his marital status now? . . . . . — 1 ☐ Married 2 ☐ Widowed 3 ☐ Divorced 4 ☐ Separated 5 ☐ Never married

5. What was the date of his LAST ADMISSION to this place? — Month ____ Day ____ Year ____

6. Which of these conditions or impairments does he have?	2 No	1 Yes	How long has he had this condition? 1 Less than 3 mos.	2 3 to 5 mos.	3 6 to 11 mos.	4 12 mos. or more
a. ADVANCED senility						
b. Senility, not pyschotic						
c. Other mental disorders (such as mental illness or retardation)						
d. Speech defect or paralysis (palsy) due to a stroke						
e. Other ill effects of a stroke						
f. Heart trouble						
g. Hardening of the arteries						
h. Paralysis or palsy not due to a stroke						
i. Arthritis or rheumatism						
j. Diabetes						
k. Any CHRONIC trouble with back or spine						
l. PERMANENT stiffness or any deformity of the foot, leg, fingers, arm, or back						
m. Chronic conditions of digestive system (excluding stomach ulcer, hernia of abdominal cavity, liver, or gallbladder trouble)						
n. Any other conditions or impairments – *Specify* _____						

7. At his last physical examination, what was his –
Primary diagnosis? _____
Secondary diagnosis? _____
Any other diagnosis? _____

8. During the past 7 days, which of these services did this patient receive?
Check as many as apply

1 ☐ Help with dressing, shaving, or care of hair
2 ☐ Help with tub bath or shower
3 ☐ Help with eating
4 ☐ Rub or massage
5 ☐ Administration of medications or treatment
6 ☐ Special diet
7 ☐ Application of sterile dressings or bandages
8 ☐ Temperature – pulse – respiration
9 ☐ Full bed-bath
10 ☐ Enema
11 ☐ Catheterization
12 ☐ Bowel or bladder retraining
13 ☐ Blood pressure
14 ☐ Irrigation
15 ☐ Oxygen therapy
16 ☐ Intravenous injection
17 ☐ Intramuscular injection
18 ☐ Subcutaneous injection
19 ☐ Intradermal injection
20 ☐ Nasal feeding
OR
21 ☐ None of the above services received

9a. Does he USE eyeglasses? — 1 ☐ Yes 2 ☐ No

b. Does he USE a hearing aid? — 1 ☐ Yes 2 ☐ No

10. Does he use any of the following aids –

			For what condition(s)?
a. walker?	2 ☐ No	1 ☐ Yes →	_____
b. crutches?	2 ☐ No	1 ☐ Yes →	_____
c. braces?	2 ☐ No	1 ☐ Yes →	_____
d. wheelchair?	2 ☐ No	1 ☐ Yes →	_____
e. any other aids? *Specify* _____	2 ☐ No	1 ☐ Yes →	_____

Footnotes

	Check	Does this require extra nursing time?	How long has he been this way? Less than 3 mos. 1	3 to 5 mos. 2	6 to 11 mos. 3	12 mos. or more 4	If less than 6 months, ask: How was he before that? Enter letter
11. Which of these categories best describes his ability to move about?							
a. Capable of going off the premises with or without assistance							
b. Confined to the premises, but does not use a wheelchair							
c. Needs a wheelchair but requires minimal help in getting around		1 ☐ Y 2 ☐ N					
d. Generally confined to bed but up in wheelchair for at least a few hours a day		1 ☐ Y 2 ☐ N					
e. Restricted to total bed rest		1 ☐ Y 2 ☐ N					
12. How well can he hear?							
a. Can hear a telephone conversation on an ordinary telephone (a telephone without an amplifier)							
b. Can hear most of the things a person says							
c. Can hear a few words a person says		1 ☐ Y 2 ☐ N					
d. Can hear only loud noises		1 ☐ Y 2 ☐ N					
e. Can't hear anything		1 ☐ Y 2 ☐ N					
13. How well can he see?							
a. Can read ordinary newspaper print with or without glasses							
b. Can watch television across the room (8 to 12 feet)							
c. Can recognize the features of people he knows if they are within 2 to 3 feet							
d. Is blind *(If blind ask c, mark here)*		1 ☐ Y 2 ☐ N					
14. How much control does he usually have over his bowels and bladder – – normally does he –							
a. Control bladder and bowels?							
b. Control bladder but not bowels?		1 ☐ Y 2 ☐ N					
c. Control bowels but not bladder?		1 ☐ Y 2 ☐ N					
d. Not control bowels or bladder?		1 ☐ Y 2 ☐ N					
e. Is catheterized?		1 ☐ Y 2 ☐ N					
15. Does this patient's behavior require more than the usual nursing time because he is forgetful, uncooperative or disturbing?							
a. No more than usual							
b. Slightly more							
c. Moderately more							
d. Much more							

ITEM A – If patient was not here for full month, check here ☐ and go to next person.

16a. Last month, what was the charge for his lodging, meals, and nursing care? *Do not include private duty nursing.* $

b. What was the TOTAL charge for his care last month? $

17a. What were the sources of payment for his care last month? *Check all that apply*

- ☐ Own income or family support (private plans, retirement funds, social security, etc.)
- ☐ Medicare (Title XVIII)
- ☐ Medicaid (Title XIX)
- ☐ Other public assistance or welfare
- ☐ Church support
- ☐ VA contract
- ☐ Initial payment – life care
- ☐ Other – *Specify* _____

b. What was the PRIMARY source of payment for his care last month? *Mark one only*

- 1 ☐ Own income or family support (private plans, retirement funds, social security, etc.)
- 2 ☐ Medicare (Title XVIII)
- 3 ☐ Medicaid (Title XIX)
- 4 ☐ Other public assistance or welfare
- 5 ☐ Church support
- 6 ☐ VA contract
- 7 ☐ Initial payment – life care
- 8 ☐ Other – *Specify* _____
- 9 ☐ None

☐ Patient was not here in December 1968 *(Next patient)*

18. What were all of his sources of payment for December 1968?

- ☐ Same as 17a–b
- ☐ Own income or family support (private plans, retirement funds, social security, etc.)
- ☐ Medicare (Title XVIII)
- ☐ Medicaid (Title XIX)
- ☐ Other public assistance or welfare
- ☐ Church support
- ☐ VA contract
- ☐ Initial payment – life care
- ☐ Other – *Specify* _____

Staff Questionnaire

Budget Bureau No. 68-S69022; Approval Expires August 31, 1969

NOTICE – All information which would permit identification of the individual will be held in strict confidence, 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 purposes.

FORM HRS-4c (4-3-69)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

ACTING AS COLLECTING AGENT FOR THE
U.S. PUBLIC HEALTH SERVICE

STAFF QUESTIONNAIRE

A. Establishment No.	B. Line No.

C. Name of person completing form

The U.S. National Health Survey of the Public Health Service is conducting a nationwide survey in nursing homes, homes for the aged, and other related types of establishments. The purpose of the survey is to obtain certain information about the staff employed in these establishments as well as about the health of patients or residents in the establishments.

Please complete the form and return it within **5 days to the Bureau of the Census, Washington, D.C. 20233,** in the postage-paid envelope provided.

Your answers will be given confidential treatment by the U.S. National Health Survey and the Bureau of the Census. The information will be used for statistical purposes only, and will be presented in such a manner that no individual person or establishment can be identified.

Thank you for your cooperation.

	Month	Year
1. When were you born?		

	No. of years	No. of months
2. How many years have you worked as a _____?		
a. in this facility?		
b. in other nursing homes, homes for the aged, or similar facilities?		
c. in hospitals? *(NOTE TO NURSES: Do not include special duty or private duty nursing.)*		

	Hours	
3a. How many hours did you work LAST WEEK IN THIS FACILITY ONLY?		
b. How many of these hours did you spend LAST WEEK performing EACH of the following services IN THIS FACILITY ONLY–		
(1) administration of the facility?		☐ None
(2) nursing care?		☐ None
(3) medical and dental care?		☐ None
(4) physical therapy?		☐ None
(5) occupational therapy?		☐ None
(6) recreational therapy?		☐ None
(7) speech and hearing therapy?		☐ None
(8) social work?		☐ None
(9) clerical work?		☐ None
(10) kitchen/dietary work, grocery shopping?		☐ None
(11) housekeeping services?		☐ None
(12) other services? *(Specify service)* _____		☐ None

4. Besides the hours worked IN THIS FACILITY, how many additional hours did you work in your profession LAST WEEK?		☐ None

Please continue on reverse side

5. What is the highest grade you completed in school?

Circle highest grade completed

a. Elementary school . . . . . 1 2 3 4 5 6 7 8 } Skip to Q.7
b. High school . . . . . 1 2 3 4 }
c. Junior college 1 2
d. Nursing school (diploma) . . . 1 2 3
e. College . . . . . 1 2 3 4 5 or more

6. Which of the following degrees do you have?

Mark all that apply	Major field of study
☐ Associate degree or certificate	
☐ Bachelor's degree	
☐ Master's degree	
☐ Doctorate (M.D., D.O., Ph. D., etc.)	
☐ None of these	

7. Which of the following professional degrees, licenses, or association registrations do you have?

Mark all that apply

☐ Physician (M.D.)
☐ Physician (D.O.)
☐ Registered Nurse (R.N.)
☐ Licensed Practical or Vocational Nurse (L.P.N. or L.V.N.)
☐ Registered Physical Therapist (R.P.T.)
☐ Registered Occupational Therapist (O.T.R.)
☐ Other professional degree, license, or association registration *(Specify)* →

_____

☐ None of the above

8. Have you ever taken any of the following courses: →

Fill Cols. (2)–(4) for each "Yes" answer in Col. (1)

(1)		TOTAL NUMBER of courses taken (2)	How many COURSES were taken while working for a degree or diploma? (3)	What were the TOTAL HOURS of class instruction? *Number of hours per week times number of weeks attended per course* (4)
a. Nursing care of the aged or chronically ill?	1 ☐ Yes → 2 ☐ No *(8b)*			
b. Medical or dental care of the aged or chronically ill?	1 ☐ Yes → 2 ☐ No *(8c)*			
c. Mental or social problems of the aged or chronically ill?	1 ☐ Yes → 2 ☐ No *(8d)*			
d. Physical therapy or rehabilitation?	1 ☐ Yes → 2 ☐ No *(8e)*			
e. Occupational therapy?	1 ☐ Yes → 2 ☐ No *(8f)*			
f. Nutrition or food services?	1 ☐ Yes → 2 ☐ No *(8g)*			
g. Nursing home administration?	1 ☐ Yes → 2 ☐ No			

FORM HRS-4C (4-3-69) USCOMM-DC

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