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# Vital and Health Statistics

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## Nursing Home Utilization by Current Residents: United States, 1985

Series 13:  
Data From the National Health Survey  
No. 102

This report presents utilization characteristics (rate of residency in nursing homes, length of stay since admission, average total monthly charge, and average number of dependencies in activities of daily living) according to the major demographic characteristics of age, sex, race, and Hispanic origin. Estimates are based on data collected in the 1985 National Nursing Home Survey. Selected trends in use of nursing homes are also examined.

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**Symbols**

---	Data not available
...	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standard of reliability or precision (more than 30-percent relative standard error)
#	Figure suppressed to comply with confidentiality requirements

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# Nursing home utilization by current residents

by Esther Hing, Division of Health Care Statistics

## Introduction

### Scope of report

In this report, several measures of nursing home utilization for current residents will be examined by the major demographic characteristics of age, sex, race, and Hispanic origin. The utilization measures examined are the rate of residency in nursing homes as measured by the number of nursing home residents per 1,000 population, length of stay since admission, average total monthly charge, and average number of dependencies in activities of daily living. These four utilization measures reflect "snapshot" use of nursing homes by persons living in nursing homes on any given day during the August 1985 through January 1986 survey period. Other characteristics examined in this report include marital status, living arrangements prior to admission, prior nursing home use, hospitalizations while still a resident, health status (primary and all-listed diagnoses at time of survey and mental status), and primary source of payment at admission and in month before interview. Selected trends in use of nursing homes by current residents are also examined in this report.

### Sources and qualifications of data

The data presented in this report are from the 1985 National Nursing Home Survey (NNHS), a nationwide sample survey of nursing homes, their residents, discharges, and staff conducted by the National Center for Health Statistics. The survey, which was conducted from August 1985 through January 1986, was the third of a continuing series of nursing home surveys. The first survey was conducted from August 1973 through April 1974, and the second was conducted from May through December 1977.

Facilities included in the 1985 NNHS were nursing and related-care homes in the conterminous United States that had three beds or more set up and staffed for use by residents and that routinely provided nursing and personal care services. A facility could be free standing or could be a nursing care unit of a hospital, retirement center, or similar institution as long as the unit maintained financial and employee records separate from the parent institution. Places providing only room and board were excluded, as were places serving only persons with specific health problems (for example, mental retardation or alcoholism). In addition, facilities identified as residential care were also excluded.

The sampling frame for the 1985 NNHS consisted of the following components:

- The 1982 National Master Facility Inventory (NMFI), a census of nursing and related-care homes conducted by the National Center for Health Statistics (1).
- Homes identified in the 1982 Complement Survey of the NMFI as "missing" from the 1982 NMFI.
- Nursing homes opened for business from 1982 through June 1, 1984.
- Hospital-based nursing homes identified in the records of the Health Care Financing Administration.

The resulting frame contained 20,479 nursing homes. In this report, the terms "nursing homes," "nursing and related-care homes," and "facilities" are used interchangeably.

Estimates in this report are based on a sample of 5,243 residents of the 1,079 nursing homes participating in the survey. A sample of five residents or fewer per sample facility was selected. Residents included in the sample were those on the nursing home's roster the night before data collection began. Data were collected by interviewing knowledgeable nursing home staff members, who referred to the residents' medical records when necessary. Additional followup information on the sample residents was collected by telephone interview with the residents' next of kin. (A resident's guardian or friends were contacted if there was no next of kin.) Data collected from the next of kin focused on the circumstances and reasons for the resident's nursing home admission. The bulk of the data in this report were obtained from the nursing home staff. Selected data reported by the residents' next of kin, however, also are presented.

A detailed description of the sampling frame, sample design, and survey procedures is presented in appendix I. Appendix I also includes imputation procedures and estimation techniques. Because the data in this report are national estimates based on a sample and are subject to sampling errors, a standard error chart and a description of its use are provided in appendix I.

Appendix II presents definitions of terms used in this report. Reference to the definitions in appendix II is essential to interpret the data in this report. Facsimiles of selected questionnaires and forms used in the survey are shown in appendix III.

Preliminary statistics about facilities, residents, discharges, and registered nurses have been published (2–5). Final statistics on a variety of topics (6) and on the effects of Medicare’s prospective payment system on nursing homes (7) also have been published.

### **Trend comparison qualifications**

Although data on residents reported by the nursing home staff were collected in a similar manner in earlier National Nursing Home Surveys as in the 1985 survey, note should be taken of some differences.

First, personal care without nursing and domiciliary care homes were excluded from the scope of the 1973–74 NNHS but included in the two later surveys. The effect of this difference is noteworthy because, according to the 1971 NMFI, about 25 percent of all nursing homes in 1971 were personal care without nursing or domiciliary care homes and they housed about 7 percent of the residents (8). The 1971 NMFI, updated for newly opened facilities, was basically the sampling frame for the 1973–74 NNHS. Because no adjustments were

made when making trend comparisons between 1973–74 and later NNHS data, the reader should be cognizant of the restricted scope of the 1973–74 survey. Overall, and in specific cases, the 1973–74 estimates will underestimate the total number of nursing home residents.

Second, certain variables presented in this report were not available from previous surveys. Data on some variables discussed in this report—prior use of nursing homes, hospitalizations while still a resident, ability to transfer in or out of a bed or chair, and primary source of payment at admission—were not collected in the earlier surveys.

Third, race and ethnicity were collected as a single item in the 1973–74 and 1977 surveys but as separate items in 1985. This difference should be considered when comparing data by race from the 1985 NNHS and previous surveys.

In addition to the three NNHS’s, a series of surveys conducted from 1963 through 1969, called the Resident Places Surveys, provides additional background information about nursing home residents. Because the methodology and many of the data items collected in the Resident Places Surveys and the first two NNHS’s are comparable with those of the 1985 NNHS, selected trend data are presented in this report.

# Utilization by demographic characteristics

## Demographic characteristics

In 1985, an estimated 1,491,400 residents lived in 19,100 nursing homes nationwide, representing a 14-percent increase over the 1,303,100 residents reported in the 1977 NNHS. The vast majority of nursing home residents were elderly (88 percent) and three-quarters were 75 years of age and over (table 1). Since 1977, the age structure of the resident population has shifted to the oldest age group. In 1977, 14 percent of the residents were under 65 years of age and 35 percent were 85 years of age and over. By 1985, 12 percent of the residents were under 65 years and 40 percent were 85 years of age and over. As a result of the shifting age distribution, the average age of nursing home residents increased from 78 to 79 years from 1977 to 1985. The median age was 81 years.

Not only were nursing home residents predominantly elderly, they also tended to be female (72 percent). Females outnumbered males in each age group over 64 years and tended to be older (with an average age of 81 years) than male residents were (74 years of age). The preponderance of females in nursing homes is related to their longer life expectancy (78.2 years compared with 71.2 years for males in 1985) (9). It also reflects a greater tendency among the elderly without spouses or living alone to enter nursing homes (10,11). According to data from the Longitudinal Study of Aging, for example, persons aged 70 years and over living alone in 1984 were more likely than those living with others to be in a nursing home 2 years later. In 1985, 73 percent of female nursing home residents were widowed, compared with only 33 percent of male residents.

The overwhelming majority of nursing home residents also were white (92 percent). Only 7 percent of the residents were black, and less than 1 percent were other races (Asian or Pacific Islander; American Indian or Alaskan Native). On the average, white residents were older (80 years) than black residents (75 years) and residents of other races (73 years). A larger proportion of black residents (21 percent) than white residents (11 percent) were under 65 years.

The rate of residency in nursing homes by the elderly population 65 years of age and over in 1985 was 46.2 per 1,000 population. The rate of residency in nursing homes increased with age, from less than 1 out of every 1,000 persons under 65 years to 220 for every 1,000 persons aged 85 years and over. In general, rates of residency were lower for males than females, lower for persons who were black or other races than for white persons. In 1985, the rate of residency for elderly females (58 per 1,000 population) was twice that of elderly

males (29 per 1,000 population). Similarly, the rate of residency for elderly white persons (48 per 1,000 population) was greater than that for elderly black persons (35 per 1,000 population) and elderly persons of other races (20 per 1,000 population) (3). Table 2 shows that when age, sex, and race are jointly considered, elderly white females had the highest rates of residency in nursing homes of the four age-sex-race groups. At 65 years of age and over, 60 of every 1,000 white females resided in nursing homes, compared with 39 of every 1,000 black females, 29 per 1,000 white males, and 29 per 1,000 black males of the same age. At 85 years of age and over, the discrepancy in rates of residency was even greater; 259 of every 1,000 white females resided in nursing homes, compared with 163 of every 1,000 black females, 151 of every 1,000 white males, and 96 of every 1,000 black males of the same age.

Overall, the rate of residency for the elderly has not changed since 1973–74. About 5 percent of the elderly resided in nursing homes on any given day in 1973–74, 1977, and 1985, based on data from the three NNHS's. The rate of residency for persons 85 years of age and over, however, declined from 257 per 1,000 persons in 1973–74 to 220 per 1,000 persons in 1985. The same trend applies to both males and females aged 85 years and over and to white males and white females of the same age. The reasons for the declining use of nursing homes by those in the age group with the highest nursing home utilization rates are unknown. Several factors, however, may be related to this trend. A tight supply of nursing home beds, for example, limits nursing home utilization. During the 1970's, many States established certificate-of-need laws to control nursing home bed supply and expenditures (12,13). The effectiveness of these laws is seen in the uniformly high occupancy rates in nursing homes, which increased from 87 percent in 1972 to 92 percent in 1984 (2). As a result, the nursing home bed supply grew more slowly (38 percent from 1973 to 1985) than the population 85 years and over (69 percent during the same period), who are the heaviest users of nursing homes among the elderly (2,14,15).

If nursing home beds are not available, alternative forms of long-term care may be substituted (16,17). This may have happened for many elderly aged 85 years and over because incident use of home care services was 12 times higher among those aged 85 years and over than among those aged 65–74 years (18). Figure 1 shows that from 1973 to 1985, the number of Medicare home health agency visits per 1,000 beneficiaries increased dramatically, from 272 visits per 1,000 enrollees in 1973 to 1,360 visits per 1,000 enrollees in 1985. In 1985, it was estimated that, nationwide, over 2.1 million



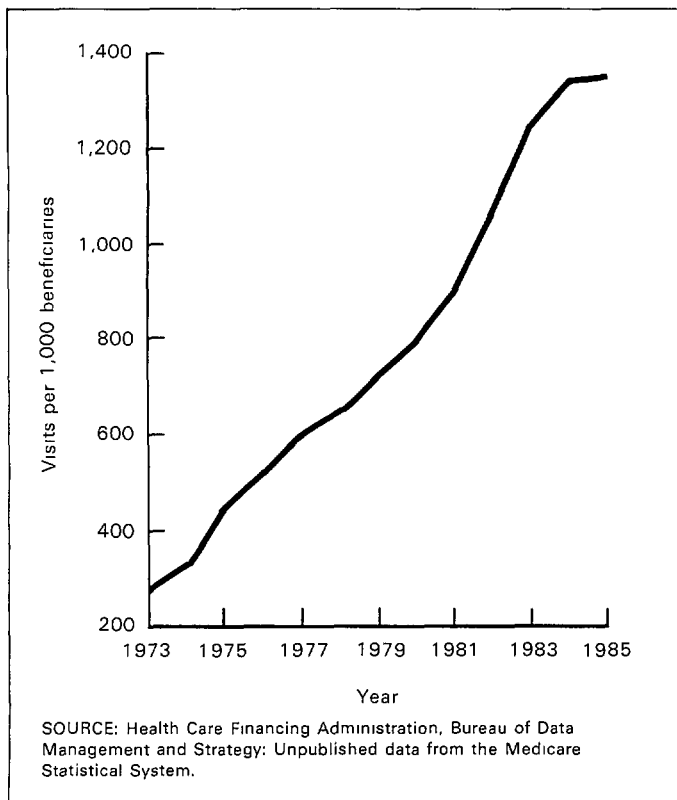


Figure 1. Medicare home health agency visits per 1,000 beneficiaries: United States, 1973-85

patients substituted home care for care in a hospital or nursing home (19). According to data from the Supplement on Aging to the 1984 National Health Interview Survey, 3 percent of the noninstitutionalized elderly population received home health care from a visiting nurse, 2 percent received care from home health aides, 2 percent received home-delivered meals, and 1 percent received homemaker services (20). Use of these in-home services was found to be greater among the elderly with moderate and severe limitations of activity (20). Moderate and severe limitations were highest among those aged 85 years and over (21).

Although declining rates of nursing home residency were observed for white males and white females aged 85 years and over since 1973-74, the same trend did not apply to black males and black females of the same age. From 1973-74 to 1985, use of nursing homes by black males and black females of this age group did not change, perhaps because of the small number of black persons in the sample. The overall use of nursing homes by black persons aged 65 years and over, however, increased from 22 per 1,000 population in 1973-74 to 35 per 1,000 population in 1985.

It should be noted that the trends on rates of residency in nursing homes since 1973-74 are affected by the more restricted scope of the 1973-74 NNHS. Overall, the total number of nursing home residents may be underestimated by 7 percent. Other specific categories affected by the narrower scope of the 1973-74 NNHS, however, are unknown because of lack of information on residents in personal care homes without nursing and domiciliary care homes in 1973-74.

Table 1 shows that, in 1985, there were 41,000 residents of Hispanic origin in nursing homes nationwide, representing a near tripling of the 14,400 Hispanic residents reported in the 1977 NNHS (22). The percent of elderly residents of Hispanic origin also tripled (table A). Much of the increased representation of Hispanic people in nursing homes may result from changes in survey methodology. In 1977, Hispanic origin and race were collected as a single item. In 1985, race and Hispanic origin were collected as separate items. Estimates of Hispanic persons are expected to be higher when collected separately because race and Hispanic origin are not mutually exclusive categories. In 1985, the proportion of elderly Hispanic residents in nursing homes (3 percent) was comparable to that found in the elderly noninstitutionalized population (table A). In contrast, the 1977 proportion of elderly Hispanic residents in nursing homes (1 percent) was half that found among the elderly noninstitutionalized population (2 percent). Estimates from the 1976-77 and 1978 National Health Interview Surveys (NHIS's) showed similar results. The estimate of Hispanic persons from the 1978 NHIS, in which race and Hispanic origin were collected separately, was 10 percent higher (13.1 million persons) than the average annual estimate of 11.9 million Hispanic persons from the 1976-77 NHIS (in

Table A. Number and percent of persons 65 years and over, by whether nursing home resident or noninstitutionalized and Hispanic origin: United States, 1977 and 1985

Hispanic origin	1977		1985	
	Nursing home residents	Noninstitutionalized population <sup>1</sup>	Nursing home residents	Noninstitutionalized population <sup>2</sup>
			Number	
All persons 65 years and over. . . . .	1,126,000	22,107,000	1,318,300	26,918,000
Hispanic persons 65 years and over. . . . .	10,500	464,000	35,300	813,000
			Percent	
Hispanic persons 65 years and over. . . . .	0.9	2.1	2.7	3.0

<sup>1</sup>Data are from the U.S. Bureau of the Census, Persons of Spanish origin in the United States, March 1977. Current Population Reports; series P-20, no 329. Washington: U.S. Department of Commerce, Sept 1978.

<sup>2</sup>Data are from the U.S. Bureau of the Census, The Hispanic population of the United States: March 1985. Current Population Reports; series P-20, no 422. Washington: U.S. Department of Commerce, Mar 1988.

which these items were collected jointly) (23). In 1985, the average age of Hispanic residents (77 years) was not significantly different from that of non-Hispanic residents (79 years).

### Length of stay since admission

In 1985, as was found in previous nursing home surveys (22,24-27), most nursing home residents were characterized by long stays in the facility; 64 percent had been in the facility 1 year or more and 18 percent had been in the facility 5 years or more (table 3). In contrast, 22 percent had been in the facility less than 6 months and 13 percent had been in the facility less than 3 months. The median length of stay in nursing homes was 1.7 years. The median length of stay is the point in the distribution where half of the residents have shorter stays and half have longer stays. The average length of stay, 2.9 years, which is influenced by the range of cases, was significantly longer than the median length of stay. The average length of stay did not vary by sex, race, or Hispanic origin. Residents under 65 years, however, tended to have longer stays (3.6 years) than elderly residents (2.8 years). The average length of stay for never married residents (4.3 years) was longer than that for any other marital status group (1.8-2.7 years).

The median length of stay in 1985 was not statistically different from that in 1977. The average length of stay, however, increased from 2.6 years in 1977 to 2.9 years in 1985 (table B). Since 1977, increases in average length of stay occurred among residents aged 65-74 years and aged 75-84 years,

among both sexes; among white residents; and among married, widowed, and never married residents. The shift of the age distribution toward the oldest age group since 1977, noted earlier, did not account for the overall longer stays of nursing home residents in 1985. When the 1985 average length of stay was age adjusted to the age distribution of the 1977 resident population in nursing homes, the age-adjusted average stay was still 2.9 years.

The most obvious explanation for the longer average stays for residents in 1985 is that there were more residents with very long stays (5 years or more) in 1985 than in 1977; in 1985, 18 percent of the residents had been in the facility 5 years or more, compared with 16 percent in 1977 (22). Other reasons for the increased length of stay for nursing home residents will be examined in more detail in later sections of this report.

### Functional status in activities of daily living

Because of the preponderance of very old residents in nursing homes, many residents required assistance or did not perform the basic activities of daily living (ADL's) needed for independent living. The ADL's are bathing, dressing, using the toilet room, transferring into or out of a bed or chair, continence, and eating. In 1985, 89 percent of nursing home residents required assistance in bathing, 75 percent required assistance in dressing, 61 percent required assistance using the toilet room, 60 percent required assistance in transferring into or out of a bed or chair, 52 percent were incontinent (bowels, bladder, or both), and 39 percent required assistance in eating (table 4).

In general, dependency in the ADL's increased with age; 71 percent of younger residents (under 65 years) required assistance in bathing, compared with 94 percent of residents 85 years of age and over. Similarly, 32 percent of younger residents were incontinent, compared with 58 percent of residents 85 years of age and over. Because female residents were older, on the average, than male residents, they tended to require assistance more often than male residents in all six ADL's.

The ADL's may be summarized by summing the number of activities in which a resident required assistance (28). In 1985, 29 percent of residents required assistance in all six activities, and only 10 percent were independent in all six activities (tables 5-6). The average number of ADL dependencies was 3.8 overall and tended to increase with age. Residents under 65 years had an average of 2.8 dependencies, compared with 4.1 for residents aged 85 years and over. The average number of ADL dependencies was greater for female residents (3.9) than for male residents (3.3) because of their older ages. The same trend, however, also applied to each of the major age groups. The average number of ADL dependencies was also greater for black residents (4.0) than white residents (3.7). There was no statistically significant difference in the average number of ADL dependencies by Hispanic origin (table C).

Elderly residents, who constitute 88 percent of all residents in nursing homes, were more functionally dependent in the ADL's on any given day of the survey period than their non-

Table B. Average length of stay since admission of nursing home residents, by selected characteristics: United States, 1977 and 1985

Characteristic	1977	1985
	Average length of stay in days	
Total.....	958	1,059
Age		
Under 65 years.....	1,123	1,311
65 years and over.....	932	1,026
65-74 years.....	883	1,055
75-84 years.....	848	948
85 years and over.....	1,042	1,081
Sex		
Male.....	885	1,031
Female.....	987	1,070
Race		
White <sup>1</sup> .....	957	1,061
All other.....	977	1,037
Black.....	977	1,041
Current marital status		
Married.....	581	675
Widowed <sup>2</sup> .....	921	990
Divorced or separated.....	889	997
Never married.....	1,336	1,582

<sup>1</sup>Data for 1977 include Hispanic residents.

<sup>2</sup>Data include a small number of unknowns.

**Table C. Average monthly charge and average number of dependencies in activities of daily living of nursing home residents, by selected characteristics: United States, 1985**

<i>Characteristic</i>	<i>Average monthly charge</i>	<i>Average number of dependencies</i>
<b>Sex and age</b>		
Both sexes, all ages . . . . .	\$1,456	3.8
Under 65 years . . . . .	1,379	2.8
65 years and over . . . . .	1,466	3.9
65-74 years . . . . .	1,372	3.4
75-84 years . . . . .	1,468	3.8
85 years and over . . . . .	1,497	4.1
Male, all ages . . . . .	1,438	3.3
Under 65 years . . . . .	1,391	2.5
65 years and over . . . . .	1,451	3.6
65-74 years . . . . .	1,349	3.1
75-84 years . . . . .	1,455	3.6
85 years and over . . . . .	1,519	3.9
Female, all ages . . . . .	1,463	3.9
Under 65 years . . . . .	1,367	3.0
65 years and over . . . . .	1,471	4.0
65-74 years . . . . .	1,386	3.6
75-84 years . . . . .	1,473	3.9
85 years and over . . . . .	1,492	4.2
<b>Race</b>		
White . . . . .	1,454	3.7
All other . . . . .	1,481	3.9
Black . . . . .	1,451	4.0
<b>Hispanic origin</b>		
Hispanic . . . . .	1,400	4.1
Non-Hispanic <sup>1</sup> . . . . .	1,457	3.8
<b>Current marital status</b>		
Married . . . . .	1,540	4.3
Widowed <sup>1</sup> . . . . .	1,472	4.0
Divorced or separated . . . . .	1,362	2.9
Never married . . . . .	1,382	3.1

<sup>1</sup>Data include a small number of unknowns

institutionalized counterparts (3). In addition, according to followup information on the residents provided by telephone interview with their next of kin, problems doing everyday activities (such as bathing, dressing, eating, walking, getting into or out of a chair or bed, and controlling urination and bowel movements) were the second most frequent reason for the resident's admission to the nursing home (table D). Among the 1,462,900 residents with next of kin, the most frequent reason cited for nursing home admission was that the resident required more care than household members could give (78 percent), followed by problems doing everyday activities (74 percent). The third most frequent reason given by next of kin for admission was that there was no one at home to provide care (64 percent), followed by not enough money to purchase nursing care at home (41 percent), recuperation from surgery or illness (34 percent), and spouse entered nursing home (3 percent). (The percent of residents by reasons for admission exceeds 100 percent because residents may have had more than one reason for admission to the nursing home.) The fact that nearly three-quarters of these residents had problems doing ADL's at admission tends to support the notion that dependence in the ADL's is a risk factor for nursing home admission (10,29-31).

Table D also gives a partial explanation for the more dependent functional status of female residents, noted previously. Next of kin reported problems doing ADL's at time of admission more often for female residents (75 percent) than for male residents (70 percent). Thus, female residents tended to be more functionally dependent at the time of the survey because they had entered the nursing home in a more functionally dependent state.

Not only are the ADL's indicators of need for nursing home care, but they have also been found to be good predictors of resource use in long-term care settings (32) and cost of care (33). This is illustrated in figure 2, which shows the average total monthly charge for residents by number of ADL depend-

**Table D. Percent of nursing home residents, by selected characteristics and reason for admission as reported by next of kin: United States, 1985**

<i>Reason for admission</i>	<i>All residents with next of kin</i>	<i>Age</i>					<i>Sex</i>		<i>Race</i>		<i>Hispanic origin</i>	
		<i>Under 65 years</i>	<i>65 years and over</i>			<i>Male</i>	<i>Female</i>	<i>White</i>	<i>Black</i>	<i>Hispanic</i>	<i>Non-Hispanic<sup>1</sup></i>	
			<i>Total</i>	<i>65-74 years</i>	<i>75-84 years</i>							<i>85 years and over</i>
Percent												
Recuperation from surgery or illness . . . . .	34.2	23.8	35.4	38.1	34.9	35.0	33.0	34.6	34.0	35.9	42.1	34.0
No one at home to provide care . . . . .	63.9	55.8	64.9	60.9	65.3	65.9	62.0	64.6	63.8	65.0	56.6	64.1
Not enough money to purchase nursing care at home . . . . .	40.6	45.6	39.9	46.0	41.4	36.7	41.3	40.3	39.5	55.2	36.5	40.7
Required more care than household members could give . . . . .	77.5	75.9	77.7	77.4	78.3	77.3	77.9	77.4	77.4	79.0	78.2	77.5
Problems in doing everyday activities . . . . .	73.9	65.4	74.9	74.8	75.0	74.9	69.9	75.4	73.5	76.9	76.2	73.8
Because spouse entered . . . . .	2.9	*0.5	3.2	*2.2	2.9	3.7	3.9	2.5	3.0	*1.9	*4.7	2.8

<sup>1</sup>Data include a small number of unknowns.

NOTE. Resident may have had more than 1 reason for admission to nursing home.

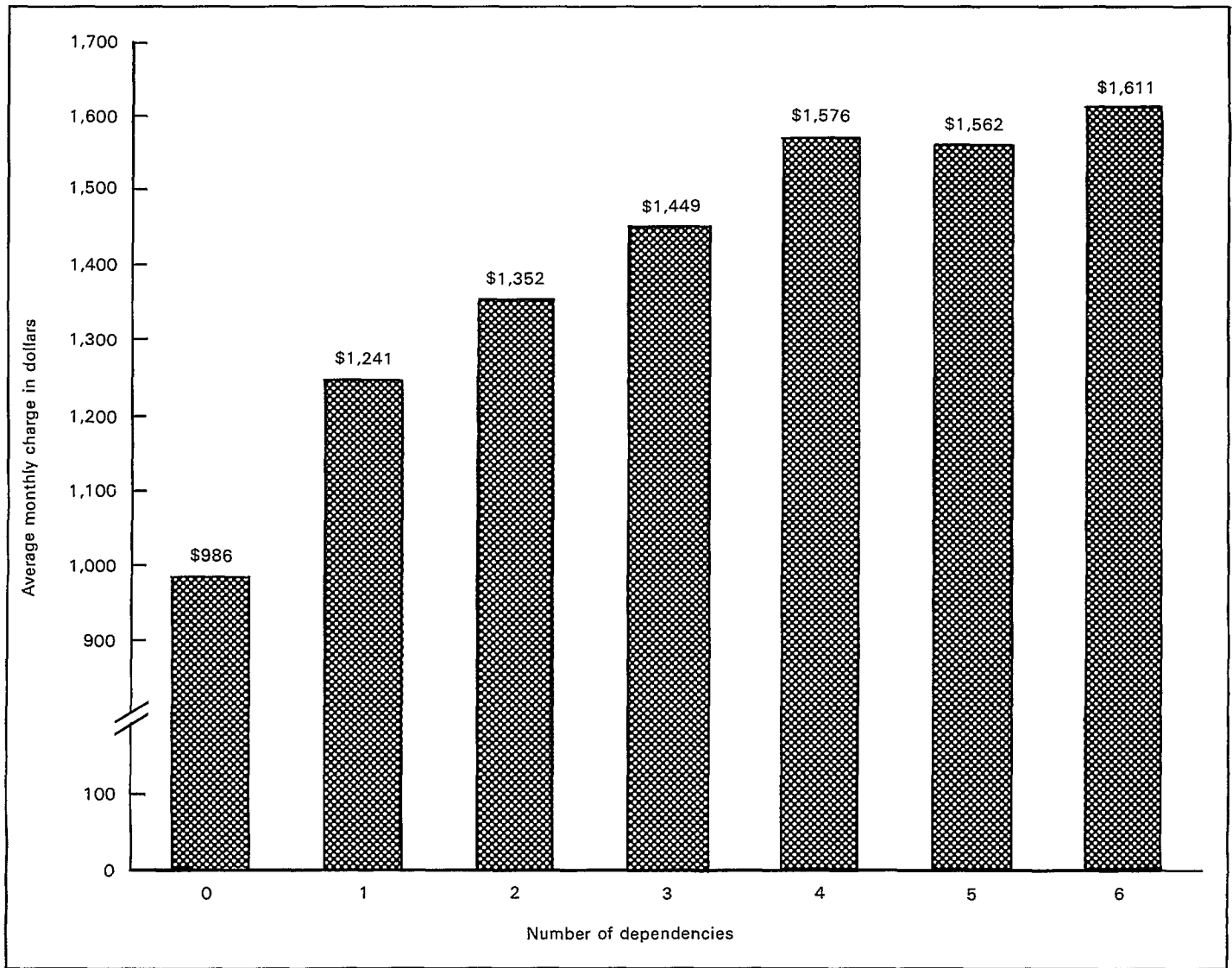


Figure 2. Average monthly charge for nursing home residents, by number of dependencies in activities of daily living: United States, 1985

encies. This figure shows that residents with four to six ADL dependencies had the highest average total monthly charge; residents with no ADL dependencies had the lowest average monthly charge. Overall, the average monthly charge in 1985 was \$1,456, or roughly \$17,500 a year.

### Average monthly charge

Table C shows that the average monthly charge for nursing home residents did not vary substantially by sex, race, or Hispanic origin. Residents under 75 years of age tended to have lower average monthly charges (\$1,375) than residents 75 years of age and over (\$1,484). The same tendency also applied to female residents. Married residents tended to have higher average monthly charges than divorced or separated and never-married residents. The difference in average monthly charges for married and widowed residents, however, was not statistically significant.

The average monthly charge for residents in 1985 was more than double that paid in 1977 (\$689). Table E, however,

Table E. Average monthly charge, medical care price index, and average monthly charge in constant (1977) dollars: United States, 1977 and 1985

Year	Average monthly charge	Medical care price index <sup>1</sup>	Average monthly charge in constant (1977) dollars <sup>2</sup>
1977 . . . .	\$ 689	100.0	\$689
1985 . . . .	1,456	201.6	722

<sup>1</sup>The medical care price index was adjusted to make 1977 equal to 100.0 by dividing the medical care component of the Consumer Price Index (CPI) for each year by that for 1977. Data from the Bureau of Labor Statistics used in this adjustment are presented below.

Medical care component of CPI (1977 = 100)	Date
204.9	August 1977
413.0	November 1985

<sup>2</sup>To convert average charges to constant (1977) dollars, charges are divided by the medical care price index and multiplied by 100.

**Table F. Percent of nursing home residents, by type of dependency in activities of daily living, percent distribution by number of dependencies, and average number of dependencies: United States, 1977 and 1985**

<i>Dependency status</i>	1977	1985
<b>Type of dependency</b>		
	Percent	
Requires assistance in bathing .....	86.3	88.7
Requires assistance in dressing. . . . .	69.4	75.4
Requires assistance in using toilet room .....	52.6	60.9
Requires assistance in mobility <sup>1</sup> .....	66.1	70.7
Has difficulty with bowel and/or bladder control. . . . .	45.3	51.9
Requires assistance in eating. . . . .	32.6	39.3
<b>Number of dependencies</b>		
	Percent distribution	
None .....	9.6	8.2
1 .....	12.4	9.3
2 .....	12.9	10.4
3 .....	10.7	9.2
4 .....	13.5	14.3
5 .....	17.6	19.5
6 .....	23.3	29.1
<b>Number</b>		
Average .....	3.5	3.9

<sup>1</sup>Mobility is used in place of transferring into or out of a chair or bed, because transferring was not available in the 1977 survey.

shows that most of the increase in average charge resulted from inflation. In constant (1977) dollars, the average monthly charge in 1985 was only 5 percent higher than that for 1977. The remaining difference in average charges for 1977 and 1985 may result from changes in the case mix of residents served in nursing homes from 1977 to 1985. As table F shows, nursing home residents in 1985 were more dependent in bathing, dressing, using the toilet room, continence, and eating, as well as in mobility, than their counterparts in 1977. When mobility is substituted for transferring into or out of a chair or bed, residents in 1985 had a higher average number of ADL dependencies (3.9) than residents in 1977 (3.5).

# Utilization by health status

## Primary diagnosis at time of survey

In 1985, the most frequent primary or first-listed diagnosis found among nursing home residents was heart disease (16 percent), followed by cerebrovascular disease (10 percent), organic brain syndrome (9 percent), psychoses other than senile dementia (6 percent), and diabetes mellitus (4 percent) (table 7). Table G shows significant differences in primary diagnoses between elderly residents and residents under 65 years of age. The primary diagnosis for elderly residents was more likely to involve diseases of the circulatory system (35 percent) than was the case for younger residents (12 percent). In contrast, younger residents were more likely to be diagnosed with mental disorders (45 percent) than elderly residents were (19 percent). This pattern of diagnosis is also evident in table 7. For residents under 65 years, the most frequent primary diagnosis at the time of survey was psychoses other than senile dementia (22 percent), followed by mental retardation (13 percent), cerebrovascular disease (6 percent), other mental disorders (5 percent), diabetes mellitus (5 percent), and organic brain syndrome (4 percent). Among residents aged 65–74 years, cerebrovascular disease (12 percent) was the most frequent primary diagnosis, followed by psychoses other than senile dementia (10 percent), heart disease (9 percent), organic brain syndrome (7 percent), chronic obstructive pulmonary disease (6 percent), and Alzheimer's disease and other degeneration of the brain (5 percent). For the group 75 years of age and over, heart disease, cerebrovascular disease, organic brain syndrome, and chronic conditions (diabetes mellitus, arthritis or rheumatism, and essential hypertension) were the leading diagnoses, and mental disorders (excluding organic brain syndrome) fell in rankings. The rankings of primary diagnoses for each sex tended to follow similar patterns by age. Table 8 presents the average length of stay and average monthly charge by primary diagnosis at time of survey.

Information on the primary diagnosis for residents has been collected in each of the NNHS's and in ad hoc surveys of nursing homes preceding the NNHS. Table H shows that the distribution of primary diagnoses among nursing home residents has remained stable for most of the major chapters of the International Classification of Diseases (ICD) since 1969. Exceptions to this rule occurred among the ICD chapters on mental disorders; diseases of the circulatory system; and symptoms, signs, and ill-defined conditions. The percent of residents with a primary diagnosis involving mental disorders doubled from 1969 to 1985 (from 11 to 22 percent); the percent of residents

with a primary diagnosis involving symptoms, signs, and ill-defined conditions declined from 10 percent in 1969 to 4 percent in 1985. The percent of residents with a primary diagnosis involving diseases of the circulatory system fluctuated during this time, but was lower in 1985 (33 percent) than in 1969 (39 percent).

The change in distribution of mental disorders may reflect a change in location of care for the chronically mentally ill during this period—from mental hospitals to nursing homes. From 1969 to 1973–74, the number of nursing home residents 65 years of age and over with a chronic mental disorder increased by more than 100 percent, but the number of residents 65 years and over in mental hospitals decreased by 30–40 percent (34). As will be shown in a later section on mental status, mental disorders were highly prevalent among nursing home residents in 1985. The change in distribution of symptoms, signs, and ill-defined conditions is probably a reflection of changes in the coding system used for the 1985 data that resulted from adoption of the *International Classification of Diseases, 9th Revision, clinical modification* (ICD–9–CM). The ICD–9–CM included signs and symptoms generally considered to be applicable to a specific body system (for example, the digestive system or the circulatory system) in those appropriate chapters rather than the more general chapter 16 (symptoms, signs, and ill-defined conditions).

## All-listed diagnoses at time of survey

In the 1985 NNHS, up to eight diagnoses were obtained from the residents' medical records and coded according to the ICD–9–CM. An estimated 4.9 million diagnoses were recorded for the 1,491,400 residents in nursing homes. Figure 3 shows that almost all nursing home residents (98 percent) had one diagnosis or more at the time of survey. The average number of diagnoses was 3.3. Table 9 presents the number of all-listed diagnoses at time of survey for nursing home residents by age and sex. Residents under 65 years of age had fewer diagnoses on the average (2.8) than elderly residents (3.3–3.5). Female residents had more diagnoses on the average (3.4) than male residents (3.2). Table 10 shows that black residents had more diagnoses on the average (3.6) than white residents (3.3). There was no difference in the average number of diagnoses for Hispanic (3.2) and non-Hispanic residents (3.3).

Of the major ICD–9–CM diagnostic classes, diseases of the circulatory system ranked first, accounting for 31 percent

**Table G. Percent distribution of nursing home residents by primary diagnostic class at time of survey, according to selected characteristics: United States, 1985**

Primary diagnostic class and ICD-9-CM code <sup>1</sup>	Age												
	65 years and over						Sex		Race			Hispanic origin	
	Total	Under 65 years	Total	65- 74 years	75- 84 years	85 years and over	Male	Female	White	All other		Hispanic	Non- Hispanic <sup>2</sup>
										Total	Black		
	Percent distribution												
All categories . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Chapter 1. Infectious and parasitic diseases . . . . . 001-139	0.4	*0.3	0.4	*0.2	*0.8	*0.1	*0.3	*0.4	*0.3	*1.6	*1.8	*0.5	0.4
Chapter 2. Neoplasms . . . . . 140-239	2.3	*1.3	2.5	*2.4	3.2	1.9	3.3	2.0	2.3	*2.9	*3.0	*1.3	2.4
Chapter 3. Endocrine, nutritional, and metabolic diseases, and immunity disorders . . . . . 240-279	5.5	5.3	5.5	6.7	6.9	3.9	5.0	5.7	5.2	8.4	8.4	*5.0	5.5
Chapter 4. Diseases of the blood and blood-forming organs . . . . . 280-289	0.7	-	0.8	*0.3	*0.9	*0.8	*0.7	0.7	0.7	*0.6	*0.5	-	0.7
Chapter 5. Mental disorders . . . . . 290-319	22.2	44.5	19.2	25.3	20.3	16.1	24.8	21.1	22.3	21.0	20.1	31.5	21.9
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	10.5	17.4	9.6	14.5	10.8	6.9	13.2	9.5	10.8	8.1	8.3	*13.8	10.5
Chapter 7. Diseases of the circulatory system . . . . . 390-459	32.6	11.9	35.3	25.5	32.6	41.1	27.3	34.7	32.3	36.2	37.7	29.1	32.7
Chapter 8. Diseases of the respiratory system . . . . . 460-519	3.4	*1.7	3.7	6.8	4.2	2.1	5.1	2.8	3.5	*2.1	*2.2	*3.8	3.4
Chapter 9. Diseases of the digestive system . . . . . 520-579	2.3	*1.5	2.4	*1.5	2.0	3.0	2.0	2.4	2.4	*1.3	*1.4	*1.7	2.3
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	1.7	*1.1	1.8	*1.7	1.7	1.9	2.6	1.4	1.8	*1.5	*1.1	*2.4	1.7
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	0.8	*0.4	0.8	*1.2	*0.5	*0.9	*0.7	0.8	0.8	0.5	*0.3	*0.6	0.8
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	6.3	*1.2	7.0	4.4	6.2	8.7	4.3	7.2	6.4	5.3	*4.9	*4.1	6.4
Chapter 14. Congenital anomalies . . . . . 740-759	0.4	*2.8	*0.1	*0.5	-	*0.1	*0.5	0.4	0.4	0.2	*0.2	-	0.4
Chapter 15. Certain conditions originating in the perinatal period . . . . . 760-779	*0.0	*0.2	-	-	-	-	-	*0.0	*0.0	-	-	-	*0.0
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	4.0	3.9	4.0	4.6	3.8	4.0	3.8	4.1	3.8	5.9	6.0	*1.8	4.1
Chapter 17. Injury and poisoning . . . . . 800-999	3.5	3.8	3.5	*1.3	2.7	4.9	2.4	3.9	3.6	2.3	*2.1	*1.6	3.6
Supplementary classifications . . . . . V01-V82	1.1	*0.8	1.2	*0.9	1.2	1.2	1.7	0.9	1.2	0.2	*0.2	-	1.2
Unknown . . . . .	2.1	*1.8	2.2	*2.4	2.2	2.1	2.1	2.1	2.1	2.0	*1.8	*2.6	2.1

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification

<sup>2</sup>Data include a small number of unknowns.

**Table H. Percent distribution of nursing home residents by primary diagnostic class: United States, 1969, 1973-74, 1977, and 1985**

Primary diagnostic class <sup>1</sup>	1969 <sup>2</sup>	1973-74 <sup>3</sup>	1977	1985
	Percent distribution			
All categories . . . . .	100.0	100.0	100.0	100.0
Infectious and parasitic diseases . . . . .	3.8	*	...	0.4
Neoplasms . . . . .	2.2	2.4	...	2.3
Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . .	5.2	4.5	...	5.5
Diseases of the blood and blood-forming organs . . . . .	0.5	0.7	...	0.7
Mental disorders . . . . .	11.1	10.8	18.4	22.2
Diseases of the nervous system and sense organs . . . . .	7.6	6.0	...	10.5
Diseases of the circulatory system . . . . .	39.1	41.9	39.7	32.6
Diseases of the respiratory system . . . . .	2.0	2.1	2.4	3.4
Diseases of the digestive system . . . . .	2.4	1.9	...	2.3
Diseases of the genitourinary system . . . . .	1.2	1.5	...	1.7
Diseases of the skin and subcutaneous tissue . . . . .	0.4	0.6	...	0.8
Diseases of the musculoskeletal system and connective tissue . . . . .	6.5	6.8	...	6.3
Congenital anomalies . . . . .	0.3	0.3	...	0.4
Certain conditions originating in the perinatal period . . . . .	*	*	...	*
Symptoms, signs, and ill-defined conditions . . . . .	10.1	13.6	...	4.0
Injury and poisoning . . . . .	4.8	4.6	...	3.5
Unknown or other diagnoses . . . . .	3.2	1.4	6.9	3.3

<sup>1</sup>Diagnostic groupings are based on the International Classification of Diseases.

<sup>2</sup>Data are from Van Nostrand JF, Sutton JF. Charges for care and sources of payment for residents in nursing homes: United States, June-August 1969. National Center for Health Statistics. Vital Health Stat 12(21). 1973.

<sup>3</sup>Data are from Ingram DK. Profile of chronic illness in nursing homes. National Nursing Home Survey, United States, August 1973-April 1974. National Center for Health Statistics. Vital Health Stat 13(29). 1973.

of all diagnoses. The next most frequent chapter for residents' diagnoses was mental disorders (14 percent), followed by diseases of the nervous system and sense organs (10 percent), diseases of the musculoskeletal system and connective tissue (9 percent), and endocrine, nutritional, and metabolic and immunity disorders (6 percent). Supplementary classifications of the ICD-9-CM accounted for 8 percent of the residents' diagnoses (table J).

Prevalence often refers to the number of existing cases of a disease at a given point in time; this definition of prevalence is usually referred to as point prevalence. Point prevalence of conditions refers to the number of residents with a specific condition rather than the number of these conditions (presented in tables 9 and 10). Because only point prevalence of conditions and impairments were available from previous NNHS's, the remainder of this section on all-listed diagnoses will present point prevalence rates of specific diagnoses for comparability purposes.

Table K presents prevalence rates of selected conditions

from the 1977 and 1985 NNHS's. Prevalence estimates from the 1985 NNHS differ from those obtained in the 1977 NNHS for several reasons. In general, conditions have lower prevalence in the 1985 NNHS than in the 1977 NNHS because of the different methodologies employed by the surveys. The 1985 estimates were based on information written in the medical record, but the 1977 estimates were based on responses to a precoded checklist of conditions. Methodological studies have found that inclusion of a checklist of descriptive condition titles as part of the interview questionnaire increases the probability that respondents will recognize the terms and report those of which they are aware (35). Prevalence of most conditions from 1977 is higher than prevalence from 1985 (table L). For example, the 1977 rates of diabetes, mental retardation, and arthritis or rheumatism per 100 residents are significantly higher than the comparable rates in 1985. Differences also may have occurred because of respondent interpretation of terms shown in the 1977 checklist of conditions. Heart trouble, for example, may not have been interpreted by the 1977 respondents to include all the diagnoses coded under heart disease (shown in table K and included in the 1985 data). Respondent interpretation of the terms "hardening of the arteries" and "stroke" may also have varied with data found in the residents' medical records, the source of the 1985 data on diagnoses. Other differences may result from changes in coding. The 1977 NNHS included precoded lists of conditions based on the *Eighth Revision International Classification of Diseases, adapted for use in the United States* (36), but the 1985 NNHS data were coded according to the *International Classification of Diseases, 9th Revision, clinical modification* (37). A major difference between these two classification systems is the expansion of categories in the ICD-9-CM, which resulted in greater specificity and detail of disease. In the previous section on primary diagnoses, a decline from 1969 to 1985 was noted in the percent of residents with a primary diagnosis involving symptoms, signs, and ill-defined conditions; this may have resulted from the change in coding systems used in those data years. In addition to these methodological factors, differences in prevalence rates also may result from changes in types of residents admitted to nursing homes since 1977. As was noted earlier, residents were more functionally dependent in 1985 than in 1977. Thus, the prevalence of diagnoses for these patients also may have changed.

Table 11 presents 1985 point prevalence rates for selected diagnoses according to age and sex. In 1985, the most prevalent diagnosis among nursing home residents was heart disease (37 percent), followed by senile dementia or organic brain syndrome (23 percent), cerebrovascular disease (18 percent), arthritis or rheumatism (18 percent), essential hypertension (16 percent), diabetes mellitus (12 percent), and psychoses other than senile dementia (11 percent). Overall, 60 percent of all nursing home residents were diagnosed with some type of disease of the circulatory system; 41 percent of all residents were diagnosed with some type of mental disorder.

Prevalence of senile dementia or organic brain syndrome, heart disease, and arthritis or rheumatism each increased with age. Rates of fracture of neck of femur (hip fracture) were greater in the group 75 years and over. Excluding senile dementia or organic brain syndrome, prevalence of mental dis-



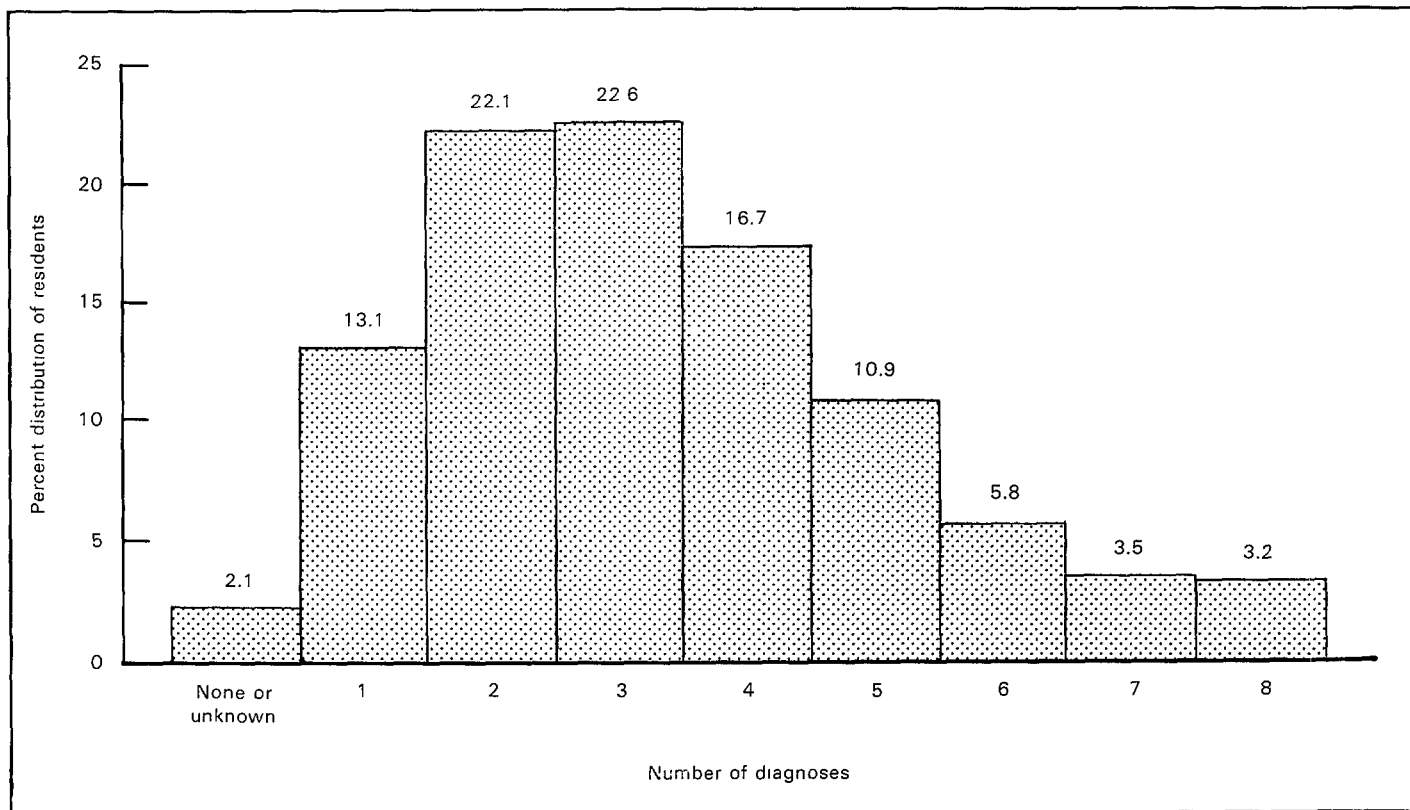


Figure 3. Percent distribution of nursing home residents by number of diagnoses: United States, 1985

orders tended to decrease with age. For example, 17 percent of residents under 65 years were diagnosed with mental retardation, compared with less than 2 percent of residents aged 85 years and over.

Prevalence of certain diagnoses varied by sex. Diagnoses more prevalent among male than female residents included malignant neoplasms, mental retardation, and chronic obstructive pulmonary disease. Diagnoses more prevalent among female than male residents included senile dementia or organic brain syndrome, essential hypertension, heart disease, arthritis or rheumatism, senility without psychosis, osteoporosis, and hip and other fractures. Figure 4 shows prevalence rates for selected diagnoses by age and sex.

Table 12 shows higher prevalence of essential hypertension, cerebrovascular disease, and diabetes mellitus among black than white residents. The higher prevalence of essential hypertension, cerebrovascular disease, and diabetes mellitus among black nursing home residents is consistent with prevalence patterns of these diseases among the elderly noninstitutionalized population. In 1982-84, the prevalence rates of cerebrovascular disease and diabetes among elderly noninstitutionalized black males and females exceeded those found among elderly white males and females (21). Although the prevalence pattern for arthritis or rheumatism was higher among elderly noninstitutionalized black than white persons in 1982-84 (21), the rate of arthritis or rheumatism was higher among white nursing home residents (18 percent) than black residents (12 percent). This discrepancy may be a result of underrecording on the medical records. Because black residents had more diagnoses (3.6, on the average) than white residents (3.3) to record, it may be that the medically ameliorable con-

ditions were recorded and the less serious conditions were either omitted or undiagnosed. This conjecture warrants further research. Although there was an observable difference in prevalence of senile dementia or organic brain syndrome by Hispanic origin, the difference was not statistically significant because of the small sample size of Hispanic residents.

Table L shows prevalence rates of selected diagnoses among the elderly population in nursing homes and in the community. Prevalence estimates for the elderly noninstitutionalized population are annual average estimates from the 1983-85 NHIS's. Chronic conditions, as defined for NHIS, are conditions with a duration of 3 months or more (prior to the interview) or conditions considered chronic regardless of when they began. Compared with the elderly noninstitutionalized population, elderly nursing home residents were more likely to have ischemic heart disease, cerebrovascular disease, and anemias. The disparity in prevalence of these conditions among the elderly in nursing homes and in the community suggests that the presence of these conditions may be associated with an increased chance of institutionalization among the elderly. In contrast, the elderly living in the community had higher prevalence of the less serious conditions of arthritis or rheumatism, hypertension, and cataracts than their counterparts in nursing homes had. It should be noted that the prevalence rates just presented for the noninstitutionalized elderly differ in several ways from those for nursing home residents. The prevalence rates from the 1983-85 NHIS represent the average prevalence of these conditions during a 1-year period; those for nursing homes represent prevalence of conditions among residents on any given day during the survey period. Despite these differences, the data show significant differences in the types of

Table J. Percent distribution of all-listed diagnoses at time of survey, according to selected characteristics of residents: United States, 1985

All-listed diagnostic class and ICD-9-CM code <sup>1</sup>	Age												
	Total	65 years and over					Sex		Race			Hispanic origin	
		Under 65 years	Total	65-74 years	75-84 years	85 years and over			White	All other	Black	Hispanic	Non-Hispanic <sup>2</sup>
		Male	Female	White	Total	Black	Hispanic	Non-Hispanic <sup>2</sup>					
Percent distribution													
All categories . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Chapter 1. Infectious and parasitic diseases . . . . . 001-139	0.4	0.7	0.4	0.7	0.5	0.2	0.4	0.4	0.4	0.9	1.0	*0.2	0.4
Chapter 2. Neoplasms . . . . . 140-239	1.9	1.5	2.0	2.1	2.2	1.9	2.5	1.7	1.9	2.1	2.2	1.2	2.0
Chapter 3. Endocrine, nutritional, and metabolic diseases, and immunity disorders . . . . . 240-279	5.9	6.4	5.8	7.7	7.0	4.3	5.6	6.0	5.6	8.7	8.7	6.2	5.9
Chapter 4. Diseases of the blood and blood-forming organs . . . . . 280-289	1.5	*0.9	1.6	1.4	1.4	1.8	1.6	1.5	1.5	1.5	*1.3	*0.9	1.5
Chapter 5. Mental disorders . . . . . 290-319	13.9	26.1	12.6	16.2	13.5	10.6	15.3	13.4	13.9	13.6	13.6	20.7	13.7
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	10.2	17.0	9.5	11.9	9.8	8.5	12.1	9.6	10.3	9.8	10.0	11.2	10.2
Chapter 7. Diseases of the circulatory system . . . . . 390-459	30.6	15.3	32.2	26.6	30.6	35.4	27.5	31.8	30.4	32.9	33.9	27.1	30.7
Chapter 8. Diseases of the respiratory system . . . . . 460-519	3.1	2.5	3.2	4.2	3.5	2.5	4.6	2.5	3.1	2.7	2.4	*3.8	3.1
Chapter 9. Diseases of the digestive system . . . . . 520-579	4.1	3.1	4.1	3.2	4.1	4.5	4.2	4.0	4.2	2.7	2.5	*2.5	4.1
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	2.7	2.3	2.7	2.8	2.7	2.7	3.4	2.4	2.7	2.4	2.0	*3.7	2.6
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	1.1	1.3	1.1	1.4	1.0	1.0	1.3	1.0	1.1	*0.8	*0.8	*1.1	1.1
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	8.6	4.0	9.1	6.6	8.3	10.6	5.7	9.7	8.8	6.6	6.5	7.9	8.7
Chapter 14. Congenital anomalies . . . . . 740-759	0.3	1.9	0.2	*0.4	*0.1	*0.1	*0.3	0.3	0.3	*0.2	*0.2	*0.2	0.3
Chapter 15. Certain conditions originating in the perinatal period . . . . . 760-779	*0.0	*0.1	-	-	-	-	-	*0.0	*0.0	-	-	-	*0.0
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	5.4	7.5	5.2	6.0	5.2	4.8	5.4	5.4	5.3	6.2	6.5	5.3	5.4
Chapter 17. Injury and poisoning . . . . . 800-999	2.0	2.3	2.0	1.0	1.7	2.6	1.5	2.2	2.1	*1.1	*1.1	*1.4	2.0
Supplementary classifications . . . . . V01-V82	7.6	6.7	7.7	7.1	7.8	7.8	8.0	7.4	7.6	7.3	6.7	5.7	7.6

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

<sup>2</sup>Data include a small number of unknowns.

**Table K. Prevalence rates per 100 nursing home residents for selected chronic conditions: United States, 1977 and 1985**

<i>Chronic condition and ICD-9-CM code<sup>1</sup></i>	1977	1985
	Rate per 100 residents	
<b>Diseases of the circulatory system</b>		
Hardening of the arteries . . . . . 440	47.6	7.5
Heart trouble . . . 391-392.0, 393-398, 402, 404, 410-429	34.5	36.8
Hypertension . . . . . 401-405	20.9	17.0
Stroke . . . . . 430-438	16.4	18.2
<b>Mental disorders</b>		
Chronic brain syndrome . . . . . 310	24.9	18.4
Mental retardation . . . . . 317-319	6.1	3.4
<b>Other chronic conditions</b>		
Anemias . . . . . 280-285	5.4	4.7
Arthritis or rheumatism . . . . 710-716, 729.0	24.6	17.9
Bedsores . . . . . 707.7	2.7	1.0
Cancer . . . . . 140-208, 230-234	4.9	4.9
Diabetes . . . . . 250	14.5	12.4
Hip fracture . . . . . 820	8.3	2.6
Other bone fracture . . . . 800-819, 821-829	3.6	2.3
Parkinson's disease . . . . . 332	4.5	4.7

<sup>1</sup>Code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

mental disorders was also collected in the 1985 NNHS (table 13). Overall, 66 percent of all nursing home residents were reported to have at least one of the following conditions: mental retardation, alcohol abuse or dependence, drug abuse or dependence, senile dementia or chronic and organic brain syndrome, depressive disorders, schizophrenia, other psychoses, anxiety disorders, personality or character disorders, or other mental disorders. Thirty-four percent of the residents were reported to have no mental disorders. The most frequently reported mental disorder among residents was senile dementia or chronic and organic brain syndrome (43 percent), followed by depressive disorders (14 percent) and personality and character disorders (11 percent). Prevalence of senile dementia or chronic and organic brain syndrome increased with age, and these conditions were more prevalent among female (46 percent) than male residents (37 percent). There was no difference in the prevalence of senile dementia or chronic and organic brain syndrome by race or Hispanic origin because of the small sample sizes of these cells (table 14). Prevalence of mental retardation, schizophrenia, personality or character disorders, and alcohol abuse or dependence was highest among residents under 65 years and among male residents.

The data on prevalence of mental disorders presented previously differ from prevalence estimates of mental disorders based on all-listed diagnoses coded from the residents' medical records (tables 11-12). For example, 23 percent of nursing home residents were reported to have senile dementia or organic brain syndrome (ICD-9-CM codes 290 or 310) based on all-listed diagnoses, but 43 percent of the residents were reported to have the same diagnoses when information was obtained by showing a flashcard of mental disorders to the nursing home staff respondent. Similarly, prevalence of mental retardation was higher when obtained using the checklist of mental disorders (5 percent) than when based on all-listed diagnoses (3 percent). The difference in these estimates may result from personal knowledge of the staff respondent that is not recorded in the medical record. For a number of reasons, not all diagnoses for residents are recorded in their medical record. For example, Medicaid regulations that restrict the mentally ill population in nursing homes to 50 percent may discourage nursing homes from identifying all patients with a diagnosis involving mental disorders (38). Conditions that may be suspected but not clinically diagnosed may also be omitted from the medical records. Prevalence estimates based on all-listed diagnoses are limited to information written in the medical record.

Several measures related to mental status, including disorientation or memory impairment, behavioral problems, and disturbance of mood, were also collected in the 1985 NNHS. Disorientation or memory impairment was defined as inability to do at least one of the following activities: remember dates or time, identify familiar locations or people, recall important aspects of recent events, or make straightforward judgments. In 1985, 62 percent of nursing home residents were disoriented or memory impaired to such a degree that performance of the basic activities of daily living, mobility, and performance of other tasks were impaired nearly every day. Disorientation or memory impairment may result from a variety of causes, including medication side effects, stroke-related aphasia, and

**Table L. Prevalence rates per 1,000 persons aged 65 years and over in nursing homes and in the community, for selected conditions: United States, 1983-85**

<i>Condition</i>	<i>In nursing homes, 1985</i>	<i>In the community,<sup>1</sup> 1983-85</i>
	Rate per 1,000 persons	
Heart disease . . . . .	400.1	309.1
Ischemic heart disease . . . . .	263.5	144.5
Arthritis or rheumatism . . . . .	197.6	485.4
Cerebrovascular disease . . . . .	193.3	59.3
Hypertension <sup>2</sup> . . . . .	175.2	403.1
Diabetes mellitus . . . . .	125.2	95.5
Hardening of the arteries . . . . .	83.2	83.4
Malignant neoplasms . . . . .	51.3	43.8
Anemias . . . . .	50.3	20.6
Cataract . . . . .	33.4	152.5
Glaucoma . . . . .	26.4	39.5
Deafness . . . . .	22.1	34.5
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . .	17.4	34.0
Mental retardation . . . . .	15.7	*1.0
Blindness . . . . .	13.8	8.1

<sup>1</sup>Unpublished average annual rates of selected chronic conditions from the 1983-85 National Health Interview Survey.

<sup>2</sup>Includes International Classification of Diseases, 9th Revision, clinical modification codes 401-405.

conditions found among these two populations of elderly persons.

### Mental status

In addition to diagnostic information presented in the preceding sections, information about the prevalence of specific

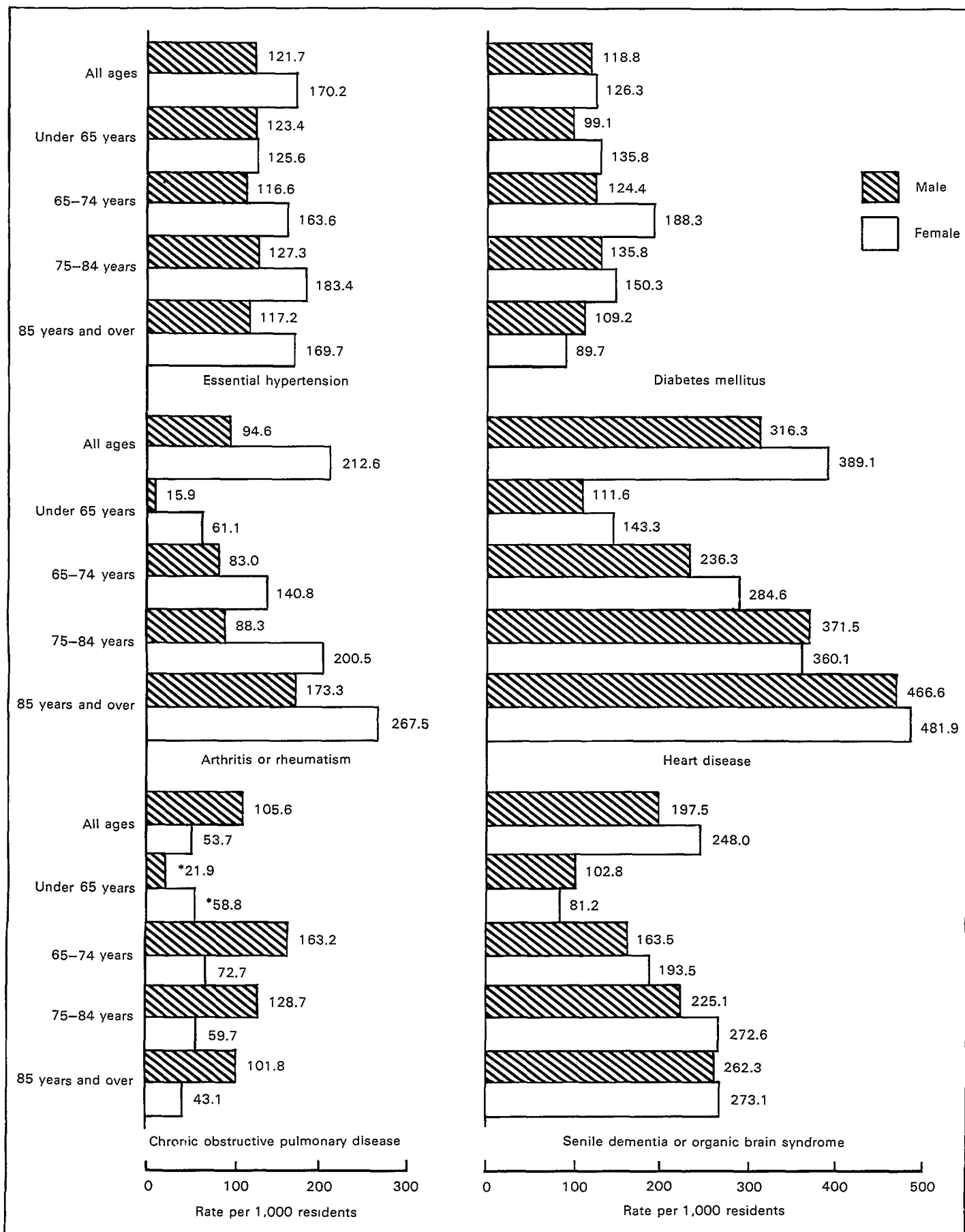


Figure 4. Prevalence rates per 1,000 nursing home residents for selected diagnoses at time of survey, by age and sex: United States, 1985

several other diagnoses. Disorientation or memory impairment was highest among residents 85 years of age and over and was more common among female residents (63 percent) than male residents (59 percent). Table M shows that senile dementia or chronic and organic brain syndrome (based on the checklist of mental disorders) is highly associated with disorientation or memory impairment; 61 percent of residents who were disoriented or memory impaired were also reported to have senile dementia or chronic and organic brain syndrome. Other mental disorders among disoriented or memory-impaired residents ranged from 1 to 16 percent. Eighteen percent of disoriented or memory-impaired residents were reported to have no mental disorders.

Thirty-eight percent of the residents were reported to have one or more of the following behavioral problems: disrobing or exposing oneself, screaming, being physically abusive to self or others, stealing, getting lost or wandering into unacceptable places, or inability to avoid simple dangers. The presence of behavioral problems was also highly associated with senile dementia or chronic and organic brain syndrome. Sixty-five percent of residents with behavioral problems were also reported to have senile dementia or chronic and organic brain syndrome, 20 percent were reported to have anxiety disorders, and 20 percent were reported to have personality or character disorders. Disturbance of mood (displays depression, anxiety, fearfulness, or worry) was reported for 42 percent of nursing home residents. Disturbance of mood was more common among female (44 percent) than male residents (38 percent) and was

more common among Hispanic (54 percent) than non-Hispanic residents (42 percent). Senile dementia or chronic and organic brain syndrome was reported to be present for half of the residents with disturbance of mood. Depressive disorders and anxiety disorders were reported for 26 and 27 percent, respectively, of the residents with disturbance of mood. Overall, residents reported to have behavioral problems, disorientation or memory impairment, or disturbance of mood at the time of interview were highly likely (80–87 percent) to also have some type of mental disorder, underscoring the increasing role of nursing homes in caring for the chronically mentally ill (34). Cognitive impairment and behavioral problems have been cited as reasons for nursing home admission (10,30,39,40).

Cognitive impairment and behavioral patterns have also been cited as indicators of service needs within nursing homes (41). As figure 5 shows, residents with behavioral problems, disorientation or memory impairment, and disturbance of mood tend to have more dependencies in the ADL's, on the average, than residents without these conditions. As a rule, residents reported to have at least one mental disorder (from the checklist of mental disorders) had more ADL dependencies, on the average 4.0, than residents with no reported mental disorders, 3.3 (6).

Regardless of the measures used to identify the chronically mentally ill in nursing homes, mental disorders and cognitive impairments are highly prevalent among the nursing home resident population.

Table M. Number of nursing home residents and percent distribution by current mental disorders, according to presence of behavioral problems, disorientation or memory impairment, or disturbance of mood: United States, 1985

Current mental disorders	All residents	Behavioral problems	Disorientation or memory impairment	
			Disturbance of mood	
			Number	
Total .....	1,491,400	572,600	922,500	623,700
			Percent distribution	
Total ..	100.0	100.0	100.0	100.0
Has no mental disorders <sup>1</sup> .....	34.2	13.0	18.4	20.0
Has mental disorders <sup>2</sup> .....	65.8	87.0	81.6	80.0
Mental retardation .....	5.4	7.2	6.4	4.6
Alcohol abuse or dependence .....	2.8	3.3	2.6	3.1
Drug abuse or dependence .....	0.9	*0.8	0.7	1.5
Senile dementia or chronic organic brain syndrome .....	43.4	65.0	61.3	50.2
Depressive disorders .....	13.8	15.6	14.8	26.4
Schizophrenia .....	5.7	7.6	6.7	7.5
Other psychoses .....	2.3	4.0	2.9	4.3
Anxiety disorders .....	13.5	20.1	15.8	26.8
Personality or character disorders .....	11.0	19.7	14.1	18.2
Other mental disorders .....	0.4	*0.2	*0.5	*0.3

<sup>1</sup>Data include a small number of unknowns.

<sup>2</sup>Resident may have had more than 1 mental disorder

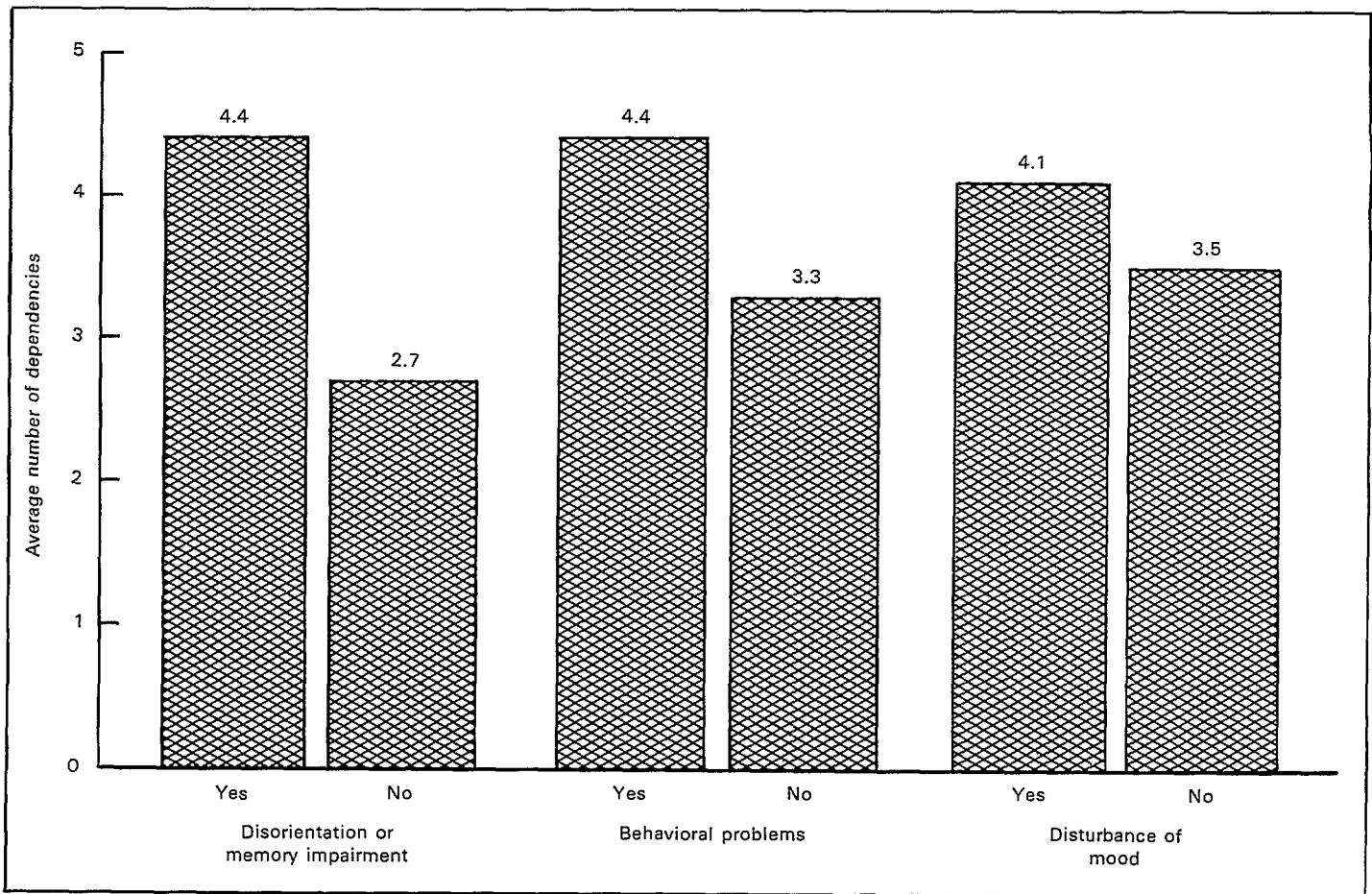


Figure 5. Average number of dependencies in activities of daily living for nursing home residents, by presence of disorientation or memory impairment, behavioral problems, or disturbance of mood: United States, 1985

# Prior nursing home and hospital utilization

## Living arrangements prior to admission

Table N shows that, in 1985, the most frequent location from which residents were admitted was a general or short-stay hospital (37 percent), followed by a private residence (35 percent), another nursing home (12 percent), and another health facility other than a hospital, nursing home, or mental hospital (7 percent). The percent of residents transferred from a short-stay hospital in 1985 is higher than the comparable percent in 1977 (32 percent). There was also an increase in the percent of residents admitted from another health facility, from 4 percent in 1977 to 7 percent in 1985. This latter finding, however, may be related to changes in question alternatives in the latter survey. In 1985, there were more question alternatives relating to mental health facilities, including facilities for the mentally retarded, general or short-stay psychiatric units, and mental health centers in addition to mental hospitals. Overall, 5 percent of the residents were admitted from some type of mental facility in 1985 (table 15); this figure was not statistically different from the proportion of residents admitted from a mental hospital in 1977 (6 percent).

Although there was an increase in the percent of residents transferred from a short-stay hospital or other health facility, there was a decline in the percent of residents admitted from a private residence and from mental hospitals since 1977. In 1985, 35 percent of residents were admitted from a private residence, compared with 37 percent in 1977. There was no difference from 1977 to 1985 in the percent of residents admitted

from a semiprivate residence (boarding home, rented room, or retirement center) or a nursing home.

The shift in admitting location for nursing home residents toward short-stay hospitals in 1985 may be related to the introduction of Medicare's prospective payment system in 1983-84. Under this payment system, hospitals are reimbursed a preestablished amount based on the Medicare patient's condition as classified by the diagnosis-related group. Because the prospective payment system gives hospitals strong incentives to limit costs incurred by Medicare patients, hospitals are discharging patients after shorter hospital stays. From 1982 to 1985, the percent of elderly persons discharged from short-stay hospitals to long-term care institutions increased from 8 to 11 percent; the average hospital stay for these patients decreased from 15.8 days in 1982 to 12.9 days in 1985 (7). Table N shows that the average nursing home stay for residents admitted from short-stay hospitals increased from 1.8 years in 1977 to 2.1 years in 1985. It has also been found that elderly residents transferred from short-stay hospitals in 1985 were more functionally dependent in the ADL's than a comparable population of nursing home residents in 1977 (7).

The longer stays of residents transferred from short-stay hospitals to nursing homes contributed to the overall longer stays in nursing homes in 1985, but residents admitted from mental hospitals and other nursing homes had even greater impact on the average nursing home stay. Table N shows that, from 1977 to 1985, the average nursing home stay increased 61 percent (from 4.5 to 7.3 years) for residents admitted from mental hospitals, and increased 28 percent (from 2.2 to 2.9 years) for residents transferred from another nursing home. In contrast, the average stay for residents transferred from short-stay hospitals increased only 17 percent.

The average stay for residents admitted from any mental facility in 1985 was longer (6.1 years on the average) than that for residents admitted from a mental hospital (4.5 years) in 1977 (6). For residents with the remaining living arrangements prior to admission, there was no change in the average length of nursing home stay.

In 1985, elderly residents were more likely to be admitted from short-stay hospitals (39 percent) than residents under 65 years were (27 percent). Overall, female residents were more likely to be admitted from a short-stay hospital than male residents (39 compared with 33 percent). Female residents also were more likely to be admitted from a short-stay hospital in all age groups 65 years and over (table 15). Black residents were more likely than white residents to be admitted from a

Table N. Percent distribution of nursing home residents and average length of stay since admission by living arrangement prior to admission: United States, 1977 and 1985

Living arrangement prior to admission	1977	1985	1977	1985
	Percent distribution		Average length of stay in days	
Total.....	100.0	100.0	958	1,059
Private residence .....	37.2	34.5	1,075	1,158
Semiprivate residence .....	3.1	3.5	907	1,036
Another nursing home .....	12.5	12.2	815	1,044
General or short-stay hospital <sup>1</sup> .....	32.3	37.4	664	778
Mental hospital .....	5.9	2.5	1,650	2,660
Other health facility .....	3.5	6.7	1,123	1,255
Unknown or other arrangement .....	5.5	3.2	1,399	1,688

<sup>1</sup> Psychiatric units are excluded.

short-stay hospital (48 percent, compared with 37 percent of white residents). The higher percent of female and black residents admitted from hospitals is consistent with their generally more dependent functional status, described earlier. Figure 6 shows that residents admitted from short-stay hospitals were more functionally dependent in the ADL's than residents admitted from other locations. It was shown in a previous report that the average monthly charge was higher for residents admitted from short-stay hospitals (\$1,627) than for residents admitted from other locations (\$1,194-1,376) (6). There was no difference in the percent of residents admitted from short-stay hospitals by Hispanic origin (table 16).

Younger residents were more likely to be admitted from some type of mental facility (20 percent) than were elderly residents (3 percent). Male residents were more likely to be admitted from a mental facility (8 percent) than were female residents (4 percent). Divorced or separated (10 percent) and never married residents (14 percent) also were more likely to be admitted from a mental facility than married (3 percent) and widowed residents (2 percent).

Thirty-eight percent of residents were admitted from a private or semiprivate residence; 14 percent had lived alone prior to admission, 19 percent had lived with family members, and 3 percent had lived with persons who were not family members. The percent of residents living alone prior to admission increased with age. Female residents were more likely to

have lived alone (15 percent) than male residents (10 percent). White residents were more likely to have lived alone (14 percent) than black residents (6 percent). There was no difference in the percent of residents living alone prior to admission by Hispanic origin. Of all marital statuses, widowed residents were most likely to have lived alone (17 percent compared with 2-10 percent for residents in the remaining marital statuses). On the other hand, residents who were married were more likely to have lived with family members (34 percent) than any of the remaining marital statuses (11-17 percent).

### Prior nursing home use and hospitalizations while still a resident

In the 1985 NNHS, information about the residents' prior use of nursing homes (excluding the current admission) was collected for the first time. In 1985, 38 percent of nursing home residents had previous nursing home stays in either the sample facility or some other nursing home. This estimate is comparable with the percent of nursing home residents with prior institutionalizations (37 percent) reported by next of kin in the 1976 Survey of Institutionalized Persons (42). In 1985, 22 percent had previous admissions in the sample facility and 19 percent had previous stays in some other nursing home (table 17). The sum of the percents of residents with previous stays in the sample facility and in other nursing homes exceeds the per-

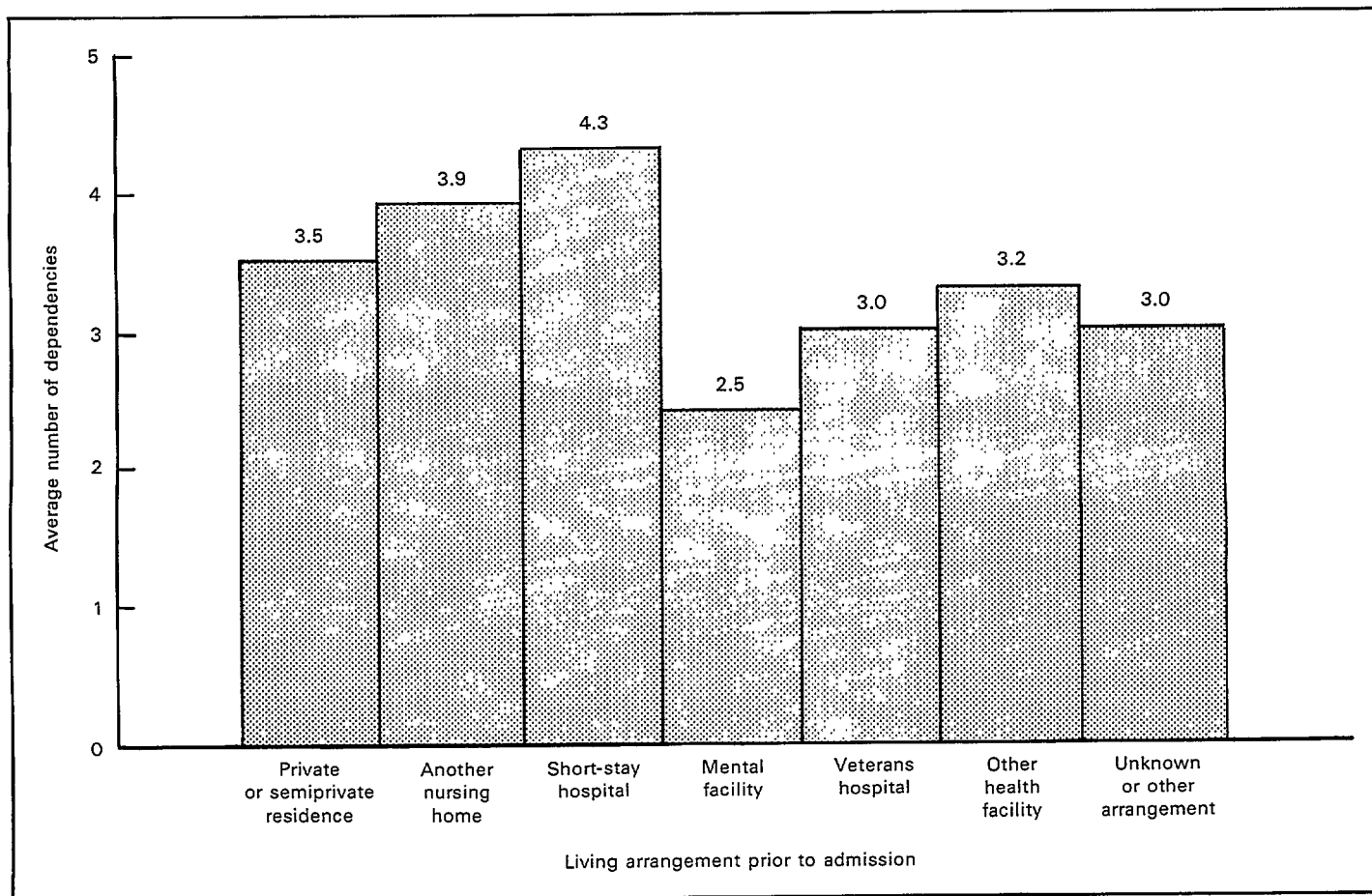


Figure 6. Average number of dependencies in activities of daily living for nursing home residents, by living arrangement prior to admission: United States, 1985



cent of residents with *any* previous nursing home stay because some residents may have had previous nursing home stays at both locations. The percent of residents with any previous nursing home stays did not vary by age, sex, or race.

It should be pointed out that although the overall percent of nursing home residents in 1985 with prior institutionalizations in any nursing home is similar to that reported in 1976, there was an increase in the percent of residents with previous admissions in the sample facility. As reported by nursing home staff in the 1976 Survey of Institutionalized Persons, 13 percent of nursing home residents had previous admissions to the sample facility compared with 22 percent reported in 1985.

In the last several years, increasing attention has been focused on the role that hospitals share with nursing homes in the care of the elderly. Shapiro and Tate, for example, found increased chances of nursing home placement after a hospital stay during 2½- and 7-year study periods (30). Medicare policies have largely influenced hospitals' becoming a major gateway to nursing homes (43). In 1964, the year before Medicare began, only 12 percent of nursing home residents were admitted from short-stay hospitals. By 1973-74, 35 percent of nursing home residents were admitted from short-stay hospitals (27). In 1985, hospitals were the admitting location for 37 percent of all nursing home residents. This shift in admission location for nursing home residents occurred because Medicare pays for care in facilities certified as skilled nursing facilities only if a patient has been recently discharged from a hospital (within 30 days) after a stay of 3 days or more. (Medicare requirements for coverage will be discussed in more detail in the section on "Primary source of payment at admission and in month before interview").

Once in a nursing home, some residents are frequently "shuttled" to hospitals for acute care services and then returned to the nursing home. Several studies have found that prior

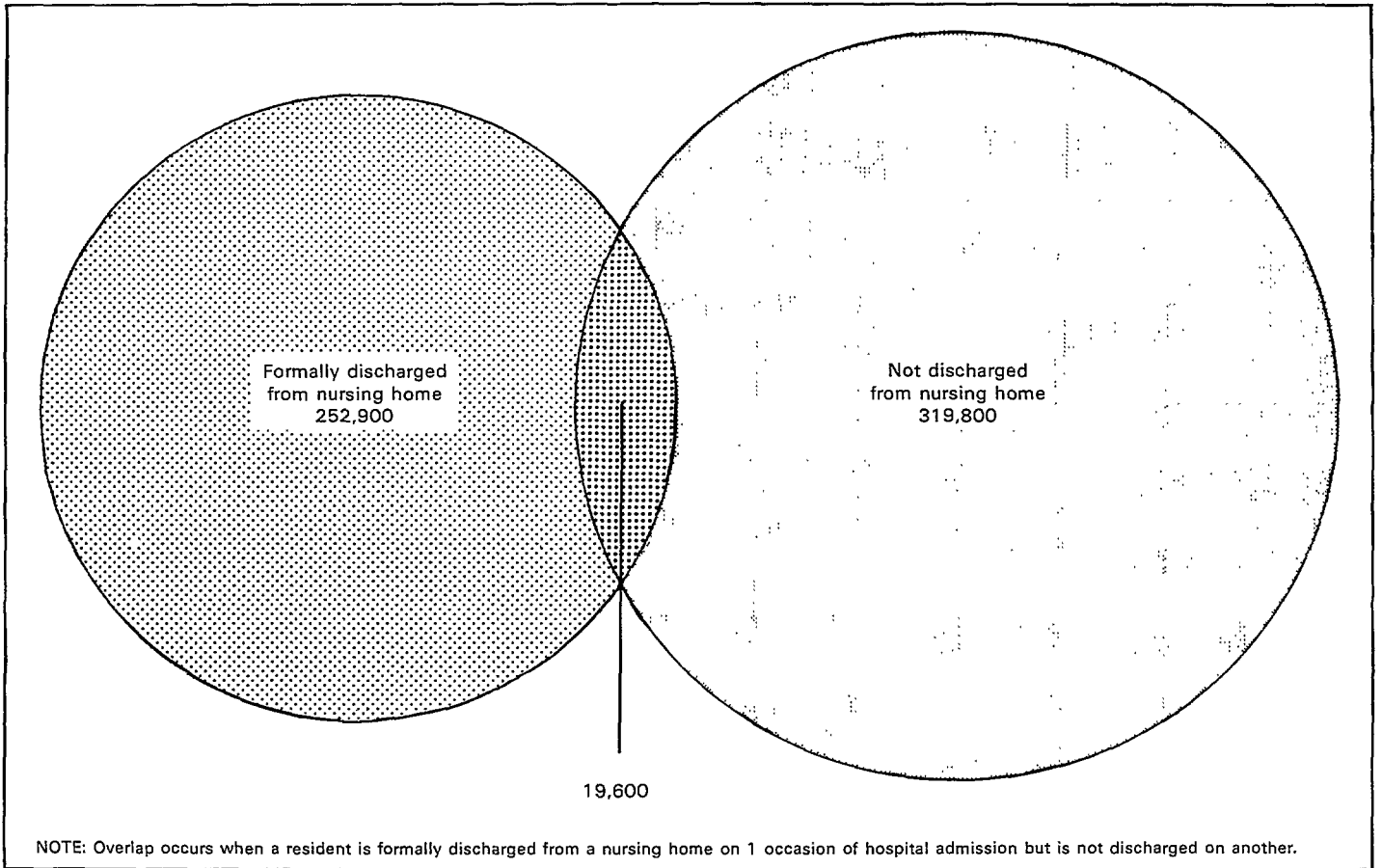
nursing home residence for hospital patients was associated with a very high probability of continued institutionalization (39,44). Lewis, Cretin, and Kane also found that transfers between hospitals and nursing homes (in both directions) occurred in 54 percent of first-time admissions to nursing homes in the 2-year period following admission (43). At the national level, table O confirms this pattern of hospitalizations during the course of a nursing stay. Of the 558,900 residents with previous stays in nursing homes, 253,900, or 45 percent, were hospitalized (admitted from a short-stay hospital) and then entered a nursing home again (either readmission to the same facility or admission to another facility). This pattern of a hospital admission and subsequent nursing home readmission was more common among residents with previous stays in the sample facility (68 percent) than among residents with previous stays in another nursing home (23 percent). This finding, however, may reflect lack of information rather than differences in transfer patterns.

Nursing homes vary in their discharge policies when a nursing home resident requires hospitalization. Some nursing homes discharge a resident to the hospital. After the hospital stay, the patient may be readmitted to the same nursing home or admitted to another. Other nursing homes hold a bed for the resident during the hospital stay. Information about hospitalizations that occurred while the patient still was a resident (that is, hospitalizations without a formal discharge from the nursing home) was also collected in the 1985 NNHS. Overall, 319,800, or 21 percent, of all nursing home residents were hospitalized since their current admission. These residents differ from the 253,900 residents who were transferred to a hospital from a nursing home and then readmitted only in that a bed was held for them while hospitalized. These two groups of nursing home residents with hospitalizations during their nursing home stays are basically distinct groups. Figure 7 shows

**Table O. Average length of stay since admission of nursing home residents and percent distribution by whether admitted from a short-stay hospital, according to prior nursing home and hospital utilization: United States, 1985**

<i>Prior nursing home and hospital utilization</i>	<i>All residents</i>	<i>Admitted from short-stay hospital</i>		<i>Average length of stay</i>
		<i>Percent distribution</i>	<i>Not admitted from short-stay hospital</i>	
				<i>Stay in days</i>
Total . . . . .	100.0	37.4	62.6	1,059
Other stays in any nursing home				
Yes . . . . .	100.0	45.3	54.7	817
No or unknown . . . . .	100.0	32.6	67.4	1,204
Previous stays at sample facility				
Yes . . . . .	100.0	67.5	32.5	616
No or unknown . . . . .	100.0	28.9	71.1	1,183
Stays at other nursing homes				
Yes . . . . .	100.0	22.7	77.3	1,003
No or unknown . . . . .	100.0	40.8	59.2	1,072
Hospital stays while a resident in sample facility				
Yes . . . . .	100.0	24.8	75.2	1,603
No or unknown . . . . .	100.0	40.8	59.2	910

NOTE: Figures may not add to totals because of rounding.



**Figure 7. Number of residents hospitalized subsequent to admission to a nursing home, by whether hospitalization was accompanied by a formal discharge from the nursing home: United States, 1985**

that the overlap in number of residents who could be classified in both groups was only 3 percent. If the unduplicated numbers of residents in these two groups of hospitalized patients are combined, it can be seen that 553,300, or 37 percent, of all residents had at least one hospital stay since first entering a nursing home.

Unlike the pattern for residents with previous nursing home stays who were hospitalized and subsequently readmitted, there were differences in patterns of hospitalizations during the current stay by age and race. Elderly residents were more likely to be hospitalized while still a resident (22 percent) than younger residents (15 percent). White residents were more likely to be hospitalized during their nursing home stay (22 percent) than black residents (15 percent).

The average length of stay presented in this report is the number of days in the facility since admission up to the day of the survey. For residents with previous stays in any nursing home, the average length of stay reported is an underestimate of the total time that the resident has spent in any nursing home because information about length of stay during previous nursing home stays is not included. This may explain, in part, the significantly shorter average nursing home stays of residents with any previous nursing home stay (2.2 years) compared with residents without any previous nursing home stay (3.3 years). The average length of stay since admission for residents hospitalized since their current admission was significantly longer (4.4 years) than that of residents with previous nursing home stays (2.2 years).

# Primary source of payment at admission and in month before interview

## Changes in payment source

At the time of admission, most nursing home residents relied primarily on their own income or family support to pay for care (48 percent). The second most common primary source of payment at admission was Medicaid (41 percent). Seven percent of the residents relied on other government assistance or welfare, religious organizations, volunteer agencies, Veterans Administration contracts, initial payment—life care funds, or no-charge arrangements to pay for care. Only 5 percent relied on Medicare as their primary source of payment at admission.

By the month before the survey, Medicaid was the most frequent primary source of payment used by residents (50 percent); 42 percent relied on their own income or family support for primary payment and 1 percent relied on Medicare for primary payment (table P).

The greatest proportionate shifting of the primary source of payment toward Medicaid occurred among residents who used Medicare as their primary source of payment at admission. By the month before the survey, 43 percent of residents relying on Medicare for primary payment at admission had shifted to Medicaid as their primary source of payment. In contrast, only 19 percent of residents who originally relied on their own income or family support and 15 percent of residents relying on all other sources for payment had shifted to Medicaid as their primary source of payment by the month before the survey.

The shifting of Medicare to Medicaid as the primary source of payment is a necessity for many nursing home residents

because of the limitations of benefits and stringent requirements for coverage under the Medicare skilled nursing care program in 1985. Medicare covered the first 100 days in a facility certified as a skilled nursing facility (SNF) for Medicare beneficiaries hospitalized before admission. To qualify for Medicare's SNF benefit, the patient needs to be certified by a physician as needing daily skilled nursing care or related rehabilitative services that, as a practical matter, can be provided only on an inpatient basis in an SNF. In addition, the patient must be admitted for further treatment of a condition for which he or she was hospitalized, with a stay of at least 3 days. Admission to the SNF must occur within 30 days of discharge from the hospital. In addition to those level-of-care requirements, coverage of SNF benefits applies only as long as all level-of-care requirements are met. Thus, many patients admitted under the Medicare SNF benefit may have to switch to other payment sources during their stay in a nursing home because Medicare coverage terminates after these requirements are not met. In 1980, the average number of days covered by Medicare in an SNF was only 30 days (45). In contrast, the average stay for all nursing home residents in 1985 was 2.9 years. Because of the limited coverage of SNF Medicare benefits and the stringent level-of-care requirements necessary to qualify for coverage, utilization of Medicare in nursing homes in 1985 was low.

Table 18 shows that residents relying on Medicare for primary payment in the month before the survey tended to be recently admitted to the facility. Eighty percent of residents relying on Medicare were admitted from a short-stay hospital and 76 percent had been a resident in the facility for less than 3

**Table P. Number and percent distribution of nursing home residents by primary source of payment in month before interview, according to primary source of payment at admission: United States, 1985**

Primary source of payment at admission	Primary source of payment in month before interview									
	All sources	Own income or family support	Medicare	Medicaid	All other sources <sup>1</sup>	All sources	Own income or family support	Medicare	Medicaid	All other sources <sup>1</sup>
	Number					Percent distribution				
All sources.....	1,491,400	620,800	20,900	751,300	98,500	100.0	41.6	1.4	50.4	6.6
Own income or family support...	712,500	557,400	*3,000	134,600	17,600	100.0	78.2	*0.4	18.9	2.5
Medicare .....	71,500	22,800	16,700	31,000	*900	100.0	31.9	23.4	43.4	*1.3
Medicaid .....	605,800	29,000	*1,200	570,000	*5,600	100.0	4.8	*0.2	94.1	*0.9
All other sources <sup>1</sup> .....	101,700	11,600	-	15,600	74,400	100.0	11.4	-	15.4	73.2

<sup>1</sup>Includes other government assistance or welfare; religious organizations; foundations, volunteer agencies; Veterans Administration contract; initial payment—life care funds; and other sources or no charge.

NOTE: Numbers may not add to totals due to rounding.

**Table Q. Number of nursing home residents with non-Medicaid primary source of payment at admission and percent shifting to Medicaid in month before interview, by length of stay since admission: United States, 1985**

<i>Length of stay since admission</i>	<i>Residents with non-Medicaid primary source of payment at admission</i>	<i>Residents shifting to Medicaid in month before interview</i>		
		<i>Total</i>	<i>Skilled care</i>	<i>Intermediate care</i>
		<i>Percent</i>		
Total.....	885,700	20.5	7.3	13.2
Less than 3 months.....	131,400	*3.2	*0.6	*2.6
3 months to less than 6 months.....	90,300	13.1	7.3	5.8
6 months to less than 12 months.....	131,000	18.0	7.6	10.4
1 year to less than 3 years.....	273,200	23.9	8.7	15.2
3 years to less than 5 years.....	118,400	27.0	7.2	19.8
5 years or more.....	141,400	31.5	10.7	20.9

months. In contrast to Medicare coverage in skilled nursing homes, the Medicaid skilled nursing and intermediate care programs have no limitations on length of stay for coverage. Only 24 percent of Medicaid residents had been in the facility for less than 3 months, and the average length of stay for these residents was 3.4 years. The average length of stay for Medicare residents in the month before the survey was 0.5 year. (This figure exceeds 100 days because it includes residents who may have switched to Medicare from an admission payment source other than Medicare by the time of the survey.)

In 1985, there were 885,700 residents relying on payment sources other than Medicaid for primary payment at admission (table Q). By the month before the survey, 21 percent had shifted to Medicaid as primary source of payment; 7 percent received SNF services and 13 percent received intermediate care facility services primarily funded by Medicaid. The percent of non-Medicaid residents at admission who shifted to Medicaid for primary payment by the month before the interview increased with increasing lengths of stay. The percent of non-Medicaid residents shifting to Medicaid was 13 percent among residents in the facility 3 months to less than 6 months, compared with 32 percent among residents in the facility 5 years or more.

#### **Average monthly charge and average number of activities of daily living dependencies**

Table R presents the average monthly charge for care by primary source of payment in the month before interview. Residents relying on Medicare for primary payment had the highest average monthly charge (\$2,141), followed by that for Medicaid residents receiving skilled nursing care (\$1,898), residents relying on their own income or family support (\$1,450),

**Table R. Average monthly charge of nursing home residents and average number of dependencies in activities of daily living, by primary source of payment in month before interview: United States, 1985**

<i>Primary source of payment</i>	<i>Average monthly charge</i>	<i>Average number of dependencies</i>
All sources.....	\$1,456	3.8
Own income or family support.....	1,450	3.7
Medicare.....	2,141	4.5
Medicaid.....	1,504	4.0
Skilled care.....	1,898	4.6
Intermediate care.....	1,292	3.8
Other government assistance or welfare.....	863	1.9
All other sources.....	1,099	2.3

and Medicaid residents receiving intermediate care (\$1,292). Residents relying on other government assistance or welfare (\$863) and all other payment sources (\$1,099) had lower average monthly charges. The average monthly charge for all Medicaid residents (\$1,504) was not statistically different from that for residents relying on their own income or family support (\$1,450). The higher charge for Medicare residents was associated with greater care needs, as indicated by the average number of ADL dependencies. The average number of ADL dependencies was greater for Medicare and Medicaid residents (on the average, 4.5 and 4.0 ADL dependencies, respectively, compared with 2.3–3.7 ADL dependencies for residents with the remaining payment sources). The average number of ADL dependencies for Medicaid residents overall (4.0 dependencies) was significantly greater than the average for residents relying on their own income or family support (3.7 dependencies).

## Conclusions

Several utilization measures for nursing home residents in 1985 are examined in this report by the major demographic characteristics of age, sex, race, and Hispanic origin. Trends in nursing home use are also examined. As measured by the number of residents per 1,000 population, the rate of residency in nursing homes increased with age and, in general, was lower for males than females and lower for persons of black or other races than for white persons. When age, sex, and race were considered jointly, elderly white females had the highest rates of residency of the four age-sex groups. At 85 years of age and over, 259 of every 1,000 white females resided in nursing homes, compared with 163 of every 1,000 black females, 151 of every 1,000 white males, and 96 of every 1,000 black males of the same age. In 1985 the percent of elderly residents of Hispanic origin in nursing homes (3 percent) was comparable with that found in the elderly noninstitutionalized population.

The average number of dependencies in the activities of daily living (ADL), used as a measure of case mix, was found to increase with age and was greater for female than male residents. The average number of ADL dependencies was also greater for black than white residents but did not vary by Hispanic origin. The average number of ADL dependencies was also greater for residents admitted from short-stay hospitals and for residents relying on Medicare or Medicaid for primary payment in the month before the survey. The poor functional status of nursing home residents at the time of admission was a reason for admission for 74 percent of the residents, according to their next of kin.

The average length of stay in the nursing home tended to be longer for residents under 65 years than for elderly residents. The average nursing home stay was also longer for never married residents and for residents admitted from mental facilities. Average length of stay did not vary, however, by sex, race, or Hispanic origin.

There were no statistically significant differences in the average monthly charge by sex, race, or Hispanic origin. Residents under 75 years had lower average monthly charges than residents aged 75 years and over. The average total monthly charge varied by the residents' functional status. Residents with 4 to 6 ADL dependencies had significantly higher average monthly charges than residents with fewer ADL dependencies. Residents relying on Medicare as their primary source of payment in the month before the survey also had higher charges than residents relying on payment sources other than Medicare.

The average charge for residents relying on Medicaid for primary payment in the month before the survey was not statistically different from that for residents relying on their own income or family support, even though they were more dependent in ADL activities (on the average, 4.0 dependencies compared with 3.7 dependencies for residents relying on their own income or family support).

In addition to the utilization patterns of residents in 1985, several trends in nursing home use since 1973 are also examined. First, from 1973 to 1985, a decline in the rate of nursing home residency was noted for the population aged 85 years and over, but the rate of residency remained stable at about 5 percent for the population aged 65 years and over. The decline in nursing home use by those 85 years and over, the age group among the elderly that has the heaviest use of nursing homes, may be related to the tight supply of nursing home beds and increasing use of home care services during this time. From 1973 to 1985, the supply of nursing home beds increased 38 percent, while the population 85 years and over increased 69 percent. According to a prospective study of incident home care use in Massachusetts, use of home care services was 12 times higher among those aged 85 years and over than those aged 65–74 years (18). Further research is needed to investigate this trend.

A second trend noted in this report was the increasing prevalence of mental disorders among the nursing home resident population. In 1969, 11 percent of the residents had a primary diagnosis involving mental disorders; in 1985, the comparable proportion was 22 percent. In 1985, 66 percent of the residents were reported to have one mental disorder or more, and 62 percent were reported to be disoriented or memory impaired.

Finally, it was found that the nursing home resident population was more dependent in ADL's in 1985 than in 1977. The average number of ADL dependencies for residents in 1985 was 3.9, compared with 3.5 in 1977. At least part of this change may result from a nationwide trend toward earlier hospital discharge subsequent to the introduction of Medicare's prospective payment system in 1983–84 (7). Other factors, however, may also account for this change, such as increased use of alternative services or improved medical management of chronic conditions that prolong the life expectancy for the chronically ill. The reasons for this change also require further research.

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Table 1. Number and percent distribution of nursing home residents by marital status, race, and Hispanic origin, according to sex and age: United States, 1985

Sex and age	Total	Marital status				Race			Hispanic origin	
		Married	Widowed <sup>1</sup>	Divorced or separated	Never married	White	All other	Black	Hispanic	Non- Hispanic <sup>1</sup>
Both sexes										
Number										
All ages.....	1,491,400	188,200	914,800	117,000	271,400	1,374,600	116,800	104,400	41,000	1,450,400
Under 65 years.....	173,100	19,800	20,900	38,800	93,600	147,200	25,900	22,300	*5,700	167,400
65 years and over.....	1,318,300	168,400	894,000	78,200	177,800	1,227,400	91,000	82,000	35,300	1,283,000
65-74 years.....	212,100	42,500	81,700	30,600	57,300	187,800	24,300	22,500	8,800	203,200
75-84 years.....	509,000	78,700	327,700	34,500	68,200	473,600	35,400	30,600	12,600	496,400
85 years and over.....	597,300	47,200	484,600	13,200	52,300	566,000	31,300	29,000	13,900	583,400
Male										
All ages.....	423,800	103,800	141,100	57,200	121,700	377,100	46,700	40,600	17,200	406,600
Under 65 years.....	89,300	9,600	*5,400	21,500	52,800	73,900	15,400	13,800	*4,100	85,200
65 years and over.....	334,400	94,100	135,700	35,700	68,900	303,200	31,200	26,800	13,100	321,400
65-74 years.....	80,600	21,100	14,100	17,600	27,900	70,600	10,000	8,900	*3,700	76,800
75-84 years.....	141,300	41,800	56,100	13,900	29,500	127,900	13,400	11,700	*4,600	136,700
85 years and over.....	112,600	31,300	65,500	*4,200	11,500	104,800	7,800	6,200	*4,800	107,800
Female										
All ages.....	1,067,700	84,500	773,800	59,700	149,700	997,500	70,200	63,800	23,800	1,043,900
Under 65 years.....	83,800	10,200	15,500	17,300	40,800	73,400	10,400	8,500	*1,600	82,200
65 years and over.....	983,900	74,200	758,300	42,400	108,900	924,100	59,700	55,200	22,200	961,700
65-74 years.....	131,500	21,500	67,600	13,000	29,400	117,200	14,300	13,500	*5,100	126,400
75-84 years.....	367,700	36,900	271,600	20,500	38,800	345,700	22,000	18,900	8,000	359,700
85 years and over.....	484,700	15,900	419,100	8,900	40,700	461,200	23,500	22,800	9,100	475,600
Both sexes										
Percent distribution										
All ages.....	100.0	12.6	61.3	7.8	18.2	92.2	7.8	7.0	2.7	97.3
Under 65 years.....	100.0	11.5	12.1	22.4	54.1	85.1	14.9	12.9	*3.3	96.7
65 years and over.....	100.0	12.8	67.8	5.9	13.5	93.1	6.9	6.2	2.7	97.3
65-74 years.....	100.0	20.1	38.5	14.4	27.0	88.5	11.5	10.6	4.2	95.8
75-84 years.....	100.0	15.5	64.4	6.8	13.4	93.0	7.0	6.0	2.5	97.5
85 years and over.....	100.0	7.9	81.1	2.2	8.8	94.8	5.2	4.9	2.3	97.7
Male										
All ages.....	100.0	24.5	33.3	13.5	28.7	89.0	11.0	9.6	4.1	95.9
Under 65 years.....	100.0	10.8	6.0	24.1	59.2	82.7	17.3	15.4	*4.6	95.4
65 years and over.....	100.0	28.1	40.6	10.7	20.6	90.7	9.3	8.0	3.9	96.1
65-74 years.....	100.0	26.1	17.5	21.8	34.6	87.6	12.4	11.1	*4.6	95.4
75-84 years.....	100.0	29.6	39.7	9.9	20.9	90.5	9.5	8.3	*3.3	96.7
85 years and over.....	100.0	27.8	58.2	*3.8	10.2	93.1	6.9	5.5	*4.2	95.8

See footnote and note at end of table.

Table 1. Number and percent distribution of nursing home residents by marital status, race, and Hispanic origin, according to sex and age: United States, 1985—Con.

Sex and age	Total	Marital status			Race			Hispanic origin		
		Married	Widowed <sup>1</sup>	Divorced or separated	Never married	White	All other	Black	Hispanic	Non-Hispanic <sup>1</sup>
Female		Percent distribution								
All ages.....	100.0	7.9	72.5	5.6	14.0	93.4	6.6	6.0	2.2	97.8
Under 65 years.....	100.0	12.2	18.5	20.6	48.7	87.6	12.4	10.2	*1.9	98.1
65 years and over.....	100.0	7.5	77.1	4.3	11.1	93.9	6.1	5.6	2.3	97.7
65–74 years.....	100.0	16.3	51.4	9.9	22.4	89.1	10.9	10.3	*3.9	96.1
75–84 years.....	100.0	10.0	73.9	5.6	10.5	94.0	6.0	5.1	2.2	97.8
85 years and over.....	100.0	3.3	86.5	1.8	8.4	95.2	4.8	4.7	1.9	98.1

<sup>1</sup>Data include a small number of unknowns.

NOTE: Figures may not add to totals because of rounding.

Table 2. Number and rate per 1,000 population of nursing home residents, by race, sex, and age: United States, 1973-74, 1977, and 1985

Race, sex, and age	Residents					
	1973-74 <sup>1</sup>	1977	1985	1973-74 <sup>1,2</sup>	1977 <sup>2</sup>	1985 <sup>2</sup>
All races <sup>3</sup>						
	Number			Rate per 1,000 population		
Both sexes:						
Under 65 years	114,300	177,100	173,100	0.6	0.9	0.8
65 years and over	961,500	1,126,000	1,318,300	44.7	47.1	46.2
65-74 years	163,100	211,400	212,100	12.3	14.4	12.5
75-84 years	384,900	464,700	509,000	57.7	64.0	57.7
85 years and over	413,600	449,900	597,300	257.3	225.9	220.3
Male:						
Under 65 years	52,400	81,300	89,300	0.6	0.8	0.9
65 years and over	265,700	294,000	334,400	30.0	30.3	29.0
65-74 years	65,100	80,200	80,600	11.3	12.6	10.8
75-84 years	102,300	122,100	141,300	39.9	44.9	43.0
85 years and over	98,300	91,700	112,600	182.7	146.3	145.7
Female:						
Under 65 years	61,900	95,800	83,800	0.6	1.0	0.8
65 years and over	695,800	832,000	983,900	54.9	58.6	57.9
65-74 years	98,000	131,200	131,500	13.1	15.8	13.8
75-84 years	282,600	342,600	367,700	68.9	75.4	66.4
85 years and over	315,300	358,200	484,700	294.9	262.4	250.1
White						
Both sexes:						
Under 65 years	101,700	155,400	147,200	0.6	0.9	0.8
65 years and over	920,600	1,059,900	1,227,400	46.9	48.9	47.7
65-74 years	150,100	187,500	187,800	12.5	14.2	12.3
75-84 years	369,700	443,200	473,600	60.3	67.0	59.1
85 years and over	400,800	429,100	566,000	270.8	234.2	228.7
Male:						
Under 65 years	46,000	70,100	73,900	0.6	0.8	0.8
65 years and over	250,800	272,600	303,200	31.2	31.1	29.2
65-74 years	59,100	69,400	70,600	11.3	12.1	10.5
75-84 years	97,500	115,800	127,900	41.6	47.1	43.0
85 years and over	94,200	87,300	104,800	192.3	152.9	150.8
Female:						
Under 65 years	55,800	85,300	73,400	0.7	1.0	0.8
65 years and over	669,800	787,300	924,100	57.8	60.9	60.2
65-74 years	91,000	118,100	117,200	13.4	15.7	13.7
75-84 years	272,200	327,400	345,700	71.9	78.7	68.5
85 years and over	306,600	341,800	461,200	310.0	271.1	259.2
All other						
Both sexes:						
Under 65 years	12,600	21,700	25,900	0.5	0.8	0.8
65 years and over	40,900	66,100	91,000	21.6	30.0	32.6
65-74 years	13,000	23,800	24,300	10.6	17.0	13.9
75-84 years	15,200	21,500	35,400	28.0	33.5	44.0
85 years and over	12,800	20,800	31,300	100.5	130.0	131.9
Male:						
Under 65 years	6,400	11,200	15,400	0.5	0.9	1.0
65 years and over	14,900	21,400	31,200	18.2	22.9	27.4
65-74 years	6,000	10,700	10,000	11.1	17.4	13.4
75-84 years	4,800	6,300	13,400	21.4	24.0	42.7
85 years and over	4,100	4,400	7,800	84.8	78.8	99.9
Female:						
Under 65 years	6,200	10,500	10,400	0.5	0.7	0.6
65 years and over	26,000	44,700	59,700	24.2	35.2	36.2
65-74 years	6,900	13,100	14,300	10.2	16.7	14.3
75-84 years	10,400	15,300	22,000	32.7	39.8	44.7
85 years and over	8,700	16,400	23,500	110.1	157.5	147.6
Black						
Both sexes:						
Under 65 years	11,600	20,600	22,300	0.5	0.9	0.8
65 years and over	37,700	60,800	82,000	22.0	30.7	35.0
65-74 years	12,200	22,000	22,500	11.1	17.6	15.4
75-84 years	13,400	19,700	30,600	26.7	33.4	45.3
85 years and over	12,100	19,100	29,000	105.7	133.6	141.5

See footnotes and note at end of table.

**Table 2. Number and rate per 1,000 population of nursing home residents, by race, sex, and age: United States, 1973-74, 1977, and 1985—Con.**

Race, sex, and age	Residents					
	1973-74 <sup>1</sup>	1977	1985	1973-74 <sup>1,2</sup>	1977 <sup>2</sup>	1985 <sup>2</sup>
Black—Con.	Number			Rate per 1,000 population		
Male:						
Under 65 years .....	6,000	10,600	13,800	0.6	0.9	1.1
65 years and over .....	13,100	18,800	26,800	18.1	23.0	28.5
65-74 years.....	5,400	9,200	8,900	11.2	17.2	14.5
75-84 years.....	4,000	5,400	11,700	19.4	22.9	45.6
85 years and over.....	3,800	4,200	6,200	92.0	86.7	95.6
Female:						
Under 65 years .....	5,700	10,000	8,500	0.5	0.8	0.6
65 years and over .....	24,600	42,000	55,200	24.8	36.1	39.4
65-74 years.....	6,900	12,800	13,500	11.0	17.9	16.0
75-84 years.....	9,400	14,400	18,900	31.8	40.5	45.1
85 years and over.....	8,300	14,900	22,800	113.5	158.1	162.7

<sup>1</sup>Excludes residents in personal care or domiciliary care homes.

<sup>2</sup>Population data used to compute rates for 1973-74 and 1977 are from U.S. Bureau of the Census. Preliminary estimates of the population of the United States, by age, sex, and race, 1970 to 1981. Current Population Reports; series P-25, no 917. Washington: U.S. Department of Commerce, July 1982. Population data used to compute rates for 1985 are from U.S. Bureau of the Census. Estimates of the population of the United States, by age, sex, and race, 1980 to 1985. Current Population Reports; series P-25, no 985. Department of Commerce, Apr. 1986.

<sup>3</sup>For data years 1973-74 and 1977 all Hispanic persons were included in the "white" category.

NOTE: Figures may not add to totals because of rounding.

**Table 3. Number of nursing home residents, percent distribution by length of stay since admission, and average and median lengths of stay, according to selected characteristics: United States, 1985**

Characteristic	Residents	Total	Length of stay since admission						Average length of stay since admission	Median length of stay since admission
			Less than 3 months	3 months to less than 6 months	6 months to less than 12 months	1 year to less than 3 years	3 years to less than 5 years	5 years or more		
<b>Sex and age</b>	<b>Number</b>	<b>Percent distribution</b>						<b>Number of days</b>		
Both sexes, all ages . . . . .	1,491,400	100.0	12.9	9.5	14.1	31.5	13.9	18.1	1,059	614
Under 65 years . . . . .	173,100	100.0	14.2	12.7	12.1	24.0	13.0	24.0	1,311	654
65 years and over . . . . .	1,318,300	100.0	12.7	9.0	14.3	32.5	14.0	17.3	1,026	611
65-74 years . . . . .	212,100	100.0	15.1	10.0	14.3	31.1	12.3	17.1	1,055	528
75-84 years . . . . .	509,000	100.0	12.7	9.6	15.8	33.2	13.6	15.0	948	554
85 years and over . . . . .	597,300	100.0	11.9	8.2	13.1	32.4	15.0	19.4	1,081	677
Male, all ages . . . . .	423,800	100.0	15.5	9.8	13.8	31.7	12.2	16.9	1,031	575
Under 65 years . . . . .	89,300	100.0	16.5	14.2	11.7	24.7	11.3	21.6	1,192	563
65 years and over . . . . .	334,400	100.0	15.3	8.6	14.4	33.6	12.5	15.7	987	581
65-74 years . . . . .	80,600	100.0	16.1	7.5	13.1	32.6	11.7	19.0	1,150	622
75-84 years . . . . .	141,300	100.0	15.3	9.2	16.2	33.9	11.6	13.9	912	522
85 years and over . . . . .	112,600	100.0	14.8	8.5	13.2	33.9	14.1	15.5	966	617
Female, all ages . . . . .	1,067,700	100.0	11.8	9.4	14.2	31.5	14.6	18.6	1,070	630
Under 65 years . . . . .	83,800	100.0	11.8	11.0	12.7	23.1	14.8	26.6	1,437	838
65 years and over . . . . .	983,900	100.0	11.8	9.2	14.3	32.2	14.5	17.9	1,039	624
65-74 years . . . . .	131,500	100.0	14.5	11.5	15.1	30.2	12.7	15.9	997	477
75-84 years . . . . .	367,700	100.0	11.7	9.8	15.6	33.0	14.4	15.5	962	560
85 years and over . . . . .	484,700	100.0	11.2	8.1	13.1	32.1	15.2	20.3	1,108	708
<b>Race</b>										
White . . . . .	1,374,600	100.0	13.0	9.4	14.1	31.3	14.0	18.3	1,061	614
All other . . . . .	116,800	100.0	11.6	10.7	14.0	34.4	13.1	16.2	1,037	599
Black . . . . .	104,400	100.0	11.3	10.6	13.2	35.8	12.8	16.4	1,041	621
<b>Hispanic origin</b>										
Hispanic . . . . .	41,000	100.0	14.2	*9.1	*12.8	37.6	15.0	*11.2	928	612
Non-Hispanic <sup>1</sup> . . . . .	1,450,400	100.0	12.9	9.5	14.1	31.4	13.9	18.3	1,063	614
<b>Current marital status</b>										
Married . . . . .	188,200	100.0	20.9	12.8	16.5	30.1	10.6	9.1	675	357
Widowed <sup>1</sup> . . . . .	914,800	100.0	11.7	8.9	14.5	33.0	15.0	16.9	990	629
Divorced or separated . . . . .	117,000	100.0	15.8	11.0	15.0	29.6	13.5	15.1	997	538
Never married . . . . .	271,400	100.0	10.2	8.4	10.5	28.3	12.6	29.9	1,582	865

<sup>1</sup>Data include a small number of unknowns

NOTE: Figures may not add to totals because of rounding.

**Table 4. Number and percent of nursing home residents by dependency in activities of daily living, sex, and age: United States, 1985**

Sex and age	Dependency in activities of daily living						
	Total	Requires assistance in bathing	Requires assistance in dressing	Requires assistance in using toilet room	Requires assistance in transferring	Has difficulty with bowel and/or bladder control	Requires assistance in eating
				Number			
Both sexes							
All ages . . . . .	1,491,400	1,323,200	1,124,600	907,600	893,400	774,400	586,300
Under 65 years . . . . .	173,100	123,000	101,900	74,300	68,500	55,900	54,500
65 years and over . . . . .	1,318,300	1,200,200	1,022,700	833,300	824,900	718,500	531,800
65-74 years . . . . .	212,100	179,700	148,800	120,000	110,400	91,000	70,900
75-84 years . . . . .	509,000	459,800	386,200	307,200	304,100	280,200	199,000
85 years and over . . . . .	597,300	560,700	487,700	406,100	410,400	347,300	261,900
Male							
All ages . . . . .	423,800	349,000	287,300	221,400	217,800	199,700	142,000
Under 65 years . . . . .	89,300	58,600	48,200	33,700	33,100	26,200	25,900
65 years and over . . . . .	334,400	290,400	239,100	187,700	184,800	173,500	116,100
65-74 years . . . . .	80,600	61,900	51,700	39,700	37,500	31,300	26,500
75-84 years . . . . .	141,300	125,000	100,300	77,900	76,500	76,500	45,600
85 years and over . . . . .	112,600	103,400	87,100	70,100	70,700	65,600	44,000
Female							
All ages . . . . .	1,067,700	974,300	837,200	686,200	675,600	574,700	444,300
Under 65 years . . . . .	83,800	64,500	53,700	40,600	35,500	29,700	28,600
65 years and over . . . . .	983,900	909,800	783,500	645,600	640,100	545,000	415,700
65-74 years . . . . .	131,500	117,800	97,100	80,300	72,900	59,700	44,400
75-84 years . . . . .	367,700	334,800	285,800	229,300	227,600	203,700	153,400
85 years and over . . . . .	484,700	457,200	400,700	336,100	339,700	281,600	217,900
				Percent			
Both sexes							
All ages . . . . .	100.0	88.7	75.4	60.9	59.9	51.9	39.3
Under 65 years . . . . .	100.0	71.1	58.9	42.9	39.6	32.3	31.5
65 years and over . . . . .	100.0	91.0	77.6	63.2	62.6	54.5	40.3
65-74 years . . . . .	100.0	84.8	70.2	56.6	52.1	42.9	33.4
75-84 years . . . . .	100.0	90.3	75.9	60.3	59.7	55.0	39.1
85 years and over . . . . .	100.0	93.9	81.7	68.0	68.7	58.1	43.9
Male							
All ages . . . . .	100.0	82.4	67.8	52.2	51.4	47.1	33.5
Under 65 years . . . . .	100.0	65.6	54.0	37.7	37.0	29.4	29.0
65 years and over . . . . .	100.0	86.8	71.5	56.1	55.2	51.9	34.7
65-74 years . . . . .	100.0	76.9	64.2	49.3	46.6	38.9	32.9
75-84 years . . . . .	100.0	88.5	71.0	55.1	54.1	54.1	32.3
85 years and over . . . . .	100.0	91.9	77.3	62.2	62.8	58.3	39.1
Female							
All ages . . . . .	100.0	91.2	78.4	64.3	63.3	53.8	41.6
Under 65 years . . . . .	100.0	76.9	64.1	48.4	42.3	35.4	34.1
65 years and over . . . . .	100.0	92.5	79.6	65.6	65.1	55.4	42.3
65-74 years . . . . .	100.0	89.6	73.8	61.0	55.4	45.4	33.8
75-84 years . . . . .	100.0	91.0	77.7	62.4	61.9	55.4	41.7
85 years and over . . . . .	100.0	94.3	82.7	69.3	70.1	58.1	45.0

NOTE: Figures may not add to totals because of rounding.

**Table 5. Number and percent distribution of nursing home residents by number of dependencies in activities of daily living, according to sex and age: United States, 1985**

Sex and age	Dependencies in activities of daily living							
	Total	None	1	2	3	4	5	6
<b>Both sexes</b>		<b>Number</b>						
All ages . . . . .	1,491,400	146,200	166,700	151,800	115,300	195,600	284,200	431,700
Under 65 years . . . . .	173,100	45,800	20,300	21,700	12,500	18,300	23,600	31,000
65 years and over . . . . .	1,318,300	100,400	146,500	130,100	102,800	177,300	260,600	400,700
65-74 years . . . . .	212,100	28,000	29,700	23,700	15,400	29,300	35,200	50,700
75-84 years . . . . .	509,000	43,800	59,300	49,000	44,400	65,200	99,000	148,400
85 years and over . . . . .	597,300	28,500	57,500	57,500	43,100	82,800	126,400	201,500
<b>Male</b>								
All ages . . . . .	423,800	67,800	52,000	44,300	35,100	51,400	72,700	100,300
Under 65 years . . . . .	89,300	28,100	10,100	10,800	6,300	9,300	10,300	14,400
65 years and over . . . . .	334,400	39,700	41,900	33,500	28,800	42,100	62,400	85,900
65-74 years . . . . .	80,600	16,900	10,900	8,100	*4,700	10,400	11,100	18,300
75-84 years . . . . .	141,300	15,100	19,600	13,500	13,300	17,900	27,400	34,500
85 years and over . . . . .	112,600	7,700	11,400	11,900	10,700	13,800	23,900	33,100
<b>Female</b>								
All ages . . . . .	1,067,700	78,300	114,700	107,500	80,200	144,200	211,500	331,300
Under 65 years . . . . .	83,800	17,700	10,200	10,900	6,200	9,000	13,300	16,600
65 years and over . . . . .	983,900	60,600	104,500	96,600	74,000	135,200	198,200	314,700
65-74 years . . . . .	131,500	11,100	18,800	15,600	10,600	18,900	24,000	32,400
75-84 years . . . . .	367,700	28,700	39,600	35,500	31,100	47,300	71,600	114,000
85 years and over . . . . .	484,700	20,800	46,100	45,500	32,300	69,000	102,500	168,400
<b>Both sexes</b>		<b>Percent distribution</b>						
All ages . . . . .	100.0	9.8	11.2	10.2	7.7	13.1	19.1	28.9
Under 65 years . . . . .	100.0	26.5	11.7	12.5	7.2	10.6	13.6	17.9
65 years and over . . . . .	100.0	7.6	11.1	9.9	7.8	13.5	19.8	30.4
65-74 years . . . . .	100.0	13.2	14.0	11.2	7.3	13.8	16.6	23.9
75-84 years . . . . .	100.0	8.6	11.6	9.6	8.7	12.8	19.4	29.2
85 years and over . . . . .	100.0	4.8	9.6	9.6	7.2	13.9	21.2	33.7
<b>Male</b>								
All ages . . . . .	100.0	16.0	12.3	10.5	8.3	12.1	17.2	23.7
Under 65 years . . . . .	100.0	31.5	11.3	12.1	7.1	10.4	11.5	16.1
65 years and over . . . . .	100.0	11.9	12.5	10.0	8.6	12.6	18.7	25.7
65-74 years . . . . .	100.0	21.0	13.5	10.1	*5.9	13.0	13.8	22.7
75-84 years . . . . .	100.0	10.7	13.9	9.5	9.4	12.7	19.4	24.4
85 years and over . . . . .	100.0	6.8	10.1	10.6	9.5	12.3	21.2	29.4
<b>Female</b>								
All ages . . . . .	100.0	7.3	10.7	10.1	7.5	13.5	19.8	31.0
Under 65 years . . . . .	100.0	21.1	12.2	13.0	7.4	10.7	15.9	19.8
65 years and over . . . . .	100.0	6.2	10.6	9.8	7.5	13.7	20.1	32.0
65-74 years . . . . .	100.0	8.5	14.3	11.8	8.1	14.4	18.3	24.6
75-84 years . . . . .	100.0	7.8	10.8	9.6	8.4	12.9	19.5	31.0
85 years and over . . . . .	100.0	4.3	9.5	9.4	6.7	14.2	21.2	34.7

NOTE: Figures may not add to totals because of rounding.

**Table 6. Number and percent distribution of nursing home residents by type of dependency in activities of daily living and number of dependencies, according to race and Hispanic origin: United States, 1985**

Dependency status	Total	Race			Hispanic origin	
		White	All other	Black	Hispanic	Non-Hispanic <sup>1</sup>
Number						
All residents.....	1,491,400	1,374,600	116,800	104,400	41,000	1,450,400
Type of dependency						
Requires assistance in bathing .....	1,323,200	1,217,300	105,900	95,300	36,400	1,286,800
Requires assistance in dressing.....	1,124,600	1,031,200	93,400	84,400	33,100	1,091,500
Requires assistance in using toilet room .....	907,600	833,800	73,800	67,200	26,600	881,000
Requires assistance in transferring .....	893,400	818,900	74,600	68,300	25,500	868,000
Has difficulty with bowel and/or bladder control.....	774,400	712,900	61,500	56,700	24,800	749,600
Requires assistance in eating .....	586,300	535,600	50,700	47,000	20,100	566,200
Number of dependencies						
None.....	146,200	136,400	9,800	7,900	*3,500	142,700
1.....	166,700	157,700	9,000	7,600	*3,900	162,800
2.....	151,800	141,000	10,800	9,500	*3,400	148,400
3.....	115,300	102,600	12,700	11,300	*3,300	112,000
4.....	195,600	178,200	17,400	15,000	*3,800	191,800
5.....	284,200	262,700	21,500	19,600	7,900	276,300
6.....	431,700	396,000	35,700	33,400	15,200	416,400
Percent distribution						
All residents.....	100.0	100.0	100.0	100.0	100.0	100.0
Type of dependency						
Requires assistance in bathing .....	88.7	88.6	90.7	91.3	88.9	88.7
Requires assistance in dressing.....	75.4	75.0	80.0	80.9	80.7	75.3
Requires assistance in using toilet room .....	60.9	60.7	63.2	64.4	65.0	60.7
Requires assistance in transferring .....	59.9	59.6	63.8	65.5	62.2	59.8
Has difficulty with bowel and/or bladder control.....	51.9	51.9	52.7	54.3	60.4	51.7
Requires assistance in eating .....	39.3	39.0	43.4	45.0	49.1	39.0
Number of dependencies						
None.....	9.8	9.3	8.4	7.6	*8.6	9.8
1.....	11.2	11.5	7.7	7.3	*9.5	11.2
2.....	10.2	10.3	9.2	9.1	*8.3	10.2
3.....	7.7	7.5	10.8	10.8	*8.0	7.7
4.....	13.1	13.0	14.9	14.4	*9.3	13.2
5.....	19.1	19.1	18.4	18.8	19.1	19.1
6.....	28.9	28.8	30.6	32.0	37.2	28.7

<sup>1</sup>Data include a small number of unknowns.

NOTE: Figures may not add to totals because of rounding.



**Table 7. Number and percent of nursing home residents by selected most frequent primary diagnoses at time of survey, according to sex and age: United States, 1985**

<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>		<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>	
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>
<b>Both sexes, all ages</b>			<b>Both sexes, 65-74 years</b>		
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	234,100	15.7	Cerebrovascular disease . . . . . 430-436	25,900	12.2
Ischemic heart disease . . . . . 410-414	116,900	7.8	Psychoses other than senile dementia . . . . . 291-299	21,900	10.3
Congestive heart failure . . . . . 428.0	46,900	3.1	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	19,900	9.4
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	70,300	4.7	Ischemic heart disease . . . . . 410-414	10,700	5.1
Cerebrovascular disease . . . . . 430-436	153,700	10.3	Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	6,900	3.2
Organic brain syndrome . . . . . 310	133,400	8.9	Organic brain syndrome . . . . . 310	14,100	6.7
Psychoses other than senile dementia . . . . . 291-299	86,700	5.8	Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	12,500	5.9
Diabetes mellitus . . . . . 250	66,000	4.4	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	11,500	5.4
Arthritis or rheumatism . . . . . 710-716, 729.0	61,900	4.1	Diabetes mellitus . . . . . 250	11,200	5.3
Essential hypertension . . . . . 401	49,900	3.3	Mental retardation . . . . . 317-319	6,800	3.2
Senile dementia . . . . . 290	44,000	2.9	Other mental disorders . . . . . 300-309, 311-316	6,300	3.0
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	39,600	2.7	<b>Both sexes, 75-84 years</b>		
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	45,800	3.1	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	72,600	14.3
Mental retardation . . . . . 317-319	34,900	2.3	Ischemic heart disease . . . . . 410-414	34,100	6.7
Atherosclerosis . . . . . 440	33,700	2.3	Congestive heart failure . . . . . 428.0	16,400	3.2
Parkinson's disease . . . . . 332	33,200	2.2	Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	22,100	4.3
Malignant neoplasms . . . . . 140-208	31,900	2.1	Cerebrovascular disease . . . . . 430-436	61,700	12.1
Other mental disorders . . . . . 300-309, 311-316	31,600	2.1	Organic brain syndrome . . . . . 310	53,300	10.5
Fracture of neck of femur . . . . . 820	26,600	1.8	Diabetes mellitus . . . . . 250	28,800	5.7
Other fractures . . . . . 800-819, 821-829	15,900	1.1	Arthritis or rheumatism . . . . . 710-716, 729.0	21,400	4.2
<b>Both sexes, under 65 years</b>			<b>Both sexes, 85 years and over</b>		
Psychoses other than senile dementia . . . . . 291-299	37,700	21.8	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	137,500	23.0
Mental retardation . . . . . 317-319	23,100	13.3	Ischemic heart disease . . . . . 410-414	69,900	11.7
Cerebrovascular disease . . . . . 430-436	11,000	6.3	Congestive heart failure . . . . . 428.0	27,500	4.6
Other mental disorders . . . . . 300-309, 311-316	8,900	5.1	Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	40,000	6.7
Diabetes mellitus . . . . . 250	8,500	4.9	Organic brain syndrome . . . . . 310	59,300	9.9
Organic brain syndrome . . . . . 310	6,700	3.9	Cerebrovascular disease . . . . . 430-436	55,100	9.2
<b>Both sexes, 65 years and over</b>			<b>Both sexes, 85 years and over</b>		
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	230,000	17.4	Arthritis or rheumatism . . . . . 710-716, 729.0	34,900	5.8
Ischemic heart disease . . . . . 410-414	114,800	8.7	Essential hypertension . . . . . 401	22,800	3.8
Congestive heart failure . . . . . 428.0	46,200	3.5	Atherosclerosis . . . . . 440	22,600	3.8
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	69,000	5.2	Senile dementia . . . . . 290	20,000	3.4
Cerebrovascular disease . . . . . 430-436	142,700	10.8	Diabetes mellitus . . . . . 250	17,500	2.9
Organic brain syndrome . . . . . 310	126,800	9.6	Fracture of neck of femur . . . . . 820	16,000	2.7
Arthritis or rheumatism . . . . . 710-716, 729.0	60,700	4.6	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	12,400	2.1
Diabetes mellitus . . . . . 250	57,500	4.4	Psychoses other than senile dementia . . . . . 291-299	11,200	1.9
Psychoses other than senile dementia . . . . . 291-299	49,100	3.7	Other fractures . . . . . 800-819, 821-829	10,500	1.8
Essential hypertension . . . . . 401	44,900	3.4			
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	43,600	3.3			
Senile dementia . . . . . 290	43,200	3.3			
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	38,000	2.9			
Atherosclerosis . . . . . 440	33,400	2.5			
Parkinson's disease . . . . . 332	30,600	2.3			
Malignant neoplasms . . . . . 140-208	29,900	2.3			
Fracture of neck of femur . . . . . 820	25,000	1.9			
Other mental disorders . . . . . 300-309, 311-316	22,800	1.7			
Other fractures . . . . . 800-819, 821-829	14,900	1.1			
Mental retardation . . . . . 317-319	11,800	0.9			

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

**Table 7. Number and percent of nursing home residents by selected most frequent primary diagnoses at time of survey, according to sex and age: United States, 1985—Con.**

<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>		<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>	
	Number	Percent		Number	Percent
<b>Both sexes, 85 years and over—Con.</b>			<b>Male, 65–74 years</b>		
Malignant neoplasms . . . . . 140–208	10,100	1.7	Cerebrovascular disease . . . . . 430–436	9,600	11.9
Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	8,500	1.4	Psychoses other than senile dementia . . . . . 291–299	7,900	9.9
<b>Male, all ages</b>			Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	7,200	8.9
Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	52,300	12.3	Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	6,300	7.8
Ischemic heart disease . . . . . 410–414	26,100	6.2	<b>Male, 75–84 years</b>		
Congestive heart failure . . . . . 428.0	8,800	2.1	Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	19,700	13.9
Other heart disease . . . . . 391–398, 402, 404, 415, 420–427, 428.1–429.9	17,400	4.1	Ischemic heart disease . . . . . 410–414	7,900	5.6
Cerebrovascular disease . . . . . 430–436	43,500	10.3	Other heart disease . . . . . 391–398, 402, 404, 415, 420–427, 428.1–429.9	6,900	4.9
Psychoses other than senile dementia . . . . . 291–299	33,600	7.9	Cerebrovascular disease . . . . . 430–436	17,600	12.5
Organic brain syndrome . . . . . 310	31,500	7.4	Organic brain syndrome . . . . . 310	12,500	8.8
Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	17,500	4.1	Malignant neoplasms . . . . . 140–208	8,000	5.7
Diabetes mellitus . . . . . 250	17,300	4.1	Diabetes mellitus . . . . . 250	7,500	5.3
Mental retardation . . . . . 317–319	17,000	4.0	Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	6,500	4.6
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	13,900	3.3	<b>Male, 85 years and over</b>		
Other mental disorders . . . . . 300–309, 311–316	13,600	3.2	Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	23,300	20.7
Malignant neoplasms . . . . . 140–208	13,500	3.2	Ischemic heart disease . . . . . 410–414	13,900	12.3
Parkinson's disease . . . . . 332	11,600	2.7	Other heart disease . . . . . 391–398, 402, 404, 415, 420–427, 428.1–429.9	6,800	6.0
Senile dementia . . . . . 290	9,300	2.2	Organic brain syndrome . . . . . 310	11,000	9.8
Essential hypertension . . . . . 401	9,100	2.1	Cerebrovascular disease . . . . . 430–436	10,400	9.2
Arthritis or rheumatism . . . . . 710–716, 729.0	7,700	1.8	<b>Female, all ages</b>		
Atherosclerosis . . . . . 440	7,200	1.7	Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	181,800	17.0
<b>Male, under 65 years</b>			Ischemic heart disease . . . . . 410–414	90,700	8.5
Psychoses other than senile dementia . . . . . 291–299	19,000	21.3	Congestive heart failure . . . . . 428.0	38,200	3.6
Mental retardation . . . . . 317–319	12,600	14.1	Other heart disease . . . . . 391–398, 402, 404, 415, 420–427, 428.1–429.9	52,900	5.0
Other mental disorders . . . . . 300–309, 311–316	6,000	6.7	Cerebrovascular disease . . . . . 430–436	110,200	10.3
Cerebrovascular disease . . . . . 430–436	5,900	6.7	Organic brain syndrome . . . . . 310	101,900	9.5
<b>Male, 65 years and over</b>			Arthritis or rheumatism . . . . . 710–716, 729.0	54,100	5.1
Heart disease . . . . . 391–392.0, 393–398, 402, 404, 410–429	50,100	15.0	Psychoses other than senile dementia . . . . . 291–299	53,100	5.0
Ischemic heart disease . . . . . 410–414	24,800	7.4	Diabetes mellitus . . . . . 250	48,700	4.6
Congestive heart failure . . . . . 428.0	8,800	2.6	Essential hypertension . . . . . 401	40,900	3.8
Other heart disease . . . . . 391–398, 402, 404, 415, 420–427, 428.1–429.9	16,600	5.0	Senile dementia . . . . . 290	34,700	3.3
Cerebrovascular disease . . . . . 430–436	37,500	11.2	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	31,900	3.0
Organic brain syndrome . . . . . 310	27,100	8.1	Atherosclerosis . . . . . 440	26,500	2.5
Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	17,500	5.2	Chronic obstructive pulmonary disease and allied conditions . . . . . 490–496	22,100	2.1
Psychoses other than senile dementia . . . . . 291–299	14,600	4.4	Fracture of neck of femur . . . . . 820	21,900	2.0
Diabetes mellitus . . . . . 250	13,800	4.1	Parkinson's disease . . . . . 332	21,700	2.0
Malignant neoplasms . . . . . 140–208	12,500	3.7	Malignant neoplasms . . . . . 140–208	18,400	1.7
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	12,500	3.7	Other mental disorders . . . . . 300–309, 311–316	18,100	1.7
Parkinson's disease . . . . . 332	10,700	3.2	Mental retardation . . . . . 317–319	17,800	1.7
Senile dementia . . . . . 290	9,000	2.7	Other fractures . . . . . 800–819, 821–829	14,400	1.4
Arthritis or rheumatism . . . . . 710–716, 729.0	7,700	2.3	<b>Female, under 65 years</b>		
Other mental disorders . . . . . 300–309, 311–316	7,500	2.3	Psychoses other than senile dementia . . . . . 291–299	18,600	22.2
Atherosclerosis . . . . . 440	7,200	2.1	Mental retardation . . . . . 317–319	10,500	12.5
Essential hypertension . . . . . 401	6,800	2.0			

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

**Table 7. Number and percent of nursing home residents by selected most frequent primary diagnoses at time of survey, according to sex and age: United States, 1985—Con.**

<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>		<i>Sex, age, primary diagnosis, and ICD-9-CM code<sup>1</sup></i>	<i>Nursing home residents</i>	
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>
<i>Female, 65 years and over</i>			<i>Female, 75-84 years—Con.</i>		
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	179,900	18.3	Cerebrovascular disease . . . . . 430-436	44,100	12.0
Ischemic heart disease . . . . . 410-414	90,000	9.1	Organic brain syndrome . . . . . 310	40,900	11.1
Congestive heart failure . . . . . 428.0	37,500	3.8	Diabetes mellitus . . . . . 250	21,300	5.8
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	52,500	5.3	Arthritis or rheumatism . . . . . 710-716, 729.0	17,900	4.9
Cerebrovascular disease . . . . . 430-436	105,200	10.7	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	15,300	4.2
Organic brain syndrome . . . . . 310	99,600	10.1	Senile dementia . . . . . 290	14,800	4.0
Arthritis or rheumatism . . . . . 710-716, 729.0	52,900	5.4	Essential hypertension . . . . . 401	13,600	3.7
Diabetes mellitus . . . . . 250	43,700	4.4	Psychoses other than senile dementia . . . . . 291-299	12,200	3.3
Essential hypertension . . . . . 401	38,100	3.9	Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	10,500	2.9
Psychoses other than senile dementia . . . . . 291-299	34,500	3.5	Parkinson's disease . . . . . 332	9,700	2.6
Senile dementia . . . . . 290	34,200	3.5	Other mental disorders . . . . . 300-309, 311-316	8,500	2.3
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	31,100	3.2	Atherosclerosis . . . . . 440	7,800	2.1
Atherosclerosis . . . . . 440	26,200	2.7	Fracture of neck of femur . . . . . 820	6,100	1.6
Fracture of neck of femur . . . . . 820	21,400	2.2	<i>Female, 85 years and over</i>		
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	20,400	2.1	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	114,200	23.6
Parkinson's disease . . . . . 332	19,800	2.0	Ischemic heart disease . . . . . 410-414	56,100	11.6
Malignant neoplasms . . . . . 140-208	17,400	1.8	Congestive heart failure . . . . . 428.0	24,900	5.1
Other mental disorders . . . . . 300-309, 311-316	15,200	1.5	Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	33,300	6.9
Other fractures . . . . . 800-819, 821-829	13,900	1.4	Organic brain syndrome . . . . . 310	48,300	10.0
Mental retardation . . . . . 317-319	7,300	0.7	Cerebrovascular disease . . . . . 430-436	44,700	9.2
<i>Female, 65-74 years</i>			Arthritis or rheumatism . . . . . 710-716, 729.0	31,400	6.5
Cerebrovascular disease . . . . . 430-436	16,400	12.4	Essential hypertension . . . . . 401	20,300	4.2
Psychoses other than senile dementia . . . . . 291-299	13,900	10.6	Atherosclerosis . . . . . 440	17,900	3.7
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	12,700	9.7	Senile dementia . . . . . 290	16,500	3.4
Ischemic heart disease . . . . . 410-414	7,700	5.8	Fracture of neck of femur . . . . . 820	14,100	2.9
Organic brain syndrome . . . . . 310	10,500	8.0	Diabetes mellitus . . . . . 250	13,100	2.7
Diabetes mellitus . . . . . 250	9,400	7.1	Other fractures . . . . . 800-819, 821-829	9,800	2.0
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	7,000	5.3	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	8,800	1.8
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	6,200	4.7	Psychoses other than senile dementia . . . . . 291-299	8,300	1.7
<i>Female, 75-84 years</i>			Malignant neoplasms . . . . . 140-208	7,200	1.5
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	52,900	14.4	Parkinson's disease . . . . . 332	6,700	1.4
Ischemic heart . . . . . 410-414	26,200	7.1			
Congestive heart failure . . . . . 428.0	11,500	3.1			
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	15,200	4.1			

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

**Table 8. Average length of stay since admission of nursing home residents, average monthly charge, and average number of dependencies in activities of daily living, by primary diagnosis at time of survey: United States, 1985**

<i>Primary diagnosis and ICD-9-CM code<sup>1</sup></i>	<i>Average length of stay since admission in days</i>	<i>Average monthly charge</i>	<i>Average number of dependencies</i>
All categories . . . . .	1,059	\$1,456	3.8
Chapter 2. Neoplasms . . . . . 140-239	746	1,421	4.0
Malignant neoplasms . . . . . 140-208	779	1,420	3.9
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . . 240-279	998	1,448	3.8
Diabetes mellitus . . . . . 250	1,088	1,436	3.7
Chapter 5. Mental disorders . . . . . 290-319	1,361	1,379	3.4
Senile dementia . . . . . 290	1,148	1,599	4.5
Other psychoses . . . . . 291-299	1,299	1,259	2.1
Specific nonpsychotic mental disorders due to organic brain damage . . . . . 310	1,165	1,506	4.4
Mental retardation . . . . . 317-319	2,707	1,089	2.6
Other mental disorders . . . . . 300-309, 311-316	1,170	1,188	2.0
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	1,098	1,568	4.5
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	620	1,615	4.9
Parkinson's disease . . . . . 332	951	1,498	4.6
Chapter 7. Diseases of the circulatory system . . . . . 390-459	994	1,461	3.9
Essential hypertension . . . . . 401	961	1,255	3.3
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	1,031	1,471	3.7
Ischemic heart disease . . . . . 410-414	1,108	1,550	3.7
Congestive heart failure . . . . . 428.0	927	1,401	3.5
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	974	1,385	3.6
Cerebrovascular disease . . . . . 430-436	850	1,564	4.5
Atherosclerosis . . . . . 440	1,359	1,216	3.6
Chapter 8. Diseases of the respiratory system . . . . . 460-519	708	1,558	3.2
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	747	1,548	3.0
Chapter 9. Diseases of the digestive system . . . . . 520-579	847	1,447	3.6
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	733	1,616	4.4
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	1,120	1,423	4.1
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	1,113	1,471	3.6
Arthritis or rheumatism . . . . . 710-716, 729.0	1,126	1,380	3.4
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	1,071	1,416	3.8
Chapter 17. Injury and poisoning . . . . . 800-999	566	1,583	4.1
Fracture of neck of femur . . . . . 820	694	1,608	4.5
Other fractures . . . . . 800-819, 821-829	511	1,563	4.0
All other diagnoses . . . . . 001-139, 280-289, 740-759, V01-V82	1,017	1,510	3.6
Unknown . . . . .	932	1,166	2.1

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

**Table 9. Number of all-listed diagnoses of nursing home residents at time of survey by age and sex: United States, 1985**

Sex, all-listed diagnoses, and ICD-9-CM code <sup>1</sup>	Age						
	Total	Under 65 years	65 years and over				
			Total	65-74 years	75-84 years	85 years or over	
Both sexes		Number					
All diagnoses	4,971,700	476,300	4,495,500	703,300	1,696,300	2,095,900	
Chapter 2. Neoplasms	96,900	7,100	89,800	14,500	36,600	38,800	
Malignant neoplasms	82,600	5,900	76,700	12,900	31,400	32,300	
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders	293,300	30,300	263,000	54,000	119,300	89,700	
Diabetes mellitus	250	20,500	165,700	35,100	74,600	56,000	
Chapter 4. Diseases of the blood and blood-forming organs	75,300	*4,200	71,200	10,100	23,200	37,800	
Anemias	70,600	*4,200	66,400	8,700	21,400	36,400	
Chapter 5. Mental disorders	690,100	124,300	565,700	114,200	228,400	223,200	
Senile dementia or organic brain syndrome	290, 310	357,900	16,800	341,100	39,900	135,500	165,700
Psychoses other than senile dementia	291-299	170,400	51,500	118,800	39,200	44,800	34,900
Neurotic and personality disorders	300-301	36,100	10,700	25,300	*5,400	11,800	8,100
Mental retardation	317-319	50,600	29,900	20,700	12,300	7,200	*1,100
Other mental disorders	302-309, 311-316	75,200	15,400	59,800	17,400	29,100	13,300
Chapter 6. Diseases of the nervous system and sense organs	509,400	80,700	428,600	83,900	165,600	179,100	
Alzheimer's disease and other specified and unspecified degeneration of the brain	331.0, 331.2, 331.9	73,900	*3,200	70,700	16,000	32,000	22,700
Parkinson's disease	332	70,900	*4,200	66,800	12,100	32,600	22,100
Glaucoma	365	35,800	*1,100	34,700	*4,200	10,200	20,300
Cataract	366	45,900	*1,800	44,100	*4,000	12,100	28,000
Chapter 7. Diseases of the circulatory system	1,520,800	72,800	1,448,000	187,300	519,000	741,700	
Essential hypertension	401	233,600	21,500	212,000	31,100	85,400	95,400
Heart disease	391-392.0, 393-398, 402, 404, 410-429	814,400	29,000	785,400	84,100	267,300	434,000
Ischemic heart disease	410-414	395,600	14,200	381,400	44,100	130,200	207,100
Congestive heart failure	428.0	159,400	*5,100	154,300	14,500	55,800	84,000
Other heart disease	391-398, 402, 404, 415, 420-427, 428.1-429.9	259,400	9,700	249,700	25,600	81,300	142,900
Cerebrovascular disease	430-436	291,800	17,800	274,000	47,700	111,200	115,200
Atherosclerosis	440	111,400	*1,800	109,600	13,000	32,500	64,200
Chapter 8. Diseases of the respiratory system	460-519	153,400	11,700	141,700	29,400	59,700	52,600
Chronic obstructive pulmonary disease and allied conditions	490-496	111,100	8,000	103,100	24,400	43,900	34,800
Chapter 9. Diseases of the digestive system	520-579	201,400	15,000	186,500	22,400	69,300	94,700
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site	531-534	24,300	*1,500	22,900	*3,000	9,100	10,800
Chapter 10. Diseases of the genitourinary system	580-629	133,000	11,000	122,000	19,900	46,400	55,700
Urinary tract infection	599.0	58,000	*3,300	54,600	6,900	22,200	25,500
Chapter 12. Diseases of the skin and subcutaneous tissue	680-709	53,700	6,100	47,600	10,100	17,500	19,900
Chapter 13. Diseases of the musculoskeletal system and connective tissue	710-739	429,300	19,000	410,300	46,400	141,500	222,400
Arthritis or rheumatism	710-713, 716, 729.0	271,500	6,500	265,000	25,700	88,000	151,300
Osteoporosis	733.0	49,100	*1,000	48,000	*3,200	16,400	28,500
Chapter 16. Symptoms, signs, and ill-defined conditions	780-799	267,500	35,800	231,700	41,900	88,400	101,400
Senility without psychoses	797	57,400	*1,700	55,700	*3,800	16,200	35,700
Chapter 17. Injury and poisoning	800-999	100,700	10,900	89,800	7,100	28,300	54,400
Fracture of neck of femur	820	39,100	*1,600	37,500	*2,000	11,100	24,400
Other fractures	800-819, 821-829	35,600	*2,100	33,500	*3,100	9,900	20,400
Supplementary classifications	V01-V82	377,500	31,700	345,800	49,700	131,900	164,200
Persons with potential health hazards related to personal and family history	V10-V19	230,800	17,100	213,800	28,100	81,800	103,900
Persons with a condition influencing their health status	V40-V49	132,600	13,400	119,200	20,100	44,700	54,500
Male							
All diagnoses	1,368,300	237,500	1,130,800	270,300	464,900	395,500	
Chapter 2. Neoplasms	34,800	*3,700	31,100	*4,700	17,900	8,500	
Malignant neoplasms	31,900	*3,500	28,500	*4,400	16,600	7,400	

See footnote and notes at end of table.

**Table 9. Number of all-listed diagnoses of nursing home residents at time of survey by age and sex: United States, 1985—Con.**

Sex, all-listed diagnoses, and ICD-9-CM code <sup>1</sup>	Age					
	Total	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years or over
Male—Con.						
Number						
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . . 240-279	76,500	12,700	63,800	15,100	32,300	16,300
Diabetes mellitus . . . . . 250	50,600	8,800	41,700	10,000	19,200	12,500
Chapter 4. Diseases of the blood and blood-forming organs . . . . . 280-289	21,400	*2,600	18,700	*5,100	7,500	6,200
Anemias . . . . . 280-285	20,200	*2,600	17,500	*4,400	7,200	5,900
Chapter 5. Mental disorders . . . . . 290-319	209,000	64,800	144,200	46,100	58,100	40,000
Senile dementia or organic brain syndrome . . . 290, 310	85,500	9,200	76,300	13,200	32,800	30,400
Psychoses other than senile dementia . . . . . 291-299	57,900	25,900	32,000	15,200	11,000	5,800
Neurotic and personality disorders . . . . . 300-301	12,500	5,800	6,700	*3,400	*2,100	*1,100
Mental retardation . . . . . 317-319	22,600	14,500	8,100	*4,800	*2,700	*600
Other mental disorders . . . . . 302-309, 311-316	30,600	9,500	21,100	9,500	9,400	*2,100
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	165,000	41,100	123,900	34,000	49,600	40,300
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	20,300	*2,200	18,100	*5,700	6,500	5,900
Parkinson's disease . . . . . 332	24,400	*1,600	22,900	*4,900	11,600	6,300
Glaucoma . . . . . 365	7,400	*500	6,900	*1,600	*2,800	*2,500
Cataract . . . . . 366	13,100	*700	12,400	*2,400	*4,100	6,000
Chapter 7. Diseases of the circulatory system . . . 390-459	375,700	34,700	341,000	65,900	141,100	134,000
Essential hypertension . . . . . 401	51,600	11,000	40,600	9,400	18,000	13,200
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	197,500	12,800	184,600	29,600	75,300	79,700
Ischemic heart disease . . . . . 410-414	97,100	8,200	88,900	11,800	37,900	39,200
Congestive heart failure . . . . . 428.0	29,900	*700	29,200	*4,700	13,200	11,300
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	70,400	*3,900	66,500	13,100	24,200	29,300
Cerebrovascular disease . . . . . 430-436	79,900	9,900	70,000	17,000	31,400	21,600
Atherosclerosis . . . . . 440	26,500	- - -	26,500	6,100	6,800	13,500
Chapter 8. Diseases of the respiratory system . . . 460-519	63,300	*3,600	59,600	16,600	26,900	16,100
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	47,700	*2,000	45,800	13,700	20,200	11,900
Chapter 9. Diseases of the digestive system . . . 520-579	57,600	9,700	47,800	9,900	18,200	19,700
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . . 531-534	7,600	*1,200	6,400	*1,400	*2,500	*2,600
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	46,000	4,600	41,400	8,700	15,500	17,200
Urinary tract infection . . . . . 599.0	14,000	*900	13,100	*2,600	5,700	*4,900
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	18,000	*3,700	14,300	6,600	*3,600	*4,100
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	78,300	6,900	71,300	14,800	26,200	30,400
Arthritis or rheumatism . . . . . 710-713, 716, 729.0	40,400	*1,400	39,000	6,700	12,500	19,800
Osteoporosis . . . . . 733.0	*3,700	*300	*3,500	*300	*800	*2,400
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	73,200	18,100	55,100	16,400	19,900	18,800
Senility without psychoses . . . . . 797	6,400	- - -	6,400	*600	*800	*4,900
Chapter 17. Injury and poisoning . . . . . 800-999	20,700	8,500	12,200	*1,900	*5,500	*4,800
Fracture of neck of femur . . . . . 820	5,900	*1,200	*4,700	*700	*1,800	*2,200
Other fractures . . . . . 800-819, 821-829	4,200	*1,300	*2,900	*900	*700	*1,300
Supplementary classifications . . . . . V01-V82	110,200	16,100	94,100	19,800	37,800	36,500
Persons with potential health hazards related to personal and family history . . . . . V10-V19	59,000	8,400	50,600	10,500	19,000	21,100
Persons with a condition influencing their health status . . . . . V40-V49	45,100	6,800	38,200	9,300	16,000	13,000
Female						
All diagnoses . . . . .	3,603,500	238,800	3,364,700	433,000	1,231,300	1,700,400
Chapter 2. Neoplasms . . . . . 140-239	62,100	*3,300	58,700	9,800	18,600	30,300
Malignant neoplasms . . . . . 140-208	50,600	*2,400	48,200	8,500	14,800	24,900
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . . 240-279	216,800	17,500	199,200	38,900	86,900	73,400
Diabetes mellitus . . . . . 250	135,600	11,700	123,900	25,000	55,400	43,500

See footnote and notes at end of table.

Table 9. Number of all-listed diagnoses of nursing home residents at time of survey by age and sex: United States, 1985—Con.

Sex, all-listed diagnoses, and ICD-9-CM code <sup>1</sup>	Age					
	Total	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years or over
Female—Con. <span style="float: right;">Number</span>						
Chapter 4. Diseases of the blood and blood-forming organs . . . . . 280-289	54,000	*1,600	52,400	*5,000	15,700	31,700
Anemias . . . . . 280-285	50,400	*1,600	48,800	*4,200	14,100	30,500
Chapter 5. Mental disorders . . . . . 290-319	481,100	59,500	421,500	68,100	170,400	183,100
Senile dementia or organic brain syndrome . . . 290, 310	272,400	7,600	264,800	26,800	102,700	135,300
Psychoses other than senile dementia . . . . . 291-299	112,500	25,600	86,900	24,000	33,800	29,100
Neurotic and personality disorders . . . . . 300-301	23,600	*4,900	18,600	*2,000	9,700	6,900
Mental retardation . . . . . 317-319	27,900	15,400	12,500	7,500	4,500	*600
Other mental disorders . . . . . 302-309, 311-316	44,600	5,900	38,700	7,800	19,700	11,200
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	344,400	39,600	304,800	49,900	116,100	138,800
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	53,600	*1,000	52,500	10,300	25,400	16,800
Parkinson's disease . . . . . 332	46,500	*2,600	43,900	7,200	21,000	15,800
Glaucoma . . . . . 365	28,500	*600	27,900	*2,600	7,400	17,800
Cataract . . . . . 366	32,800	*1,100	31,700	*1,600	8,000	22,000
Chapter 7. Diseases of the circulatory system . . . 390-459	1,145,000	38,000	1,107,000	121,500	377,900	607,600
Essential hypertension . . . . . 401	182,000	10,500	171,500	21,700	67,400	82,300
Heart disease . . . 391-392.0, 393-398, 402, 404, 410-429	616,900	16,100	600,800	54,600	191,900	354,200
Ischemic heart disease . . . . . 410-414	298,500	6,000	292,500	32,300	92,200	167,900
Congestive heart failure . . . . . 428.0	129,400	*4,300	125,100	9,700	42,600	72,700
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	189,000	5,800	183,200	12,500	57,100	113,600
Cerebrovascular disease . . . . . 430-436	211,900	7,900	204,000	30,700	79,800	93,500
Atherosclerosis . . . . . 440	84,900	*1,800	83,100	6,900	25,600	50,700
Chapter 8. Diseases of the respiratory system . . . 460-519	90,200	8,100	82,100	12,800	32,700	36,500
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	63,400	6,000	57,400	10,700	23,800	22,900
Chapter 9. Diseases of the digestive system . . . 520-579	143,900	*5,200	138,600	12,500	51,200	75,000
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . . 531-534	16,800	*300	16,500	*1,600	6,600	8,200
Chapter 10. Diseases of the genitourinary system . . . 580-629	87,000	6,400	80,600	11,300	30,900	38,500
Urinary tract infection . . . . . 599.0	44,000	*2,500	41,500	*4,300	16,600	20,600
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	35,700	*2,300	33,300	*3,500	13,900	15,900
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	351,000	12,100	338,900	31,600	115,300	192,000
Arthritis or rheumatism . . . . . 710-713, 716, 729.0	231,100	*5,100	226,000	19,100	75,500	131,500
Osteoporosis . . . . . 733.0	45,300	*800	44,600	*2,900	15,600	26,100
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	194,200	17,700	176,600	25,500	68,500	82,600
Senility without psychoses . . . . . 797	51,000	*1,700	49,300	*3,100	15,400	30,800
Chapter 17. Injury and poisoning . . . . . 800-999	80,000	*2,400	77,600	*5,200	22,800	49,600
Fracture of neck of femur . . . . . 820	33,200	*400	32,800	*1,300	9,300	22,200
Other fractures . . . . . 800-819, 821-829	31,300	*800	30,500	*2,200	9,200	19,100
Supplementary classifications . . . . . V01-V82	267,400	15,600	251,700	29,900	94,200	127,600
Persons with potential health hazards related to personal and family history . . . . . V10-V19	171,800	8,600	163,200	17,600	62,800	82,800
Persons with a condition influencing their health status . . . . . V40-V49	87,500	6,500	81,000	10,800	28,700	41,500

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

NOTES: Because of a data processing error, estimates for all-listed diagnoses at time of survey differ from estimates presented in Hing E, Sekscenski E, Strahan G. The National Nursing Home Survey, 1985 summary for the United States. National Center for Health Statistics. Vital Health Stat 13(97). 1989. See "Data processing" in appendix I for details. Figures may not add to totals because of rounding.

**Table 10. Number of all-listed diagnoses of nursing home residents at time of survey by race and Hispanic origin: United States, 1985**

All-listed diagnoses and ICD-9-CM code <sup>1</sup>	Total	Race			Hispanic origin		
		White	All other	Black	Hispanic	Non-Hispanic <sup>2</sup>	
		Number					
All diagnoses.....	4,971,700	4,553,000	418,700	376,000	132,900	4,838,900	
Chapter 2. Neoplasms..... 140-239	96,900	88,000	8,900	8,300	*1,600	95,300	
Malignant neoplasms..... 140-208	82,600	75,400	7,200	6,900	*1,600	81,000	
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders..... 240-279	293,300	256,800	36,400	32,600	8,200	285,000	
Diabetes mellitus..... 250	186,200	157,900	28,300	25,100	*5,600	180,700	
Chapter 4. Diseases of the blood and blood-forming organs..... 280-289	75,300	69,200	6,200	*4,900	*1,200	74,200	
Anemias..... 280-285	70,600	64,400	6,200	*4,900	*1,200	69,400	
Chapter 5. Mental disorders..... 290-319	690,100	633,200	56,800	51,200	27,500	662,500	
Senile dementia or organic brain syndrome..... 290, 310	357,900	327,500	30,400	28,100	14,900	343,000	
Psychoses other than senile dementia..... 291-299	170,400	153,800	16,600	14,700	6,700	163,600	
Neurotic and personality disorders..... 300-301	36,100	34,100	*2,000	*2,000	*1,500	34,600	
Mental retardation..... 317-319	50,600	47,700	*2,800	*2,100	*1,200	49,300	
Other mental disorders..... 302-309, 311-316	75,200	70,100	*5,100	*4,400	*3,200	72,000	
Chapter 6. Diseases of the nervous system and sense organs..... 320-389	509,400	468,500	40,900	37,700	14,900	494,500	
Alzheimer's disease and other specified and unspecified degeneration of the brain..... 331.0, 331.2, 331.9	73,900	70,900	*3,000	*2,700	*1,900	72,000	
Parkinson's disease..... 332	70,900	68,400	*2,500	*2,200	*2,500	68,500	
Glaucoma..... 365	35,800	32,300	*3,500	*3,500	*800	35,100	
Cataract..... 366	45,900	41,900	*4,000	*3,300	*800	45,100	
Chapter 7. Diseases of the circulatory system..... 390-459	1,520,800	1,383,000	137,800	127,400	36,000	1,484,700	
Essential hypertension..... 401	233,600	208,600	24,900	22,500	6,000	227,600	
Heart disease..... 391-392.0, 393-398, 402, 404, 410-429	814,400	745,600	68,700	64,100	18,900	795,500	
Ischemic heart disease..... 410-414	395,600	365,800	29,800	28,400	9,900	385,700	
Congestive heart failure..... 428.0	159,400	145,100	14,200	13,300	*3,400	155,900	
Other heart disease..... 391-398, 402, 404, 415, 420-427, 428.1-429.9	259,400	234,700	24,700	22,300	*5,500	253,900	
Cerebrovascular disease..... 430-436	291,800	258,500	33,300	31,100	8,800	283,000	
Atherosclerosis..... 440	111,400	104,600	6,800	6,000	*1,100	110,300	
Chapter 8. Diseases of the respiratory system..... 460-519	153,400	142,000	11,400	9,100	*5,000	148,400	
Chronic obstructive pulmonary disease and allied conditions..... 490-496	111,100	102,600	8,600	6,700	*3,800	107,300	
Chapter 9. Diseases of the digestive system..... 520-579	201,400	190,000	11,500	9,500	*3,300	198,100	
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site..... 531-534	24,300	22,600	*1,700	*1,100	*300	24,100	
Chapter 10. Diseases of the genitourinary system..... 580-629	133,000	123,100	9,900	7,700	*5,000	128,000	
Urinary tract infection..... 599.0	58,000	54,000	*4,000	*3,600	*1,800	56,200	
Chapter 12. Diseases of the skin and subcutaneous tissue..... 680-709	53,700	50,200	*3,500	*3,200	*1,500	52,200	
Chapter 13. Diseases of the musculoskeletal system and connective tissue..... 710-739	429,300	401,700	27,600	24,500	10,500	418,800	
Arthritis or rheumatism..... 710-713, 716, 729.0	271,500	256,900	14,700	12,900	6,000	265,500	
Osteoporosis..... 733.0	49,100	48,100	*1,000	*1,000	*1,100	48,000	
Chapter 16. Symptoms, signs, and ill-defined conditions..... 780-799	267,500	241,400	26,100	24,400	7,100	260,400	
Senility without psychoses..... 797	57,400	52,600	*4,800	*4,500	*1,200	56,200	
Chapter 17. Injury and poisoning..... 800-999	100,700	96,200	*4,500	*4,000	*1,900	98,800	
Fracture of neck of femur..... 820	39,100	36,900	*2,200	*1,700	*300	38,900	
Other fractures..... 800-819, 821-829	35,600	34,600	*1,000	*1,000	*900	34,700	
Supplementary classifications..... V01-V82	377,500	347,000	30,500	25,200	7,600	369,900	
Persons with potential health hazards related to personal and family history..... V10-V19	230,800	213,600	17,200	13,500	*5,200	225,600	
Persons with a condition influencing their health status..... V40-V49	132,600	124,000	8,600	7,000	*2,400	130,200	

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

<sup>2</sup>Data include a small number of unknowns.

NOTES: Because of a data processing error, estimates for all-listed diagnoses at time of survey differ from estimates presented in Hing E, Sekscenski E, Strahan G. The National Nursing Home Survey, 1985 summary for the United States. National Center for Health Statistics. Vital Health Stat 13(97). 1989. See "Data processing" in appendix I for details. Figures may not add to totals because of rounding.



Table 11. Prevalence rate of selected diagnoses at time of survey per 1,000 nursing home residents, by age and sex: United States, 1985

All-listed diagnoses and ICD-9-CM code <sup>1</sup>	Total	Age					
		Under 65 years	65 years and over				
			Total	65-74 years	75-84 years	85 years and over	
Both sexes		Rate per 1,000 residents					
Chapter 2. Neoplasms . . . . .	140-239	57.1	*29.4	60.7	58.3	62.9	59.7
Malignant neoplasms . . . . .	140-208	48.1	*24.2	51.3	51.0	53.0	49.9
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . .	240-279	180.4	161.7	182.8	224.2	215.1	140.7
Diabetes mellitus . . . . .	250	124.2	116.9	125.2	164.0	146.3	93.4
Chapter 4. Diseases of the blood and blood-forming organs . . . . .	280-289	49.5	*24.2	52.9	45.5	44.1	63.0
Anemias . . . . .	280-285	47.0	*24.2	50.0	40.8	41.4	60.5
Chapter 5. Mental disorders . . . . .	290-319	405.8	589.1	381.7	447.3	391.6	349.9
Senile dementia or organic brain syndrome . . . . .	290, 310	233.7	92.3	252.2	182.1	259.4	271.0
Psychoses other than senile dementia . . . . .	291-299	110.6	288.4	87.3	175.4	85.9	57.1
Neurotic and personality disorders . . . . .	300-301	23.4	60.0	18.6	*25.5	21.7	13.6
Mental retardation . . . . .	317-319	33.9	172.7	15.7	58.0	14.2	*1.9
Other mental disorders . . . . .	302-309, 311-316	47.9	87.4	42.8	74.9	53.3	22.3
Chapter 6. Diseases of the nervous system and sense organs . . . . .	320-389	285.6	379.4	273.3	335.3	279.1	246.3
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . .	331.0, 331.2, 331.9	49.2	*18.5	53.2	75.4	61.8	38.0
Parkinson's disease . . . . .	332	47.4	*24.0	50.4	55.7	64.0	37.1
Glaucoma . . . . .	365	24.0	*6.4	26.4	*19.7	20.1	34.0
Cataract . . . . .	366	30.8	*10.5	33.4	*18.7	23.8	46.9
Chapter 7. Diseases of the circulatory system . . . . .	390-459	602.4	286.4	643.9	546.8	616.2	702.0
Essential hypertension . . . . .	401	156.4	124.4	160.6	145.7	167.9	159.8
Heart disease . . . . .	391-392.0, 393-398, 402, 404, 410-429	368.4	127.0	400.1	266.3	363.3	479.0
Ischemic heart disease . . . . .	410-414	241.5	74.5	263.5	174.9	234.5	319.6
Congestive heart failure . . . . .	428.0	106.8	*29.2	117.0	68.2	109.7	140.7
Other heart disease . . . . .	391-398, 402, 404, 415, 420-427, 428.1-429.9	152.3	51.2	165.5	104.7	143.7	205.8
Cerebrovascular disease . . . . .	430-436	182.1	96.5	193.3	219.9	202.2	176.3
Atherosclerosis . . . . .	440	74.7	*10.1	83.2	61.4	63.8	107.4
Chapter 8. Diseases of the respiratory system . . . . .	460-519	90.9	54.3	95.7	124.7	101.8	80.2
Chronic obstructive pulmonary disease and allied conditions . . . . .	490-496	68.4	39.7	72.2	107.1	78.9	54.2
Chapter 9. Diseases of the digestive system . . . . .	520-579	111.4	71.3	116.6	95.2	112.9	127.4
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . .	531-534	16.3	*8.4	17.4	*14.2	17.8	18.1
Chapter 10. Diseases of the genitourinary system . . . . .	580-629	82.8	55.5	86.4	82.0	87.6	86.9
Urinary tract infection . . . . .	599.0	38.9	*19.3	41.4	32.4	43.7	42.7
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . .	680-709	35.0	34.3	35.1	47.9	33.4	32.0
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . .	710-739	252.3	97.9	272.6	189.7	244.9	325.7
Arthritis or rheumatism . . . . .	710-713, 716, 729.0	179.1	37.8	197.6	118.9	169.3	249.7
Osteoporosis . . . . .	733.0	32.9	*6.0	36.4	*15.0	32.2	47.7
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . .	780-799	161.3	184.0	158.3	171.6	157.3	154.5
Senility without psychoses . . . . .	797	38.5	*9.9	42.2	*17.7	31.9	59.7
Chapter 17. Injury and poisoning . . . . .	800-999	63.0	57.7	63.7	32.1	52.7	84.4
Fracture of neck of femur . . . . .	820	26.1	*9.3	28.2	*9.4	21.8	40.5
Other fractures . . . . .	800-819, 821-829	22.8	*10.8	24.3	*13.7	18.5	33.1
Supplementary classifications . . . . .	V01-V82	207.8	151.1	215.3	197.3	206.9	228.9
Persons with potential health hazards related to personal and family history . . . . .	V10-V19	133.7	85.1	140.1	114.6	132.2	155.9
Persons with a condition influencing their health status . . . . .	V40-V49	84.8	75.7	86.0	90.0	82.4	87.7
Male							
Chapter 2. Neoplasms . . . . .	140-239	70.9	*32.9	81.1	*48.3	108.2	70.5
Malignant neoplasms . . . . .	140-208	64.5	*29.9	73.7	*45.2	99.7	61.5
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . .	240-279	169.5	134.6	178.8	175.6	211.1	140.5
Diabetes mellitus . . . . .	250	118.8	99.1	124.1	124.4	135.8	109.2
Chapter 4. Diseases of the blood and blood-forming organs . . . . .	280-289	49.9	*29.5	55.3	*60.7	52.7	54.8
Anemias . . . . .	280-285	47.6	*29.5	52.4	54.9	51.3	52.0
Chapter 5. Mental disorders . . . . .	290-319	417.8	598.3	369.6	461.3	346.6	332.9
Senile dementia or organic brain syndrome . . . . .	290, 310	197.5	102.8	222.8	163.5	225.1	262.3
Psychoses other than senile dementia . . . . .	291-299	132.5	282.7	92.4	181.5	74.3	*51.5
Neurotic and personality disorders . . . . .	300-301	29.4	*64.9	19.9	*42.0	*15.0	*10.2
Mental retardation . . . . .	317-319	53.4	162.2	24.3	*59.9	*19.4	*5.0
Other mental disorders . . . . .	302-309, 311-316	65.0	102.9	54.9	100.1	57.8	*19.0

See footnote and note at end of table.

**Table 11. Prevalence rate of selected diagnoses at time of survey per 1,000 nursing home residents, by age and sex: United States, 1985—Con.**

All-listed diagnoses and ICD-9-CM code <sup>1</sup>	Age					
	Total	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years and over
Male—Con.						
Rate per 1,000 residents						
Chapter 6. Diseases of the nervous system and sense organs. . . . . 320-389	327.1	372.3	315.1	352.6	307.8	297.4
Alzheimer's disease and other specified and unspecified degeneration of the brain. . . . . 331.0, 331.2, 331.9	47.9	*24.3	54.2	*70.6	46.3	52.4
Parkinson's disease . . . . . 332	57.0	*17.5	67.5	*57.7	82.1	56.3
Glaucoma . . . . . 365	17.5	*5.6	20.6	*19.5	*19.9	*22.3
Cataract . . . . . 366	31.0	*8.1	37.1	*29.4	*28.8	53.0
Chapter 7. Diseases of the circulatory system . . . . . 390-459	531.7	270.6	601.4	502.8	595.3	679.8
Essential hypertension . . . . . 401	121.7	123.4	121.3	116.6	127.3	117.2
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	316.3	111.6	370.9	236.3	371.5	466.6
Ischemic heart disease . . . . . 410-414	207.5	76.9	242.3	126.0	239.7	328.9
Congestive heart failure . . . . . 428.0	70.7	*7.9	87.4	*58.9	93.5	100.2
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	143.5	*43.6	170.2	126.7	158.4	216.1
Cerebrovascular disease . . . . . 430-436	175.5	101.7	195.3	210.6	205.5	171.3
Atherosclerosis . . . . . 440	62.5	-	79.2	76.2	48.5	119.9
Chapter 8. Diseases of the respiratory system . . . . . 460-519	131.9	33.0	158.3	189.3	161.2	132.4
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	105.6	*21.9	128.0	163.2	128.7	101.8
Chapter 9. Diseases of the digestive system . . . . . 520-579	112.7	86.2	119.8	111.2	108.4	140.1
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . . 531-534	17.9	*13.0	19.2	*17.0	*17.7	*22.8
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	101.2	*46.5	115.8	99.9	104.2	141.8
Urinary tract infection . . . . . 599.0	33.0	*9.7	39.2	*31.9	*40.0	*43.4
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	41.5	*40.3	41.8	82.3	*25.3	*33.7
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	167.3	68.9	193.6	171.5	170.7	238.2
Arthritis or rheumatism . . . . . 710-713, 716, 729.0	94.6	15.9	115.6	83.0	88.3	173.3
Osteoporosis . . . . . 733.0	*8.8	*3.1	*10.4	*4.1	*5.4	*21.1
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	148.7	177.3	141.1	173.5	117.1	148.1
Senility without psychoses . . . . . 797	15.0	-	19.0	*8.0	*5.9	*43.5
Chapter 17. Injury and poisoning . . . . . 800-999	44.8	84.7	34.1	*23.4	*36.7	*38.5
Fracture of neck of femur . . . . . 820	13.9	*13.2	*14.1	*8.3	*12.8	*19.9
Other fractures . . . . . 800-819, 821-829	*9.4	*11.9	*8.8	*11.7	*5.1	*11.3
Supplementary classifications . . . . . V01-V82	221.7	153.3	239.9	211.6	224.2	279.9
Persons with potential health hazards related to personal and family history . . . . . V10-V19	123.9	81.1	135.3	118.3	115.7	172.0
Persons with a condition influencing their health status . . . . . V40-V49	102.3	76.5	109.2	105.8	109.7	110.9
Female						
Chapter 2. Neoplasms . . . . . 140-239	51.6	*25.7	53.8	64.5	45.5	57.1
Malignant neoplasms . . . . . 140-208	41.7	*18.1	43.7	54.5	35.1	47.2
Chapter 3. Endocrine, nutritional, and metabolic diseases and immunity disorders . . . . . 240-279	184.7	190.5	184.2	253.9	216.6	140.8
Diabetes mellitus . . . . . 250	126.3	135.8	125.5	188.3	150.3	89.7
Chapter 4. Diseases of the blood and blood-forming organs . . . . . 280-289	49.4	*18.5	52.0	*36.1	40.7	64.9
Anemias . . . . . 280-285	46.7	*18.5	49.2	*32.2	37.7	62.5
Chapter 5. Mental disorders . . . . . 290-319	401.0	579.3	385.8	438.7	408.9	353.9
Senile dementia or organic brain syndrome . . . . . 290, 310	248.0	81.2	262.3	193.5	272.6	273.1
Psychoses other than senile dementia . . . . . 291-299	101.9	294.5	85.5	171.7	90.3	58.5
Neurotic and personality disorders . . . . . 300-301	21.0	*54.7	18.2	*15.3	24.3	14.3
Mental retardation . . . . . 317-319	26.2	183.8	12.7	56.9	*12.2	*1.2
Other mental disorders . . . . . 302-309, 311-316	41.2	70.9	38.6	59.5	51.6	23.1
Chapter 6. Diseases of the nervous system and sense organs . . . . . 320-389	269.1	386.9	259.0	324.7	268.1	234.4
Alzheimer's disease and other specified and unspecified degeneration of the brain. . . . . 331.0, 331.2, 331.9	49.7	*12.3	52.9	78.4	67.7	34.7
Parkinson's disease . . . . . 332	43.6	*30.9	44.6	54.5	57.0	32.6
Glaucoma . . . . . 365	26.6	*7.2	28.3	*19.8	20.2	36.8
Cataract . . . . . 366	30.7	*13.0	32.2	*12.2	21.8	45.5
Chapter 7. Diseases of the circulatory system . . . . . 390-459	630.5	303.2	658.4	573.7	624.3	707.2
Essential hypertension . . . . . 401	170.2	125.6	174.0	163.6	183.4	169.7
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	389.1	143.3	410.0	284.6	360.1	481.9
Ischemic heart disease . . . . . 410-414	255.1	71.9	270.7	204.8	232.5	317.5
Congestive heart failure . . . . . 428.0	121.2	*51.8	127.1	73.9	115.9	150.0
Other heart disease . . . . . 391-398, 402, 404, 415, 420-427, 428.1-429.9	155.8	*59.2	164.0	91.2	138.0	203.4
Cerebrovascular disease . . . . . 430-436	184.6	91.0	192.6	225.5	200.9	177.4
Atherosclerosis . . . . . 440	79.5	*21.0	84.5	52.3	69.7	104.5

See footnote and note at end of table.

**Table 11. Prevalence rate of selected diagnoses at time of survey per 1,000 nursing home residents, by age and sex: United States, 1985—Con.**

All-listed diagnoses and ICD-9-CM code <sup>1</sup>	Age					
	Total	Under	65 years and over			Total
		65 years	65-74 years	75-84 years	85 years and over	
Female—Con.						
Rate per 1,000 residents						
Chapter 8. Diseases of the respiratory system . . . . . 460-519	74.7	77.0	74.5	85.1	79.0	68.1
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	53.7	*58.8	53.3	72.7	59.7	43.1
Chapter 9. Diseases of the digestive system . . . . . 520-579	110.8	55.3	115.6	85.4	114.7	124.5
Ulcer of stomach, duodenum, peptic ulcer, or unspecified site . . . . . 531-534	15.7	*3.5	16.7	*12.5	17.9	17.0
Chapter 10. Diseases of the genitourinary system . . . . . 580-629	75.5	*65.1	76.4	71.1	81.2	74.2
Urinary tract infection . . . . . 599.0	41.2	*29.7	42.2	*32.8	45.1	42.6
Chapter 12. Diseases of the skin and subcutaneous tissue . . . . . 680-709	32.4	*27.9	32.8	*26.8	36.5	31.6
Chapter 13. Diseases of the musculoskeletal system and connective tissue . . . . . 710-739	286.1	128.8	299.5	200.7	273.5	346.0
Arthritis or rheumatism . . . . . 710-713, 716, 729.0	212.6	61.1	225.5	140.8	200.5	267.5
Osteoporosis . . . . . 733.0	42.5	*9.2	45.3	*21.7	42.5	53.9
Chapter 16. Symptoms, signs, and ill-defined conditions . . . . . 780-799	166.3	191.1	164.2	170.5	172.7	156.0
Senility without psychoses . . . . . 797	47.8	*20.4	50.1	*23.7	41.9	63.5
Chapter 17. Injury and poisoning . . . . . 800-999	70.3	*29.0	73.8	*37.4	58.8	95.1
Fracture of neck of femur . . . . . 820	30.9	*5.3	33.1	*10.0	25.2	45.2
Other fractures . . . . . 800-819, 821-829	28.1	*9.6	29.6	*14.9	23.6	38.2
Supplementary classifications . . . . . V01-V82	202.4	148.7	206.9	188.5	200.3	217.0
Persons with potential health hazards related to personal and family history . . . . . V10-V19	137.6	89.4	141.7	112.3	138.5	152.1
Persons with a condition influencing their health status . . . . . V40-V49	77.9	74.7	78.2	80.3	71.9	82.4

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

NOTE: Resident may have had more than 1 diagnosis.

**Table 12. Prevalence rate of selected diagnoses at time of survey per 1,000 nursing home residents by race and Hispanic origin: United States, 1985**

<i>Race, Hispanic origin, all-listed diagnoses, and ICD-9-CM code<sup>1</sup></i>	<i>Rate per 1,000 residents</i>	<i>Race, Hispanic origin, all-listed diagnoses, and ICD-9-CM code<sup>1</sup></i>	<i>Rate per 1,000 residents</i>
White		Black—Con.	
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	369.3	Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	64.5
Ischemic heart disease . . . . . 410-414	242.3	Atherosclerosis . . . . . 440	57.5
Congestive heart failure . . . . . 428.0	105.6	Hispanic origin	
Other heart disease . . . . . 391-398, 402, 404, 405, 420-427, 428.1-429.9	150.2	Senile dementia or organic brain syndrome . . . . . 290, 310	341.2
Senile dementia or organic brain syndrome . . . . . 290, 310	232.2	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	339.8
Arthritis or rheumatism . . . . . 710-713, 716-729.0	183.6	Ischemic heart disease . . . . . 410-414	234.0
Cerebrovascular disease . . . . . 430-436	174.6	Cerebrovascular disease . . . . . 430-436	206.9
Essential hypertension . . . . . 401	151.6	Psychoses other than senile dementia . . . . . 291-299	146.9
Diabetes mellitus . . . . . 250	114.2	Arthritis or rheumatism . . . . . 710-713, 716, 729.0	146.9
Psychoses other than senile dementia . . . . . 291-299	108.3	Essential hypertension . . . . . 401	146.2
Atherosclerosis . . . . . 440	76.1	Non-Hispanic origin <sup>2</sup>	
Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	68.0	Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	369.2
Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	51.2	Ischemic heart disease . . . . . 410-414	241.7
Parkinson's disease . . . . . 332	49.6	Congestive heart failure . . . . . 428.0	107.5
Other mental disorders . . . . . 302-309, 311-316	48.3	Other heart disease . . . . . 391-398, 402, 404, 405, 420-427, 428.1-429.9	152.9
Malignant neoplasms . . . . . 140-208	48.2	Senile dementia or organic brain syndrome . . . . . 290, 310	230.6
Anemias . . . . . 280-285	46.5	Cerebrovascular disease . . . . . 430-436	181.4
Urinary tract infection . . . . . 599.0	39.3	Arthritis or rheumatism . . . . . 710-713, 716, 729.0	180.0
Senility without psychoses . . . . . 797	38.2	Essential hypertension . . . . . 401	156.7
Osteoporosis . . . . . 733.0	35.0	Diabetes mellitus . . . . . 250	123.9
Mental retardation . . . . . 317-319	34.7	Psychoses other than senile dementia . . . . . 291-299	109.6
Cataract . . . . . 366	30.5	Atherosclerosis . . . . . 440	76.0
Fracture of neck of femur . . . . . 820	26.6	Chronic obstructive pulmonary disease and allied conditions . . . . . 490-496	67.9
Neurotic and personality disorders . . . . . 300-301	24.2	Alzheimer's disease and other specified and unspecified degeneration of the brain . . . . . 331.0, 331.2, 331.9	49.3
Other fractures . . . . . 800-819, 821-829	24.0	Malignant neoplasms . . . . . 140-208	48.4
Glaucoma . . . . . 365	23.5	Anemias . . . . . 280-285	47.5
Black		Other mental disorders . . . . . 302-309, 311-316	47.1
Heart disease . . . . . 391-392.0, 393-398, 402, 404, 410-429	366.6	Parkinson's disease . . . . . 332	47.0
Ischemic heart disease . . . . . 410-414	249.7	Urinary tract infection . . . . . 599.0	38.7
Congestive heart failure . . . . . 428.0	127.9	Senility without psychoses . . . . . 797	38.7
Other heart disease . . . . . 391-398, 402, 404, 405, 420-427, 428.1-429.9	174.1	Mental retardation . . . . . 317-319	34.0
Cerebrovascular disease . . . . . 430-436	280.9	Osteoporosis . . . . . 733.0	33.1
Senile dementia or organic brain syndrome . . . . . 290, 310	260.5	Cataract . . . . . 366	31.1
Diabetes mellitus . . . . . 250	240.2	Fracture of neck of femur . . . . . 820	26.6
Essential hypertension . . . . . 401	215.3	Glaucoma . . . . . 365	24.2
Psychoses other than senile dementia . . . . . 291-299	136.1	Neurotic and personality disorders . . . . . 300-301	23.1
Arthritis or rheumatism . . . . . 710-713, 716, 729.0	123.9	Other fractures . . . . . 800-819, 821-829	22.8

<sup>1</sup>Diagnostic groupings and code number inclusions are based on the International Classification of Diseases, 9th Revision, clinical modification.

<sup>2</sup>Includes a small number of unknowns.

NOTE: Resident may have had more than 1 diagnosis.

**Table 13. Number and percent distribution of nursing home residents by mental status, according to age and sex: United States, 1985**

Sex and mental status	Age					
	All residents	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years and over
	Number					
Both sexes.....	1,491,400	173,100	1,318,300	212,100	509,000	597,300
Current mental disorders						
No mental disorders <sup>1</sup> .....	510,000	37,600	472,300	69,100	182,500	220,700
Has mental disorders <sup>2</sup> .....	981,500	135,500	846,000	142,900	326,500	376,600
Mental retardation.....	81,100	44,500	36,600	19,300	13,400	*4,000
Alcohol abuse or dependence.....	41,800	14,100	27,700	12,400	11,800	*3,600
Drug abuse or dependence.....	13,900	*4,100	9,900	*2,100	*4,700	*3,100
Senile dementia or chronic organic brain syndrome.....	646,700	28,000	618,800	72,200	231,100	315,500
Depressive disorders.....	205,300	28,000	177,300	38,400	77,800	61,100
Schizophrenia.....	85,200	41,700	43,400	23,100	13,500	6,900
Other psychoses.....	34,900	6,000	29,000	8,300	11,800	8,900
Anxiety disorders.....	200,700	28,100	172,600	31,700	73,700	67,200
Personality or character disorders.....	164,700	31,800	132,900	31,100	56,700	45,100
Other mental disorders.....	6,300	*500	5,800	*600	*2,400	*2,900
Behavioral problems.....	572,600	68,700	503,900	75,300	202,100	226,500
Disorientation or memory impairment.....	922,500	96,700	825,900	118,000	309,400	398,500
Disturbance of mood.....	623,700	70,400	553,300	97,900	211,000	244,300
Male.....	423,800	89,300	334,400	80,600	141,300	112,600
Current mental disorders						
No mental disorders <sup>1</sup> .....	145,500	18,400	127,000	24,900	55,700	46,500
Has mental disorders <sup>2</sup> .....	278,300	70,900	207,400	55,700	85,600	66,100
Mental retardation.....	36,000	22,200	13,800	8,300	*5,300	*300
Alcohol abuse or dependence.....	31,200	12,100	19,100	8,400	9,100	*1,600
Drug abuse or dependence.....	*4,800	*2,400	*2,300	*800	*1,300	*300
Senile dementia or chronic organic brain syndrome.....	155,500	14,900	140,600	24,200	59,500	56,900
Depressive disorders.....	53,100	14,000	39,100	14,300	14,600	10,200
Schizophrenia.....	35,000	20,400	14,600	9,600	*4,200	*900
Other psychoses.....	12,300	*2,600	9,700	*4,500	*4,500	*600
Anxiety disorders.....	52,100	13,400	38,600	12,600	19,300	6,800
Personality or character disorders.....	58,800	16,400	42,400	14,000	20,300	8,100
Other mental disorders.....	*1,300	*300	*1,000	-	*300	*800
Behavioral problems.....	163,900	34,100	129,800	27,400	57,600	44,900
Disorientation or memory impairment.....	248,300	51,700	196,500	41,600	82,900	72,100
Disturbance of mood.....	158,900	36,300	122,500	33,400	50,900	38,200
Female.....	1,067,700	83,800	983,900	131,500	367,700	484,700
Current mental disorders						
No mental disorders <sup>1</sup> .....	364,500	19,200	345,300	44,300	126,800	174,200
Has mental disorders <sup>2</sup> .....	703,200	64,600	638,600	87,200	240,900	310,500
Mental retardation.....	45,100	22,300	22,800	11,000	8,100	*3,700
Alcohol abuse or dependence.....	10,600	*2,100	8,500	*3,900	*2,600	*2,000
Drug abuse or dependence.....	9,200	*1,600	7,500	*1,200	*3,400	*2,900
Senile dementia or chronic organic brain syndrome.....	491,200	13,100	478,100	47,900	171,700	258,500
Depressive disorders.....	152,300	14,000	138,200	24,100	63,200	50,800
Schizophrenia.....	50,100	21,300	28,800	13,500	9,300	6,000
Other psychoses.....	22,600	*3,400	19,300	3,800	7,200	8,300
Anxiety disorders.....	148,600	14,700	134,000	19,100	54,500	60,400
Personality or character disorders.....	105,900	15,400	90,400	17,100	36,300	37,000
Other mental disorders.....	*5,000	*200	*4,800	*600	*2,100	*2,200
Behavioral problems.....	408,700	34,600	374,100	47,900	144,600	181,600
Disorientation or memory impairment.....	674,300	44,900	629,300	76,500	226,500	326,400
Disturbance of mood.....	464,800	34,100	430,800	64,500	160,100	206,100

See footnotes at end of table.

**Table 13. Number and percent distribution of nursing home residents by mental status, according to age and sex: United States, 1985—Con.**

Sex and mental status	Age					
	All residents	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years and over
Percent distribution						
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0
Current mental disorders						
No mental disorders <sup>1</sup> .....	34.2	21.7	35.8	32.6	35.9	36.9
Has mental disorders <sup>2</sup> .....	65.8	78.3	64.2	67.4	64.1	63.1
Mental retardation.....	5.4	25.7	2.8	9.1	2.6	*0.7
Alcohol abuse or dependence.....	2.8	8.2	2.1	5.8	2.3	*0.6
Drug abuse or dependence.....	0.9	*2.4	0.7	*1.0	*0.9	*0.5
Senile dementia or chronic organic brain syndrome.....	43.4	16.1	46.9	34.0	45.4	52.8
Depressive disorders.....	13.8	16.2	13.4	18.1	15.3	10.2
Schizophrenia.....	5.7	24.1	3.3	10.9	2.6	1.1
Other psychoses.....	2.3	3.4	2.2	3.9	2.3	1.5
Anxiety disorders.....	13.5	16.2	13.1	14.9	14.5	11.3
Personality or character disorders.....	11.0	18.4	10.1	14.7	11.1	7.5
Other mental disorders.....	0.4	*0.3	0.4	*0.3	*0.5	*0.5
Behavioral problems.....	38.4	39.7	38.2	35.5	39.7	37.9
Disorientation or memory impairment.....	61.9	55.8	62.6	55.7	60.8	66.7
Disturbance of mood.....	41.8	40.7	42.0	46.2	41.5	40.9
Male.....	100.0	100.0	100.0	100.0	100.0	100.0
Current mental disorders						
No mental disorders <sup>1</sup> .....	34.3	20.6	38.0	30.9	39.4	41.3
Has mental disorders <sup>2</sup> .....	65.7	79.4	62.0	69.1	60.6	58.7
Mental retardation.....	8.5	24.9	4.1	10.2	*3.7	*0.2
Alcohol abuse or dependence.....	7.4	13.5	5.7	10.5	6.5	*1.4
Drug abuse or dependence.....	*1.1	*2.7	*0.7	*1.0	*0.9	*0.2
Senile dementia or chronic organic brain syndrome.....	36.7	16.6	42.1	30.1	42.1	50.6
Depressive disorders.....	12.5	15.7	11.7	17.7	10.3	9.1
Schizophrenia.....	8.3	22.9	4.4	11.9	*2.9	*0.8
Other psychoses.....	2.9	*2.9	2.9	*5.6	*3.2	*0.6
Anxiety disorders.....	12.3	15.0	11.6	15.6	13.6	6.0
Personality or character disorders.....	13.9	18.4	12.7	17.4	14.4	7.2
Other mental disorders.....	*0.3	*0.3	*0.3	-	*0.2	*0.7
Behavioral problems.....	38.7	38.2	38.8	34.0	40.7	39.9
Disorientation or memory impairment.....	58.6	57.9	58.8	51.6	58.7	64.0
Disturbance of mood.....	37.5	40.7	36.6	41.5	36.0	33.9
Female.....	100.0	100.0	100.0	100.0	100.0	100.0
Current mental disorders						
No mental disorders <sup>1</sup> .....	34.1	22.9	35.1	33.7	34.5	35.9
Has mental disorders <sup>2</sup> .....	65.9	77.1	64.9	66.3	65.5	64.1
Mental retardation.....	4.2	26.6	2.3	8.4	2.2	*0.8
Alcohol abuse or dependence.....	1.0	*2.5	0.9	*3.0	*0.7	*0.4
Drug abuse or dependence.....	0.9	*2.0	0.8	*0.9	*0.9	*0.6
Senile dementia or chronic organic brain syndrome.....	46.0	15.6	48.6	36.4	46.7	53.3
Depressive disorders.....	14.3	16.8	14.0	18.4	17.2	10.5
Schizophrenia.....	4.7	25.4	2.9	10.3	2.5	1.2
Other psychoses.....	2.1	4.0	2.0	2.9	2.0	1.7
Anxiety disorders.....	13.9	17.5	13.6	14.5	14.8	12.5
Personality or character disorders.....	9.9	18.4	9.2	13.0	9.9	7.6
Other mental disorders.....	*0.5	*0.3	*0.5	*0.4	*0.6	*0.4
Behavioral problems.....	38.3	41.3	38.0	36.4	39.3	37.5
Disorientation or memory impairment.....	63.2	53.6	64.0	58.1	61.6	67.3
Disturbance of mood.....	43.5	40.7	43.8	49.0	43.6	42.5

<sup>1</sup>Data include a small number of unknowns.

<sup>2</sup>Resident may have had more than 1 mental disorder.

**Table 14. Number and percent distribution of nursing home residents by mental status, according to race and Hispanic origin: United States, 1985**

Mental status	All residents	Race			Hispanic origin	
		White	All other		Hispanic	Non-Hispanic <sup>1</sup>
			Total	Black		
Number						
Total	1,491,400	1,374,600	116,800	104,400	41,000	1,450,400
Current mental disorders						
No mental disorders <sup>1</sup>	510,000	468,400	41,600	37,200	10,300	499,600
Has mental disorders <sup>2</sup>	981,500	906,200	75,300	67,200	30,700	950,800
Mental retardation	81,100	75,000	6,200	*4,700	*2,200	78,900
Alcohol abuse or dependence	41,800	35,400	6,400	*5,700	*2,100	39,700
Drug abuse or dependence	13,900	13,700	*300	*300	-	13,900
Senile dementia or chronic organic brain syndrome	646,700	597,400	49,400	45,600	22,000	624,700
Depressive disorders	205,300	192,300	13,000	10,500	6,400	198,900
Schizophrenia	85,200	77,000	8,200	6,600	*3,100	82,100
Other psychoses	34,900	32,100	*2,800	*2,500	*1,900	33,000
Anxiety disorders	200,700	185,400	15,300	12,800	5,800	194,900
Personality or character disorders	164,700	149,400	15,300	14,700	5,800	158,900
Other mental disorders	6,300	5,800	*500	*500	-	6,300
Behavioral problems	572,600	525,200	47,400	43,600	18,700	553,900
Disorientation or memory impairment	922,500	847,100	75,400	68,600	28,700	893,800
Disturbance of mood	623,700	580,300	43,400	38,700	22,300	601,400
Percent distribution						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Current mental disorders						
No mental disorders <sup>1</sup>	34.2	34.1	35.6	35.6	25.2	34.4
Has mental disorders <sup>2</sup>	65.8	65.9	64.4	64.4	74.8	65.6
Mental retardation	5.4	5.5	5.3	*4.5	*5.4	5.4
Alcohol abuse or dependence	2.8	2.6	5.5	*5.4	*5.2	2.7
Drug abuse or dependence	0.9	1.0	*0.2	*0.3	-	1.0
Senile dementia or chronic organic brain syndrome	43.4	43.5	42.3	43.7	53.7	43.1
Depressive disorders	13.8	14.0	11.1	10.0	15.7	13.7
Schizophrenia	5.7	5.6	7.0	6.3	*7.5	5.7
Other psychoses	2.3	2.3	*2.4	*2.4	*4.7	2.3
Anxiety disorders	13.5	13.5	13.1	12.3	14.3	13.4
Personality or character disorders	11.0	10.9	13.1	14.1	14.1	11.0
Other mental disorders	0.4	0.4	*0.4	*0.5	-	0.4
Behavioral problems	38.4	38.2	40.6	41.8	45.7	38.2
Disorientation or memory impairment	61.9	61.6	64.6	65.7	70.0	61.6
Disturbance of mood	41.8	42.2	37.2	37.1	54.4	41.5

<sup>1</sup>Data include a small number of unknowns.

<sup>2</sup>Resident may have more than 1 mental disorder.

**Table 15. Number and percent distribution of nursing home residents, by living arrangement prior to admission: United States, 1985**

Sex and living arrangement prior to admission	Age					
	Total	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years and over
<b>Both sexes</b>						
			Number			
All residents . . . . .	1,491,400	173,100	1,318,300	212,100	509,000	597,300
Private or semiprivate residence . . . . .	566,800	40,800	526,000	61,900	206,300	257,800
Alone . . . . .	201,000	7,500	193,400	17,400	74,900	101,100
With family members . . . . .	275,200	26,300	248,900	34,000	101,000	114,000
With nonfamily members . . . . .	48,100	*3,800	44,300	6,600	16,900	20,800
Unknown if with others . . . . .	42,500	*3,200	39,300	*3,900	13,500	21,900
Another health facility . . . . .	862,700	121,100	741,600	141,600	284,500	315,500
Another nursing home . . . . .	181,900	22,000	159,900	27,400	64,100	68,400
General or short-stay hospital <sup>1</sup> . . . . .	557,400	46,800	510,500	83,900	194,500	232,100
Mental facility <sup>2</sup> . . . . .	73,100	34,200	38,900	16,100	16,100	6,700
Veterans hospital . . . . .	29,700	11,200	18,500	9,700	*4,600	*4,200
Other health facility . . . . .	34,800	10,000	24,700	6,900	9,400	8,500
Unknown or other arrangement . . . . .	47,900	8,100	39,800	6,200	14,100	19,500
<b>Male</b>						
All males . . . . .	423,800	89,300	334,400	80,600	141,300	112,600
Private or semiprivate residence . . . . .	140,000	18,500	121,500	18,700	52,600	50,200
Alone . . . . .	41,900	*2,900	39,000	5,000	17,200	16,800
With family members . . . . .	75,800	11,400	64,400	9,600	26,800	28,000
With nonfamily members . . . . .	13,100	*2,300	10,800	2,800	*5,100	*3,000
Unknown if with others . . . . .	9,200	*1,900	7,200	*1,300	*3,500	*2,400
Another health facility . . . . .	263,800	64,300	199,500	58,300	82,700	58,500
Another nursing home . . . . .	54,500	10,800	43,700	11,100	18,600	14,000
General or short-stay hospital <sup>1</sup> . . . . .	140,600	22,900	117,700	28,500	51,500	37,700
Mental facility <sup>2</sup> . . . . .	32,800	16,200	16,500	7,700	6,500	*2,300
Veterans hospital . . . . .	29,300	11,200	18,200	9,400	*4,600	*4,200
Other health facility . . . . .	11,100	*4,900	6,200	*2,600	*2,500	*1,100
Unknown or other arrangement . . . . .	15,500	*4,700	10,700	*2,600	*5,100	*3,100
<b>Female</b>						
All females . . . . .	1,067,700	83,800	983,900	131,500	367,700	484,700
Private or semiprivate residence . . . . .	426,800	22,300	404,500	43,200	153,800	207,600
Alone . . . . .	159,100	*4,600	154,400	12,400	57,700	84,300
With family members . . . . .	199,400	14,900	184,500	24,400	74,200	86,000
With nonfamily members . . . . .	34,900	*1,500	33,500	*3,800	11,800	17,800
Unknown if with others . . . . .	33,400	*1,300	32,100	*2,600	10,000	19,500
Another health facility . . . . .	598,900	56,800	542,100	83,300	201,800	257,000
Another nursing home . . . . .	127,400	11,100	116,200	16,300	45,500	54,400
General or short-stay hospital <sup>1</sup> . . . . .	416,800	23,900	392,800	55,400	143,000	194,500
Mental facility <sup>2</sup> . . . . .	40,300	18,000	22,300	8,400	9,600	*4,400
Veterans hospital . . . . .	*400	-	*400	*400	-	-
Other health facility . . . . .	23,700	*5,100	18,600	*4,300	6,900	7,400
Unknown or other arrangement . . . . .	32,400	*3,400	29,000	*3,700	8,900	16,500
<b>Both sexes</b>			Percent distribution			
All residents . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
Private or semiprivate residence . . . . .	38.0	23.6	39.9	29.2	40.5	43.2
Alone . . . . .	13.5	4.3	14.7	8.2	14.7	16.9
With family members . . . . .	18.5	15.2	18.9	16.0	19.8	19.1
With nonfamily members . . . . .	3.2	*2.2	3.4	3.1	3.3	3.5
Unknown if with others . . . . .	2.9	*1.8	3.0	*1.8	2.7	3.7
Another health facility . . . . .	57.8	70.0	56.3	66.8	55.9	52.8
Another nursing home . . . . .	12.2	12.7	12.1	12.9	12.6	11.5
General or short-stay hospital <sup>1</sup> . . . . .	37.4	27.1	38.7	39.5	38.2	38.9
Mental facility <sup>2</sup> . . . . .	4.5	17.6	2.8	7.0	2.9	1.1
Veterans hospital . . . . .	2.0	6.4	1.4	4.6	*0.9	*0.7
Other health facility . . . . .	2.3	5.8	1.9	3.3	1.8	1.4
Unknown or other arrangement . . . . .	3.2	4.7	3.0	2.9	2.8	3.3

See footnotes and note at end of table.



Table 15. Number and percent distribution of nursing home residents, by living arrangement prior to admission: United States, 1985—Con.

Sex and living arrangement prior to admission	Age					
	Total	Under 65 years	65 years and over			
			Total	65-74 years	75-84 years	85 years and over
Male		Percent distribution				
All males . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
Private or semiprivate residence . . . . .	33.0	20.8	36.3	23.2	37.2	44.6
Alone . . . . .	9.9	*3.2	11.7	6.2	12.2	14.9
With family members . . . . .	17.9	12.8	19.3	12.0	18.9	24.9
With nonfamily members . . . . .	3.1	*2.6	3.2	3.4	*3.6	*2.6
Unknown if with others . . . . .	2.2	*2.2	2.2	*1.6	*2.5	*2.2
Another health facility . . . . .	62.3	72.0	59.6	72.4	58.5	52.0
Another nursing home . . . . .	12.9	12.1	13.1	13.8	13.1	12.4
General or short-stay hospital <sup>1</sup> . . . . .	33.2	25.7	35.2	35.4	36.5	33.5
Mental facility <sup>2</sup> . . . . .	6.9	15.5	4.7	9.2	4.1	*2.1
Veterans hospital . . . . .	6.9	12.5	5.4	11.6	*3.2	*3.8
Other health facility . . . . .	2.6	*5.5	1.9	*3.3	*1.7	*1.0
Unknown or other arrangement . . . . .	3.6	*5.3	3.2	*3.2	*3.6	*2.7
Female						
All females . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
Private or semiprivate residence . . . . .	40.0	26.6	41.1	32.8	41.8	42.8
Alone . . . . .	14.9	*5.5	15.7	9.4	15.7	17.4
With family members . . . . .	18.7	17.8	18.8	18.5	20.2	17.7
With nonfamily members . . . . .	3.3	*1.8	3.4	*2.9	3.2	3.7
Unknown if with others . . . . .	3.1	*1.5	3.3	*2.0	2.7	4.0
Another health facility . . . . .	56.1	67.8	55.1	63.3	54.9	53.0
Another nursing home . . . . .	11.9	13.3	11.8	12.4	12.4	11.2
General or short-stay hospital <sup>1</sup> . . . . .	39.0	28.6	39.9	42.1	38.9	40.1
Mental facility <sup>2</sup> . . . . .	3.5	19.9	2.1	5.6	2.5	*0.9
Veterans hospital . . . . .	*0.0	-	*0.0	*0.3	-	-
Other health facility . . . . .	2.2	*6.1	1.9	*3.2	1.9	1.5
Unknown or other arrangement . . . . .	3.0	*4.1	3.0	*2.8	2.4	3.4

<sup>1</sup>Psychiatric units are excluded.

<sup>2</sup>Mental hospitals, facilities for the mentally retarded, general or short-stay hospital psychiatric units, and mental health centers are included.

NOTE: Figures may not add to totals because of rounding.

**Table 16. Number and percent distribution of nursing home residents by living arrangement prior to admission, according to marital status, race, and Hispanic origin: United States, 1985**

Living arrangement prior to admission	Total	Marital status				Race			Hispanic origin	
		Married	Widowed <sup>1</sup>	Divorced or separated	Never married	White	All other	Black	Hispanic	Non-Hispanic <sup>1</sup>
Number										
All residents . . . . .	1,491,400	188,200	914,800	117,000	271,400	1,374,600	116,800	104,400	41,000	1,450,400
Private or semiprivate residence. . . . .	566,800	69,600	380,500	31,700	84,900	532,900	33,900	30,100	12,500	554,300
Alone. . . . .	201,000	*3,400	158,100	11,100	28,300	193,400	7,600	6,200	*3,500	197,500
With family members. . . . .	275,200	63,000	159,500	13,300	39,400	255,900	19,300	17,700	8,400	266,800
With nonfamily members . . . . .	48,100	*1,700	30,800	*4,300	11,300	43,900	*4,200	*3,700	*600	47,500
Unknown if with others. . . . .	42,500	*1,500	32,100	*3,000	5,900	39,700	*2,800	*2,600	-	42,500
Another health facility . . . . .	862,700	116,400	494,500	80,100	171,800	785,200	77,500	70,000	27,100	835,600
Another nursing home. . . . .	181,900	25,100	108,200	15,700	32,800	170,500	11,300	10,500	*4,600	177,300
General or short-stay hospital <sup>2</sup> . . . . .	557,400	77,600	356,400	38,800	84,600	503,000	54,400	49,700	17,300	540,000
Mental facility <sup>3</sup> . . . . .	73,100	6,000	16,000	12,200	38,800	66,100	6,900	*5,000	*3,100	69,900
Veterans hospital . . . . .	29,700	6,100	6,200	8,600	8,700	27,700	*2,000	*2,000	*1,600	28,100
Other health facility . . . . .	34,800	*2,100	15,700	*5,400	11,500	31,100	*3,700	*3,700	*500	34,300
Unknown or other arrangement . . . . .	47,900	*1,600	31,800	*4,600	10,000	43,300	*4,600	*3,400	*1,300	46,600
Percent distribution										
All residents . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private or semiprivate residence. . . . .	38.0	37.0	41.6	27.1	31.3	38.8	29.1	28.9	30.5	38.2
Alone. . . . .	13.5	*1.8	17.3	9.5	10.4	14.1	6.5	5.9	*8.5	13.6
With family members. . . . .	18.5	33.5	17.4	11.4	14.5	18.6	16.6	16.9	20.5	18.4
With nonfamily members . . . . .	3.2	*0.9	3.4	*3.7	4.2	3.2	*3.6	*3.5	*1.5	3.3
Unknown if with others. . . . .	2.9	*0.8	3.5	*2.5	2.2	2.9	*2.4	*2.5	-	2.9
Another health facility . . . . .	57.8	61.9	54.1	68.4	63.3	57.1	66.3	67.1	66.2	57.6
Another nursing home. . . . .	12.2	13.3	11.8	13.4	12.1	12.4	9.7	10.0	*11.1	12.2
General or short-stay hospital <sup>2</sup> . . . . .	37.4	41.2	39.0	33.1	31.2	36.6	46.5	47.6	42.2	37.2
Mental facility <sup>3</sup> . . . . .	4.9	3.2	1.8	10.4	14.3	4.8	5.9	*4.8	*7.7	4.8
Veterans hospital . . . . .	2.0	3.2	0.7	7.4	3.2	2.0	*1.7	*1.9	*3.9	1.9
Other health facility . . . . .	2.3	*1.1	1.7	*4.6	4.2	2.3	*3.1	*3.5	*1.3	2.4
Unknown or other arrangement . . . . .	3.2	*0.9	3.5	*3.9	3.7	3.1	*4.0	*3.3	*3.3	3.2

<sup>1</sup>Data include a small number of unknowns.

<sup>2</sup>Psychiatric units are excluded.

<sup>3</sup>Mental hospitals, facilities for the mentally retarded, general or short-stay hospital psychiatric units, and mental health centers are included.

NOTE: Figures may not add to totals because of rounding.

Table 17. Number and percent distribution of nursing home residents by prior nursing home and hospital utilization, according to age, sex, and race: United States, 1985

Prior nursing home and hospital utilization	All residents	Age					Sex		Race			
		Under 65 years	65 years and over			Male	Female	White	All other			
			Total	65-74 years	75-84 years				85 years and over	Total	Black	
												Number
Total .....	1,491,400	173,100	1,318,300	212,100	509,000	597,300	423,800	1,067,700	1,374,600	116,800	104,400	
Other stays in any nursing home												
Yes .....	558,900	71,800	487,000	83,100	180,300	223,600	157,500	401,400	519,100	39,800	34,900	
No or unknown .....	932,600	101,300	831,300	129,000	328,700	373,600	266,300	666,300	855,500	77,100	69,500	
Previous stays at sample facility												
Yes .....	326,100	41,100	285,000	44,700	100,000	140,300	87,600	238,500	301,600	24,500	22,400	
No or unknown .....	1,165,300	132,000	1,033,300	167,400	409,000	456,900	336,200	829,200	1,073,000	92,300	81,900	
Number of previous stays at sample facility												
None .....	1,165,300	132,000	1,033,300	167,400	409,000	456,900	336,200	829,200	1,073,000	92,300	81,900	
1 stay .....	190,900	23,800	167,200	26,100	63,100	78,000	50,600	140,300	172,400	18,600	16,700	
2 stays or more .....	106,500	12,200	94,300	15,400	30,000	48,900	30,300	76,200	102,500	*4,000	*4,000	
Unknown .....	28,700	*5,100	23,500	*3,300	6,900	13,400	6,700	21,900	26,700	*2,000	*1,700	
Stays at other nursing homes												
Yes .....	283,600	39,600	244,000	46,700	93,800	103,500	83,500	200,100	264,100	19,500	16,400	
No .....	1,035,700	108,400	927,400	140,400	355,900	431,100	290,100	745,600	954,000	81,800	74,200	
Unknown .....	172,100	25,100	147,000	25,000	59,300	62,700	50,100	122,000	156,600	15,500	13,700	
Number of other nursing homes used												
None .....	1,207,900	133,500	1,074,400	165,400	415,200	493,800	340,300	867,600	1,110,600	97,300	87,900	
1 home .....	213,800	26,300	187,600	32,700	75,100	79,800	63,800	150,000	199,600	14,300	11,700	
2 homes or more .....	21,200	*3,500	17,700	*4,800	6,700	6,200	7,200	14,000	19,800	*1,400	*1,400	
Unknown .....	48,500	9,800	38,700	9,200	12,000	17,500	12,500	36,000	44,700	*3,800	*3,400	
Hospital stays while a resident in sample facility												
Yes .....	319,800	25,100	294,700	42,500	114,600	137,700	84,700	235,100	301,700	18,100	15,400	
No .....	1,171,600	148,000	1,023,600	169,600	394,400	459,600	339,000	832,600	1,072,900	98,700	89,000	
Number of hospital stays while a nursing home resident												
None .....	1,171,600	148,000	1,023,600	169,600	394,400	459,600	339,000	832,600	1,072,900	98,700	89,000	
1 stay .....	190,600	16,200	174,500	24,700	67,800	82,000	49,000	141,700	179,600	11,000	9,000	
2 stays or more .....	129,200	8,900	120,300	17,800	46,800	55,700	35,700	93,500	122,100	7,100	6,400	

See note at end of table.

Table 17. Number and percent distribution of nursing home residents by prior nursing home and hospital utilization, according to age, sex, and race: United States, 1985—Con.

Prior nursing home and hospital utilization	Age						Sex		Race		
	All residents	Under 65 years	65 years and over			Male	Female	White	All other		
			Total	65-74 years	75-84 years				85 years and over	Total	Black
	Percent distribution										
Total .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other stays in any nursing home											
Yes .....	37.5	41.5	36.9	39.2	35.4	37.4	37.2	37.6	37.8	34.0	33.4
No or unknown .....	62.5	58.5	63.1	60.8	64.6	62.6	62.8	62.4	62.2	66.0	66.6
Previous stays at sample facility											
Yes .....	21.9	23.8	21.6	21.1	19.6	23.5	20.7	22.3	21.9	21.0	21.5
No or unknown .....	78.1	76.2	78.4	78.9	80.4	76.5	79.3	77.7	78.1	79.0	78.5
Number of previous stays at sample facility											
None .....	78.1	76.2	78.4	78.9	80.4	76.5	79.3	77.7	78.1	79.0	78.5
1 stay .....	12.8	13.7	12.7	12.3	12.4	13.1	11.9	13.1	12.5	15.9	16.0
2 stays or more .....	7.1	7.1	7.2	7.2	5.9	8.2	7.1	7.1	7.5	*3.4	*3.8
Unknown .....	1.9	*3.0	1.8	*1.5	1.4	2.2	1.6	2.1	1.9	*1.7	*1.7
Stays at other nursing homes											
Yes .....	19.0	22.9	18.5	22.0	18.4	17.3	19.7	18.7	19.2	16.7	15.8
No .....	69.4	62.6	70.3	66.2	69.9	72.2	68.5	69.8	69.4	70.0	71.1
Unknown .....	11.5	14.5	11.2	11.8	11.7	10.5	11.8	11.4	11.4	13.3	13.1
Number of other nursing homes used											
None .....	81.0	77.1	81.5	78.0	81.6	82.7	80.3	81.3	80.8	83.3	84.2
1 home .....	14.3	15.2	14.2	15.4	14.8	13.4	15.1	14.1	14.5	12.2	11.2
2 homes or more .....	1.4	*2.0	1.3	*2.3	1.3	1.0	1.7	1.3	1.4	*1.2	*1.3
Unknown .....	3.3	5.7	2.9	4.3	2.4	2.9	3.0	3.4	3.3	*3.3	*3.2
Hospital stays while a resident in sample facility											
Yes .....	21.4	14.5	22.4	20.0	22.5	23.0	20.0	22.0	21.9	15.5	14.7
No .....	78.6	85.5	77.6	80.0	77.5	77.0	80.0	78.0	78.1	84.5	85.3
Number of hospital stays while a nursing home resident											
None .....	78.6	85.5	77.6	80.0	77.5	77.0	80.0	78.0	78.1	84.5	85.3
1 stay .....	12.8	9.3	13.2	11.6	13.3	13.7	11.6	13.3	13.1	9.4	8.6
2 stays or more .....	8.7	5.2	9.1	8.4	9.2	9.3	8.4	8.8	8.9	6.1	6.1

NOTE: Figures may not add to totals because of rounding.

**Table 18. Percent distribution of nursing home residents by selected characteristics and average length of stay since admission, according to primary source of payment in month before interview: United States, 1985**

Characteristic	Primary source of payment in month before interview							
	All sources	Own income or family support	Medicare	Medicaid		Other government assistance or welfare	All other sources	
				Total	Skilled nursing care			Inter-mediate care
Sex and age								
Percent distribution								
Both sexes, all ages . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 65 years . . . . .	11.6	7.3	*3.0	13.2	14.9	12.3	29.0	28.4
65 years and over . . . . .	88.4	92.7	97.0	86.8	85.1	87.7	71.0	71.6
65-74 years . . . . .	15.3	12.4	*25.3	16.1	13.4	17.6	28.0	22.0
75-84 years . . . . .	34.1	37.2	47.5	32.5	32.1	32.8	23.2	25.0
85 years and over . . . . .	40.0	43.7	*24.2	39.7	41.3	38.9	20.7	24.6
Male, all ages . . . . .	28.4	29.0	33.3	25.1	24.8	25.3	38.6	59.9
Under 65 years . . . . .	6.0	4.3	*3.0	5.7	6.2	5.4	15.6	24.4
65 years and over . . . . .	22.4	24.7	30.3	19.5	18.6	19.9	23.0	35.5
65-74 years . . . . .	5.8	4.9	*11.7	5.5	3.9	6.3	*8.9	16.7
75-84 years . . . . .	9.5	10.1	*14.3	8.8	8.6	8.9	*10.2	*9.8
85 years and over . . . . .	7.5	10.0	4.2	5.7	6.4	5.4	*4.0	*9.0
Female, all ages . . . . .	71.6	71.0	66.7	74.9	75.2	74.7	61.4	40.1
Under 65 years . . . . .	5.6	3.0	-	7.5	8.6	6.9	13.3	*4.0
65 years and over . . . . .	66.0	68.0	66.7	67.3	66.5	67.8	48.0	36.1
65-74 years . . . . .	9.5	7.5	*13.6	10.6	9.5	11.3	19.2	*5.3
75-84 years . . . . .	24.7	27.1	33.2	23.7	23.5	23.9	13.1	15.2
85 years and over . . . . .	32.5	33.7	*19.9	34.0	34.9	33.5	16.7	15.6
Race								
White . . . . .	92.2	97.2	94.9	88.1	87.7	88.4	86.5	94.8
All other . . . . .	7.8	2.8	*5.1	11.9	12.3	11.6	13.5	*5.2
Black . . . . .	7.0	2.2	*3.8	10.8	10.2	11.1	13.1	*5.2
Hispanic origin								
Hispanic . . . . .	2.7	2.1	*5.1	3.4	4.0	3.1	*0.4	*2.9
Non-Hispanic <sup>1</sup> . . . . .	97.3	97.9	94.9	96.6	96.0	96.9	99.6	97.1
Current marital status								
Married . . . . .	12.6	14.8	*20.8	10.5	12.4	9.4	12.7	14.3
Widowed <sup>1</sup> . . . . .	61.3	66.1	64.6	60.5	60.4	60.6	35.6	37.9
Divorced or separated . . . . .	7.8	4.7	*6.7	9.1	8.4	9.5	12.5	23.8
Never married . . . . .	18.2	14.4	*7.9	19.9	18.8	20.4	39.2	24.1
Living arrangement prior to admission								
Private or semiprivate residence . . . . .	38.0	44.9	*15.9	33.2	24.3	38.0	34.2	36.9
Alone . . . . .	13.5	18.7	*8.4	9.2	6.1	10.9	11.9	16.6
With family members . . . . .	18.5	19.8	*4.9	18.4	13.9	20.9	16.7	*9.5
With nonfamily members . . . . .	3.2	3.5	*2.6	2.8	2.4	3.0	*2.5	*7.5
Unknown if with others . . . . .	2.9	2.9	-	2.8	*1.9	3.3	*3.2	*3.3
Another health facility . . . . .	57.8	50.7	82.8	63.2	72.9	57.9	61.6	51.7
Another nursing home . . . . .	12.2	12.2	*2.3	12.5	10.7	13.5	13.6	*10.5
General or short-stay hospital <sup>2</sup> . . . . .	37.4	33.1	80.4	42.8	55.4	35.9	17.6	*10.0
Mental facility <sup>3</sup> . . . . .	4.9	2.4	-	6.0	5.0	6.5	20.4	*6.2
Veterans hospital . . . . .	2.0	2.2	-	*0.6	*0.7	0.6	-	23.9
Other health facility or unknown . . . . .	2.3	1.8	*1.4	2.2	*1.7	2.4	*10.5	*3.0
Unknown or other arrangement . . . . .	3.2	3.4	-	2.7	*2.1	3.0	*3.7	*9.6

See footnotes at end of table.

Table 18. Percent distribution of nursing home residents by selected characteristics and average length of stay since admission, according to primary source of payment in month before interview: United States, 1985—Con.

Characteristic	Primary source of payment in month before interview							
	All sources	Own income or family support	Medicare	Medicaid		Other government assistance or welfare	All other sources	
				Total	Skilled nursing care			Inter-mediate care
Length of stay since admission				Percent distribution				
Less than 3 months . . . . .	12.9	16.2	76.0	8.2	9.3	7.6	*7.5	21.7
3 months to less than 6 months . . . . .	9.5	11.3	*6.6	7.9	10.1	6.7	*5.8	15.6
6 months to less than 12 months . . . . .	14.1	16.1	*5.6	13.1	14.7	12.3	*7.9	13.7
1 year to less than 3 years . . . . .	31.5	31.4	*5.3	33.3	32.7	33.6	33.4	15.7
3 years to less than 5 years . . . . .	13.9	12.5	*4.0	15.3	14.6	15.7	16.2	*12.0
5 years or more . . . . .	18.1	12.5	*2.5	22.2	18.7	24.1	29.2	21.2
Average length of stay since admission . . . . .				Length of stay in days				
	1,059	811	187	1,253	1,122	1,324	1,619	1,016

<sup>1</sup>Data include a small number of unknowns.

<sup>2</sup>Psychiatric units are excluded.

<sup>3</sup>Mental hospitals, facilities for the mentally retarded, general or short-stay hospital psychiatric units, and mental health centers are included.

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# Appendix I

## Technical notes on methods

### Survey design

From August 1985 through January 1986, the Division of Health Care Statistics (DHCS) conducted the 1985 National Nursing Home Survey (NNHS)—a sample survey of nursing homes, their residents, discharges, and staff in the conterminous United States. The survey was designed and developed by NCHS, with input from several other Federal agencies. The 1985 survey was the third of a series of surveys designed to satisfy the diverse data needs of those who establish standards for, provide, and assess long-term care services. The first survey was conducted from August 1973 through April 1974, and the second survey was conducted from May through December 1977.

### Sampling frame

The 1985 NNHS included all types of nursing and related care homes with three or more beds set up and staffed for use by residents and routinely providing nursing and personal care services. Facilities were either freestanding establishments or nursing care units of hospitals, retirement centers, or similar institutions maintaining financial and employee records separate from those of the larger institutions. Residential care facilities were excluded. These included community care facilities in California, adult congregate living facilities in Florida, family care homes in Kentucky, and adult foster care homes in Michigan (1).

The universe for the 1985 NNHS consisted of four components: (a) the base, the 1982 National Master Facility Inventory (NMFI), which is a census of nursing and related care homes; (b) data on homes identified in the 1982 Complement Survey of the NMFI as "missing" from the 1982 NMFI; (c) data on hospital-based nursing homes obtained from the Health Care Financing Administration; and (d) data on nursing homes opened for business between 1982 and June 1, 1984. The resulting frame contained information on 20,479 nursing and related care facilities. Detailed descriptions of the 1982 NMFI survey design and procedures have been published (1).

Because not all residential care facilities could be identified, an unknown number of them were present in the sampling frame. It was not until after the 1986 Inventory of Long-Term Care Places (ILTCP) had been conducted that such facilities could be classified as residential facilities and that an

estimate could be obtained for the number of these facilities that were included in the 1985 NNHS.

Using the 1986 ILTCP to identify homes in the 1985 NNHS sample that were classified as residential in 1986, 32 such homes were found. The weights for these homes produced an estimate of 2,200 residential facilities and 71,000 beds for 1985. Table I gives a comparison of the two surveys reflecting this adjustment in residential facilities.

Estimates for the 1985 NNHS will not correspond precisely to figures from either the 1982 NMFI census or the 1986 ILTCP survey for several other reasons. Among the reasons for differences are that the three surveys differed in time of data collection and in data collection procedures and that the 1982 NMFI was a combination of data collected by 35 States and data collected by the NCHS via mail survey in the remaining States and in the 35 States where certain types of nursing and related care homes were not surveyed by these States. In contrast, the NNHS is conducted by personal interview. Thus the NNHS methodology permitted more scrutiny in the identification and exclusion of facilities that were out of scope. Finally, because the NNHS is a sample survey, its data are subject to sampling variability; because the NMFI and ILTCP surveys are a census, their data are not.

### Sampling design

The sampling was basically a stratified two-stage probability design. The first stage was the selection of facilities, and the second stage was the selection of residents, discharges, and R.N.'s from the sample facilities. In preparation for the first-stage sample selection, facilities listed in the universe were sorted into the following types of strata, based on Medicare and Medicaid certification: (a) certified by either Medicare or Medicaid or (b) not certified by either Medicare or Medicaid.

Table I. Comparison between the 1985 NNHS (estimates) and 1986 ILTCP showing number of homes and beds by type of home

Type of home	1985 NNHS		1986 ILTCP	
	Homes	Beds	Homes	Beds
Total . . . . .	19,100	1,624,200	26,400	1,767,500
Certified . . . . .	14,400	1,441,300	14,100	1,451,200
Uncertified . . . . .	2,500	111,900	3,000	114,500
Residential . . . . .	2,200	71,000	9,300	201,800

NOTE: NNHS = National Nursing Home Survey; ILTCP = Inventory of Long-Term Care Places.

NOTE: A list of references follows the text.



Facilities in each of these two strata were sorted by frame source: (a) 1982 Complement Survey and (b) all other sources (that is, 1982 NMFI, HCFA hospital-based nursing homes, and nursing homes opened between 1982 and 1984). Facilities in the Non-Complement Survey strata were further sorted by bed size, producing the 20 primary strata as shown in table II. The nursing homes in the universe were ordered by ownership, geographic region, metropolitan status, State, county and MSA (metropolitan statistical area), and ZIP Code. The sample was then selected systematically after a random start within each primary stratum. Table II shows the distribution of facilities in the sampling frame and the final disposition of the sample with regard to response and scope status.

The number of nursing homes estimated in the survey is less than the universe figure (20,479) for several reasons. Some facilities went out of business or became ineligible for the scope of the survey between the time the universe was frozen and the survey was conducted. A facility was considered out of scope if it did not provide nursing, personal, or domiciliary care services (for example, a facility providing only room and board) or if it was a nursing care unit or wing of a hospital, retirement center, or similar institution without separate financial and employee records for that unit.

The second-stage sampling of residents, discharges, and registered nurses was carried out by the interviewers at the time of their visits to the facilities in accordance with specific instructions to assure a probability sample. The sample frame for residents was the total number of residents on the register of the facility on the evening prior to the day of the survey.

Residents who were physically absent from the facility due to overnight leave or a hospital visit but who had a bed maintained for them at the facility were included in the sample frame. A sample of five or fewer residents per facility was selected.

The sampling frame for discharges was the total number of persons discharged alive or dead during the 12 months prior to the survey date. Persons who were discharged more than once during this 12-month period in the same nursing home were listed for each discharge. Current residents discharged during the 12 months prior to the survey and then readmitted to the sample nursing home were also eligible to be included in the discharge sampling frame. Forty-five of the sampled discharges were also included in the current resident sample. A sample of six or fewer discharges per facility was selected.

The sampling frame for nursing staff included all R.N.'s who were employed by the facility on the day of the survey. Registered nurses working under a special contractual arrangement or through a temporary service were included if they were scheduled to work during the 24 hours constituting the survey day. A sample of four or fewer R.N.'s per facility was selected.

#### Data collection procedures for the 1985 NNHS

The 1985 NNHS utilized nine questionnaires (see appendix III for facsimiles of selected questionnaires):

- Facility Questionnaire
- Expense Questionnaire and Definition Booklet

**Table II. Number of facilities in the 1985 National Nursing Home Survey universe and sample, by disposition and sampling strata: Conterminous United States, 1985**

Sampling strata	Universe (sampling frame) <sup>1</sup>	All facilities	Out of scope or out of business	Sample	
				Nonresponding	In scope and in business Responding
All types of certification . . . . .	20,479	1,220	57	84	1,079
Certified					
Complement survey homes . . . . .	24	19	1	2	16
3-14 beds . . . . .	112	5	2	0	3
15-24 beds . . . . .	384	9	1	0	8
25-49 beds . . . . .	1,876	43	4	3	36
50-99 beds . . . . .	5,000	269	9	21	239
100-199 beds . . . . .	4,604	478	9	28	441
200-399 beds . . . . .	861	196	1	13	182
400-599 beds . . . . .	77	17	1	3	13
600 beds or more . . . . .	26	10	1	0	9
Unknown bed size . . . . .	20	10	1	3	6
Not certified					
Complement survey homes . . . . .	336	14	3	0	11
3-14 beds . . . . .	2,346	8	3	1	4
15-24 beds . . . . .	1,087	10	3	1	6
25-49 beds . . . . .	1,185	15	2	1	12
50-99 beds . . . . .	1,029	35	1	3	31
100-199 beds . . . . .	727	39	2	3	34
200-399 beds . . . . .	132	14	1	1	12
400-599 beds . . . . .	19	5	1	0	4
600 beds or more . . . . .	7	4	1	0	3
Unknown bed size . . . . .	627	20	10	1	9

<sup>1</sup>The universe consisted of nursing homes in the 1982 National Master Facility Inventory (NMFI), nursing homes in the 1982 Complement Survey of the NMFI, hospital-based nursing homes from the Health Care Financing Administration file, and nursing homes opened for business from 1982 to 1984.

- Nursing Staff Sampling List
- Nursing Staff Questionnaire
- Current Resident Sampling List
- Current Resident Questionnaire
- Discharged Resident Sampling List
- Discharged Resident Questionnaire
- Next-of-Kin Questionnaire.

Data were collected according to the following procedures:

1. A letter was sent to the administrator of the sample facility informing him or her of the survey and of the fact that an interviewer would contact him or her for an appointment. Included with this introductory letter were letters of endorsement from the American Association of Homes for the Aging, the American College of Health Care Administrators, and the American Health Care Association urging the administrator to participate in the survey. A sample report from the 1977 survey was also enclosed to illustrate how the data would be published.
2. At least 1 week after the letters had been mailed, the interviewer telephoned the sample facility and made an appointment with the administrator.
3. During the appointment, the Facility Questionnaire was completed by the interviewer of the administrator (or designee) of the nursing home. After completing this form, the interviewer secured the administrator's authorization for completion of the Expense Questionnaire (EQ). Possible respondents to the EQ included accountants, administrators, and other knowledgeable staff members. Results from the survey indicate that the respondents were evenly divided into two groups: accountants located outside the facility and administrators and other staff members, such as bookkeepers, based in the facility. When a prepared financial statement was available, it was accepted in lieu of an EQ. This occurred in one-half of the cases. The interviewer completed the Nursing Staff Sampling List, selected the sample of R.N.'s from it, and prepared Nursing Staff Questionnaires. These were left for each sample nurse to complete, seal in an addressed envelope, and return either to the interviewer by hand or to the data processing headquarters by mail. The interviewer completed the Current Resident Sampling List (a list of all residents in the facility on the night before the day of the survey), selected the sample of residents from it, and completed a Current Resident Questionnaire for each sample resident

by interviewing the member of the nursing staff most familiar with care provided to that resident. The nurse referred to the resident's medical record when responding. No resident was interviewed directly.

The interviewer then completed the Discharged Resident Sampling List (a list of all persons discharged alive or dead during the 12 months preceding the survey date), selected a sample of discharges from it, and completed for that stay a Discharged Resident Questionnaire for each sample discharge by interviewing a member of the nursing staff, who referred to medical records. In larger facilities, a team of two or three interviewers conducted the survey to reduce the time spent in the facility.

Follow-up information on the two patient samples was collected via a computer-assisted telephone interview with a next of kin of the current or discharged resident, using the Next-of-Kin (NOK) Questionnaire.

The next of kin interviewed was identified in the Current Resident and Discharged Resident Questionnaires and included relatives, guardians, and anyone familiar with the sampled resident. A discharged resident could also be contacted if discharged to a place of residence and residing there at the time of the survey. An attempt was made to identify the "best respondent" while obtaining next-of-kin information from the nursing home. The best respondent was mailed a letter of information about the survey, contacted by telephone, and administered the NOK Questionnaire. Table III presents a summary of the data collection procedures.

## General qualifications

### Nonresponse and imputation of missing data

For nursing homes that agreed to participate, response rates differed for each type of questionnaire:

<i>Questionnaire</i>	<i>Response rate (percent)</i>	<i>Number responding</i>
Facility .....	100	1,079
Expense .....	68	732
Current Resident .....	97	5,243
Discharged Resident .....	95	6,023
Nursing Staff .....	80	2,763
Next-of-Kin .....	90	9,134

Generally, response rates were higher for questionnaires administered in a personal interview situation (Facility, Current Resident, Discharged Resident, and NOK) than for those that

Table III. Summary of data collection procedures

<i>Questionnaire</i>	<i>Respondent</i>	<i>Interview situation</i>
Facility Questionnaire	Administrator	Interview
Expense Questionnaire	Administrator, owner, accountant, or bookkeeper	Self-enumerated
Nursing Staff Sampling List	Staff members	Informal interview or copied from records
Nursing Staff Questionnaire	Sampled registered nurses	Self-enumerated
Current Resident Sampling List	Staff member who refers to current resident census	Informal interview or copied from records
Current Resident Questionnaire	Nurse who refers to medical record	Interview
Discharged Resident Sampling List	Staff member who refers to discharge records	Informal interview or copied from records
Discharged Resident Questionnaire	Nurse who refers to medical record	Interview
Next-of-Kin Questionnaire	Relatives, guardians, or anyone familiar with the sampled person	Telephone interview

were self-enumerated (Expense and Staff). Statistics presented in this report were adjusted for failure of a facility to respond (that is, to participate in the survey) and for failure to complete any of the other questionnaires (Expense, Current Resident, Discharged Resident, Nursing Staff, or NOK). Those items left unanswered on a partially completed questionnaire were generally imputed by assigning a value from a responding unit with major characteristics identical to those of the nonresponding unit.

### 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 were calculated on the original, unrounded figures and will not necessarily agree precisely with percents that might be calculated from rounded data.

### Data processing

Extensive editing was conducted by computer to assure that all responses were accurate, consistent, logical, and complete. Once the data base was edited, the computer was used to calculate and assign weights, ratio adjustments, recodes, and other related procedures necessary to produce national estimates from the sample data.

After the publication of *The National Nursing Home Survey: 1985 Summary for the United States, Series 13, No. 97 (6)*, a data processing error concerning the number of all-listed diagnoses at the time of survey for current residents was discovered. It was found that the special tape created to present these estimates contained a serious undercount of the number of cases in most categories. After correction, the increase in estimated number of diagnoses by specific categories ranged from 0.1–50.6 percent. The following categories were found to decrease after correction: Infectious and parasitic diseases; Pneumonia, all forms; Injury and poisoning; Fracture of neck of femur; and Other fractures. The decrease in the estimated number of diagnoses for these categories ranged from 4 to 42 percent. The corresponding rates of all-listed diagnoses per 100 residents generally increased as a result of this correction.

### Estimation procedures

Statistics reported in this publication are derived by a ratio estimating procedure. The purpose of ratio estimation is to take into account all relevant information in the estimation process, thereby reducing the variability of the estimate. The estimates of number of facilities and facility data not related to size are inflated by the reciprocal of the probability of selecting the sample facility and adjusted for the nonresponding facilities within primary strata. Two ratio adjustments, one at each stage of sample selection, were also used in the estimation process. The first-stage ratio adjustment (along with the preceding inflation factors) was included in the estimation of facility data related to size and of all resident, discharge, and nursing staff data for all primary types of strata. The numerator was the total number of beds according to the universe data for all

facilities in the stratum. The denominator was the estimate of the total number of beds obtained through a simple inflation of the universe data for the sample facilities in the stratum. The effect of the first-stage ratio adjustment was to bring the sample in closer agreement with the known universe of beds. The second-stage ratio adjustment was included in the estimation of all resident, discharge, and R.N. data. It is the product of two fractions: The first is the inverse of the sampling fraction for residents (discharges or R.N.'s) upon which the selection is based; the second is the ratio of the number of sample residents (discharges or R.N.'s) in the facility to the number of residents (discharges or R.N.'s) for whom questionnaires were completed within the facility (46).

### Reliability of estimates

As in any sample survey, the results are subject to both sampling and nonsampling errors. Nonsampling errors include errors due to response bias, questionnaire and item nonresponse, recording, and processing errors. To the extent possible, the latter types of errors were kept to a minimum by methods built into survey procedures, such as standardized interviewer training, observation of interviewers, manual and computer editing, verification of keypunching, and other quality checks. Because survey results are subject to both sampling and nonsampling errors, the total error is larger than errors due to sampling variability alone.

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

The standard error is primarily a measure of the variability that occurs by chance because only a sample, rather than the entire universe, is surveyed. The standard error also reflects part of the measurement error, but it does not measure any systematic biases in the data. It is inversely proportional to the square root of the number of observations in the sample. Thus as the sample size increases, the standard error generally decreases.

The chances are about 68 in 100 that an estimate from the sample differs by less than the standard error from the value that would be obtained from a complete census. The chances are about 95 in 100 that the difference is less than twice the standard error and about 99 in 100 that it is less than 2½ times as large.

The standard errors used for this survey were approximated using the balanced repeated-replication procedure. This method yields overall variability through observation of variability among random subsamples of the total sample. A description of the development and evaluation of the replication technique for error estimation has been published (47–48).

To derive error estimates that would be applicable to a wide variety of statistics and could be prepared at moderate cost, several approximations were required.

Rather than calculate standard errors for particular estimates  $S_x$ , the calculated variances for a wide variety of estimates presented in this document were fitted into curves using the empirically determined relationship between the size of an

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NOTE: A list of references follows the text.

estimate  $X$  and its relative variance (rel var  $X$ ). This relationship is expressed as:

$$\begin{aligned} \text{rel var } X &= \frac{S_X^2}{X^2} \\ &= a + \frac{b}{X} \end{aligned}$$

where  $a$  and  $b$  are regression estimates determined by an iterative procedure.

The relative standard error is then derived by taking the square root of the relative variance curve. The relative standard error estimates for estimated number of residents (with or without next of kin) are shown in figure I.

The relative standard error (RSE( $X$ )) of an estimate  $X$  may be read directly from the curve in figure I or alternatively may be calculated by the formula

$$\text{RSE}(X) = \sqrt{-0.000177 + \frac{530.2361}{X}}$$

where  $X$  is the number of residents of interest.

In this report, estimates that have a relative standard error of 30 percent or more are considered unreliable and are indicated with an asterisk beside the estimate. Figures marked with an asterisk are given primarily to allow the reader to combine them with related estimates, thereby possibly producing a more reliable overall estimate for a broader category.

Because of the relationship between the relative standard error and the estimate, the standard error of an estimate can be obtained by multiplying the estimate by its relative standard error. Thus, for example, in figure I, an estimate of 5,800 residents has a relative standard error of 30 percent; therefore, the standard error is  $0.30 \times 5,800 = 1,740$ .

To approximate the relative standard error (RSE( $p$ )) and the standard error (SE( $p$ )) of a percent  $p$ , the following equations are used:

$$\text{RSE}(p) = \sqrt{\frac{530.2361 \cdot (100 - p)}{p \cdot Y}}$$

$$\text{SE}(p) = p \cdot \text{RSE}(p)$$

where  $x$  = the numerator of the estimated percent

$y$  = the denominator

$$p = 100 \cdot \frac{X}{Y}$$

The approximation of the relative standard error or the standard error of a percent is valid when only one of the following conditions is satisfied: the relative standard error of the denominator is 5 percent or less (49) or the relative standard errors of the numerator and the denominators are both 10 percent or less (50).

## Hypothesis testing

To test the difference between two statistics (mean, percent, and so forth), the two-tailed  $t$ -test with 20 degrees of freedom should be performed to determine whether to reject the null hypothesis (for the two means  $\bar{X}_1, \bar{X}_2$ , the null hypothesis is  $H_0: \bar{X}_1 = \bar{X}_2$  with the alternative  $H_A: \bar{X}_1 \neq \bar{X}_2$ ). At the 0.05 (5 percent) level, the critical value for the  $t$ -test is 2.09. The standard error of the difference of the two estimates is approximately the square root of the sum of the squares of the standard error of each of the estimates. Thus, if SE( $\bar{X}_1$ ) is the standard error of  $\bar{X}_1$  and SE( $\bar{X}_2$ ) is the standard error of  $\bar{X}_2$ , the standard error of the difference ( $\bar{X}_1 - \bar{X}_2$ ) is

$$\text{SE}(\bar{X}_1 - \bar{X}_2) = \sqrt{\text{SE}^2(\bar{X}_1) + \text{SE}^2(\bar{X}_2)}$$

(This formula will represent the actual standard error for the difference between separate and uncorrelated characteristics, although it is only a rough approximation in most other cases. The number of replicates (20) used in the balanced repeated replication technique can be used to approximate the number of degrees of freedom when testing hypotheses about differences between estimated statistics.) The null hypothesis is rejected (that is, the two means  $\bar{X}_1$  and  $\bar{X}_2$  are different) if the probability of a type I error is less than 5 percent; that is, if

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\text{SE}^2(\bar{X}_1) + \text{SE}^2(\bar{X}_2)}} > 2.09$$

NOTE: A list of references follows the text.

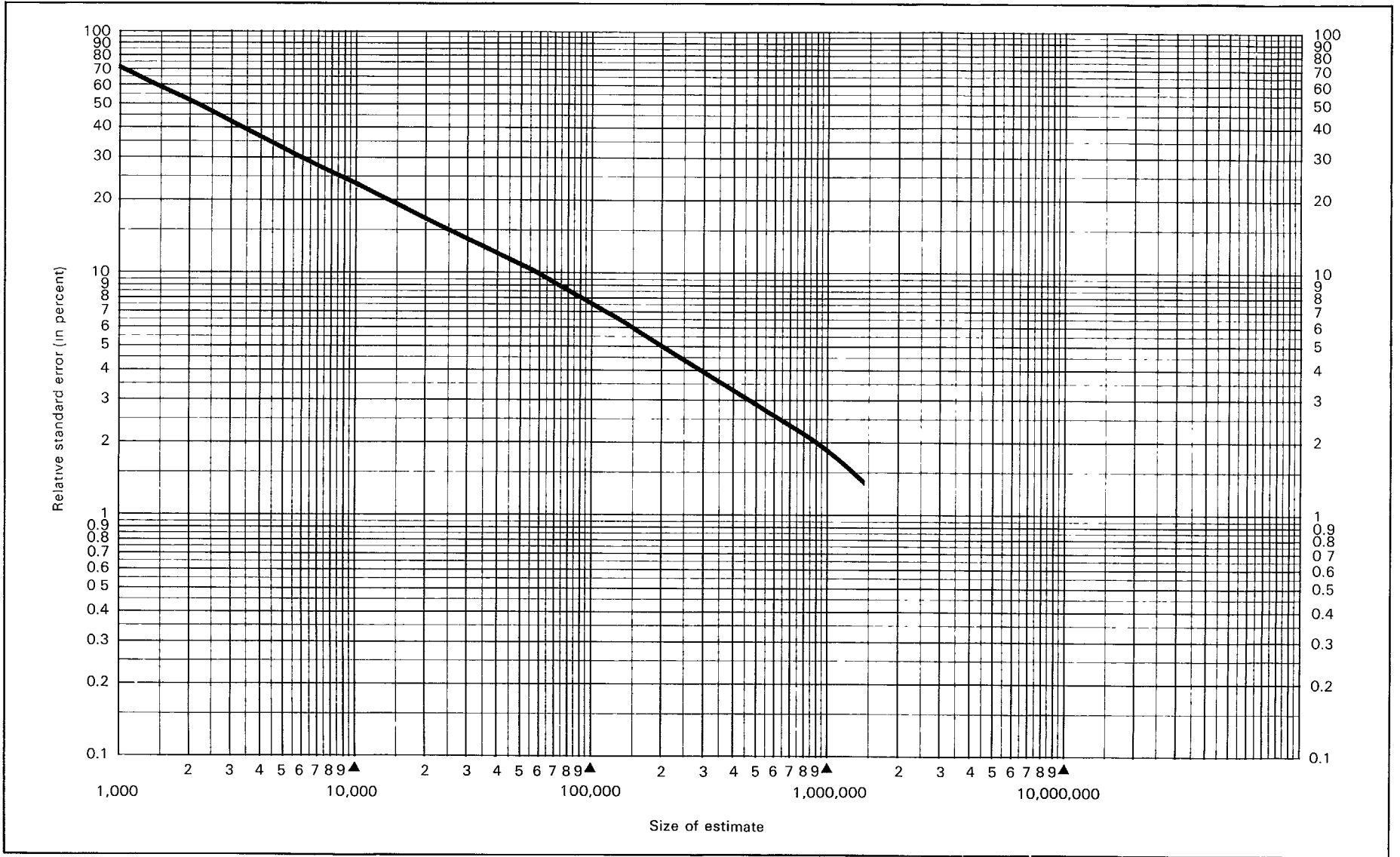


Figure 1. Relative standard errors for estimated numbers of current nursing home residents: United States, 1985

# Appendix II

## Definitions of certain terms used in this report

### Terms relating to residents

*Resident*—A person on the roster of the nursing home as of the night before the survey. Included are all residents for whom beds are maintained, even though they may be away on overnight leave or in a hospital.

#### *Charges and primary source of payment*

*Charge*—The total amount charged to the resident by the facility in the last completed calendar month prior to the survey.

*Primary source of payment at admission*—The one payment source that paid the greatest amount of the resident's charge in the calendar month of admission.

*Own income or family support*—Includes health insurance, retirement funds, and social security.

*Medicare*—Money received under the Medicare program.

*Medicaid—skilled*—Money received under the Medicaid program for skilled nursing care.

*Medicaid—intermediate*—Money received under the Medicaid program for intermediate nursing care.

*Other government assistance or welfare*—Sources of government aid (Federal, State, or local) other than Medicare or Medicaid.

*All other sources*—Includes religious organizations, foundations, volunteer agencies, Veterans Administration contracts, initial payment arrangements, life care arrangements, miscellaneous sources, and no-charge arrangements.

*Current primary source of payment*—The one payment source that paid the greatest amount of the resident's charge in the last completed calendar month prior to the survey. (See *Primary source of payment at admission* for definitions of payment sources.)

*Length of stay since current admission*—The period of stay from the date of the resident's most recent admission to the facility to the date of the survey interview.

#### *Demographic items*

*Age*—The age of the resident on the day the survey was conducted, calculated from date of birth.

*Race*—The racial background of the resident as reported by the nursing home staff respondent.

*Hispanic origin*—Hispanic refers to a person of Mexican, Puerto Rican, Cuban, Central or South American, or

other Spanish culture or origin, regardless of race, as reported by the nursing home staff respondent.

*Current marital status*—Marital status of the resident at the time of the survey.

#### *Health status*

*Activities of daily living*—The six everyday activities (bathing, continence, dressing, eating, transferring, and using toilet room) for which the nursing home staff respondent reported the resident's current performance in terms of need for the help of special equipment or another person.

*Number of dependencies in activities of daily living*—The number of dependencies in activities of daily living, based on the work of Dr. Sidney Katz (28,51), is a measure that summarizes the level of dependency in performing the six activities of daily living.

The following criteria are used in classifying a resident as dependent:

*Bathing*—Requires assistance.

*Dressing*—Requires assistance or does not dress.

*Using toilet room*—Requires assistance or does not use toilet room.

*Transferring*—Requires assistance in getting into or out of a chair or bed.

*Continence*—Has difficulty controlling bowels, bladder, or both or has an ostomy.

*Eating*—Requires assistance; includes tube or intravenous feeding.

*Diagnoses*—One or more diseases or injuries (or some factor that influences health status and contact with health services that is not itself a current illness or injury) listed by the attending physician on the medical record of patients. Diagnoses were recorded for two time periods: at admission and at time of survey. All diagnoses for sample residents were transcribed in the order listed. Each sample resident was assigned a maximum of eight 5-digit codes according to the *International Classification of Diseases, 9th Revision, clinical modification* (ICD-9-CM) (37).

A diagnostic chapter within ICD-9-CM is primarily an arrangement of diseases according to their principal anatomic site, with special chapters for infectious and parasitic diseases; neoplasms; endocrine, nutritional, and metabolic diseases; men-

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NOTE: A list of references follows the text.

tal disorders; complications of pregnancy and childbirth; certain diseases peculiar to the perinatal period; and ill-defined conditions. In addition, two supplemental classifications are provided: (a) factors influencing health status and contact with health services and (b) external causes of injury and poisoning.

*Primary diagnosis*—The diagnosis listed first on the medical record.

*All-listed diagnoses*—All diagnoses, up to a maximum of eight, listed on the medical record of each sample resident.

*Current mental disorders*—Mental problems of the residents, selected by the nursing home staff respondent from a list of 10 mental conditions or disorders (see item 15 of the Current Resident Questionnaire). The respondent bases the selection on knowledge of the resident's mental health and a check of the resident's medical record. More than one mental condition or disorder could have been reported.

*Behavioral problems*—Display by the resident of any of the six selected types of behavior that are generally considered dependent or disruptive: disrobing or exposing oneself, screaming, being physically abusive to oneself or others, stealing, getting lost or wandering into unacceptable places, and inability to avoid simple dangers.

*Disorientation or memory impairment*—Inability to remember dates or time, identify familiar locations or people,

recall important aspects of recent events, or make straightforward judgments, of such degree that the resident is impaired nearly every day in performance of basic activities of daily living, mobility, and other activities.

*Disturbance of mood*—Depression, anxiety, fearfulness, or worry of such degree that the resident is distressed or restricted in functioning nearly every day.

### **Terms relating to residents with next of kin**

*Next of kin*—Relatives, guardians, or anyone familiar with the sample resident and identified by the nursing home staff as the best potential respondent from the resident's medical records.

*General reasons for admission*—Includes six circumstances that the next of kin could have reported as influencing the resident's nursing home admission. More than one reason could have been reported. The six reasons are as follows: recuperation from surgery or illness, no one at home to provide care, not enough money to purchase nursing care at home, requiring more care than household members can give, problems in doing everyday activities (such as bathing, dressing, eating, walking, getting in and out of a chair or bed, or controlling urination or bowel movements), or a spouse's having entered a nursing home.

# Appendix III

## Selected survey instruments

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 PUBLIC HEALTH SERVICE  
 National Center for Health Statistics  
 1985 National Nursing Home Survey

Sheet \_\_\_\_\_ of \_\_\_\_\_ Sheets

OMB No. 0937-0115  
 APPROVAL EXPIRES 12/31/86

### CURRENT RESIDENT SAMPLING LIST

Control No. \_\_\_\_\_

#### Confidential Information

Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).

A. Type of identifier used: 1  Name      2  Other, Specify \_\_\_\_\_

B. Current Residents: Facility Total \_\_\_\_\_

C. Total in Sample \_\_\_\_\_

D. Interviewer Name \_\_\_\_\_

E. Interviewer ID \_\_\_\_\_

List the residents consecutively in the order in which they are given to you. Enter the total listed in Item B above. Compare the total with Table 2 to determine the sample. Circle the line numbers of all sampled residents. Count the number circled and enter it in Item C above.

RESIDENTS IN NURSING HOME	
LINE NO.	Resident Identifier
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

RESIDENTS IN NURSING HOME	
LINE NO.	Resident Identifier
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	

PHS-8271  
 01/85

If more lines are needed CONTINUE ON THE BACK



**CURRENT RESIDENT SAMPLING LIST – CONTINUED**

<b>RESIDENTS IN NURSING HOME</b>	
<b>LINE NO.</b>	<b>Resident Identifier</b>
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	

<b>RESIDENTS IN NURSING HOME</b>	
<b>LINE NO.</b>	<b>Resident Identifier</b>
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

If more lines are needed use a new sheet and renumber the lines beginning with # 101. Renumber lines on additional sheets, 201, 301, etc.

CONTROL NO. \_\_\_\_\_

## CURRENT RESIDENT QUESTIONNAIRE

### CONFIDENTIAL INFORMATION

Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with Section 308(d) of the Public Health Service Act (42 USC 242m).

A. Interviewer Name \_\_\_\_\_

B. Interviewer I.D. \_\_\_\_\_

C. Date of Interview \_\_\_\_\_

Mo / Day / Year

ENTER HERE AND ON FOLDOUT SHEET

D. Resident Line No. \_\_\_\_\_

E. Respondent Title \_\_\_\_\_

F. Name of Resident \_\_\_\_\_

First

Initial

Last

1. What is the sex of this resident?

01  Male      02  Female

2. What is \_\_\_\_\_'s date of birth?

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ or \_\_\_\_\_  
Mo.      Day      Year      Age

#### SHOW FLASHCARD # 1

3 a. What is the racial background that best describes \_\_\_\_\_ ?

- 01  White
- 02  Black
- 03  American Indian or Alaska Native
- 04  Asian or Pacific Islander
- 94  Don't know

3 b. Is \_\_\_\_\_ Hispanic or not?

- 01  Hispanic  
02  Not Hispanic  
94  Don't know

4a. What was \_\_\_\_\_'s marital status at admission?

- 01  Married  
02  Widowed  
03  Divorced  
04  Separated  
05  Never Married  
94  Don't know

b. What is \_\_\_\_\_'s marital status now?

- 01  Married  
02  Widowed  
03  Divorced  
04  Separated  
05  Never Married  
94  Don't know

**INTERVIEWER: READ INTRODUCTORY PARAGRAPH FOR THE SOCIAL SECURITY NUMBER ONLY ONCE FOR EACH NEW RESPONDENT.**

5. As part of this survey, we would like to have \_\_\_\_\_'s Social Security Number. Provision of this number is voluntary and not providing the number will have no effect in any way on \_\_\_\_\_'s benefits. This number will be useful in conducting future follow-up studies. It will be used to match against the vital statistics records maintained by the National Center for Health Statistics. This information is collected under the authority of Section 306 of the Public Health Service Act.

What is \_\_\_\_\_'s Social Security Number?

Social Security # \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

6. Does \_\_\_\_\_ have any living children?

- 01  Yes    02  No    94  Don't know

7. What was the date of \_\_\_\_\_'s current admission to this facility?

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Mo.          Day          Year

**INTERVIEWER: ENTER ADMISSION DATE ON FOLDOUT SHEET THEN ASK Q. 8.**

**SHOW FLASHCARD # 2**

8a. Where was \_\_\_\_\_ staying immediately before entering this facility?

- 01  Private residence (house or apartment)  
02  Rented room, boarding house  
03  Retirement home  
04  Another health (including mental health) facility (SKIP TO Q. 8c)  
05  Other arrangement, (SPECIFY) \_\_\_\_\_ (SKIP TO Q. 10)  
94  Don't know (SKIP TO Q. 10)

8b. At that time, was \_\_\_\_\_ living with family members, non-family members, or alone?

- 01  With family members
- 02  With non-family members
- 03  Alone
- 94  Don't know

SKIP TO Q. 10

SHOW FLASHCARD # 3

8c. What type of facility was it?

- 01  Domiciliary or personal care facility
- 02  Intermediate Care Facility (ICF)
- 03  Skilled Nursing Facility (SNF)
- 04  Facility for mentally retarded
- 05  General or short term hospital, except psychiatric unit
- 06  General or short-term hospital psychiatric unit
- 07  Veteran's hospital
- 08  Mental health Center
- 09  Residential facility (group home, cooperative apartment, family/foster care home)
- 10  State mental hospital
- 11  Private mental hospital
- 12  Chronic disease, rehabilitation, geriatric or other long-term care hospital
- 13  Other, (SPECIFY) \_\_\_\_\_
- 94  Don't know

SHOW FLASHCARD # 4

8d. Where was \_\_\_\_\_ staying immediately before entering that facility?

- 01  Private residence (house or apartment)
- 02  Rented room, boarding house
- 03  Retirement home
- 04  This facility (SKIP TO INTERVIEWER NOTE ABOVE Q. 9)
- 05  Another nursing home (SKIP TO INTERVIEWER NOTE ABOVE Q. 9)
- 06  Another health (including mental health) facility (SKIP TO INTERVIEWER NOTE ABOVE Q. 9)
- 07  Other arrangement, (SPECIFY) \_\_\_\_\_ (SKIP TO INTERVIEWER NOTE ABOVE Q. 9)
- 94  Don't know  
(SKIP TO INTERVIEWER NOTE ABOVE Q. 9)

8e. At that time was he/she living with family members, non-family members, or alone?

- 01  With family members
- 02  With non-family members
- 03  Alone
- 94  Don't know

**INTERVIEWER NOTE: BEFORE PROCEEDING, REFER TO Q. 8c. IS CATEGORY 05 CHECKED?**

YES (CONTINUE WITH Q. 9)    NO (SKIP TO Q. 10)

You reported that \_\_\_\_\_ was staying in a hospital before entering this facility.

9a. Do you know what \_\_\_\_\_'s hospital diagnosis related group (DRG) category was while \_\_\_\_\_ was in the hospital?

- 01  Yes
- 02  No (SKIP TO Q. 9c)

9b. What was \_\_\_\_\_'s DRG category?

DRG CATEGORY \_\_\_\_\_  
DRG Number Only

**SKIP TO Q. 9h**

9c. What condition, or diagnosis was chiefly responsible for \_\_\_\_\_'s admission to the hospital for care?

Principal diagnosis \_\_\_\_\_

FOR OFFICE USE ONLY  
DIAGNOSIS CODE

9d. Were there any other conditions that existed at the time of \_\_\_\_\_'s admission to the hospital or that developed during the stay which affected the treatment received?

- 01  Yes
- 02  NO (SKIP TO Q. 9f)
- 94  Don't know (SKIP TO Q. 9f)

FOR OFFICE USE ONLY  
CONDITION

9e. What were those conditions?

- \_\_\_\_\_ 1. \_\_\_\_\_
- \_\_\_\_\_ 2. \_\_\_\_\_
- \_\_\_\_\_ 3. \_\_\_\_\_

9f. Were any diagnostic or surgical procedures performed at the hospital?

- 01  YES
- 02  NO (SKIP TO Q. 9h)
- 94  Don't know (SKIP TO Q. 9h)

FOR OFFICE USE ONLY  
PROCEDURE

9g. What were the procedures?

- \_\_\_\_\_ 1. \_\_\_\_\_
- \_\_\_\_\_ 2. \_\_\_\_\_
- \_\_\_\_\_ 3. \_\_\_\_\_

9h. How many nights did \_\_\_\_\_ spend in the hospital during that stay?

Number of nights \_\_\_\_\_ 94  Don't know

10a. Has \_\_\_\_\_ been admitted to a short-stay hospital while a resident in this facility?  
That is, since (DATE OF ADMISSION) and without \_\_\_\_\_ being formally discharged from *this* facility.

01  Yes

02  No (SKIP TO Q. 11)

94  Don't know (SKIP TO Q. 11)

10b. How many stays did \_\_\_\_\_ have in short-stay hospitals since (DATE OF ADMISSION) and without being formally discharged from this facility?

Number of stays \_\_\_\_\_

10c. Do you know what \_\_\_\_\_'s hospital diagnosis related group (DRG) category was while in the hospital for the most recent stay?

01  Yes      02  NO (SKIP TO Q. 10e)

10d. What was \_\_\_\_\_'s DRG category for that stay?

DRG category \_\_\_\_\_

DRG Number Only

**SKIP TO Q. 10j**

10e. What condition or diagnosis was chiefly responsible for \_\_\_\_\_'s admission to the hospital for care for the most recent stay?

Principal diagnosis \_\_\_\_\_

FOR OFFICE USE ONLY  
DIAGNOSIS CODE

10f. Were there any other conditions that existed at the time of \_\_\_\_\_'s admission to the hospital or that developed during the stay which affected the treatment received?

01  Yes      02  No (SKIP TO Q. 10h)      94  Don't know (SKIP TO Q. 10h)

10g. What were those conditions?

FOR OFFICE USE ONLY  
CONDITION

\_\_\_\_\_  
1. \_\_\_\_\_  
\_\_\_\_\_  
2. \_\_\_\_\_  
\_\_\_\_\_  
3. \_\_\_\_\_

10h. Were any diagnostic or surgical procedures performed at the hospital?

01  Yes      02  No (SKIP TO Q. 10j)      94  Don't know (SKIP TO Q. 10j)

10i. What were the procedures?

FOR OFFICE USE ONLY  
PROCEDURE

\_\_\_\_\_  
1. \_\_\_\_\_  
\_\_\_\_\_  
2. \_\_\_\_\_  
\_\_\_\_\_  
3. \_\_\_\_\_

10j. How many nights did \_\_\_\_\_ spend in the hospital during that stay?

Number of nights \_\_\_\_\_

94  Don't know

11a. Has \_\_\_\_\_ previously been a resident in this facility?  
 01  Yes      02  No (SKIP TO Q. 11d)      94  Don't know (SKIP TO Q. 11d)

11b. How many times has \_\_\_\_\_ been a resident in this facility, not counting the (DATE OF ADMISSION) admission?  
 Times in facility \_\_\_\_\_

11c(1). On what dates was \_\_\_\_\_ admitted to and discharged from this facility?      11c(2). Was this discharge to a short-stay or general hospital?

	Admitted mo./day/yr.	Discharged mo./day/yr.	Yes	No	Don't know
1.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
2.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
3.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
4.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
5.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
6.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
7.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>
8.	____/____/____	____/____/____	01 <input type="checkbox"/>	02 <input type="checkbox"/>	94 <input type="checkbox"/>

11d. Was \_\_\_\_\_ ever in any *other* nursing homes beside this one?  
 01  Yes      02  No (SKIP TO Q. 12)      94  Don't know (SKIP TO Q. 12)

11e. Not counting this facility, in how many different nursing homes has \_\_\_\_\_ resided?  
 Number of different homes \_\_\_\_\_      94  Don't know

11f. Altogether, what was the total length of time that \_\_\_\_\_ spent in all those other nursing homes?  
 Do not include time spent in this facility.  
 \_\_\_\_\_      94  Don't know  
 Years                                  Months

11g. What is the name of each of the *other* nursing homes at which \_\_\_\_\_ was a resident or patient?

Facility

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_
- (3) \_\_\_\_\_

11h. How many times was \_\_\_\_\_ a resident in (NAME OF FACILITY IN Q. 11g(1))?  
 Times in facility \_\_\_\_\_

11i. On what dates was \_\_\_\_\_ admitted and discharged from (NAME OF FACILITY IN Q. 11g(1))?

Admitted		Discharged	
Month	Year	Month	Year
1.	____/____	____/____	
2.	____/____	____/____	
3.	____/____	____/____	

11j. How many times was \_\_\_\_\_ a resident in (NAME OF FACILITY IN Q. 11g(2))?  
Times in facility \_\_\_\_\_

11k. On what dates was \_\_\_\_\_ admitted and discharged from (NAME OF FACILITY IN Q. 11g(2))?

Admitted		Discharged	
Month	Year	Month	Year
1.	____/____	____/____	
2.	____/____	____/____	
3.	____/____	____/____	

11l. How many times was \_\_\_\_\_ a resident in (NAME OF FACILITY IN Q. 11g(3))?  
Times in facility \_\_\_\_\_

11m. On what dates was \_\_\_\_\_ admitted and discharged from (NAME OF FACILITY IN Q. 11g(3))?

Admitted		Discharged	
Month	Year	Month	Year
1.	____/____	____/____	
2.	____/____	____/____	
3.	____/____	____/____	

12. In order to follow-up on \_\_\_\_\_'s complete history of nursing home utilization, we would like to have any information you have that will allow us to locate \_\_\_\_\_'s next of kin. Please give me the names, addresses and telephone numbers of \_\_\_\_\_'s next of kin as well as any other relatives, friends or anyone else who might know about \_\_\_\_\_.

**INTERVIEWER: FILL IN AS MANY NAMES AND ADDRESSES AS AVAILABLE. PRINT ALL ENTRIES. ASK RESPONDENT TO INDICATE WHICH CONTACT IS THE "BEST CONTACT" AND PLACE AN ASTERISK ON THE LINE NEXT TO THAT NAME.**

12a. Next of kin:

No next of kin on record  
\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_



12b. Kin/Friend/Other:

\_\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_

12c. Kin/Friend/Other:

\_\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_

12d. Kin/Friend/Other:

\_\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_

12e. Kin/Friend/Other:

\_\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_

12f. Kin/Friend/Other:

\_\_\_\_\_ Name (First, Initial, Last) \_\_\_\_\_  
Street \_\_\_\_\_  
City and State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Telephone number ( ) \_\_\_\_\_  
Relationship to resident \_\_\_\_\_

13. According to \_\_\_\_\_'s medical record, what were the primary and other diagnoses at the time of admission, that is, on (DATE OF ADMISSION)? (SPECIFY).

		FOR OFFICE USE ONLY	
		ICD9	E or V CODE
Primary:	_____	1.	_____
Other:	_____	2.	_____
	_____	3.	_____
	_____	4.	_____
	_____	5.	_____
	_____	6.	_____
	_____	7.	_____
	_____	8.	_____

14. According to \_\_\_\_\_'s medical record, what are \_\_\_\_\_'s current primary and other diagnoses? (SPECIFY)

		FOR OFFICE USE ONLY	
		ICD9	E or V CODE
Primary:	_____	1.	_____
Other:	_____	2.	_____
	_____	3.	_____
	_____	4.	_____
	_____	5.	_____
	_____	6.	_____
	_____	7.	_____
	_____	8.	_____

**SHOW FLASHCARD # 5**

15. According to \_\_\_\_\_'s medical record does he/she currently have any of the following conditions? (MARK (X) ALL THAT APPLY)

- 01  Mental retardation
- 02  Alcohol abuse/dependence
- 03  Drug abuse/dependence
- 04  Senile dementia/chronic and organic brain syndrome
- 05  Depressive disorders
- 06  Schizophrenia
- 07  Other psychoses
- 08  Anxiety disorders
- 09  Personality/character disorders
- 10  Other mental disorders (SPECIFY) \_\_\_\_\_
- 11  No mental disorder

16a. During (LAST MONTH), did \_\_\_\_\_ receive any therapy services either inside or outside this facility from a licensed, registered, or professionally trained therapist?

01  Yes    2  No (SKIP TO Q. 17)    94  Don't know (SKIP TO Q. 17)

**SHOW FLASHCARD # 6**

16b. Which types of therapy did \_\_\_\_\_ receive during (LAST MONTH)? (MARK (X) ALL THAT APPLY)

- 01  Physical therapy
- 02  Occupational therapy
- 03  Recreational therapy
- 04  Speech and hearing therapy
- 05  Evaluation or mental health treatment by a physician other than a psychiatrist
- 06  Evaluation or mental health treatment by a psychiatrist
- 07  Evaluation or mental health treatment by a psychologist
- 08  Evaluation or mental health treatment by a psychiatric/clinical social worker
- 09  Evaluation or mental health treatment by a psychiatric nurse
- 10  Social services by a social worker
- 11  Other therapy services (SPECIFY) \_\_\_\_\_

17a. Does \_\_\_\_\_ wear eyeglasses or contacts?    01  Yes    02  No

17b. Does \_\_\_\_\_ have any difficulty in seeing (when wearing glasses or contacts)?

01  Yes    02  No (SKIP TO Q. 18)    94  Don't know (SKIP TO Q. 18)

**SHOW FLASHCARD # 7**

17c. Is \_\_\_\_\_'s sight (with glasses or contacts) partially, severely, or completely impaired, as defined on this card?

- 01  Partially impaired-cannot read newspaper print but can watch television 8 to 12 feet away
- 02  Severely impaired-cannot watch TV 8 to 12 feet away, but can recognize features of familiar persons if they are within 2-3 feet
- 03  Completely lost-blind
- 94  Don't know

18a. Does \_\_\_\_\_ wear a hearing aid?    01  Yes    02  No

18b. Does \_\_\_\_\_ have any difficulty in hearing (when wearing a hearing aid)?

01  Yes    02  No (SKIP TO Q. 19)    94  Don't know (SKIP TO Q. 19)

**SHOW FLASHCARD # 8**

18c. Is \_\_\_\_\_'s hearing (with hearing aid) partially, severely, or completely impaired as defined on this card?

- 01  Partially impaired-can hear most of the things a person says  
02  Severely impaired-can hear only a few words a person says or loud noises  
03  Completely lost-deaf  
94  Don't know

19a. Does \_\_\_\_\_ currently require any assistance in bathing or showering?

- 01  Yes      02  No (SKIP TO Q. 20)      94  Don't know (SKIP TO Q. 20)

19b. Does \_\_\_\_\_ bath or shower with the help of:

- (1) Special equipment?    01  Yes      02  No  
(2) Another person?      01  Yes      02  No

20a. Does \_\_\_\_\_ currently require any assistance in dressing?

- 01  Yes  
02  No (SKIP TO Q. 21)  
03  Remains partially or completely undressed or is dressed by another and does not participate (SKIP TO Q. 21)  
94  Don't know (SKIP TO Q. 21)

20b. Does \_\_\_\_\_ dress with the help of:

- (1) Special equipment?    01  Yes      02  No  
(2) Another person?      01  Yes      02  No

21a. Does \_\_\_\_\_ currently require any assistance in eating?

- 01  Yes  
02  No (SKIP TO Q. 22)  
03  Requires tube or intravenous feeding (SKIP TO Q. 22)  
94  Don't know (SKIP TO Q. 22).

21b. Does \_\_\_\_\_ eat with the help of:

- (1) Special equipment?    01  Yes      02  No  
(2) Another person?      01  Yes      02  No

21c. Is \_\_\_\_\_ fed totally by another person?    01  Yes      02  No

22a. Is \_\_\_\_\_ bedfast?

- 01  Yes (SKIP TO Q. 23)      02  No

22b. Is \_\_\_\_\_ chairfast?

- 01  Yes      02  No

23a. Does \_\_\_\_\_ currently require any assistance transferring in and out of bed or chairs?

01  Yes

02  No (SKIP TO Q. 24)

94  Don't know (SKIP TO Q. 24)

23b. Does \_\_\_\_\_ require the help of:

(1) Special equipment? 01  Yes 02  No

(2) Another person? 01  Yes 02  No

**IF YES TO EITHER Q. 23b(1) OR 23b(2), SKIP TO Q. 25**

24a. Does \_\_\_\_\_ currently require any assistance in walking?

01  Yes 02  No (SKIP TO Q. 25) 94  Don't know (SKIP TO Q. 25)

24b. Does \_\_\_\_\_ walk with the help of:

(1) Special equipment? 01  Yes 02  No

(2) Another person? 01  Yes 02  No

25a. Does \_\_\_\_\_ go outside the grounds of this facility?

01  Yes 02  No (SKIP TO Q. 26) 94  Don't know (SKIP TO Q. 26)

25b. When \_\_\_\_\_ goes outside the grounds, does \_\_\_\_\_ require the help of:

(1) Special equipment 01  Yes 02  No

(2) Another person? 01  Yes 02  No

26a. Does \_\_\_\_\_ have an ostomy, an indwelling catheter or similar device?

01  Yes 02  No (SKIP TO Q. 26c)

26b. Does \_\_\_\_\_ require any assistance from another person in caring for this device?

01  Yes 02  No

26c. Does \_\_\_\_\_ currently require any assistance using the toilet room?

01  Yes

02  No (SKIP TO Q. 27)

03  Does not use toilet room (ostomy patient, chairfast, etc.) (SKIP TO Q. 27)

94  Don't know (SKIP TO Q. 27)

26d. Does \_\_\_\_\_ require the help of:

(1) Special equipment? 01  Yes 02  No

(2) Another person? 01  Yes 02  No

27a. Does \_\_\_\_\_ currently have any difficulty in controlling \_\_\_\_\_ bowels?

- 01  Yes
- 02  No (SKIP TO Q. 28)
- 03  Not applicable, has had an ostomy (SKIP TP Q. 28)
- 94  Don't know (SKIP TO Q. 28)

27b. How frequently does \_\_\_\_\_ have this difficulty?

- 01  Daily
- 02  Several times a week
- 03  Once a week
- 04  Less than once a week
- 94  Don't know

28a. Does \_\_\_\_\_ currently have any difficulty in controlling \_\_\_\_\_ bladder?

- 01  Yes
- 02  No (SKIP TO Q. 29)
- 03  Not applicable has indwelling catheter, ostomy, or external device (SKIP TO Q. 29)
- 94  Don't know (SKIP TO Q. 29)

28b. How frequently does \_\_\_\_\_ have this difficulty?

- 01  Daily
- 02  Several times a week
- 03  Once a week
- 04  Less than once a week
- 94  Don't know

28c. Does this occur only at night?

- 01  Yes
- 02  No
- 94  Don't know

29. Does \_\_\_\_\_ receive personal help or supervision in any of the following activities:

- |  | Yes                         | No                          | Don't know                  |
|--|-----------------------------|-----------------------------|-----------------------------|
| a. Care of personal possessions?   | 01 <input type="checkbox"/> | 02 <input type="checkbox"/> | 94 <input type="checkbox"/> |
| b. Handling money?   | 01 <input type="checkbox"/> | 02 <input type="checkbox"/> | 94 <input type="checkbox"/> |
| c. Securing personal items such as newspapers, toilet articles, snack foods? | 01 <input type="checkbox"/> | 02 <input type="checkbox"/> | 94 <input type="checkbox"/> |
| d. Using the telephone? (dialing or receiving calls)                         | 01 <input type="checkbox"/> | 02 <input type="checkbox"/> | 94 <input type="checkbox"/> |

30. How long have you provided care for \_\_\_\_\_?

- 01  less than 1 month
- 02  1-3 months
- 03  4-6 months
- 04  7-11 months
- 05  12 months or more
- 06  Respondent does not provide care

31. How would you rate \_\_\_\_\_'s physical health at the present time?

- 01  Excellent
- 02  Good
- 03  Fair
- 04  Poor
- 94  Don't know

32. How would you rate \_\_\_\_\_'s mental health at the present time?

- 01  Excellent
- 02  Good
- 03  Fair
- 04  Poor
- 94  Don't know

**SHOW FLASHCARD # 9**

33. The types of behaviors on this card are generally considered dependent or disruptive. Does \_\_\_\_\_ display any of these types of behavior problems? Assess \_\_\_\_\_'s behavior with medications if customarily taken. (MARK (X) ALL THAT APPLY).

- 01  Disrobing/exposing oneself
- 02  Screaming
- 03  Being physically abusive to self or others
- 04  Stealing
- 05  Getting lost or wandering into unacceptable places
- 06  Inability to avoid simple dangers
- 07  None of the above

**SHOW FLASHCARD # 10**

34. Is \_\_\_\_\_ disoriented or memory impaired in the following activities to such a degree that \_\_\_\_\_ is impaired nearly every day in performing the basic activities of daily living, mobility, and adaptive tasks? (MARK (X) ALL THAT APPLY)

- 01  Unable to remember dates or time
- 02  Unable to identify familiar locations or people
- 03  Unable to recall important aspects of recent events
- 04  Unable to make straight forward judgments
- 05  None of the above

**SHOW FLASHCARD # 11**

35. Does \_\_\_\_\_ display depression, anxiety, fearfulness or worry to such a degree that \_\_\_\_\_ is distressed or restricted in functioning nearly every day? (MARK (X) ALL THAT APPLY)

- 01  Displays depression
- 02  Displays anxiety
- 03  Displays fearfulness or worry
- 04  None of the above

**INTERVIEWER, READ:** The remaining few questions deal with charges and payment sources. Do you have this information?

- 01  Yes      02  No

**(DETERMINE WHO HAS INFORMATION AND WHEN YOU HAVE COMPLETED ALL THE RESIDENT QUESTIONNAIRES, INTERVIEW THAT PERSON FOR THE INFORMATION, USING PROMPT CARD # 11.)**

**INTERVIEWER NOTE: BEFORE PROCEEDING, REFER TO THE ADMISSION DATE ON THE FOLDOUT SHEET. WAS THE RESIDENT ADMITTED AFTER THE FIRST DAY OF LAST MONTH?**

- 01  YES (SKIP TO Q. 39)      02  NO (CONTINUE WITH Q. 36)

**SHOW FLASHCARD # 12**

36. What were all the sources of payment for \_\_\_\_\_'s care for the month of (MONTH AND YEAR OF ADMISSION)? That is, for the month when \_\_\_\_\_ was admitted to this facility. (MARK (X) ALL THAT APPLY)

- 01  Own income, family support, health insurance, retirement funds, Social Security, etc.
- 02  Medicare
- 03  Medicaid — skilled nursing
- 04  Medicaid — intermediate care
- 05  State funded indigent care (excluding Medicaid)
- 06  Other government assistance or welfare
- 07  Religious organizations, foundations, volunteer agencies
- 08  VA contract
- 09  Initial payment-life care funds
- 10  No charge made for care (facility assumes cost)
- 11  Payment source not yet determined
- 12  Other, (SPECIFY) \_\_\_\_\_



**SHOW FLASHCARD # 12**

37. What was the primary source of payment for \_\_\_\_\_'s care for the month of (MONTH AND YEAR OF ADMISSION)?

- 01  Own income, family support, health insurance, retirement funds, Social Security, etc.
- 02  Medicare
- 03  Medicaid — skilled nursing
- 04  Medicaid — intermediate care
- 05  State funded indigent care (excluding Medicaid)
- 06  Other government assistance or welfare
- 07  Religious organizations, foundations, volunteer agencies
- 08  VA contract
- 09  Initial payment-life care funds
- 10  No charge made for care (facility assumes cost)
- 11  Payment source not yet determined
- 12  Other, (SPECIFY) \_\_\_\_\_

38. Last month, what was the total charge billed for \_\_\_\_\_'s care, including all charges for private duty nursing, drugs, and special medical supplies?

\$\_\_\_\_\_ per month

01  No charge was made for care

**SKIP TO INTERVIEWER NOTE ABOVE Q. 40**

39. From (DATE OF ADMISSION) through yesterday, what was the total charge billed for \_\_\_\_\_ care, including all charges for private duty nursing, drugs, and special medical supplies?

\$\_\_\_\_\_ per

- 01  Since date of admission
- 02  Day
- 03  Week
- 04  Month
- 05  Other period, (SPECIFY) \_\_\_\_\_
- 06  No charge was made for care
- 94  Don't know (not billed yet, etc.)

**INTERVIEWER NOTE: IF Q. 38 WAS ASKED (RESIDENT IN HOME ONE FULL CALENDAR MONTH OR MORE), USE THE PHRASE "LAST MONTH" IN Q. 40. IF Q. 39 WAS ASKED, USE THE PHRASE "DURING THIS TIME" IN Q. 40.**

**SHOW FLASHCARD # 12**

40a. What are all the sources of payment for \_\_\_\_\_'s care (LAST MONTH/DURING THIS TIME)?

(MARK (X) ALL THAT APPLY)

b. ASK FOR EACH SOURCE MARKED:  
What was the amount paid by \_\_\_\_\_ (LAST MONTH/DURING THIS TIME)?

(ENTER AMOUNT OR MARK "Don't know")

		Don't know
01 <input type="checkbox"/>	Own income, family support, health insurance, retirement funds, Social Security, etc.	\$ _____ . 94 <input type="checkbox"/>
02 <input type="checkbox"/>	Medicare	\$ _____ . 94 <input type="checkbox"/>
03 <input type="checkbox"/>	Medicaid — <u>skilled</u> care	\$ _____ . 94 <input type="checkbox"/>
04 <input type="checkbox"/>	Medicaid — <u>intermediate</u> care	\$ _____ . 94 <input type="checkbox"/>
05 <input type="checkbox"/>	State funded indigent care (excluding Medicaid)	\$ _____ . 94 <input type="checkbox"/>
06 <input type="checkbox"/>	Other government assistance or welfare	\$ _____ . 94 <input type="checkbox"/>
07 <input type="checkbox"/>	Religious organizations, foundations, volunteer agencies	\$ _____ . 94 <input type="checkbox"/>
08 <input type="checkbox"/>	VA contract	\$ _____ . 94 <input type="checkbox"/>
09 <input type="checkbox"/>	Initial payment-life care funds	\$ _____ . 94 <input type="checkbox"/>
10 <input type="checkbox"/>	No charge made for care (facility assumes cost)	\$ _____ . 94 <input type="checkbox"/>
11 <input type="checkbox"/>	Payment source not yet determined	
12 <input type="checkbox"/>	Other, (SPECIFY) _____	\$ _____ . 94 <input type="checkbox"/>

**INTERVIEWER: CONTINUE TO NEXT CURRENT RESIDENT QUESTIONNAIRE**

SUMMARY OF DATES

Date of Interview:    \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
                                  Mo.       Day       Year

Date of Admission:   \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
                                  Mo.       Day       Year

OVERLAP CASES

DRQ \_\_\_\_\_

None

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