

Measures of Chronic Illness

Among Residents of Nursing and Personal Care Homes

United States, June-August 1969

Statistics on number of chronic conditions and impairments, mobility status, primary type of service, level of patient care, and number and types of special aids used. Comparisons made with data collected in May-June 1964. Based on data collected from a national survey of institutions during the period June-August 1969.

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Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

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

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SYMBOLS

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

MEASURES OF CHRONIC ILLNESS

AMONG RESIDENTS OF NURSING AND PERSONAL CARE HOMES

Donald K. Ingram, *Division of Health Resources Statistics*

THE SURVEY

An Overview

"Companions of the aged" exemplifies the significant role that chronic health problems play in the lives of older Americans. Old age and chronic illness have become almost synonymous. It is the lack of ability to cope with the wide range of chronic illnesses at home which has created the great demand for the services provided in nursing and personal care homes; the residents of these institutions have thus been traditionally characterized as a population among which these problems are highly prevalent.

About 4 percent of the total civilian population aged 65 years and over resided in the Nation's 18,390 nursing and personal care homes during June-August 1969. The total number of residents was estimated at 815,130, of which 89 percent were 65 and over. This institutionalized population is being studied here to update the extent and some of the effects and implications of chronic health problems among its members.

The data to be analyzed represent the product of a survey that sampled those establishments providing care to the aged and chronically ill in the United States. In cooperation with the U.S. Bureau of the Census, the Division of Health Resources Statistics undertook the study, referred to as the Resident Places Survey-3

(RPS-3), during June-August 1969. The RPS-3 represented one in a series of multiple-purpose surveys of these particular institutions.¹ It was preceded by RPS-1, conducted April-June 1963, and RPS-2, conducted May-June 1964. Each of these surveys has attempted to provide basic, statistical information about the nature and evolution of this segment of the Nation's health care system. The RPS-3 approach to the study of health and chronic illness in nursing and personal care homes was highlighted against two significant backdrops.

First, the prevalence of chronic illness among older Americans in general provided a striking statistical backdrop. It appeared that chronic health problems among older, noninstitutionalized persons had reached pandemic proportions, as seen through the Health Interview Survey.² Six of every seven persons aged 65 and over in the country were estimated to have at least one chronic condition. The number of individual cases of chronic illness in 1967 exceeded 50 million for 15 million individuals, an average of 2.8 conditions per person aged 65 years and over, or 3.3 per person when counting only those with chronic conditions.

Also striking were the statistics reflecting the impact of chronic illness on persons living outside institutions. Nearly half of those with chronic health problems suffered some limitations of activity at these ages, e.g., one of every

six persons was unable to work or keep house. Correspondingly, the ability to get about freely was also affected when a chronic condition existed. About one of every five persons 65 years and over has been reported to endure some type of chronic mobility limitation.

From the more positive perspective, it should be noted that, although most older Americans have chronic conditions, a substantial proportion of those living outside institutions are not limited in activity or mobility and are able to conduct their daily lives unhampered to any great extent by their chronic ailments. Less fortunate, however, are those who, as their age progresses and the severity of their conditions possibly intensifies, are confronted with the many problems involved in determining if they should leave a domestic environment and enter an institution.

Providing the second backdrop to this report, the question then is one of the policy affecting the institutionalization of chronically ill persons. The RPS-3 was concerned with what is apparently one of the fastest growing segments of the country's health care system. Since RPS-2, the advent of Medicare has apparently provided a considerable impetus to the development of new nursing care facilities. The number of nursing and personal care homes increased over 5 percent during the period between the two surveys; the number of residents increased much more sharply at near 50 percent.

Even with this tremendous growth, however, the number of older persons in these institutions was still apparently less than the number of persons receiving health-related care at home. As reported by the Health Interview Survey, about 1.7 million persons (about 5 percent of the civilian, noninstitutionalized population aged 55 and over) were receiving personal assistance or personal services at home as a result of illness, injury, impairment, or advanced age. Although personal care represented the bulk of services received, medically related care accounted for over one-fourth of all the services rendered, and the services of a registered nurse accounted for about one-fourteenth.³ The availability of care at home is, of course, one of the main contributory factors in determining whether the older, chronically ill person enters a nursing home. Other factors would include the severity of the

condition (hence the need of the services), the availability of the services, and the ability to pay for them.

These factors and others have interacted in spotlighting the role of these institutions within the health care system. Increasingly, attention is being focused on the role of the nursing home as the primary provider of care to the chronically ill and infirm. From the traditional concept of an "old folks' home" for the aged, indigent, and unwanted to the newly intended concept of a medical facility equipped to handle a multiplicity of chronic health problems and to provide a variety of medical, personal, and rehabilitative services, the transition and changing character of these institutions have been vital to the process of revamping their status in the delivery system. Intended is an interfacing of their role into the gap between the time the person requires hospitalization and the time the person is completely ambulatory. Although this report focuses primarily on the older residents and their chronic ailments, it also shows that nursing homes do not provide care for the aged exclusively. Approximately 11 percent of all residents were under 65 years of age. In addition, the intended transition may be represented in the designation for all homes certified for Medicare sponsorship. The inclusive term "extended care facility" illustrates the new medical scope of many of these institutions—comprehensive medical care; management; and rehabilitation for the chronically ill, impaired, and convalescent. It should be noted, however, that the term does not apply to all facilities studied in this report. As shown in table A, many are personal care homes offering limited or no nursing care services.

Scope

This report attempts to summarize the general health status of residents in nursing and personal care homes based on the survey data. Chronic health problems provide the principal focus for an analysis involving residents of these institutions; consequently, health has been examined through several indexes as a synthesis of the problems resulting from chronic illness. First, the prevalence of chronic conditions and impairments is used to reflect the extent of chronic

Table A. Selected data on nursing and personal care homes and their residents, by primary type of service: United States, June-August 1969

Primary type of service	Institutions	Residents	Males	Females	Ratio of males per 100 females	Ratio of all other residents per 100 white residents	Ratio of married residents per 100 other residents
All types	Number		Median age in years				
	18,390	815,100	79.71	81.9	45	5	15
	Percent distribution						
Nursing care	63	78	79.1	82.0	44	5	17
Personal care with nursing	20	17	77.8	82.3	46	4	12
Personal care	17	5	75.0	78.1	54	7	6

illness in the population. (A subsequent report will examine in detail the specific chronic diseases and impairments reported on in the RPS-3.) Second, the effect of chronic health problems is examined through the mobility status of the residents, or their ability to move about freely. Third, the implications of chronic illness are studied through an analysis of the health services available and received. Factors such as the type of service available in the facility, the level of patient care received, the number and types of special aids employed are used as indexes of health services relative to the care of chronic health problems.

For further purposes of this report, the number of chronic conditions and impairments is to serve as a major indicator of the general health status of the nursing home population. The mean number of conditions per resident has been used as an index to measure the departure from health; consequently, this one variable has been analyzed in great detail to determine its relationship to patient and other health variables.

The analysis to be presented closely parallels that of an RPS-2 report on chronic illness.⁴ The feasibility of applying a crude index of chronic illness to the nursing home population gained significant credibility from several findings in that study. It was demonstrated that the residents' mobility, or the freedom to move about, was affected to a great degree by the number of

chronic conditions present. This relationship was again markedly expressed in the RPS-3 population. Of the residents with two conditions or less, only about 12 percent were bedridden as compared with the estimated 33 percent with more than two conditions. In addition, the number of conditions reported in RPS-2 was related to the interval since the resident last saw a doctor while in the home. These data were not collected in the survey reported here, but the relationship between the increased number of physician visits and the increased number of conditions in the 1964 study also gives added support to the reliability of using the chronic illness index as a measure of the level of health. In at least one other study, the number of diagnosed illnesses among older persons has also been found as the most significant factor affecting the rate of use of medical services.⁵

Other findings in the RPS-2 showed that residents of homes providing nursing care and residents who actually received intense levels of nursing care had a greater prevalence of chronic illness than persons in other types of homes and persons who received only personal care.⁶ These relationships were also confirmed in the RPS-3 results. Another finding that was related to the increased number of chronic conditions and confirmed in this study was the increased likelihood that special aids, including eyeglasses, hearing aids, and more particularly orthopedic aids were used.⁷

In the noninstitutionalized population, many of the same general relationships are seen when the average number of conditions is applied as a measure of health. According to data from the Health Interview Survey, as the number of conditions per person increases, so does the degree of severity of activity limitations and the extent of mobility limitation among persons affected by chronic illness.²

It was therefore assumed that the number of chronic conditions and impairments could yield an easily applicable and reliable index of health status in the nursing home population. Chronic illness is reported as a quantifiable entity related to the negative component of health. The crude index applied here is certainly not to be compared with a complex, statistical model; but rather, in coordination with other measures of the effects of chronic illness, it is intended as a general summary of the state of health in the 1969 nursing home population. In addition to the chronic illness index, the mobility status of the residents and the health services available and received are analyzed as they relate to such demographic characteristics of the residents as age, sex, color, and marital status. Comparisons between the health status of the RPS-2 and RPS-3 populations¹ are also made since they can yield trend data revealing any significant changes following the advent of Medicare and Medicaid.

SOURCES AND QUALIFICATIONS OF DATA

Since information in this report is derived from a sample survey, the reader should be cognizant of certain qualifications involved. The three appendixes are intended to properly interpret the statistics presented.

Appendix I contains a general description of the survey, the sample design used, and the survey procedures utilized. Imputation procedures, estimation techniques, and estimates of sampling variation are also described before directing the reader to the tables of standard errors.

Definitions of the terms used in the report are presented in appendix II and are also essential for the interpretation of data. It should be particularly noted that the classification of establishments in the survey was based on the type of service provided in the home and on the availa-

bility of nursing care, rather than relying on what the home was called or how it was licensed in the State. Accordingly, since frequent reference is made to the term *nursing home*, it is important to note again that not all residents were in homes that supplied nursing care as defined in this study (table A).

Facsimiles of the questionnaires and of the forms used to obtain the data presented in this report are shown in appendix III. In collecting information on chronic illness, the study focused on conditions and impairments thought to have special significance for the aged population, rather than on determinations of the prevalence of all types of conditions and impairments. The conditions counted were obtained from the list in item 6 of the Current Patient Questionnaire and from items 12 and 13, pertaining to impairments in hearing and vision, respectively.

All information concerning the resident's state of health was obtained from proxy respondents available in the home, such as nurses or other personnel, who were thought to be the persons best acquainted with the resident's general, medical condition. From personal knowledge of the residents and from the residents' medical records, the respondents only reported the conditions listed in appendix III that the sample person had; therefore, every chronic condition or impairment that a resident had may not have been reported. Furthermore, although each category was counted as an exclusive event, there were multiple conditions listed in several of them. For the purposes at hand, this combination of several conditions was assumed to contribute to a resident's ill health in a uniformly unique fashion. To reemphasize the line of reasoning employed, the conditions listed were those thought to be most relevant to the population under study and those the respondents could easily recognize.

Acknowledged, too, are the limitations inherent to reporting the extremely elusive concepts basic to the present analysis. The concepts of health and indexes of health have been dealt with at length, too much to be encapsulated in this report; and yet uniform agreement has still not been achieved.⁸

The negative component of health may be measured to an extent through mobility and disability statistics, as reported for the nursing home population; this method, however, fails to

assess the positive element implicit in the definition of health offered by the World Health Organization.⁸

Health is a state of complete physical, mental, and social well being and not merely the absence of disease and illness.

The value of such a study among home residents is certainly recognized. The extremely poor health condition of some residents, however, would make them unreliable respondents. Proxy respondents who actually care daily for the residents would be more reliable. An expert opinion based on clinical observation, examination, and/or testing of the individual is perhaps the most valid; but this approach could not be used here because of the obvious cost and logistics involved. Medical diagnoses from physical examinations were reported in RPS-3 and will be analyzed in a subsequent report; but they, too, have their qualifications.

Another important limitation that must be acknowledged is implicit in the definition of chronic illness. This report refers to all chronic illnesses, diseases, problems, ailments, afflictions, and impairments as *chronic condition*, or, simply, *condition*. Consequently, a resident's count of conditions may involve a number of varying or related diagnoses and may range in severity from a terminal breast cancer to simple loss of hearing. Whenever an attempt is made to measure these conditions and to quantify the problems they present, many difficulties are encountered. By their nature, chronic conditions are slow in onset, progress gradually, and may exist for months or years before death occurs. Many chronic illnesses can be medically controlled. Nearly all residents in nursing homes were found to have chronic health problems; yet apparently many of them, at the time of the survey, were not disabled to any great extent. Many, and at very advanced ages, moved about even without the aid of a wheelchair. In addition, diagnostic criteria are far from uniform. They vary greatly, depending on the needs of a particular study, so that comparisons between household and institutional surveys, for example, must be done in regard to these differing diagnostic criteria. No attempt was made to assess the degree of difference. Even if chronic diseases could have been measured at compa-

rable levels of severity, in this report there would still exist the questions of which clinical measure of severity to employ, since they, too, vary with the disease in question.⁸ The data analysis must be interpreted in the light of all the limitations presented by the definitions and by the statistical measures employed.

As previously mentioned, the RPS-3 was a multiple-purpose survey to collect statistics on basic personal and health characteristics of residents, and on the services provided, the charges for the services, and the administrators and employees in the establishments which house them. Though this report is primarily concerned with the health of residents as indicated by the number of conditions, mobility status, and health services, additional reports from RPS-3 have been published which deal with other aspects of this sector of the health care system.⁹⁻¹¹

THE POPULATION

A detailed analysis of the population's demographic profile has been reported previously.¹¹ Before examining the health status of the institutionalized population under study here, however, an overview of the population characteristics will provide some perspectives into factors affecting the utilization of these facilities. Projecting what has become the classic, demographic profile of nursing home residents, the profile of the 1969 population was again characterized as very aged, predominantly female and unmarried, and almost exclusively white (tables A and B).

Age

The skewness in the age distribution has traditionally been the identifying mark of the population. The median age of the residents in the 1969 population was 81 years. There were more very aged residents than younger residents—12 percent were 90 years and over as compared with 11 percent under age 65 and only about 2 percent under age 45. The highest concentration of residents, however, was in the age group between 75 and 84 years, which accounted for approximately 40 percent of the population (table B).

Table B. Number and percent distribution of residents in nursing and personal care homes by age, according to sex, color, and marital status: United States, June-August 1969

Sex, color, and marital status	Number of residents	Age					Median age
		Total	Under 65 years	65-74 years	75-84 years	85 years and over	
Percent distribution							
All residents	815,100	100	11.4	17.0	39.5	32.1	81
<u>Sex</u>							
Male	251,900	100	17.8	20.8	36.0	25.5	79
Female	563,300	100	8.5	15.3	41.0	35.1	82
<u>Color</u>							
White	778,500	100	10.7	16.6	39.9	32.7	81
All other	36,600	100	25.5	24.4	29.9	20.2	75
<u>Marital status</u>							
Married	95,600	100	13.2	22.9	45.0	18.9	79
Widowed	518,200	100	3.3	13.7	43.1	39.9	83
Divorced-separated	34,300	100	39.7	31.2	21.7	7.4	69
Never married	167,000	100	29.7	21.2	28.6	20.6	75

Some interesting comparisons may be drawn if the age distribution of the nursing home profile is related to the total civilian population. Approximately 7 of every 1,000 persons 20 years and over were residents of nursing and personal care homes in 1969 (table C). At ages 65 and over, this rate of residency, or the rate of institutionalization, increased to 36 per 1,000; that is, 1 of every 25 persons in this age group was a resident of a nursing or of a personal care home. The residency rate increased more than five times at age 85 and over to 203 per 1,000 persons. At this advanced age, about one of every five persons was a resident of such an institution.

Sex

Women outnumbered men in the nursing home population by more than 2 to 1. Only 31 percent of the nursing home members were male, compared with about 69 percent female. Comparing median ages, table B shows that women as a group were also older than men. The

table also shows that there were proportionately twice as many males than females under 65 years of age, but 10 percent more females than males were 85 years and over.

Since the sex differential in life expectancy takes its toll in the older age group, there are, accordingly, more women than men aged 65 and over in the general population outside institutions. This comparison, however, is about 75 men per 100 women; whereas, in the 1969 nursing home population, there were only 40 men per 100 women aged 65 and over. As table C indicates, a sex differential is definitely evident in the utilization of these facilities. The rate of institutionalization in nursing homes was higher among women, and it increased with age.

Color

Residents of the "all other" category (see appendix III) were much in the minority in the nursing home population. Only about 37,000 persons in this category, 92 percent of whom were black, were estimated to be residents at the

Table C. Number of residents in nursing and personal care homes per 1,000 population 20 years and over, by age, sex, and color: United States, June-August 1969

Age	Total	Sex		Color	
		Male	Female	White	All other
Number per 1,000 population					
All ages, 20 years and over	6.5	4.2	8.5	6.9	2.7
20-64 years	0.9	0.9	0.9	0.9	0.8
65-74 years	11.6	9.9	12.9	11.7	9.6
75-84 years	51.7	36.0	62.3	54.1	22.9
85 years and over	203.2	130.8	247.6	221.9	52.4

NOTE.—Source of population base estimates was U.S. Bureau of the Census, *Current Population Reports, Estimates of the Population of the United States by Age, Race, and Sex: July 1, 1967, to July 1, 1969*, Series P-25, No. 441, March 19, 1970.

time of the survey. Over 95 percent of all residents were white. As a group, white residents were also older than all other residents. The median age of all other residents was 75 years compared with a median age of 81 for white residents (table B).

There was also a disparity in the residency rates for white residents and all other residents (table C). The older (65 years and over) white population utilized these facilities twice as often as did the all other population. This color differential in residency rates is better than four times greater for ages 85 and over.

Part of the explanation for the low utilization rates among persons other than white in the nursing home population may possibly be derived by comparing the proportions of white and all other persons in the general population who receive health-related personal care outside the institutions, or in the home. According to data from the Health Interview Survey, proportionately more persons other than white are receiving home care than are white persons. For the period July 1966-June 1968, about 4.7 percent of the white population 55 years and over and not in institutions reported receiving home care as compared with 7.2 percent of all other persons in the same age group.³ The availability of care at home and the ability to pay for institutional care have probably been interacting factors that have produced this disparity in the utilization of nursing homes.

Marital Status

Only about one of every eight residents in nursing and personal care homes was married at the time of the survey (table A). The great majority did not have spouses, most persons (two-thirds) being widowed. Based on a previous RPS-3 report that presented data on marital status at the resident's time of admission, it is apparent that at least 1 of every 10 persons married had become widowed since entering the nursing home.¹¹ At the time of the survey, a small proportion (about 1 in 25) had dissolved their marriage through divorce or separation. And one of every five residents had never married.

There were definite variations among the marital status groups when the ages of the residents were compared (table B). The median age of never-married residents was 74.6 years. More than half the population under 65 years comprised residents who had never married. Part of this group may have been younger, single persons in need of intensive, extended care; however, here, too, is indicated the tendency of older, single persons to seek care in these institutions at younger ages than do other persons because the care is less likely to be afforded through some kind of a familial environment in the home.¹² Only about 13 percent of the persons who receive home care have been reported as living alone or with nonrelatives, while the

great majority (89 percent) of those receiving care at home were living with relatives.³

The same factor is possibly involved in the small group of divorced or separated residents who had the lowest median age at 68.8 years, but the reasoning is not entirely clear. The marital status group most inconspicuous at the younger ages under 65 years were married residents, another factor indicating the role that the availability of home care plays in determining the decision to enter a nursing home. Additionally, there was only a small proportion of the widowed residents at the younger ages, while around four-fifths of the population 85 years and over had outlived their spouses and their potential source of care. In general, married residents were older than never-married residents, but younger than the widowed group. The median age for those with living spouses was 78.7 years compared with 83.1 years for those whose spouses were deceased.

HEALTH STATUS

In this section, the analysis of the degree of ill health among residents in nursing and personal care homes is based on two primary measures available from the survey data. First, the prevalence of chronic conditions and impairments in the population is used as an index to measure the primary extent of chronic morbidity. Second, the impact of chronic illness, or the resultant disability, is analyzed as it pertains to mobility status, i.e., the resident's ability to move about freely. Both indexes are examined in relation to personal variables—e.g., age, sex, color, and marital status—to conjecture various sociologic and epidemiologic factors interacting in demographic groupings of the nursing home population. Finally, an analysis describing how the number of conditions affects the residents' mobility status is used to indicate the correlation between the number of conditions and the general health status of the population. (Refer to tables 1-3.)

Number of Conditions and Impairments

Chronic health problems were not only highly prevalent in the nursing home population, affecting 98 percent of the residents, but they also

occurred in combination. The estimated total number of chronic conditions and impairments was 2.8 million, with an average of 3.4 conditions for every resident. A combination of five conditions or more was reported for over 25 percent of the residents.

For residents of all ages, a multiplicity of various conditions was the rule. Younger residents under 65 years had a mean of 2.5 conditions each, and residents over 85 years of age had on the average at least one more chronic condition or impairment than did the other age groups, the mean being 3.8 per person. Figure 1 shows the correlation between increased age and increased number of conditions. It is particularly evident when residents with five conditions or more are compared by age. Nearly a third of persons 85 years and over had this strikingly high number of conditions, three times that of people under 65. When nearly identical population groups with no evidence of chronic illness were compared by age, another fact remained clear; i.e., a resident of a nursing or personal care home was likely to have at least one chronic condition, no matter the age.

The prevalence of chronic conditions also varied somewhat between male and female residents. Women had a slightly higher number of conditions than did men: 3.5 per female resident compared with 3.3 per male resident. Two-tenths' difference between the means indicates, however, that for comparable groups, women in nursing homes averaged an excess 7 percent in the number of conditions; i.e., for every five residents of each sex, women averaged at least one more condition than did men. Even this disparity had not been projected in the 1964 study when the mean for each sex was identical, computed at 3.1 conditions per resident.

Although not analyzed thoroughly here, most of the variation between the sex means in the RPS-3 was probably largely caused by the differences in age between the 1964 and the 1969 populations. Since RPS-2, the median age for females has increased by nearly 1½ years and that for males has increased by less than half a year only. Even though the increased age of the female population must be acknowledged since it relates to increased exposure to chronic illness, there appears to persist a modest variation by sex even when age is considered. Men under 65 years appear to average more conditions than

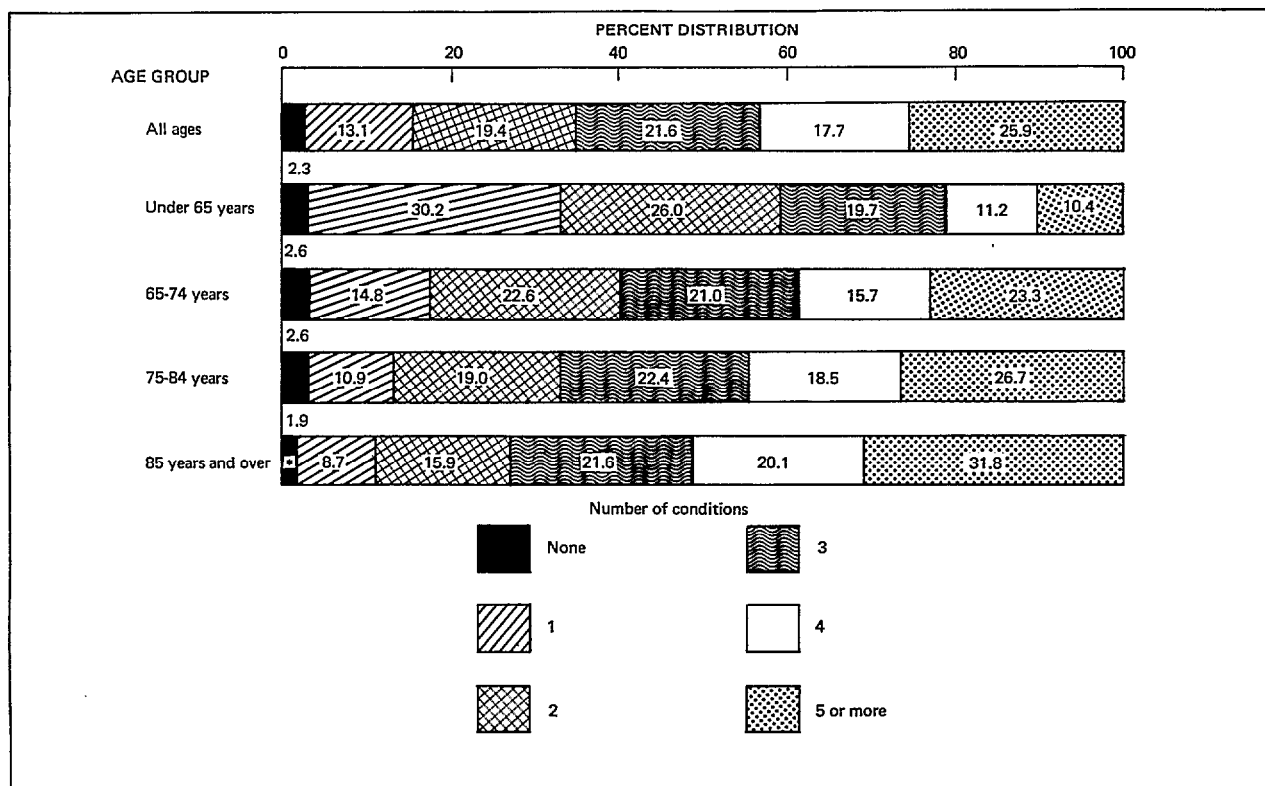


Figure 1. Percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to age.

women of the same age. This disparity seems to reverse, however, at older ages, appearing most significant at the ages of 85 and over. These differences were statistically insignificant in the last survey, and they do not hold to significance testing in this one. It only suggests that, with the exception of residents under 65 years, women may tend to have more conditions on the average at every older age than men.

Age	Males	Females
Average number of conditions per resident		
All ages . . .	3.29	3.49
Under 65 years . .	2.54	2.41
65-74 years	3.24	3.27
75-84 years	3.43	3.77
85 years and over .	3.65	3.88

Considering older persons in the general population, the sex differential in the prevalence of

chronic conditions has been demonstrated repeatedly in several classic and several current surveys of chronic illness.¹³⁻¹⁸ The most current Health Interview Survey statistics on chronic morbidity again show that women averaged higher numbers of chronic conditions than did men. Females aged 65 years and over had a mean of 3.0 conditions which compared with 2.7 for males in the same age group. Here, again, the consistent variation is probably explainable largely through the excess of women in the older segments of the populations who are consequently exposed to further excessive deterioration from general old age and accompanying chronic illness; however, other factors possibly involved, both epidemiologic and sociologic, remain largely unexplainable.

When the level of chronic illness between white and all other residents was compared, there was no discernible difference between the mean number of chronic conditions for the two subpopulations. Some disparity did appear to exist, though, when the mean was compared for

each age level. For each age group, white residents consistently averaged fewer conditions than did all other residents. The disparity was greatest at the younger ages, and it gradually converged at the older ages. Since there were about 13 percent more white than all other residents at ages 85 years and over, the lack of disparity in the overall average was probably attributed to the excess of older, white residents. Because the comparisons at each age were not statistically significant, however, any definite conclusion remains difficult to reach.

Age	White residents	All other residents
	Average number of conditions per resident	
All ages	3.43	3.46
Under 65 years	2.43	2.84
65-74 years	3.24	3.56
75-84 years	3.50	3.66
85 years and over	3.77	3.82

There was a discernible contrast in the number of conditions among residents grouped by their marital status. This variation had been uncovered in an RPS-2 report to reveal that residents who were divorced, separated, or never married tended to have fewer conditions on the average than did married or widowed residents.¹² Again, the percent distributions by number of conditions were closely aligned for married and widowed persons with means at 3.5 and 3.6 conditions, respectively. An identical mean of 3.0 conditions was computed for the other two groups, never-married and divorced or separated persons. Especially evident was the disparity for those with multiple combinations of conditions. Around two-thirds of the residents married or widowed had three conditions or more as compared with just over half the residents who were divorced, separated, or widowed. When the degree of chronic illness is measured at each age level, married and widowed residents, as a combined group, maintained consistently higher numbers of conditions per person than did the other group, the differences here proving statistically significant throughout.

Age	Widowed or married	Divorced, separated, or never married
	Average number of conditions per resident	
All ages	3.58	2.97
Under 65 years	2.79	2.32
65-74 years	3.39	3.00
75-84 years	3.55	3.27
85 years and over	3.80	3.61

Few studies on chronic illness have yielded data on its prevalence among marital status groups in the general population. A pattern of higher prevalence of disabling illnesses among unmarried women (including widowed, never married, divorced, and separated) was shown in one study, which would seem to confuse the patterns exhibited in the RPS-3 results.¹⁹ However, the differences in chronic morbidity levels among marital status groups in the nursing home population suggest more probably the influence of factors affecting the decision to enter an institution rather than factors epidemiologic in nature. If care is unavailable at home, then a person is more likely to seek care in a nursing home. Though the pattern for the small group of divorced or separated residents is not clear, it is clear that the group of never-married persons were less likely to be receiving care at home and were forced to look elsewhere. Again referring to data from the Health Interview Survey, nearly 9 out of every 10 persons receiving home care were living with relatives.³ The RPS-2 report on marital status also indicated that a resident entered a nursing home with fewer conditions if he had been living alone.¹²

Mobility Status

The data have shown the nearly universal extent of chronic health problems in the nursing home population. Nearly all residents reported at least one chronic condition or impairment; most had multiple conditions. However, the implications of chronic illness are more adequately reflected in their effect on a resident, particularly on his or her ability to get out of bed, to move around with minimal help, and to leave

the premises. To an accurate extent, a resident's mobility status is a measure of the degree of severity of the chronic conditions through its accompanying disability.

The proxy respondent was asked the following question about the resident: "Which of these categories best describes his ability to move about?" Ranging in the degree of mobility limitation involved, the responses were categorized as follows: (1) capable of going off the premises with or without assistance; (2) confined to premises but does not use a wheelchair; (3) needs a wheelchair but requires minimal help in getting around; (4) generally confined to bed but up in a wheelchair for at least a few hours a day; and (5) restricted to total bed rest.

For the purpose of this report, these categories are rated according to the degree of mobility limitation involved. Residents fitting the last two categories, or those who were either totally or generally confined to bed, were defined as being bedfast. Residents in the first three categories were referred to as ambulatory. Ambulatory in this instance does not concern the act of walking but refers to the residents' ability to move about relatively freely, or specifically to their freedom from bed confinement. Other limitations in mobility must also be recognized. Although considered ambulatory, residents included in the third category are referred to as chairfast; they are limited to mobility in a wheelchair and cannot leave the premises. Those in the second category who are not chairfast yet remain restricted to the premises are referred to as ambulatory, confined. Only the residents in the first category—called ambulatory, unconfined—are to be considered free from limitations in their mobility. An important qualification to this classification remains. It involves, as will be seen in the section concerning the use of special aids, the many residents who were using wheelchairs and other aids and who were reported as capable of leaving the premises. In this case, therefore, they must be included in the group of ambulatory, unconfined, residents, since they are apparently unlimited in mobility.

It was determined from these classifications that although most nursing home residents reported an ambulatory status, the majority appeared to experience some form of limitation in

their mobility. Of the estimated 56 percent of residents who were not capable of going off the premises, nearly half were bedfast. Only about 6 percent of all residents were restricted to total bed rest, and over 20 percent could get up in a wheelchair for at least a few hours a day. These residents constituted the 26 percent considered nonambulatory.

Although maintaining an ambulatory status, the other half of those restricted in mobility included the 11 percent of all residents who were reported as chairfast and the 19 percent who were confined to the premises but did not require a wheelchair to move about. The remaining 44 percent, a minority of the population, were considered ambulatory, unconfined, since they were capable of leaving the premises with or without assistance.

This relatively high proportion of persons with no mobility limitations in the nursing home population appears striking. Since the extent of help these persons received when leaving the premises is not entirely clear, however, comparisons with the general population, as seen through the Health Interview Survey, are awkward. Chronic mobility limitations, reported to affect nearly 20 percent of the noninstitutionalized population 65 and over, included the categories of "having trouble getting around alone" or "needing help in getting around." One of the few mutually compatible categories referred to the person being "confined to house." About 4.8 percent of the general population in the age group 65 years and over was confined to house. Another compatible category was the proportion of older persons who were confined to bed. Only an estimated 1 percent in the general population 65 years and over was bedfast.²⁰ When comparing this estimate to that of over a fourth of all nursing home residents who were bedfast at these ages, it is evident that the level of chronic illness in nursing homes, as measured by its effect, was clearly much more severe than in the population outside institutions.

Age again appeared to be a consistent primary factor contributing to a deterioration in health as measured by the resident's mobility status. As shown in figure 2, mobility limitations generally increased with age. The proportion of residents bedfast at ages 85 years and over was over 10 percent more than that for residents under 65

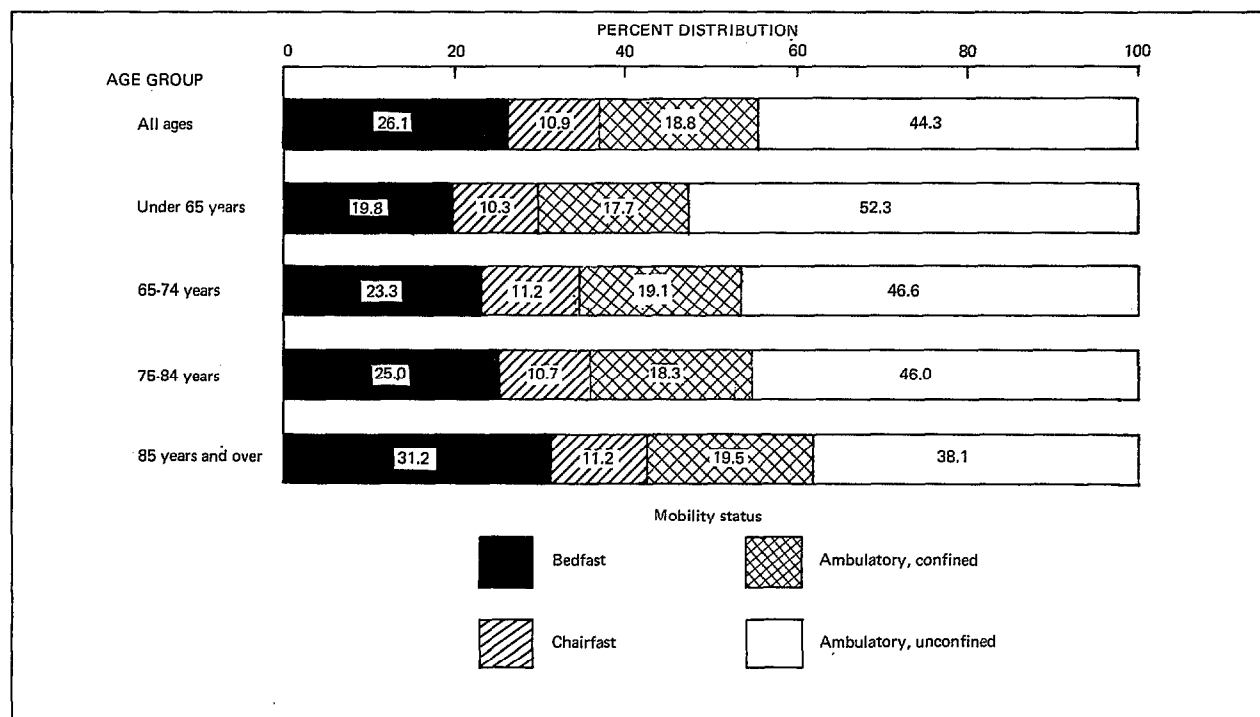


Figure 2. Percent distribution of residents in nursing and personal care homes by mobility status, according to age.

years. Likewise, the proportion of those unrestricted in mobility at ages 85 years and over was 14 percent less than the proportion for the younger residents under age 65. For chairfast or ambulatory, confined residents, however, there was little or inconsistent change in mobility status with increasing age. It should be noted, too, that many of the older residents appeared unlimited in their mobility. About 38 percent of those 85 years and over were reported to be capable of leaving the premises. This was more than the number who were confined to bed at this advanced age.

As with the prevalence of chronic conditions, a tenuous variation between male and female residents seemed to materialize with respect to mobility status. Women were slightly more restricted in mobility than men. Around 7 percent more females than males were bedfast; and accordingly about 7 percent more were confined to the premises (table D). There is little difference between the proportions of males and females grouped as chairfast or as ambulatory, confined. When considering only those residents confined to bed, the sequence of increased mo-

bility limitation with increased age is nearly consistent for both sexes. Male residents showed a general increase, but female residents showed higher levels of mobility restrictions at each age level. The sex differential for bedfast residents also increased proportionately, ranging from 2 percent at ages under 65 to nearly 10 percent at 85 and over.

Age	Males	Females
Percent bedfast		
All ages	20.9	28.4
Under 65 years	17.0	19.3
65-74 years	21.2	24.3
75-84 years	20.6	26.7
85 years and over	24.0	33.6

In the RPS-2, women had been slightly more restricted in mobility than men; but the sex differential for the residents who were bed limited had not been significant. Although women in

Table D. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to sex, color, and marital status: United States, June-August 1969

Sex, color, and marital status	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
		Percent distribution				
All residents	815,100	100	44.3	18.8	10.9	26.1
<u>Sex</u>						
Male	251,900	100	48.7	19.9	10.6	20.9
Female	563,300	100	42.3	18.3	11.1	28.4
<u>Color</u>						
White	778,500	100	44.6	18.6	10.7	26.1
All other	36,600	100	36.3	22.6	14.3	26.8
<u>Marital status</u>						
Married	95,600	100	35.8	15.3	13.0	35.9
Widower ¹	518,200	100	43.0	18.7	11.1	27.3
Divorced-separated	34,300	100	55.3	17.0	11.1	16.5
Never married	167,000	100	50.8	21.4	9.2	18.7

that survey tended to be slightly more limited than men at the younger ages, any potential overall difference was canceled since men were equally bed limited, suprisingly enough, at the older ages.⁴ In the RPS-1, however, more females than males, but only about 4 percent, were reported to be bedridden most of the time.²¹ In the same report, about 8 percent more females than males were classified as "never walking." In the population outside institutions, differences in mobility limitations between older males and females were not quite discernible. For men and women 65 years and over, there was little significant variation in the reported degrees of mobility limitations. More study is needed to determine whether a sex differential exists in the level of health at older ages, as measured by the prevalence of chronic illness and by the residents' mobility status, or whether the differential results from factors inherent in the study design and procedures.

White and all other residents, ranging around 26 percent, were divided nearly equally for each

group confined to bed. There was some variation with age, but it was inconsistent and statistically insignificant.

Age	White residents	All other residents
Percent bedfast		
All ages	26.1	26.8
Under 65 years	19.8	18.3
65-74 years	22.9	24.4
75-84 years	24.7	32.4
85 years and over	31.2	31.9

There appeared to be slight proportionate differences among residents in each group who were chairfast or ambulatory, confined; however, it is not until the proportions of residents in each group considered unlimited in mobility are examined that any significant variation emerges. About 8 percent more white residents

than all other residents were capable of leaving the institution (table D). This disparity held constant at each age level.

Age	White residents	All other residents
	Percent ambulatory, unconfined	
All ages	44.6	36.3
Under 65 years	52.9	46.5
65-74 years	47.3	35.2
75-84 years	46.4	31.2
85 years and over	38.2	32.0

In the noninstitutionalized population, there has been a tangible pattern toward higher levels of mobility limitations among older persons other than white.² The disparity has not been great in magnitude but rather has been spread over each type of limitation in mobility.

Mobility status did vary greatly among residents grouped by marital status. As shown in table D, more than a third of the married residents were bedfast, which was proportionally around twice as many as the divorced or separated or never married residents. Over a fourth of all the widowed residents were bedfast, and both married and widowed residents apparently had proportionally higher levels of limitations that prevented them from leaving the premises. This pattern is congruent to the one shown for the number of conditions. By age, the pattern in mobility status holds higher for married and for widowed residents, but it is not consistent (table 2).

Using these indexes of health, it does seem apparent that married and widowed residents were probably more seriously ill than were residents who were divorced or separated or never married. On the average, married or widowed residents had more chronic conditions seriously affecting their health; and, as a result, it is apparent that they were more likely to be confined to bed. An RPS-2 report has given further support to this claim by showing that when admitted, married and widowed residents were given more intensive care than were divorced or separated or never married residents.^{1,2}

Mobility Status and Number of Conditions

The distinct pattern of interrelationship between mobility status and the number of conditions was seen as the most direct expression of the implication between disability and chronic illness. As shown in figure 3, limitations in mobility tended to increase substantially with the number of chronic conditions and impairments. For example, the proportion of bedfast residents with more than one condition was over three times greater than the proportion of bedfast residents reporting only one condition or no conditions. Likewise, there were twice as many chairfast residents with more than one condition than chairfast residents with one condition or no conditions reported. In the ambulatory, confined, category, the number of residents with up to three conditions increased only moderately and then decreased as it was affected by the greater proportions of more severely limited residents who had more than three conditions. The trend in the proportions of residents who were classified as ambulatory, unconfined, is markedly consistent throughout its inverse relation with the number of conditions; i.e., as the number of conditions increase, there is a substantial decrease in the proportion of residents unrestricted in mobility.

Thus seen as a reliable indicator of mobility status, the number of conditions appeared to provide a reliable measure of the general level of health among nursing home residents. It should be noted, however, that many persons with multiple conditions were apparently unaffected in their mobility. For instance, only around one-eighth of those residents reporting no conditions were incapable of leaving the premises. This comparison strongly indicates that the number of conditions was the primary determinant of the resident's mobility limitation; but possibly overlooked are over one-fourth of the residents who had as many as five conditions and yet were classified as ambulatory, unconfined; i.e., they were unlimited in mobility even with several conditions with which to contend. Not reported here, though, are the possible types of other disability affecting the persons who were capable of leaving the premises. Mobility status as measured in this study did not give adequate representation to these problems. Some insight may

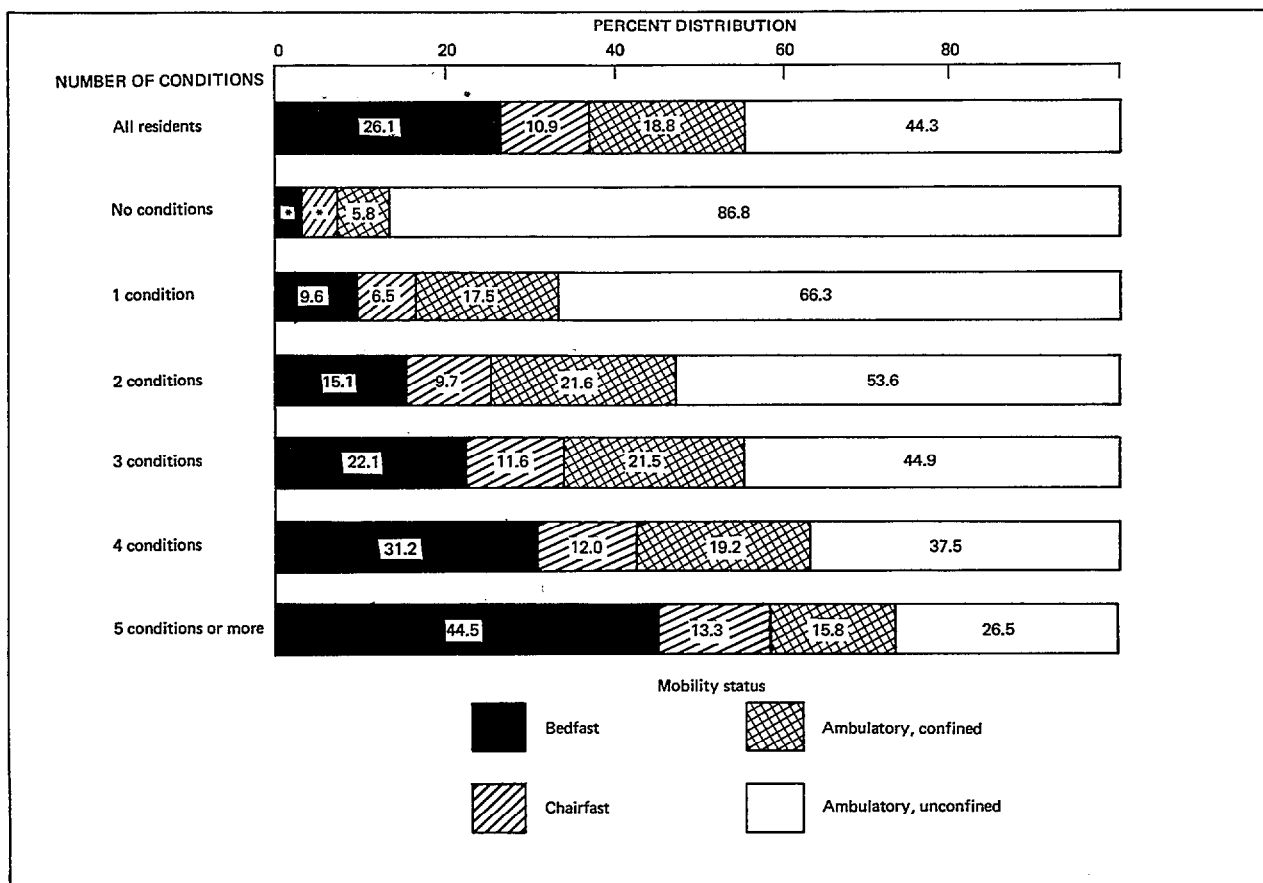


Figure 3. Percent distribution of residents in nursing and personal care homes by mobility status, according to the number of chronic conditions and impairments.

be gained, however, when the use of special aids is examined later in this report for the residents in the different mobility classes.

As discussed previously, the age of the resident also emerged as a primary determinant of increased mobility limitations. But again it is the number of chronic conditions that appeared to have overriding influence on the degree of mobility limitation affecting a resident. Considering residents in similar age groups and mobility status categories, it is seen from table E that with each decrease in a resident's mobility status there is a corresponding increase in the average number of chronic conditions and impairments. That is, residents with limitations in mobility average more conditions than residents with fewer or no limitations, at every age level.

HEALTH STATUS AND HEALTH SERVICES

In attempting to measure the general level of health in the nursing home population, the two variables—number of chronic conditions and impairments and mobility status—provided what might be called absolute measures. To the extent the reporting procedures were assumed reliable, the number of chronic conditions reported for each resident should not have varied greatly over time; it was considered an absolute measure of health status. To the extent that policies on patient mobility did not vary greatly among the institutions, the ability of a resident to move about freely should not vary greatly over time;

Table E. Average number of chronic conditions and impairments per resident of nursing and personal care homes, by mobility status and age: United States, June-August 1969

Age	Mobility status			
	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
	Number of conditions per resident			
All types	2.8	3.3	3.8	4.4
Under 65 years	2.1	2.4	2.9	3.2
65-74 years	2.7	3.2	3.7	4.2
75-84 years	2.9	3.4	3.8	4.5
85 years and over	3.0	3.6	4.1	4.7

then this ability, too, may be assumed an absolute measure of health status.

By examining the health services given to the residents, an expanded picture encompassing the relative health status may be developed. The type of service available in the home, the level of care actually given to the resident, and the number and types of special aids used are the variables studied against the absolute measures of health status in this section. Under examination was the question of increased requirements for health services from those residents with chronic health problems, particularly sicker residents who had many conditions or who were severely limited in their mobility. The measures of health services are considered relative since it was possible that they could be given independently of the health condition of the resident; that is, the patient not requiring them could have been given them just as routine, or patients requiring them might not have been given the services at all. It is difficult to assume. Furthermore, the health services may have been given in response to acute illnesses, events that could confound the measures employed thus far that attempt to focus on chronic illness. For example, a resident with few chronic conditions or none could have been given intensive care or could have been using a wheelchair for some acute condition only temporarily. Or persons in need of special aids might not have been using any. Thus, health services, as analyzed through this study, must be assumed to be relative measures; but, together with the absolute measures, they can provide further, useful information on the health status

of the residents and significant insight into where the general burden of patient care may have existed (refer to tables 4-9).

Primary Type of Service

The decision to enter a home is based partly on the type of care the person is to require as measured against the type of service the facility has available. Through a classification scheme relying on schedules of nursing care and patterns of staffing, homes were categorized into three groups by type of service provided: *nursing care homes*, *personal care homes with nursing*, and *personal care homes* (appendix II). The type of service provided served as a general measure of the type of service available in the home.

Of the estimated 18,390 facilities in the country, the greatest proportion, about 63 percent, were classified as providing primarily *nursing care*. These facilities housed 78 percent of this institutionalized population. Homes classified as *personal care with nursing* represented 20 percent of all facilities and provided care to 17 percent of the population. Those classified as primarily *personal care homes* comprised about 17 percent of the facility inventory, but only 5 percent of all members of the population resided in this type of home.

As measured by the number of chronic conditions, the level of health varied greatly among the homes classified by the type of service provided. Those residents free from chronic conditions or impairments remained very much in minority in all homes; however, the proportion

of those reporting no conditions did increase from around 1 percent of the residents in *nursing care homes* to 5 percent in homes providing *personal care with nursing* to around 10 percent in homes offering *personal care* as their primary service. In effect, figure 4 shows that multiple conditions remained evident in all homes, but were markedly more prevalent among the residents of *nursing care* facilities. Around 70 percent of these residents reported three conditions or more in combination, the average being 3.6. This estimate represents over one and a half more conditions or impairments per resident than was evident in *personal care homes*, or where nursing care was not routinely provided. About 70 percent of these residents reported two conditions or less in combination, the average being 1.9. The average number of conditions in homes that provided *personal care with nursing* lay almost midpoint in this range at 2.9 per resident, with about 65 percent of the residents reporting three conditions or more.

If the number of conditions is assumed to reflect the need for services, then it is quite evident from these comparisons that homes which were providing greater levels of care were providing the care to persons in need of the services. Persons who had entered *personal care homes* apparently had less of a medical factor involved in their decision. They were probably seeking primarily custodial care since what chronic conditions they had did not require routine nursing care. On the other hand, persons entering *nursing care homes* apparently required greater availability of this type of care, since most had a variety of chronic conditions and impairments, any of which could have demanded nursing attention.

The age of the residents varied among the homes typed by primary service. Residents of *nursing care homes* tended to be slightly older than were residents of other homes. The median age was 81.3 years compared with 81.2 for residents of *personal care homes with nursing* and 77.1 for residents of *personal care homes*. However, the difference in median age of patients among the types of homes did not confound the difference in the level of health between them when the number of conditions was used to measure the need for services among age groups. For each type of service home, this difference in

the number of conditions per resident increased at each age level, the range between *nursing care* and *personal care homes* being nearly two conditions at ages of 85 years and over.

Age	Nursing care	Personal care with nursing	Personal care
Number of conditions per resident			
All ages	3.63	2.90	1.94
Under 65 years	2.68	2.02	1.77
65-74 years	3.45	2.76	1.98
75-84 years	3.71	2.90	1.94
85 years and over	3.93	3.32	2.08

Mobility status was used to provide another crude measure of the need of services among the residents of this population and to indicate where the principal burden of patient care existed. Persons restricted in mobility, it was assumed, presented a potentially greater demand for nursing services. As shown in figure 5, this demand, considered commensurate with the needs of the residents, varied significantly among the three types of homes classified according to primary service provided. As expected, the pattern was identical to the one measured by the number of chronic conditions. With nearly a third reporting a nonambulatory status, residents of *nursing care homes* were portrayed through these measures at levels of health requiring more nursing attention; i.e., they tended to have more limitations in their mobility as they had had more chronic conditions and impairments potentially affecting them when compared with residents in other types of homes. The proportion of bedfast and chairfast residents in *nursing care homes* was approximately double that of homes classified as *personal care with nursing*. On the other hand, only about 5 percent of the residents of *personal care homes* suffered these severe limitations in mobility; in fact, about 80 percent of the population of these facilities were reported capable of leaving the premises. Age differences did not appear to have a great effect on these patterns in mobility among the residents of these facilities classified by type of service (table 5).

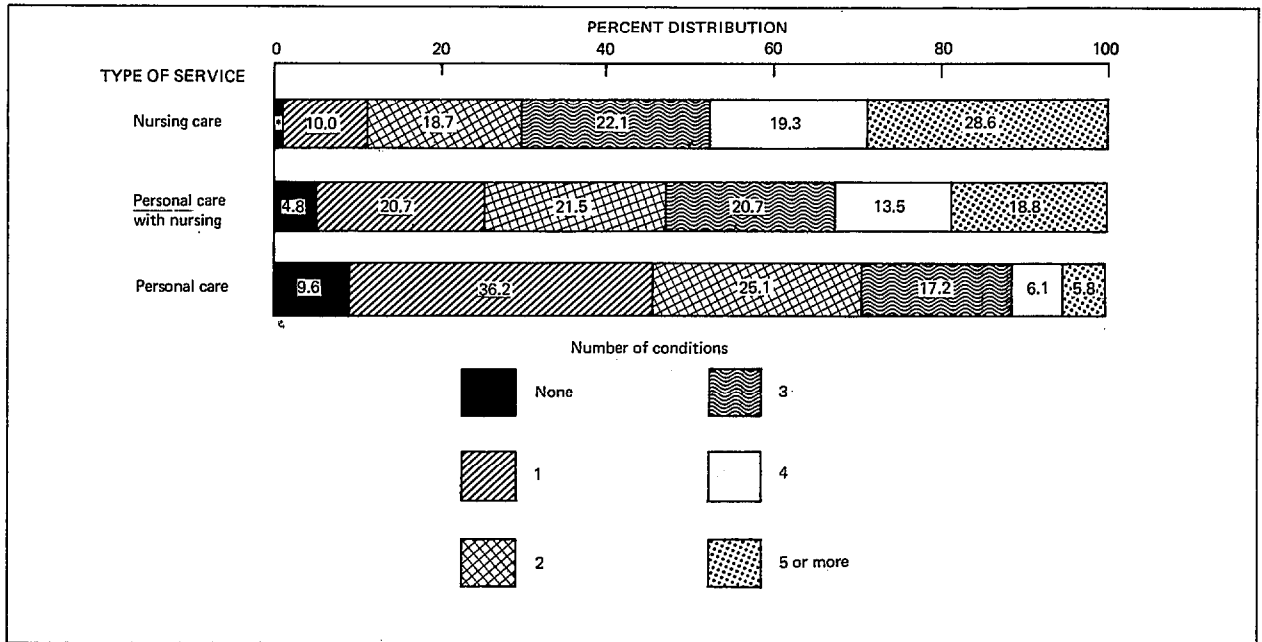


Figure 4. Percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to type of service.

Level of Patient Care

More direct data on the particular types of services a resident was receiving were also obtained. The proxy respondent was asked about the services that were actually given to each sample resident during the week before the survey. Of the 20 services for which data were collected,

there was a range from intensive nursing care services to basic, personal care services. Some patients received neither personal nor nursing care services, but about 94 percent received at least one. Most received more than one service, the average being more than five per resident.

Representing the volume of each service ren-

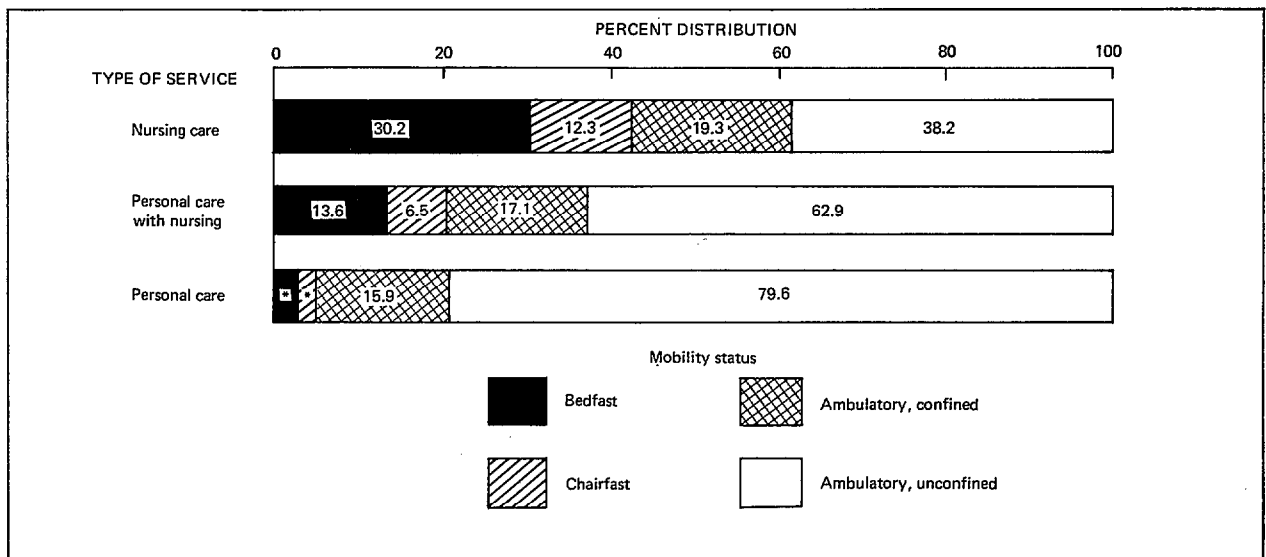


Figure 5. Percent distribution of residents in nursing and personal care homes by mobility status, according to type of service.

dered, the detailed percent distribution is presented in table F. As shown, the list of services has been grouped into levels of care based on an appraisal of the intensiveness of care. This grouping was fashioned to aid in further analyzing the relationship between the potential need of care, as measured by the number of conditions and the mobility status, and the delivery of care, as measured by the level of care provided by the staff of the home. Each succeeding level is considered exclusive of the previous levels.

As shown in figure 6, about three-fourths of all residents in these facilities were receiving some type of nursing care during the week preceding the survey. Most services provided were routine nursing care—temperature-pulse-respiration, enema, or blood pressure. Nearly a fifth of all residents, though, had received the intensive levels of care. On the other end of the spectrum, about a fifth of all residents were receiving care related only to personal needs, such as help with dressing or eating. Some residents—

Table F. Number and percent of residents in nursing and personal care homes, by patient care services received: United States, June-August 1969

Patient care services received	Number of residents	Percent of residents
<u>Intensive care</u>		
Catheterization	56,300	6.9
Bowel and bladder retraining	99,700	12.2
Oxygen therapy	10,600	1.3
Intravenous injection	4,800	0.6
Nasal feeding	3,300	0.4
<u>Full bed bath</u>		
Full bed bath	182,500	22.4
<u>Less intensive nursing care</u>		
Application of sterile bandages or dressings	59,600	7.3
Irrigation	43,100	5.3
Intramuscular injection	85,700	10.5
Subcutaneous injection	23,100	2.8
Intradermal injection	2,900	0.4
<u>Routine nursing care</u>		
Temperature-pulse-respiration	447,100	54.9
Enema	155,900	19.1
Blood pressure	429,700	52.7
<u>Personal care</u>		
Help with dressing, shaving, care of hair	564,300	69.2
Help with tub bath or shower	600,900	73.7
Help with eating	232,600	28.5
Rub and massage	435,800	53.5
Administration of medications or treatment	697,700	85.6
Special diet	265,700	32.6
<u>None</u>		
None of the above services received	50,500	6.2

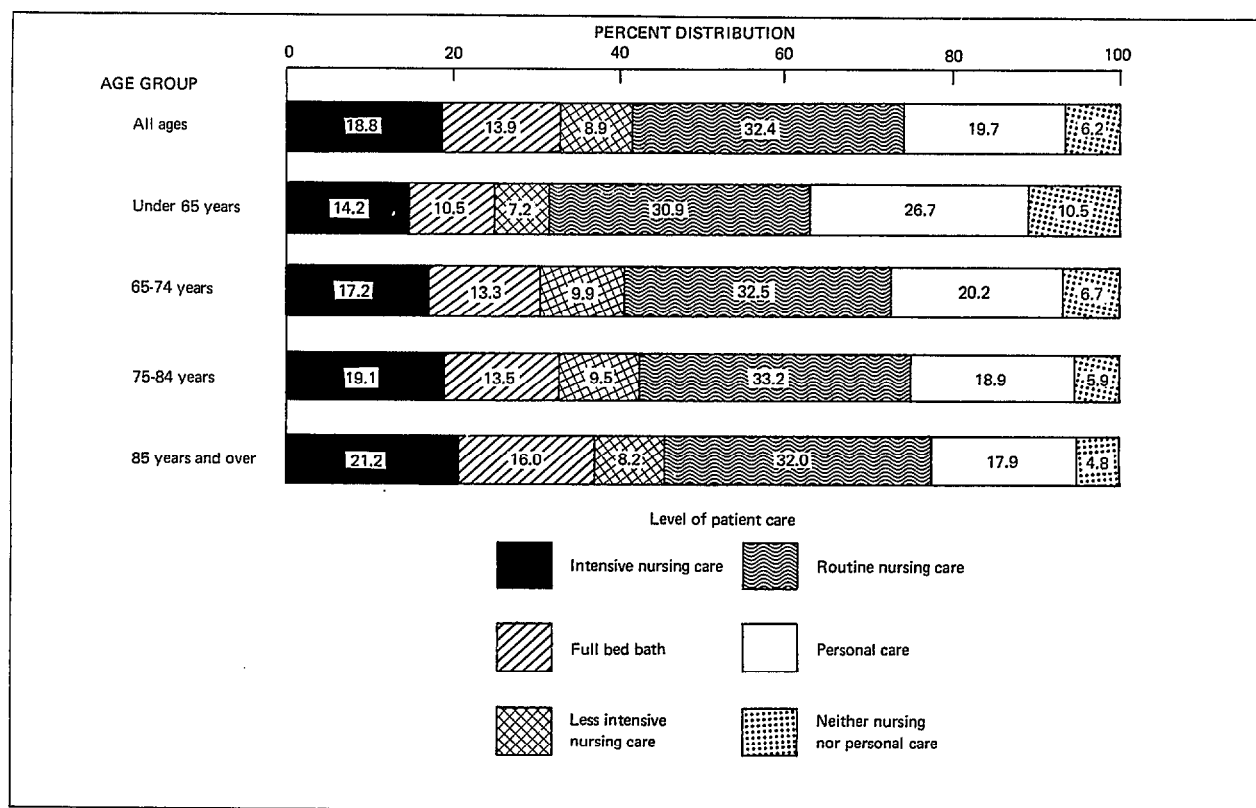


Figure 6. Percent distribution of residents in nursing and personal care homes by level of patient care, according to age.

more than 1 in 16—received no services related either to nursing or personal requirements.

Figure 6 also shows the direct relationship between the level of patient care and the resident's age. The older the resident, the more intense the level of nursing care tended to be. About 14 percent of those under 65 years had received intensive care. The proportion increased to 21 percent for those residents at ages 85 years and over.

A direct relationship between the level of care and the number of chronic conditions was also very evident, as seen in table G. Residents who had not received personal or nursing care services averaged 1.6 conditions. Compared to these residents, those under intensive nursing care averaged nearly three additional chronic conditions or impairments, the mean computing to 4.4. Those receiving full bed baths as their highest level of care averaged 4.0 conditions per resident; those receiving less intensive care, 3.6.

Residents receiving routine nursing services averaged 3.3 conditions; those receiving personal care only, 2.7 conditions.

This relationship emphasizes the potential role that the number of conditions plays as a primary determinant of the services the resident required and received. Of course, no true distinction can be made from this survey which could determine if the services provided truly were commensurate with the resident's needs. In addition, it may be said that persons with chronic conditions do not necessarily require continuous nursing care; it may only be needed on a periodic or a routine basis, but at intervals of longer than a week. Furthermore, it is somewhat difficult to assume that it is the multiplicity of chronic conditions which requires the additional nursing care and not an individual condition with the other conditions remaining neutral in effect or only demanding nursing attention in a slightly vicarious fashion. Multiple conditions,

Table G. Number of residents and average number of chronic conditions and impairments per resident of nursing and personal care homes, by level of patient care and age: United States, June-August 1969

Age	Number of residents	Level of patient care						
		Total	Intensive nursing care	Full bed bath	Less intensive nursing care	Routine nursing care	Personal care	None
		Number of chronic conditions and impairments per resident						
All ages	815,100	3.4	4.4	4.0	3.6	3.3	2.7	1.6
Under 65 years	92,900	2.5	3.4	3.0	2.8	2.5	2.1	1.4
65-74 years	138,500	3.3	3.2	3.9	3.5	3.3	2.6	1.6
75-84 years	321,800	3.5	4.5	4.1	3.7	3.4	2.8	1.5
85 years and over	261,900	3.8	4.7	4.3	4.0	3.6	3.0	1.8

then, do not necessarily preclude that services, particularly nursing care, should have been or were given during that week before the survey. Although nearly a third of the residents with as many as five conditions or more had received intensive nursing care, it should be noted that about a tenth of these residents had received only personal care or no services at all. As a further example, about a third of all residents with three conditions or more had received no services related to nursing care.

The validity of using the number of conditions as a crude measure of the relationship between the general level of health and the receipt of services in the nursing home is reinforced, though, when the level of care for different age groups is examined. Within any age group, table G shows that the average number of conditions tended to increase with each successive level of care. A multiplicity of chronic conditions again appears to demand a more intensive level of care, regardless of the age of the resident.

Previous reports from nursing home surveys have shown the level of patient care to be very sensitive to the mobility status of the residents, and this pattern was again repeated in the RPS-3.^{4,6} The effect of bedfastness was particularly evident since over three-fourths of the bedfast residents received other than routine nursing care. About 1 in 20 had received personal care only; and a few bedfast residents had received no services during the week

before the survey, but the numbers involved are of questionable reliability.

Figure 7 shows the general pattern of increasing restrictions in mobility with each successive more intensive level of care. Well over half those residents receiving intensive nursing care or a full bed bath during the week before the survey were bedfast. Yet it is particularly interesting to note that about 15 percent of both these groups requiring care that reflects a higher degree of illness were reported to be completely ambulatory and capable of leaving the premises freely. The proportions of chairfast residents reported at each level of patient care varied somewhat and showed only a slightly increasing pattern with more intensive levels of care. When compared with residents receiving personal care, there were proportionately about 4 percent more chairfast residents among those who had received some form of nursing care. Those residents who had apparently not required any services that week had very few restrictions on their mobility. About 87 percent were ambulatory, unconfined.

Overlooking the few exceptions, there was general consistency between the services received and the level of health as measured by the degree of disability. This consistency also remained generally intact when the age of the resident was considered (table 7). In summary, restrictions in mobility tended to produce more intensive levels of care at every age level.

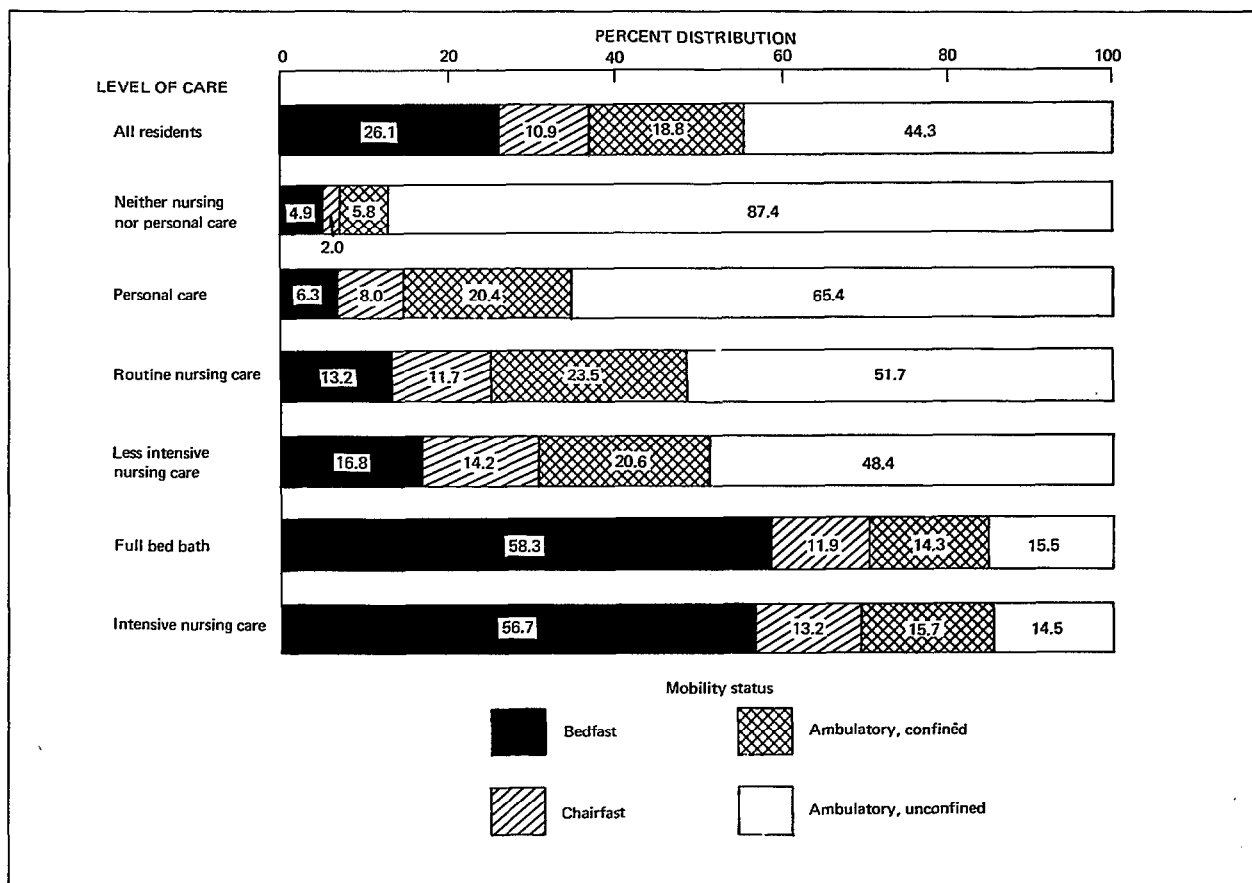


Figure 7. Percent distribution of residents in nursing and personal care homes by mobility status, according to level of patient care.

Special Aids Used

At the time of the survey, there were nearly a million special aids in use in nursing homes. As shown in table H, about half these aids were eyeglasses; the other half included hearing aids and orthopedic aids such as walkers, crutches, braces, and wheelchairs.

Over three-fourths of all residents were using at least one special aid, and nearly half were using two or more. Representing about 61 percent of this population, residents who wore eyeglasses were naturally the most commonly reported. About 5 percent of this institutionalized population used a hearing aid. Of the orthopedic aids, the wheelchair was the most prevalent. An estimated 31 percent of all residents were reported to be using a wheelchair, while about 12 percent moved about with the use of a walker. Only around 1 percent of the population used either crutches or braces, but about 11 percent

reported the use of other types of special aids, which comprised artificial limbs, canes, and any not otherwise specified.

The use of special aids can also reflect the extent of disability associated with chronic health problems. Since eyeglasses are commonly used among older persons and since they relate mainly to a single impairment, their use among residents of nursing homes does not reflect this particular relationship in any dramatic fashion. The proportion of users may be expected to be high. The same is probably true of hearing aids. In fact, the proportion of users over 65 years of age both in and out of institutions was an identical 5 percent.²² In contrast, it was interesting to note that the high proportion of residents who used eyeglasses was considerably less than the proportion representing comparable age groups in the noninstitutionalized population. The use of eyeglasses among persons 65 years and over who are not in institutions has been

Table H. Number and percent distribution of residents and number and percent of residents in nursing and personal care homes by the number of aids used in combination and type of aid in use, according to age: United States, June-August 1969

Number of aids used in combination and type of aid in use	Total number	All ages	Under 65 years	65-74 years	75-84 years	85 years and over
Percent distribution						
All residents	815,100	100	100	100	100	100
<u>Number of aids used</u>						
No aids used	181,900	22.3	43.9	25.9	18.7	17.2
One aid used	342,200	42.0	38.5	42.3	44.1	40.4
Two aids used	228,900	28.1	13.7	24.5	29.3	33.5
Three or more aids used	62,100	7.6	3.9	7.3	7.9	8.8
<u>Type of aid</u>						
Percent						
Eyeglasses	496,900	61.0	34.4	57.8	66.6	65.2
Hearing aids	38,200	4.7	-	2.5	4.8	7.0
Wheelchairs	253,900	31.1	27.4	30.8	30.5	33.5
Walkers	96,600	11.8	5.3	10.6	12.3	14.3
Crutches	10,000	1.2	2.0	1.5	1.1	1.0
Braces	8,900	1.1	2.4	2.2	0.8	0.4
Others	89,900	11.0	5.9	8.9	11.3	13.7
Total number of aids used	994,300	...	...	...	...	...

reported to be nearly universal, at 92 percent of the population.²² This compares with an estimated 64 percent of nursing home residents of the same age who were users of eyeglasses. Noting also this disparity in the use of eyeglasses, a previous report on special aids in nursing homes has postulated that the disparity may be attributed to the high proportion of bed-ridden residents who are possibly in such poor health that they could not use eyeglasses even if they had them.⁷

The use of orthopedic aids shows the relationship between disability and chronic illness most clearly. Only about 5 percent of the general population aged 65 years and over have been reported to use braces, crutches, wheelchairs, or walkers.²³ This measure compares with 45 percent of the nursing home population 65 years and over who used any of these special aids. The disparity in the level of health as indicated by the degree of disability is profoundly apparent.

Since it has been shown repeatedly that the age of a resident increases the likelihood of chronic conditions and the problems that accompany them, it was not surprising to find that the probability of using a special aid followed a

similar pattern. Considering the residents under 65 years of age, about 55 percent were using some type of special aid. About 84 percent of the residents 65 years and over reported the use of an aid. The increased use of eyeglasses probably contributes significantly to this disparity; however, older residents were also more likely to be using a combination of aids (table H).

Although it is clear that age increased the chances that a resident was using a special aid, the relationship was not entirely consistent when it was examined for each particular type. For some aids, a direct relationship remained between increased age and increased utilization of the aid; for others, there appeared to be an inverse relationship. For instance, when the use rate of eyeglasses, walkers, and the category including other special aids for residents 85 years and over was compared with that of residents under 65 years, it was more than double. The use of hearing aids was apparently much greater among older residents. Use rates for wheelchairs increased slightly with age. In contrast, the use rates appeared to decrease with age among the few residents who used crutches and braces. Although these trends were not statistically signifi-

cant in their proportions, it seems reasonable to speculate that crutches and braces tend to be discarded as the resident gets older because of the strength required to use them.

Again used as a measure of health, the number of chronic conditions appeared to have a marked influence on the use of special aids. Residents using aids almost always reported more conditions in combination than those who did not (table J). Residents who were not using aids still reported a multiplicity of conditions, which averaged 3.1 per person. Residents who were using at least one aid averaged 3.5 conditions, however. Those using as many as two averaged 3.7 conditions, and those using three or more aids averaged 4.1 chronic conditions. The trend of increasing numbers of conditions with increased use of aids is consistent. In fact, more than four out of every five residents with three or more conditions had required the use of at least one special aid (table 8).

Even when considering each aid in particular, the average number of conditions for persons using any one aid was significantly higher than the average for those who were using no aids at all. Residents using wheelchairs had the highest average number of conditions as a group at 4.1. Those using hearing aids were next highest at 3.9 conditions, followed by 3.7 for those residents using walkers and 3.6 for those using braces and other special aids. It was 3.5 for users of crutches and 3.4, the lowest, for users of eyeglasses.

The number of conditions per resident using a particular aid also was affected by age. The general rule of an increasing average number of conditions with increasing age prevailed, but the effect was not entirely consistent for certain special aids (table J). Users of eyeglasses, braces, and aids listed as other averaged the same or lower numbers of conditions per resident at ages 85 years and over than did residents who used no aids. For all other aids, however, the average number of conditions per user was higher than that of non-users at every age level. In addition, the more aids used, the higher the number of conditions averaged at nearly every age level.

Since the usage of special aids was shown to indicate an increased number of conditions, or an increased potential for poorer health, an analysis relating usage to mobility status was employed to determine if mobility was possibly enhanced through the use of these special aids. As depicted in figure 8, the expected pattern revealing reduced limitations in mobility was not entirely clear or consistent when overall use of special aids was examined.

The proportions of bedfast residents using any number of aids were not very revealing. There was a range of only about 7 percent between the smallest proportion of around 23 percent for residents using three aids or more to the largest proportion of 30 percent for residents using exactly two aids. Only when the category defining bedfast residents was broken down to distinguish separate categories for those gener-

Table J. Average number of chronic conditions and impairments per resident of nursing and personal care homes by age, according to number of aids used in combination and type of aid in use: United States, June-August 1969

Number of aids used in combination and type of aid in use	All ages	Under 65 years	65-74 years	75-84 years	85 years and over
All residents	3.4	2.5	3.3	3.5	3.8
No aids used	3.1	2.1	2.9	3.3	3.7
One aid used	3.3	2.6	3.1	3.3	3.6
Two aids used	3.7	3.1	3.7	3.7	3.9
Three or more aids used	4.1	3.4	4.0	4.2	4.1
Eyeglasses	3.4	2.6	3.3	3.4	3.7
Hearing aids	3.9	3.2	4.0	3.9	3.9
Wheelchairs	4.1	3.1	4.0	4.2	4.4
Walkers	3.8	3.3	3.6	3.8	3.8
Crutches	3.5	2.8	3.6	3.6	3.8
Braces	3.6	3.4	3.6	3.9	3.5
Others	3.6	3.1	3.8	3.7	3.6

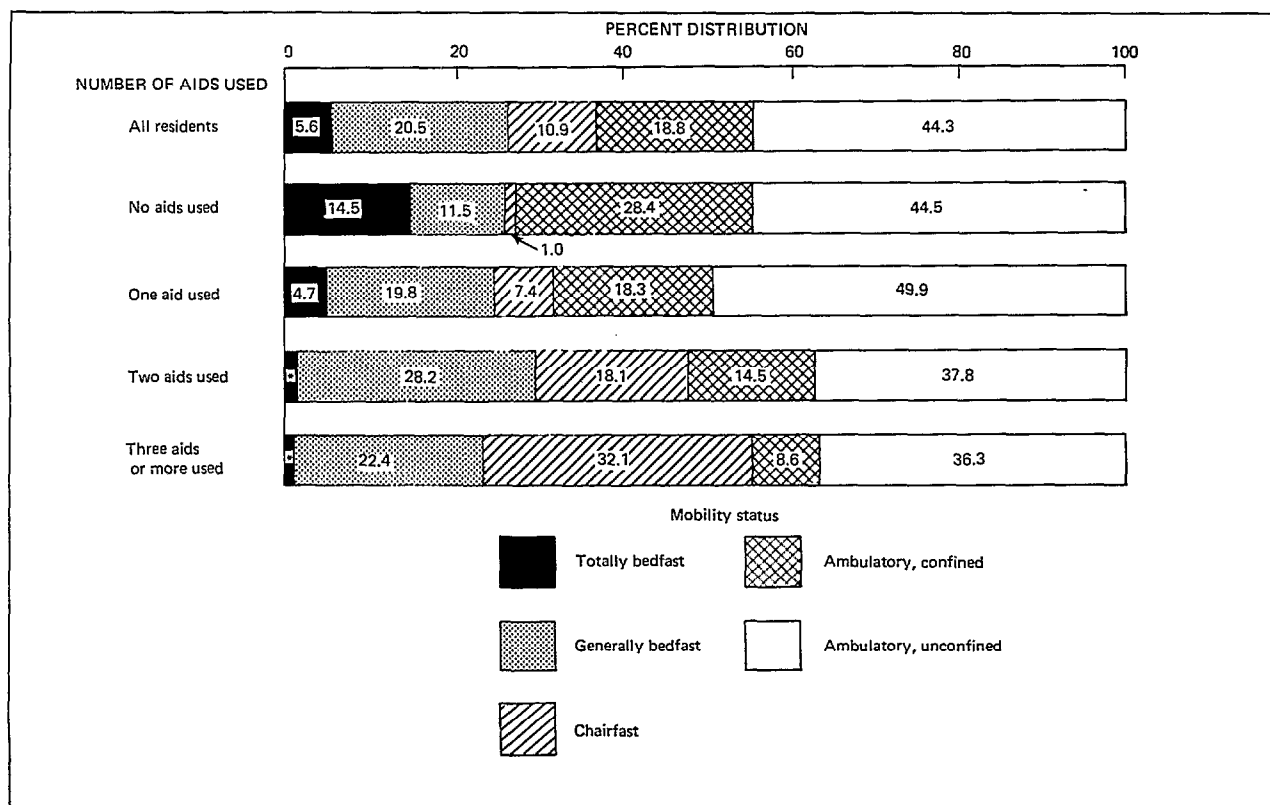


Figure 8. Percent distribution of residents in nursing and personal care homes by mobility status, according to number of aids used.

ally and those totally bedfast was any enhancement in mobility seen (see appendix II). With nearly 6 percent of all residents considered totally bedfast, proportions were seen to be consistently affected by the number of aids in use. For instance, about 14 percent of those who did not use an aid were totally bedfast. This proportion was reduced to 5 percent of those residents using only one aid, but only 1 percent of those using two aids or more suffered this major limitation in mobility. The use of special aids thus appeared to be a partial alleviation of any severe mobility limitation that could be present were it not for the use of one aid or more. From a different perspective, it may be said that persons who were totally bedfast really had very little need for any of the special aids for which specific data were collected. The aid used most often among residents totally confined to bed was eyeglasses. From an examination of the users of other types of aids, it was clear that only the smallest proportions, around 1 percent,

of those residents using any of the specified orthopedic aids were restricted to total bed rest.

So even while apparently avoiding a severe limitation in mobility, those residents using aids nonetheless appeared generally more restricted in their mobility than those who did not use aids. This pattern was seen as quite distinct among residents classed as chairfast. The more aids used in combination, the greater was the proportion of chairfast residents. The effect of multiple aids in use was clear, too, when the proportions of residents classed as ambulatory, unconfined, were examined. For example, about 38 percent of those using two aids or more were capable of leaving the premises, although this proportion increased to around 45 percent for residents reported as not using aids and not limited in mobility.

A pattern of mobility restrictions was not entirely consistent because it obviously varied according to the type of aid used. The use of particular orthopedic aids assisted the residents in

only varying degrees in maintaining ambulatory status as seen in figure 9. For instance, over 90 percent of the residents using crutches, over 85 percent of those who used walkers, and over 80 percent of those using braces maintained an ambulatory status. Even though these particular aids accounted for about 12 percent of the aids used by the population, they represented only half this proportion among bedfast residents. In contrast, nearly half the residents using wheelchairs were bedfast. Representing about 47 percent, the wheelchair was the most prevalent aid in use among bedfast residents, greater even than eyeglasses, which were reported at 39 percent. The bedfast category, however, included those residents who could be up in a wheelchair for at least a few hours a day but were considered generally bedfast. Naturally, use of the wheelchair

was also prominent among residents classed as chairfast; it is important to note, however, that only about 30 percent of all users of wheelchairs were placed in the chairfast category. It is apparent that residents classed as chairfast possibly relied upon several other aids in addition to their wheelchairs (figure 9). Nearly half, or about 47 percent, the aids used by chairfast residents were wheelchairs. Eyeglasses represented the next highest proportion at 33 percent of all aids in use; but, representing 14 percent of all aids in use by chairfast residents, the other orthopedic devices such as walkers, crutches, and braces apparently also figured prominently in patterns of use of special aids among those residents who were considered to require minimal help in getting around. These particular aids were more prevalent, however, among residents classed as

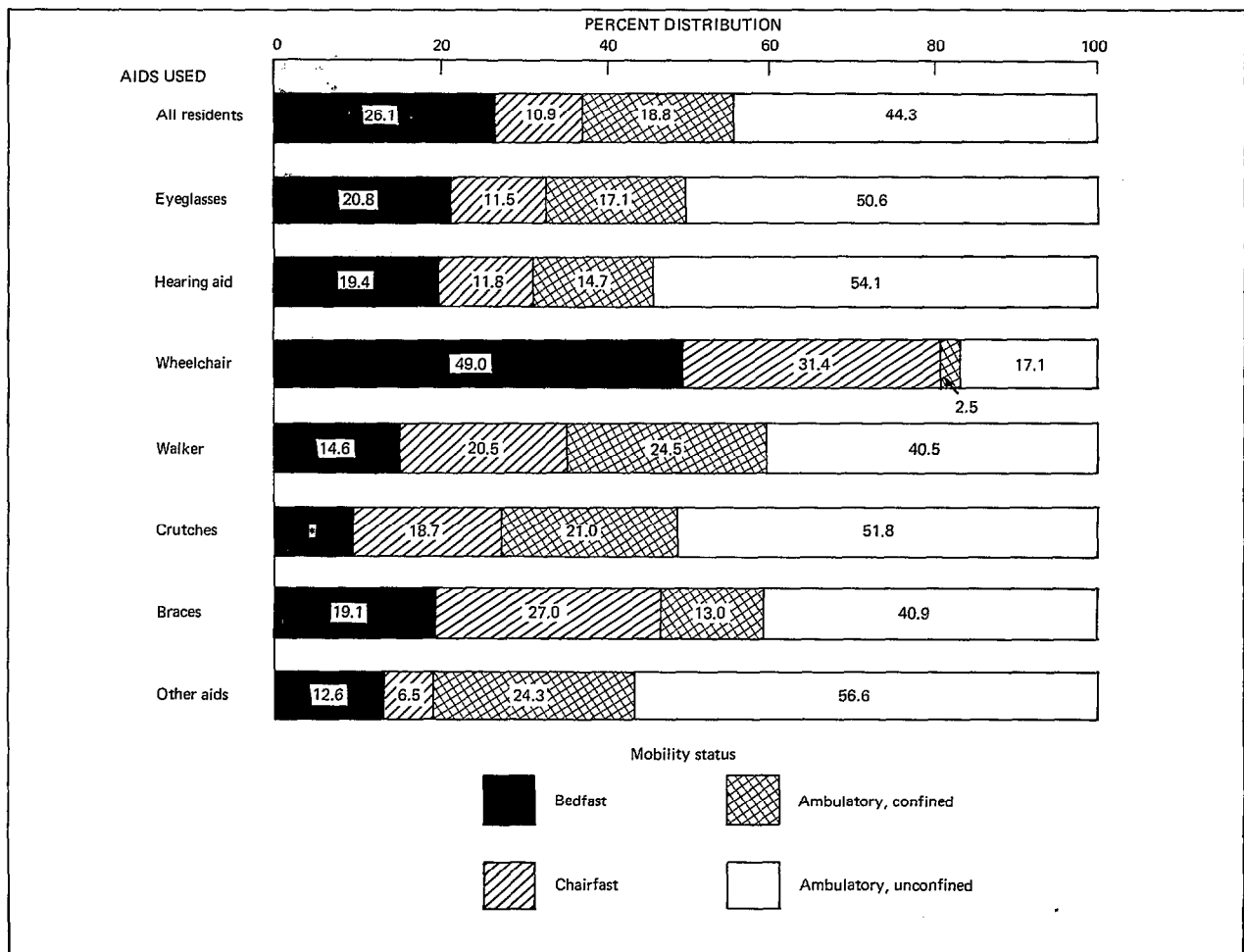


Figure 9. Percent distribution of residents in nursing and personal care homes by mobility status, according to special aids used.

ambulatory, unconfined, where nearly 20 percent of the aids in use were reported to be either a walker, crutches, or braces. Eyeglasses completely dominated this category at 58 percent of the aids in use. Accounting for about 15 percent, other aids—the category of those not specified—were also apparently more prevalent among those aids used by ambulatory, confined residents than among more restricted residents. Though remaining at equally minor levels in most mobility categories, the proportions representing the use of hearing aids were slightly higher in the category defined as ambulatory, confined. There was a small proportion of wheelchairs in use, about 4 percent, in a category that should have excluded users of this particular aid; but, for reasons involved in judging discriminations in the severity of the mobility restrictions, the respondents apparently felt that the resident belonged in this particular category.

For studying the problems involved in determining the degree of disability, the category that is of most importance represents those residents considered unrestricted in mobility. Most ambulatory, unconfined residents apparently relied on special aids to maintain their ability to leave the premises. In fact, the proportion of users was an identical 78 percent when the comparison was made between those confined to the premises and those unconfined. Residents who were restricted to the premises of the nursing home, however, apparently were more likely to be using a combination of aids (table 9).

A look at table K reveals any differences in the patterns of use for aids on and off the premises. Eyeglasses were significantly more prevalent among residents capable of leaving the nursing home; hearing aids were only slightly more prevalent. Although wheelchairs were in extensive use among residents confined to the premises, an estimated 10 percent of all aids in use among unconfined residents were wheelchairs. Additionally, walkers, crutches, and braces accounted for close to this proportion of aids in use by persons unrestricted in mobility. The proportion of these particular orthopedic aids matches in use on and off the premises. The category of other aids in use by unrestricted residents involved a proportion double that of the proportion of aids in use by restricted residents. These figures vividly show the level of disability that must have existed among persons whom this survey defined as unlimited in mobility. Approximately one-fourth of the residents classified as ambulatory, unconfined, or about one-tenth of the nursing home population, apparently relied on a wheelchair, a walker, crutches, or braces to maintain their ability to leave the premises.

HEALTH STATUS: A COMPARISON BETWEEN THE RESIDENT POPULATIONS OF 1964 AND 1969

As discussed in the first section of this report, the RPS-3 was conducted against two significant backdrops. One depicted an apparent "epidemic"

Table K. Number and percent distribution of special aids used in nursing and personal care homes, by type of aid used and utilization on and off the premises: United States, June-August 1969

Utilization on and off the premises	All aids	Type of aid							
		Total	Eyeglasses	Hearing aids	Wheelchairs	Walkers	Crutches	Braces	Other
		Percent distribution							
Both mobility statuses . .	994,300	100	50.0	3.8	25.5	9.7	1.0	0.9	9.0
Used by residents confined to the premises	580,200	100	42.3	3.0	36.2	9.9	0.8	0.9	6.7
Used by residents not confined to the premises	414,200	100	60.7	5.0	10.5	9.4	1.3	0.9	12.3

of chronic health problems among the Nation's older population. Of those not institutionalized, six of every seven persons aged 65 years and over have been estimated to have at least one chronic condition. The second backdrop highlighted what can be considered the response of the health care system to an ever-increasing demand for services, partly prompted by the epidemic of chronic illness. This response has been a reemphasis on the role of the nursing home in the health care delivery system and the resulting increase in the number of such institutions and in the size of the resident populations they serve. The number of nursing and personal care homes had increased over 5 percent since the RPS-2 in 1964, the number of residents increasing much more sharply at near 50 percent.

Besides the response to the demands of chronic illness, there are several other factors which probably contributed to the increased demand and the resultant increased supply of these facilities and their residents. Most notably would be a proportionate increase in the older population of the country. The proportion of persons aged 65 years and over in the U.S. population did increase from 9.3 percent in 1964 to 9.6 percent in 1969. Other factors might include increased means of financing a person's stay in an

institution and less means for keeping a chronically ill person at home—this through social changes in family responsibilities to older persons. Since there were only 5 years between the RPS-2 and the RPS-3, the influence of these factors had probably much less impact than did the initiation of both the Medicare and Medicaid programs during that time. These two federally sponsored programs have apparently provided the main impetus for the reemphasis, reshaping, and redefining of the role and scope of nursing homes in the health care delivery system. In light of these acknowledgments, following is an examination of several significant changes that have occurred in the demographic and in the health profiles of the resident population, as studied by RPS-2 and RPS-3.

Comparison of Demographic Profiles

As seen in table L, there were several significant changes in the demographic profile. A look at these is necessary for providing insights into factors that may have affected changes in the population's health character. Most significant is the increase in the median age for all residents. It was up 1.3 years from 1964. This change is

Table L. Selected comparisons in the demographic profiles of the RPS-2 and RPS-3 populations: United States, May-June 1964 and June-August 1969

Comparison	Population		Percent of increase
	RPS-2	RPS-3	
Total number of residents	554,000	815,100	47.1
Number of residents 85 years and over	152,400	261,900	71.8
Number of residents under 65 years	66,200	92,900	40.7
Median age of all residents	79.8	81.1	1.6
Number of female residents	360,200	563,300	56.4
Number of male residents	193,800	360,200	30.0
Median age of female residents	80.5	81.9	1.7
Median age of male residents	78.3	78.7	0.5
Number of married residents	54,900	95,600	74.1
Number of widowed residents	348,100	518,200	48.9
Number of divorced-separated residents	27,200	34,300	26.1
Number of never married residents	122,700	167,000	36.1

indicated from the increase in the proportion of the population 85 years and over. This proportion increased by 4 percent since RPS-2. At these older ages, residents had increased in number over 70 percent between the two surveys, while the population proportion under 65 years of age remained stable, perhaps even decreasing somewhat.

The influx of more females into the population was also significant. Female residents far outnumbered male residents, and the gap has grown. The sex ratio in 1964 was 186 female residents for every 100 male residents. In 1969 the ratio was 224 females for 100 males. The number of women increased 56 percent between the surveys, while the number of men was up only 30 percent. As previously discussed, female residents as a group are older than male residents. The indications are, too, that the age of female residents had increased more than that for male residents since the RPS-2. The median age for women was up nearly a year and a half, while that of men increased less than half a year.

There had also been some changes in the composition of the population by color. Since the RPS-2 did not collect any data pertaining to the color of the residents, the change in the racial composition of the nursing home population during that time is examined through data collected by the RPS-1, a mail survey conducted a year earlier. In 1963, RPS-1 estimated that there were 19,840 residents other than white—about 3.9 percent of the total population. In 1969, the proportion of the population represented by all other residents had increased to only 4.5 percent, but the number of all other residents was estimated at 36,600. While the total population of nursing homes had grown by 61 percent since the RPS-1 in 1963, the number of all other residents had grown by 84 percent.

The population's composition by marital status had also changed somewhat. While most unmarried groups—widowed, divorced-separated, and never married—remained either stable or decreased somewhat in the proportion of the total population they represented, a significant gain was made among married residents. Married residents comprised about 1.8 percent more of the population during 1969 than during 1964. The increase of 74 percent in the total number of married residents was much greater than the in-

crease of unmarried residents at 45 percent. The small increase in the number of residents who had never married contributed considerably to this disparity. Proportionately, there was a decrease of 1.6 percent between 1964 and 1969 in the total population who had never married.

Comparison of Health Profiles

The changes in the demographic profile between RPS-2 and RPS-3 would, of course, have direct bearing on changes in the health profile. The aging of the population since 1964 probably carries most of the influential weight; but the influx of more females, more married residents, and perhaps even more persons in the "all other" category could have had some effect. In varying degrees, all these factors have been shown in this report to carry with them a potentially more severe degree of chronic illness. Most probably, however, the sheer impact of the Medicare and Medicaid programs has contributed to many major changes in the health profile of this institutionalized population between RPS-2 and RPS-3. Medicare and Medicaid have changed the emphasis on the role of the nursing home in the health care system and, in effect, have made these facilities more available to the older populace. What have been the changes? Are they significant?

Table M shows that there have been changes, several of them quite significant. The first and probably the most significant change, however, does not concern the health characteristics of the residents directly. The type of care available in the home indicates the type of care required and, thus, indirectly the health of the residents. There was a dramatic increase in the number of facilities classified as *nursing care* homes. In 1964 only 54 percent of all facilities were classified as providing *nursing care*. In 1969 this proportion had increased to represent 63 percent of all facilities. On the other hand, the proportion of all facilities classified as providing *personal care with some nursing* had decreased from 30 to 20 percent. It is apparent that many of the facilities in this latter classification in 1964 were probably upgraded and made more nursing services available to their residents to conform to the more stringent regulations for Medicare and Medicaid certification. In terms of the number

Table M. Selected comparisons in the health profile of the RPS-2 and RPS-3 populations: United States, May-June 1964 and June-August 1969

Comparison	Population		Percent of increase
	RPS-2	RPS-3	
Total number of residents	554,000	815,100	47.1
Average number of conditions per resident	3.1	3.4	9.7
Number of residents with at least one condition	533,600	796,700	49.3
Number of residents with three or more conditions	311,900	531,900	70.5
Number of residents with five or more conditions	110,700	211,300	99.9
Number of residents bedfast	92,200	212,700	130.7
Number of residents without mobility restrictions	344,900	360,700	4.6
Number of residents at intensive care level	2,110	153,800	7,190.9
Number of residents at full bed bath level	150,700	113,500	-24.7
Number of residents at less intensive nursing care level	38,600	72,500	87.8
Number of residents at routine nursing care level	120,200	264,300	119.9
Number of residents at personal care level	148,800	160,600	7.9
Number of residents receiving no services	74,600	50,500	-32.4
Total number of special aids in use	537,560	994,300	85.0
Number of residents using at least one aid	395,002	633,300	60.3
Number of residents using eyeglasses	330,900	496,900	50.2
Number of residents using hearing aids	22,200	38,200	71.9
Number of residents using wheelchairs	117,400	253,900	116.3
Number of residents using walkers	48,000	96,600	101.2
Number of residents using crutches	11,600	10,000	-13.7
Number of residents using braces	5,400	8,900	64.3
Total number of institutions	17,400	18,390	5.7
Number of nursing care homes	9,396	11,580	23.2
Number of residents in nursing care homes	376,700	638,800	70.0
Number of personal care with nursing homes	5,220	3,770	-29.1
Number of residents in personal care with nursing homes	144,000	139,500	-3.1
Number of personal care homes	2,784	3,040	9.2
Number of residents in personal care homes	33,000	36,900	11.8

of residents for which the facilities provided care, homes classified as exclusively *personal care* homes were housing only about 5 percent more residents in 1969. Homes classified as *personal care with nursing* actually decreased in the resident population they served, the number of residents being down about 4 percent since 1964. However, the number of residents in *nurs-*

ing care homes was up over a quarter million, or a 71-percent increase. It is clear that Medicare and Medicaid made these particular facilities more available to the older populace.

In view of this significant change and of the fact that many more persons were seeking facilities offering nursing care, one would expect a compensatory change in the health status of the

institutionalized population. This apparently did occur as measured along the several parameters that have been employed throughout this report.

First, the number of chronic conditions and impairments per resident had changed; it was up from 3.1 in 1964 to 3.4 in 1969. This was the primary indication that health status had changed in that the prevalence of chronic illness appeared to be greater in the RPS-3 population. The proportion of all residents with at least one chronic condition increased only slightly between the surveys, though, from 96 percent to 98 percent. However, about 9 percent more of the 1969 population had three conditions or more than did the 1964 population; about 6 percent more had five conditions or more.

Although the questions and survey items pertaining to mobility status slightly differed for the two surveys, a good comparison can be drawn on two classifications: those residents considered bedfast and those considered without restrictions in mobility. In the RPS-2 the question was asked, "Does he stay in bed all or most of the day?" For about 20 percent of all residents in 1964, the answer to this question was affirmative. As discussed previously, in the RPS-3 two questions were asked, is he "generally confined to bed, but up in a wheelchair for at least a few hours a day" or is he "restricted to total bed rest?" An estimated 26 percent of all residents fell into either of these categories, or were defined as bedfast. The total number of bedfast residents had increased 131 percent between the surveys. Accordingly, the percent of the population considered without any restrictions in mobility, i.e., capable of leaving the premises, had decreased considerably from 62 percent in 1964 to 44 percent in 1969. The number of unrestricted residents had increased only around 5 percent since the RPS-2. The 1969 population was obviously more restricted overall in mobility, although it does seem apparent from other data in this report that a great many residents of these institutions in 1969 were not so ill as to prevent them from leaving the premises even though they may have had several chronic conditions or impairments.

Certainly the most significant parameter in studying any changes in health status between 1964 and 1969 is the level of patient care. The criteria for determining these levels were identi-

cal for each survey. The number of residents receiving intensive care had increased over 7,000 percent to affect nearly 20 percent of the 1969 population. Only about 4 percent of the residents in 1964 were receiving this level of care. There was a decrease in proportion of the population receiving a bed bath as their highest level of care; as seen in table M, however, there were increases in the population proportions receiving other forms of nursing care. That proportion of residents receiving exclusively personal care services was down considerably from 1964, from over one-fourth to about one-fifth of the population. It is evident that a larger proportion of the population had received some type of service during the week before the 1969 survey than did the population before the 1964 survey. Only 6 percent of the RPS-3 population did not receive any service. This compared with 13 percent of the RPS-2 population. The level of care provided the resident population had increased considerably—most probably as a result of the influx of residents into nursing care facilities.

Pursuant to a 50-percent increase in the population from 1964, there was an estimated 85-percent increase in the number of special aids being used by residents of nursing homes. Approximately 78 percent of the RPS-3 residents used at least one aid, an increase of about 7 percent over the utilization rate in the 1964 population in which 71 percent of all residents used a special aid. As seen in table M, the use of the wheelchair primarily contributed to this substantial increase in the utilization of aids. The number of people using the two generally more common aids, eyeglasses and hearing aids, remained relatively stable; but the proportion of all residents using a wheelchair was up by 10 percent and represented a third of the 1969 nursing home population. In 1964 wheelchairs were used by only about a fifth of all residents. The number of wheelchairs in use had more than doubled since the RPS-2. There had been slight changes in the utilization of other types of orthopedic aids as well. The number of residents using walkers had also doubled, the use up about 3 percent among all residents. Although there was a 64-percent increase in the number of residents using braces, the proportion of the population using this aid remained essentially the same. Conversely, the number of residents using

crutches actually decreased slightly. The proportion of users in the population was down about 1 percent. The RPS-2 also counted the number of residents using artificial limbs at 2,100 persons. This specific datum was not collected in the later study, but was included in the catch-all category, which in this report encompassed "other" special aids. No such category was included in the RPS-2. Since in 1969 nearly 90,000 aids other than those specified were in use, it is clear that the number of aids in this catch-all category contributed substantially to the total count of aids, and, therefore biased the comparison between the two surveys. Nonetheless, if this bias is taken into account, it remains apparent that the overall utilization of special aids was more prevalent in 1969.

Health status changes have been considerable in the nursing home populations as measured by the parameters available to the RPS series. In the span of 5 years separating the two studies, chronic illness itself had become perhaps only slightly more prevalent, but considerably more residents had apparently been feeling its effects, or were receiving more services to cope with their chronic health problems. The average number of chronic conditions and impairments per resident was up from 3.1 in 1964 to 3.4 in 1969. Mobility restrictions applied to much broader proportions of the population, with over one-fourth of all residents generally bedfast in 1969 compared with only one-fifth in 1964. The spectrum of patient care moved toward more intensive levels, with nearly one-fifth of the residents receiving intensive care compared with less than one-twentieth in the RPS-2. And applying to well over three-fourths of all residents in 1969, the utilization of special aids was more preva-

lent. The increase in the extent of disability was demonstrated in particular by the increase in the utilization of the wheelchair, which was used by only a fifth of all residents in 1964 but had to be used by nearly a third of all residents in 1969. These changes in the health profile of the resident population were accompanied by a shift in the services that were available. In 1969 an estimated 63 percent of all facilities were providing *nursing care* as opposed to only 54 percent in 1964. There had been an increase of 71 percent in the number of residents in *nursing care* facilities compared with very little or no increases in the number of residents in the other types of facilities. Many more chronically ill patients, or other persons in need of institutionalized care, were seeking the more intensive type provided in a nursing care home, rather than primarily custodial care. The influx of more persons into *nursing care* facilities has contributed greatly to the changes in health profile since the RPS-2. This report has suggested that the implementation of Medicare and Medicaid in the interval between the surveys has increased the availability of all facilities through a reemphasis on the role of the nursing home in the health care system. Through certification criteria, the *nursing care* home, however, has obviously been most affected. Thus, when discussing reasons for any changes in health status between 1964 and 1969, considerable weight must be given to the impact of these programs. Other factors—demographic, social, and epidemiologic—also significantly influenced changes in health status, but will probably require more sophisticated research and analysis before any exact relationships are made clear.

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NOTE: Numbers and percents in tables may not add to totals due to rounding.

Table 1. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to sex, color, marital status, and age: United States, June-August 1969

Sex, color, marital status, and age	Number of residents	Number of chronic conditions and impairments							Average number of conditions
		Total	No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
ALL RESIDENTS									
	Percent distribution								
All ages	815,100	100	2.3	13.1	19.4	21.6	17.7	25.9	3.4
Under 65 years	92,900	100	2.6	30.2	26.0	19.7	11.2	10.4	2.5
65-74 years	138,500	100	2.6	14.8	22.6	21.0	15.7	23.3	3.3
75-84 years	321,800	100	2.3	10.9	19.0	22.4	18.5	26.7	3.5
85 years and over	261,900	100	1.9	8.7	15.9	21.6	20.1	31.8	3.8
SEX									
Male									
All ages	251,900	100	2.9	14.6	20.5	21.0	17.3	23.7	3.3
Under 65 years	44,800	100	3.0	28.3	25.8	20.3	11.1	11.4	2.5
65-74 years	52,300	100	2.8	14.7	23.7	19.7	16.0	23.1	3.2
75-84 years	90,700	100	2.6	11.5	19.6	21.3	19.4	25.6	3.4
85 years and over	64,100	100	3.3	9.3	15.7	22.2	19.6	29.9	3.7
Female									
All ages	563,300	100	2.0	12.4	18.9	21.9	17.9	26.9	3.5
Under 65 years	48,100	100	2.2	31.9	26.1	19.1	11.3	9.4	2.4
65-74 years	86,200	100	2.4	14.9	22.0	21.8	15.5	23.5	3.3
75-84 years	231,100	100	2.2	10.7	18.8	22.8	18.2	27.2	3.5
85 years and over	197,800	100	1.5	8.5	16.0	21.4	20.3	32.4	3.8
COLOR									
White									
All ages	778,500	100	2.3	13.0	19.4	21.6	17.9	25.9	3.4
Under 65 years	83,500	100	2.6	30.9	26.3	19.4	10.9	9.9	2.4
65-74 years	129,500	100	2.7	15.1	22.7	20.6	15.9	22.9	3.2
75-84 years	310,900	100	2.3	10.9	19.1	22.4	18.6	26.6	3.5
85 years and over	254,500	100	1.9	8.6	15.8	21.8	20.2	31.7	3.8
All other									
All ages	36,000	100	*	14.0	20.2	22.3	14.9	26.8	3.5
Under 65 years	9,300	100	*	23.4	22.9	22.0	14.1	15.0	2.8
65-74 years	9,000	100	*	*	21.6	26.0	12.3	29.2	3.6
75-84 years	10,900	100	*	10.8	17.4	23.5	15.8	30.3	3.7
85 years and over	7,400	100	*	*	19.5	16.5	17.6	33.9	3.9
MARITAL STATUS									
Married									
All ages	95,600	100	2.1	11.0	20.1	21.3	18.4	27.1	3.5
Under 65 years	12,600	100	*	16.7	25.7	28.8	13.2	12.1	2.8
65-74 years	21,900	100	*	11.5	22.6	18.5	18.5	27.3	3.5
75-84 years	43,000	100	*	9.7	18.8	20.7	19.2	29.5	3.6
85 years and over	18,100	100	*	9.6	15.9	20.9	20.0	31.8	3.8

Table 1. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to sex, color, marital status, and age: United States, June-August 1969—Con.

Sex, color, marital status, and age	Number of residents	Number of chronic conditions and impairments							Average number of conditions
		Total	No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
MARITAL STATUS—Con.									
Percent distribution									
<u>Widowed</u>									
All ages	518,200	100	2.0	10.5	18.1	22.0	18.9	28.5	3.6
Under 65 years	17,000	100	*	25.4	24.5	16.0	14.8	16.8	2.8
65-74 years	70,800	100	2.7	13.2	21.0	22.0	16.6	24.6	3.4
75-84 years	223,600	100	2.0	10.5	18.9	22.8	18.8	27.0	3.5
85 years and over	206,900	100	1.7	8.4	15.7	21.5	20.2	32.3	3.8
<u>Divorced-Separated</u>									
All ages	34,300	100	*	22.2	22.8	20.0	14.0	19.5	3.0
Under 65 years	13,600	100	*	30.2	25.0	20.1	13.3	9.5	2.5
65-74 years	10,700	100	*	20.6	26.4	19.7	11.5	20.7	3.0
75-84 years	7,400	100	*	14.8	18.1	20.1	14.8	30.2	3.6
85 years and over	2,500	100	-	*	*	*	*	*	4.2
<u>Never married</u>									
All ages	167,000	100	3.4	20.1	22.5	21.0	14.4	18.6	3.0
Under 65 years	49,700	100	2.6	35.2	26.8	18.5	8.9	8.0	2.3
65-74 years	35,200	100	3.5	18.4	24.7	20.9	13.4	19.2	3.0
75-84 years	47,800	100	4.2	13.2	20.1	22.6	17.5	22.4	3.2
85 years and over	34,400	100	3.1	9.8	17.6	22.7	19.0	27.9	3.6

Table 2. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to sex, color, marital status, and age: United States, June-August 1969

Sex, color, marital status, and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>ALL RESIDENTS</u>		Percent distribution				
All ages	815,100	100	44.3	18.8	10.9	26.1
Under 65 years	92,900	100	52.3	17.7	10.3	19.8
65-74 years	138,500	100	46.6	19.1	11.2	23.2
75-84 years	321,800	100	46.0	18.3	10.7	25.0
85 years and over	261,900	100	38.1	19.5	11.2	31.2
<u>SEX</u>						
<u>Male</u>						
All ages	251,900	100	48.7	19.9	10.6	20.9
Under 65 years	44,800	100	54.3	17.8	11.0	16.9
65-74 years	52,300	100	46.2	21.0	11.5	21.2
75-84 years	90,700	100	49.6	18.9	11.0	20.6
85 years and over	64,100	100	45.4	21.8	8.9	24.0
<u>Female</u>						
All ages	563,300	100	42.3	18.3	11.1	28.4
Under 65 years	48,100	100	50.3	17.6	9.7	22.4
65-74 years	86,200	100	46.8	17.9	11.0	24.3
75-84 years	231,100	100	44.6	18.1	10.6	26.8
85 years and over	197,800	100	35.7	18.8	12.0	33.6
<u>COLOR</u>						
<u>White</u>						
All ages	778,500	100	44.6	18.6	10.7	26.1
Under 65 years	83,500	100	52.9	17.8	9.4	19.9
65-74 years	129,500	100	47.4	18.6	10.9	23.1
75-84 years	310,900	100	46.5	18.1	10.6	24.8
85 years and over	254,500	100	38.2	19.4	11.2	31.2
<u>All other</u>						
All ages	36,000	100	36.3	22.6	14.3	26.8
Under 65 years	9,300	100	46.5	16.5	18.7	18.3
65-74 years	9,000	100	35.2	25.8	14.6	24.4
75-84 years	10,900	100	31.4	24.0	12.2	32.4
85 years and over	7,400	100	32.0	24.5	*	31.9

Table 2. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to sex, color, marital status, and age: United States, June-August 1969—Con.

Sex, color, marital status, and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>MARITAL STATUS</u>		Percent distribution				
<u>Married</u>						
All ages	95,600	100	35.8	15.3	13.0	35.9
Under 65 years	12,600	100	26.7	13.7	16.4	43.3
65-74 years	21,900	100	35.7	13.8	13.3	37.2
75-84 years	43,000	100	37.4	14.8	13.4	34.4
85 years and over	18,100	100	38.4	19.3	9.4	32.9
<u>Widowed</u>						
All ages	518,200	100	43.0	18.7	11.1	27.3
Under 65 years	17,000	100	53.8	14.6	10.5	21.1
65-74 years	70,800	100	47.0	18.4	11.8	22.8
75-84 years	223,600	100	45.7	18.8	10.5	25.0
85 years and over	206,900	100	37.7	19.0	11.5	31.8
<u>Divorced-separated</u>						
All ages	34,300	100	55.3	17.0	11.1	16.5
Under 65 years	13,600	100	61.1	12.3	10.1	16.5
65-74 years	10,700	100	52.4	19.1	12.0	16.5
75-84 years	7,400	100	52.1	20.0	*	17.9
85 years and over	2,500	100	46.5	*	*	*
<u>Never married</u>						
All ages	167,000	100	50.8	21.4	9.2	18.7
Under 65 years	49,700	100	55.8	21.2	8.8	14.2
65-74 years	35,200	100	50.8	23.8	8.4	17.1
75-84 years	47,800	100	53.8	19.0	9.5	17.7
85 years and over	34,400	100	39.4	22.3	10.1	28.2

Table 3. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to number of chronic conditions and impairments and age: United States, June-August 1969

Number of chronic conditions and impairments and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>All residents</u>		Percent distribution				
All ages	815,100	100	44.3	18.8	10.9	26.1
Under 65 years	92,900	100	52.3	17.7	10.3	19.8
65-74 years	138,500	100	46.6	19.1	11.2	23.2
75-84 years	321,800	100	46.0	18.3	10.7	25.0
85 years and over	261,900	100	38.1	19.5	11.2	31.2
<u>No conditions</u>						
All ages	18,400	100	86.8	5.8	*	*
Under 65 years	2,400	100	81.7	*	*	*
65-74 years	3,500	100	82.7	*	*	*
75-84 years	7,500	100	88.5	*	*	*
85 years and over	5,000	100	89.8	*	*	*
<u>1 condition</u>						
All ages	106,400	100	66.3	17.5	6.5	9.6
Under 65 years	28,000	100	66.3	18.9	5.4	9.4
65-74 years	20,500	100	63.1	19.6	7.6	9.7
75-84 years	35,200	100	66.8	16.2	7.5	9.5
85 years and over	22,700	100	68.7	16.0	5.2	10.1
<u>2 conditions</u>						
All ages	158,400	100	53.6	21.6	9.7	15.1
Under 65 years	24,100	100	50.8	20.0	12.2	17.0
65-74 years	31,300	100	54.5	22.0	8.5	15.0
75-84 years	61,300	100	57.1	21.1	9.1	12.7
85 years and over	41,700	100	49.5	22.9	9.9	17.7
<u>3 conditions</u>						
All ages	176,100	100	44.9	21.5	11.6	22.1
Under 65 years	18,300	100	44.4	18.9	13.8	22.9
65-74 years	29,100	100	46.6	18.9	12.1	22.4
75-84 years	72,100	100	47.0	21.9	11.1	19.9
85 years and over	56,600	100	41.4	23.1	11.1	24.4
<u>4 conditions</u>						
All ages	144,500	100	37.5	19.2	12.0	31.2
Under 65 years	10,400	100	42.3	10.1	12.2	35.4
65-74 years	21,700	100	39.3	20.8	14.0	25.8
75-84 years	59,700	100	40.2	18.1	11.1	30.6
85 years and over	52,700	100	32.9	21.6	12.3	33.3
<u>5 conditions or more</u>						
All ages	211,300	100	26.5	15.8	13.3	44.5
Under 65 years	9,600	100	33.7	16.8	13.3	36.2
65-74 years	32,300	100	29.4	16.2	13.7	40.8
75-84 years	86,100	100	29.0	15.3	13.1	42.6
85 years and over	83,200	100	21.9	15.9	13.3	48.8

Table 4. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to type of service and age: United States, June-August 1969

Type of service and age	Number of residents	Total	Number of chronic conditions and impairments						Average number of conditions
			No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
<u>All types</u>			Percent distribution						
All ages	815,100	100	2.3	13.1	19.4	21.6	17.7	25.9	3.4
Under 65 years	92,900	100	2.6	30.2	26.0	19.7	11.2	10.4	2.5
65-74 years	138,500	100	2.6	14.8	22.6	21.0	15.7	23.3	3.3
75-84 years	321,800	100	2.3	10.9	19.0	22.4	18.5	26.7	3.5
85 years and over	261,900	100	1.9	8.7	15.9	21.6	20.1	31.8	3.8
<u>Nursing care</u>									
All ages	638,800	100	1.3	10.0	18.7	22.1	19.3	28.6	3.6
Under 65 years	66,500	100	2.3	24.2	26.5	21.0	13.4	12.7	2.7
65-74 years	108,800	100	1.4	11.8	22.1	21.7	17.3	25.8	3.5
75-84 years	255,400	100	1.1	8.3	18.0	23.0	20.2	29.4	3.7
85 years and over	208,100	100	1.1	6.8	15.2	21.5	21.2	34.3	3.9
<u>Personal care with nursing</u>									
All ages	139,500	100	4.8	20.7	21.5	20.7	13.5	18.8	2.9
Under 65 years	17,900	100	*	44.1	25.1	15.7	6.2	6.0	2.0
65-74 years	22,100	100	6.2	23.6	22.9	19.8	9.9	17.6	2.8
75-84 years	53,700	100	5.8	18.0	23.0	20.3	14.1	18.8	2.9
85 years and over	45,900	100	3.8	13.4	17.7	23.6	17.3	24.2	3.3
<u>Personal care</u>									
All ages	36,900	100	9.6	36.2	25.1	17.2	6.1	5.8	1.9
Under 65 years	8,500	100	*	47.8	23.2	18.3	4.4	1.7	1.8
65-74 years	7,700	100	*	32.7	29.5	14.6	9.3	4.7	2.0
75-84 years	12,800	100	11.8	33.6	23.6	20.0	4.8	6.1	1.9
85 years and over	7,900	100	*	31.4	24.4	14.1	7.1	10.5	2.1

Table 5. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to type of service and age: United States, June-August 1969

Type of service and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>All types</u>		Percent distribution				
All ages	815,100	100	44.3	18.8	10.9	26.1
Under 65 years	92,900	100	52.3	17.7	10.3	19.8
65-74 years	138,500	100	46.6	19.1	11.2	23.2
75-84 years	321,800	100	46.0	18.3	10.7	25.0
85 years and over	261,900	100	38.1	19.5	11.2	31.2
<u>Nursing care</u>						
All ages	638,800	100	38.2	19.3	12.3	30.2
Under 65 years	66,500	100	44.4	17.8	12.7	25.1
65-74 years	108,800	100	40.6	19.2	12.9	27.3
75-84 years	255,400	100	39.5	19.2	12.1	29.2
85 years and over	208,100	100	33.2	19.9	12.2	34.7
<u>Personal care with nursing</u>						
All ages	139,500	100	62.9	17.1	6.5	13.6
Under 65 years	17,900	100	64.0	21.7	5.9	8.4
65-74 years	22,100	100	66.1	17.4	5.7	10.9
75-84 years	53,700	100	68.3	15.5	5.5	10.8
85 years and over	45,900	100	54.5	17.1	8.2	20.2
<u>Personal care</u>						
All ages	36,900	100	79.6	15.9	*	*
Under 65 years	8,500	100	89.0	*	*	*
65-74 years	7,700	100	75.8	21.8	*	-
75-84 years	12,800	100	81.9	13.0	*	*
85 years and over	7,943	100	69.6	22.5	*	*

Table 6. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to level of patient care and age: United States, June-August 1969

Level of patient care and age	Number of residents	Number of chronic conditions and impairments							Average number of conditions
		Total	No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
<u>All levels</u>		Percent distribution							
All ages	815,100	100	2.3	13.1	19.4	21.6	17.7	25.9	3.4
Under 65 years	92,900	100	2.6	30.2	26.0	19.7	11.2	10.4	2.5
65-74 years	138,500	100	2.6	14.8	22.6	21.0	15.7	23.3	3.3
75-84 years	321,800	100	2.3	10.9	19.0	22.4	18.5	26.7	3.5
85 years and over	261,900	100	1.9	8.7	15.9	21.6	20.1	31.8	3.8
<u>Intensive</u>									
All ages	153,800	100	*	4.0	11.9	19.1	21.1	43.6	4.4
Under 65 years	13,200	100	*	11.9	17.3	27.3	21.6	21.2	3.4
65-74 years	23,900	100	*	5.1	15.4	20.7	18.6	40.0	4.2
75-84 years	61,300	100	*	2.7	12.4	19.1	21.1	44.5	4.5
85 years and over	55,400	100	*	3.1	8.5	16.6	22.0	49.5	4.7
<u>Bed bath</u>									
All ages	113,500	100	*	6.4	16.2	20.4	20.6	36.0	4.0
Under 65 years	9,800	100	*	14.1	28.8	21.1	17.0	16.4	3.0
65-74 years	18,500	100	*	9.2	18.0	20.1	16.4	35.6	3.9
75-84 years	43,300	100	*	5.0	15.5	22.3	20.8	36.3	4.1
85 years and over	42,000	100	*	4.9	13.1	18.3	23.2	40.5	4.3
<u>Less intensive</u>									
All ages	72,500	100	*	8.9	17.6	24.6	19.6	28.2	3.6
Under 65 years	6,700	100	*	21.2	22.3	27.3	*	*	2.8
65-74 years	13,800	100	*	9.9	19.4	29.0	15.6	24.7	3.5
75-84 years	30,600	100	*	7.9	17.7	24.5	21.6	27.5	3.7
85 years and over	21,500	100	*	5.6	15.0	21.2	21.1	35.8	4.0
<u>Routine</u>									
All ages	264,300	100	0.9	12.2	21.7	23.2	18.9	23.1	3.3
Under 65 years	28,700	100	*	28.8	29.3	18.1	11.3	11.0	2.5
65-74 years	45,000	100	*	13.6	25.4	21.5	16.5	21.9	3.3
75-84 years	106,800	100	*	10.6	20.8	23.4	20.4	23.9	3.4
85 years and over	83,700	100	*	7.8	18.1	25.5	20.9	26.9	3.6
<u>Personal</u>									
All ages	160,500	100	2.2	22.3	25.6	23.5	14.0	12.3	2.7
Under 65 years	24,800	100	*	40.0	28.0	18.5	6.3	4.6	2.1
65-74 years	28,000	100	*	25.4	27.6	19.9	15.1	9.6	2.6
75-84 years	60,900	100	1.9	18.5	26.0	25.8	13.9	13.9	2.8
85 years and over	46,900	100	2.4	16.1	22.6	25.4	17.7	15.9	3.0
<u>None</u>									
All ages	50,500	100	21.4	36.6	21.2	13.1	3.8	3.9	1.6
Under 65 years	9,700	100	*	55.9	22.1	10.4	1.3	-	1.4
65-74 years	9,300	100	21.0	32.3	27.1	12.4	5.1	2.1	1.6
75-84 years	19,000	100	26.7	33.6	18.3	13.5	4.7	3.3	1.5
85 years and over	12,400	100	22.3	29.4	20.5	15.2	3.4	9.1	1.8

Table 7. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to level of patient care and age:
United States, June-August 1969

Level of patient care and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>All levels</u>						
Percent distribution						
All ages	815,100	100	44.3	18.8	10.9	26.1
Under 65 years	92,900	100	52.3	17.7	10.3	19.8
65-74 years	138,500	100	46.6	19.1	11.2	23.2
75-84 years	321,800	100	46.0	18.3	10.7	25.0
85 years and over	261,900	100	38.1	19.5	11.2	31.2
<u>Intensive</u>						
All ages	153,800	100	14.5	15.7	13.2	56.7
Under 65 years	13,200	100	16.2	12.4	15.6	55.8
65-74 years	23,900	100	17.4	16.8	12.5	53.3
75-84 years	61,300	100	15.7	16.6	12.2	55.6
85 years and over	55,400	100	11.7	14.9	14.0	59.5
<u>Bed bath</u>						
All ages	113,500	100	15.5	14.3	11.9	58.3
Under 65 years	9,800	100	16.6	*	11.5	62.9
65-74 years	18,500	100	17.6	11.2	11.9	59.3
75-84 years	43,300	100	16.8	15.2	12.9	55.2
85 years and over	42,000	100	13.0	15.9	11.0	60.0
<u>Less intensive</u>						
All ages	72,500	100	48.4	20.6	14.2	16.8
Under 65 years	6,700	100	53.2	20.6	15.3	*
65-74 years	13,800	100	46.2	18.4	18.4	17.0
75-84 years	30,600	100	51.7	18.9	13.3	16.1
85 years and over	21,500	100	43.7	24.5	12.4	19.4
<u>Routine</u>						
All ages	264,300	100	51.7	23.5	11.7	13.2
Under 65 years	28,700	100	56.5	24.1	10.5	8.9
65-74 years	45,000	100	52.1	25.5	12.1	10.3
75-84 years	106,800	100	54.0	21.7	11.3	13.0
85 years and over	83,700	100	46.8	24.5	12.4	16.3
<u>Personal</u>						
All ages	160,600	100	65.4	20.4	8.0	6.3
Under 65 years	24,800	100	66.3	20.0	8.7	5.0
65-74 years	28,000	100	68.8	20.4	7.4	*
75-84 years	60,900	100	66.1	20.2	8.1	5.6
85 years and over	46,900	100	62.1	20.7	7.8	9.5
<u>None</u>						
All ages	50,500	100	87.4	5.8	2.0	4.9
Under 65 years	9,700	100	88.1	*	*	*
65-74 years	9,300	100	86.1	*	*	*
75-84 years	19,000	100	91.8	*	*	*
85 years and over	12,500	100	80.9	*	*	10.7

Table 8. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to number and types of special aids and age: United States, June-August 1969

Number and type of special aids and age	Number of residents	Number of chronic conditions and impairments							Average number of conditions
		Total	No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
ALL RESIDENTS									
Percent distribution									
All ages	815,100	100	2.3	13.1	19.4	21.6	17.7	25.9	3.4
Under 65 years	92,900	100	2.6	30.2	26.0	19.7	11.2	10.4	2.5
65-74 years	138,500	100	2.6	14.8	22.6	21.0	15.7	23.3	3.3
75-84 years	321,800	100	2.3	10.9	19.0	22.4	18.5	26.7	3.5
85 years and over	261,900	100	1.9	8.7	15.9	21.6	20.1	31.8	3.8
NUMBER OF AIDS USED									
<u>No aids used</u>									
All ages	181,900	100	3.6	20.2	20.4	21.0	14.9	19.9	3.1
Under 65 years	40,700	100	3.4	40.4	25.9	16.7	7.4	6.3	2.1
65-74 years	35,900	100	3.6	21.2	25.1	20.4	13.3	16.4	2.9
75-84 years	60,100	100	3.3	13.6	19.0	24.2	16.5	23.4	3.3
85 years and over	45,200	100	4.4	10.1	13.7	21.0	20.7	30.3	3.7
<u>1 aid</u>									
All ages	342,245	100	2.7	13.6	21.2	21.9	16.9	23.6	3.3
Under 65 years	35,800	100	*	26.1	27.2	19.9	13.3	11.3	2.6
65-74 years	58,500	100	3.4	15.0	24.5	20.6	14.5	22.0	3.1
75-84 years	142,000	100	3.1	12.6	21.3	22.4	17.7	23.0	3.3
85 years and over	105,900	100	2.1	9.9	17.4	22.6	18.5	29.6	3.6
<u>2 aids</u>									
All ages	228,900	100	1.0	8.3	17.3	22.2	20.4	30.8	3.7
Under 65 years	12,700	100	*	15.0	23.6	26.3	14.9	18.4	3.1
65-74 years	34,000	100	*	10.5	18.1	21.8	19.8	29.3	3.7
75-84 years	94,400	100	1.1	7.9	17.5	22.3	20.7	30.5	3.7
85 years and over	87,800	100	*	6.9	16.0	21.7	21.2	33.5	3.9
<u>3 or more aids</u>									
All ages	62,100	100	*	6.7	14.4	19.7	20.6	38.2	4.1
Under 65 years	3,600	100	-	*	*	29.0	*	*	3.4
65-74 years	10,100	100	*	*	18.2	22.5	17.2	35.6	4.0
75-84 years	25,300	100	*	6.2	12.6	18.4	20.5	41.9	4.2
85 years and over	23,100	100	*	7.2	13.4	18.4	22.3	38.1	4.1
TYPE OF AIDS USED									
<u>Eyeglasses</u>									
All ages	496,900	100	2.2	12.1	20.0	22.1	18.0	25.5	3.4
Under 65 years	32,000	100	*	27.4	25.9	20.3	11.5	12.3	2.6
65-74 years	80,000	100	2.7	14.3	22.8	21.2	16.0	22.9	3.3
75-84 years	214,200	100	2.5	11.3	20.0	22.4	18.6	25.2	3.4
85 years and over	170,700	100	1.6	9.3	17.7	22.5	19.4	29.5	3.7

Table 8. Number and percent distribution of residents in nursing and personal care homes by number of chronic conditions and impairments, according to number and types of special aids and age: United States, June-August 1969—Con.

Number and type of special aids and age	Number of residents	Number of chronic conditions and impairments							Average number of conditions
		Total	No conditions	1 condition	2 conditions	3 conditions	4 conditions	5 conditions or more	
TYPES OF AIDS USED—Con.		Percent distribution							
<u>Hearing aid</u>									
All ages	38,200	100	*	9.9	13.3	21.6	18.4	34.7	3.9
Under 65 years	*	100	-	*	*	*	*	*	*
65-74 years	3,500	100	-	*	*	*	*	33.4	4.0
75-84 years	15,500	100	*	8.5	14.0	21.5	16.3	36.4	3.9
85 years and over	18,200	100	*	10.2	13.5	20.3	20.4	34.3	3.9
<u>Wheelchair</u>									
All ages	253,900	100	0.4	5.7	14.6	20.7	20.7	38.0	4.1
Under 65 years	25,400	100	*	13.2	24.7	26.8	18.2	16.1	3.1
65-74 years	42,700	100	*	6.6	17.8	21.7	18.3	35.3	4.0
75-84 years	98,100	100	*	5.4	13.4	19.7	21.6	39.6	4.2
85 years and over	87,800	100	*	3.3	11.4	19.6	21.5	43.8	4.4
<u>Walker</u>									
All ages	96,600	100	*	8.4	17.8	21.4	20.2	31.3	3.8
Under 65 years	4,900	100	*	*	21.2	25.8	*	22.3	3.3
65-74 years	14,600	100	*	13.0	18.9	21.3	16.4	30.1	3.6
75-84 years	39,600	100	*	6.4	18.6	22.0	20.5	31.7	3.8
85 years and over	37,400	100	*	8.5	16.2	20.2	21.7	32.6	3.8
<u>Crutches</u>									
All ages	10,000	100	*	*	23.0	19.6	23.7	24.4	3.5
Under 65 years	1,900	100	*	*	*	*	*	*	2.8
65-74 years	2,000	100	*	*	*	*	*	*	3.6
75-84 years	3,400	100	-	*	*	*	*	*	3.6
85 years and over	2,700	100	-	*	*	*	*	*	3.8
<u>Braces</u>									
All ages	8,900	100	*	*	24.2	22.6	23.2	24.4	3.6
Under 65 years	2,200	100	-	*	*	*	*	*	3.4
65-74 years	3,100	100	*	*	*	*	*	*	3.6
75-84 years	2,500	100	-	*	*	*	*	*	3.9
85 years and over	1,100	100	-	*	*	*	*	*	3.5
<u>Other aids</u>									
All ages	89,900	100	*	10.2	18.5	21.7	21.2	27.7	3.6
Under 65 years	5,500	100	-	*	27.2	21.8	*	19.3	3.1
65-74 years	12,400	100	*	*	17.9	21.9	22.8	30.0	3.8
75-84 years	36,200	100	*	10.6	17.0	22.5	20.4	28.8	3.7
85 years and over	35,900	100	*	9.9	18.8	20.8	22.4	26.9	3.6

Table 9. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to number and types of special aids and age: United States, June-August 1969

Number and type of special aids and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>ALL RESIDENTS</u>						
		Percent distribution				
All ages	815,100	100	44.3	18.8	10.9	26.1
Under 65 years	92,900	100	52.3	17.7	10.3	19.8
65-74 years	138,500	100	46.6	19.1	11.2	23.2
75-84 years	321,800	100	46.0	18.3	10.7	25.0
85 years and over	261,900	100	38.1	19.5	11.2	31.2
<u>NUMBER OF AIDS USED</u>						
<u>No aids used</u>						
All ages	181,900	100	44.5	28.4	1.1	26.0
Under 65 years	40,700	100	58.2	27.7	*	13.6
65-74 years	35,900	100	48.1	32.0	*	18.7
75-84 years	60,100	100	42.8	28.9	*	27.2
85 years and over	45,200	100	31.6	25.6	*	41.5
<u>1 aid</u>						
All ages	342,200	100	49.9	18.3	7.4	24.4
Under 65 years	35,800	100	52.1	11.4	12.7	23.8
65-74 years	58,500	100	54.4	16.6	6.7	22.3
75-84 years	142,000	100	53.6	18.5	6.7	21.2
85 years and over	105,900	100	41.7	21.2	7.0	30.2
<u>2 aids</u>						
All ages	228,900	100	37.8	14.5	18.1	29.5
Under 65 years	12,700	100	40.5	*	25.0	27.2
65-74 years	34,000	100	35.6	13.3	20.5	30.7
75-84 years	94,400	100	38.6	13.9	17.7	29.7
85 years and over	87,800	100	37.4	16.7	16.7	29.2
<u>3 or more aids</u>						
All ages	62,100	100	36.3	8.6	32.1	22.9
Under 65 years	3,600	100	29.4	*	44.1	*
65-74 years	10,100	100	33.1	*	41.2	18.8
75-84 years	25,300	100	38.4	8.4	29.7	23.6
85 years and over	23,100	100	36.6	10.4	29.0	24.0
<u>TYPE OF AIDS USED</u>						
<u>Eyeglasses</u>						
All ages	496,900	100	50.6	17.1	11.5	20.8
Under 65 years	32,000	100	61.1	11.3	12.0	15.7
65-74 years	80,000	100	52.7	15.1	12.9	19.3
75-84 years	214,200	100	52.3	17.0	10.8	20.0
85 years and over	170,700	100	45.5	19.3	11.8	23.5

Table 9. Number and percent distribution of residents in nursing and personal care homes by mobility status, according to number and types of special aids and age: United States, June-August 1969—Con.

Number and type of special aids and age	Number of residents	Mobility status				
		Total	Ambulatory, unconfined	Ambulatory, confined	Chairfast	Bedfast
<u>TYPE OF AIDS USED—Con.</u>		Percent distribution				
<u>Hearing aid</u>						
All ages	38,200	100	54.1	14.7	11.8	19.4
Under 65 years	*	100	*	*	*	*
65-74 years	3,500	100	54.6	*	*	*
75-84 years	15,500	100	59.3	12.7	10.4	17.7
85 years and over	18,200	100	50.0	16.0	12.8	21.2
<u>Wheelchair</u>						
All ages	253,900	100	17.1	2.5	31.4	49.0
Under 65 years	25,400	100	20.8	*	36.1	41.6
65-74 years	42,700	100	20.1	2.8	32.3	44.8
75-84 years	98,100	100	16.8	2.7	31.3	49.3
85 years and over	87,800	100	14.9	2.4	29.8	52.8
<u>Walker</u>						
All ages	96,600	100	40.5	24.5	20.5	14.6
Under 65 years	4,900	100	41.1	24.9	*	*
65-74 years	14,600	100	39.7	23.4	25.7	11.3
75-84 years	39,600	100	43.4	22.2	19.9	14.5
85 years and over	37,400	100	37.6	27.2	19.3	15.9
<u>Crutches</u>						
All ages	10,000	100	51.8	21.0	18.7	8.4
Under 65 years	1,900	100	58.9	*	*	*
65-74 years	2,000	100	*	*	*	*
75-84 years	3,400	100	57.5	*	*	*
85 years and over	2,700	100	48.5	*	*	*
<u>Braces</u>						
All ages	8,900	100	40.9	13.0	27.0	19.1
Under 65 years	2,200	100	*	*	*	*
65-74 years	3,100	100	*	*	*	*
75-84 years	2,500	100	54.2	*	*	*
85 years and over	1,100	100	*	*	*	*
<u>Other</u>						
All ages	89,935	100	56.6	24.3	6.5	12.6
Under 65 years	5,500	100	55.7	*	*	*
65-74 years	12,400	100	49.2	21.9	12.3	16.6
75-84 years	36,200	100	58.9	23.2	5.7	12.2
85 years and over	35,900	100	56.9	27.5	4.5	11.1

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. Collected in the survey were 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.

Resident Places Survey-3 is the third of a series of institutional population surveys conducted as part of the National Health Survey program. The previous surveys have been designated as Resident Places Survey-1 and -2, or RPS-1 and RPS-2. Several reports in Vital and Health Statistics, Series 12 and 13, describe the results of RPS-1 and RPS-2.

Sampling frame.—The list of nursing and personal care homes included in the 1967 Master Facility Inventory (MFI) was the primary sampling frame (universe) for Resident Places Survey-3. The MFI was supplemented by a list of new homes, "births," which were possibly within scope of RPS-3 but were not confirmed in the 1967 MFI Survey. The "births" had been reported in the Agency Reporting System (ARS) as being in operation at the time of the survey. (A description of the MFI and ARS has been published.)²⁴

It should be noted that estimates from RPS-3 will not correspond precisely to figures from the 1969 MFI Survey. This is because the two surveys used different data collection mechanisms; the 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.

To be eligible for the survey, establishments must have maintained at least three beds and routinely provided some level of nursing or personal care. Thus a home providing only room and board or domiciliary care to its residents was not eligible for RPS-3 even if it was a home for the aged. The classification scheme for homes is described in appendix II.

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 type of service strata: nursing care homes, personal care homes with nursing, and personal care homes. The "births" from the Agency Reporting System were treated as a fourth type of service stratum. Each of these four strata was sorted into seven bed-size groups, producing 28 primary strata as 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 strata. In addition to showing the 28 primary strata, table I shows the distribution of establishments in the sampling frame and the final disposition of the sample with regard to response and in-scope status.

The second-stage sample 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

Table 1. 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

Type of service and bed size of home	Universe ¹ (sampling frame)	Number of homes in sample			
		Total homes	Out of scope or out of business	In scope and in business	
				Nonresponding homes	Responding homes
All types	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 bed size 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.

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 and sampled only professional and semiprofessional employees by 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 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. Information on the administrator questionnaire was self-enumerative and was completed by the person who was designated as "administrator" by the owner or operator of the sample facility. These two forms were 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 to 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.

The staff information was obtained by means of a self-enumeration questionnaire (HRS-4e, appendix III).

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 processing included assignment of weights, ratio adjustments, and other related procedures necessary to produce national estimates from the sample data.

General Qualifications

Nonresponse and imputation of 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 the failure to complete an item on a questionnaire.

Rounding of numbers.—Estimates of residents have been rounded to the nearest hundred. For this reason detailed figures within tables do not always add to totals. Percents and mean values were calculated on the basis of original, unrounded figures and will not necessarily agree precisely with percents or means, which might be calculated from rounded data.

Estimation procedure.—The statistics presented in this report are essentially the result of ratio estimation techniques. These techniques are described in an earlier publication.¹

Reliability of estimates.—Since statistics presented in this report are based on a sample, they will differ somewhat from figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and procedures. As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures.

The sampling error (or standard error) of a statistic is inversely proportional to the square root of the number of observations in the sample. Thus as the sample size increases, the standard error decreases. The standard error is primarily a measure of the variability that occurs by chance because only a sample, rather than the entire universe, is surveyed. As calculated for this report, the standard error also reflects part of the measurement error, but it does not measure any systematic biases in the data. The chances are about 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 $2\frac{1}{2}$ times as large.

Relative standard errors of aggregates shown in this report are presented in table II. The relative standard error of an estimate is obtained by dividing the standard error of the estimate by

Table II. Approximate relative standard errors of estimated numbers shown in this report

Estimate	Relative standard error (in percentage points)
2,500	14.4
5,000	10.2
20,000	5.3
60,000	3.3
90,000	2.9
200,000	2.3
500,000	1.9
800,000	1.8

the estimate itself and is expressed as a percent of the estimate. Standard errors of estimated percentages are shown in table III.

Rules for determining the standard error of a mean value, of a median value, or of the difference between two statistics may be found in appendix I of Series 12, No. 7.⁴

Table III. Approximate standard errors of percentages shown in this report

Base of percentage	Estimated percent						
	2 or 98	5 or 95	10 or 90	20 or 80	30 or 70	40 or 60	50
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
20,000	0.7	1.1	1.5	2.0	2.3	2.5	2.5
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
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
800,000	0.1	0.2	0.2	0.3	0.4	0.4	0.4

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Demographic Terms

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

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

Color.—The population is divided into two color groups, "white" and "all other." The "all other" group includes Negro, American Indian, Chinese, Japanese, and any other race. Mexican persons are included with "white" unless definitely known to be Indian or of another race.

Marital status.—The marital status is that of a person at the time of the survey.

Terms Relating to Health Status

Chronic conditions and impairments.—If the respondent answered "yes" to a category in item 6 of the Current Patient Questionnaire (see appendix III) then it was counted as a chronic condition or impairment and counted as only one, even though more than one may have been included in that category. An exception to that rule was category "N" which asked the respondent to specify "any other conditions or impairments." This category was checked first to determine that it was not a repeat of the other conditions listed in the preceding categories; and, if not, each condition listed in it was counted individually. In addition, a hearing impairment was counted if there was an affirmative response to either categories "d" or "e" of item 12 of the same questionnaire, and a vision impairment was counted if there was an affirmative response to either category "c" or "d" of item 13; however, this count was made only if either

condition had not been specified in category "N" of item 6.

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

Mobility status.—Mobility was classified according to the degree of mobility limitation involved as follows:

1. *Nonambulatory*—referred to those residents who were *bedfast*. It included two categories: (a) those residents who were *totally bedfast*, or restricted to total bed rest and (b) those residents who were *generally bedfast*, or confined to bed but up in a wheelchair for at least a few hours a day.
2. *Ambulatory*—referred to those residents who were *not bedfast*. It included three categories: (a) those residents who were *chairfast*, or needed a wheelchair but required minimal help in getting around, (b) those residents who were *ambulatory, confined*, or were confined to the premises but did not use a wheelchair, and (c) those residents who were *ambulatory, unconfined*, or were capable of going off the premises with or without assistance.
3. *Restrictions or limitations in mobility*—referred to all residents who were not ambulatory, unconfined.

Levels of Nursing or Personal Care

These levels are defined in terms of the implied intensiveness of care or the condition of the resident. Based on these criteria, nursing and personal care services are grouped as follows,

each succeeding level being exclusive of the previous levels:

Intensive care

- Catheterization
- Bowel and bladder retraining
- Oxygen therapy
- Intravenous injection
- Nasal feeding

Full bed bath

Less intensive care

- Application of sterile dressings or bandages
- Irrigation
- Hypodermic injection
- Intramuscular injection
- Subcutaneous injection
- Routine nursing care
- Temperature
- Temperature-pulse
- Enema
- Blood pressure

Personal care

- Help with dressing, shaving, or care of hair
- Help with tub bath or shower
- Help with eating (feeding of resident)
- Rub and massage
- Administrations of medications or treatment
- Special diet

Nursing or personal care not provided

Special Aid

A special aid is a device used to compensate for defects resulting from disease, injury, impairment, or congenital malformation. Aids included in this survey are eyeglasses, hearing aids, walkers, wheelchairs, crutches, braces, and other aids as were specified in item 10 of the Current Patient Questionnaire (appendix III).

Classification of Homes by Type of Service

For purposes of stratification of the universe before selection of the sample, the homes on the MFI were classified as nursing care homes, personal care homes with nursing, and personal care

homes. Details of the classification procedure have been published.

Because of the 2-year interval after the 1967 MFI Survey (used as the basic sampling universe), it was felt that for producing statistics by type of service from the RPS-3 the homes should be reclassified on the basis of the current data collected in the survey. This classification procedure is essentially the same as the MFI scheme. The three types of service classes delineated for RPS-3 are defined as follows:

Nursing care home.—An establishment is a nursing care home if nursing care is the primary and predominant function of the facility. Those meeting the following criteria are classified as nursing care homes in this report: one or more registered nurses or licensed practical nurses were employed, and 50 percent or more of the residents received nursing care during the week before the survey.

Personal care home with nursing.—An establishment is a personal care home with nursing if personal care is the primary and predominant function of the facility but some nursing care is also provided. If an establishment met either of the following criteria, it was classified as a personal care home with nursing:

Some, but less than 50 percent of the residents, received nursing care during the week before the survey and there was one or more registered professional or licensed practical nurses on the staff.

Some residents received nursing care during the week before the survey, no registered nurses or licensed practical nurses were on the staff, but one or more of the following conditions were met:

1. Medications and treatments were administered in accordance with physicians' orders.
2. Supervision over self-administered medications was provided.
3. Three or more personal services were routinely provided.

Personal care home.—An establishment is a personal care home if the primary and predominant function of the facility is personal

care and no residents received nursing care during the week before the survey. Places in which one or more of the following criteria were met are classified as personal care homes in this report whether or not they employed registered nurses or licensed practical nurses.

1. Medications and treatments were administered in accordance with physician's orders, or supervision over self-administered medications was provided.

2. Three or more of the criterion personal services were routinely provided.

APPENDIX III

RESIDENT PLACES SURVEY-3 FORMS AND QUESTIONNAIRES

INTRODUCTORY LETTER



OFFICE OF THE DIRECTOR

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

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

FACILITY QUESTIONNAIRE

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 Oxygen therapy Hypodermic injection Blood pressure Catheterization Full bed-bath Intravenous injection Application of dressing or bandage Irrigation Enema Temperature-pulse-respiration 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 Oxygen therapy Hypodermic injection Blood pressure Catheterization Full bed-bath Intravenous injection Application of dressing or bandage Irrigation Enema Temperature-pulse-respiration Bowel and bladder retraining		No. of persons _____

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.
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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 -	No. of years	No. of months
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?		
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?		
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?	<i>Circle highest grade completed</i> a. Elementary school 1 2 3 4 5 6 7 8 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						
9. Which of the following degrees do you have?	<i>Mark all that apply</i> ☐ Associate degree or certificate ☐ Bachelor's degree ☐ Master's degree ☐ Doctorate (M.D., D.O., or Ph.D., etc.) ☐ None of these	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 2px;">Major field of study</th> </tr> </thead> <tbody> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> </tbody> </table>	Major field of study				
Major field of study							
10. Which of the following professional degrees, licenses, or association registrations do you have?	<i>Mark all that apply</i> ☐ 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 (<i>Specify</i>) _____ ☐ 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						

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.

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.

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.

Thank you for your cooperation.

1. When were you born?	Month	Year
2. How many years have you worked as a _____?	No. of years	No. of months
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? (NOTE TO NURSES: Do not include special duty or private duty nursing.)	No. of years	No. of months
3a. 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 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

STAFF AND INFORMATION CONTROL RECORD

FORM HRS-4a (3-27-69)		U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS		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. 68-569022 Approval Expires August 31, 1969		Establishment No.					
STAFF INFORMATION AND CONTROL RECORD															
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		RACE			OCCUPATIONS Enter number from Card A				DISPOSITION OF STAFF QUESTIONNAIRE			Line No.	
		M - Male F - Female		W - White N - Negro O - Other			1-11 Professional	12 Professional	13-20 Semi-professional	21-24 Non-professional	(h)				
		(b)		(c)			Circle all persons (d)	Circle sample persons (e)	Circle sample persons (f)	Do not fill staff questionnaire (g)	Completed	Left	Date received in R.O.		
		1 M	2 F	1 W	2 N	3 O									
1															1
2															2
3															3
4															4
5															5
6															6
7															7
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9															9
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14															14
15															15
16															16
17															17
18															18
19															19
20															20

LIST OF SELECTED JOB CATEGORIES

CARD A

Which of the following job categories best fits the job which this employee does in this facility?

1. Administrator
2. Physician (M.D. or D.O.)
3. Dentist
4. Registered Occupational Therapist
5. Qualified Physical Therapist
6. Recreation Therapist
7. Dietitian or Nutritionist
8. Registered Medical Record Librarian
9. Social Worker
10. Speech Therapist
11. Other professional occupations
12. Registered Nurse
13. Occupational Therapist Assistant
14. Physical Therapist Assistant
15. Other Medical Record Librarians and Techicians
16. Licensed Practical Nurse or Vocational Nurse
17. Practical nurse
18. Nurse's aide
19. Orderly
20. Student nurse
21. Clerical, bookkeeping, or other staff
22. Food service personnel (cook, kitchen help, etc.)
23. Housekeeping personnel (maid, laundryman, maintenance man, etc.)
24. Job other than those listed above (*Please describe employee's duties*)

FORM HRS-4k
(3-27-69)
USCOMM-DC

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

LIST OF SELECTED JOB CATEGORIES

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?				How long has he had this condition?			
				2 No	1 Yes	1 Less than 3 mos.	2 3 to 5 mos.
a. ADVANCED senility							
b. Senility, not psychotic							
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? 2 ☐ No				1 ☐ Yes _____			
Specify							
Footnotes							

11. Which of these categories best describes his ability to move about?	Check	Does this require extra nursing time?	How long has he been this way?				If less than 6 months, ask: How was he before that? Enter letter
			Less than 3 mos.	3 to 5 mos.	6 to 11 mos.	12 mos. or more	
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 to 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.) ☐ Other public assistance or welfare ☐ Initial payment -- life care ☐ Medicare (Title XVIII) ☐ Church support ☐ Other -- Specify _____ ☐ Medicaid (Title XIX) ☐ VA contract							
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.) 4 ☐ Other public assistance or welfare 8 ☐ Other -- Specify _____ 2 ☐ Medicare (Title XVIII) 5 ☐ Church support 9 ☐ None 3 ☐ Medicaid (Title XIX) 6 ☐ VA contract							
☐ 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 ☐ Medicaid (Title XIX) ☐ VA contract ☐ Own income or family support (private plans, retirement funds, social security, etc.) ☐ Other public assistance or welfare ☐ Initial payment -- life care ☐ Medicare (Title XVIII) ☐ Church support ☐ Other -- Specify _____							

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