



Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1992 Through 1998

by

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STATE DATA ON NURSING FACILITIES, STAFFING, RESIDENTS, AND FACILITY DEFICIENCIES, 1992 THROUGH 1998

Introduction

The large state and federal expenditures for nursing homes (\$87.5 billion in 1996) have drawn the attention of policy makers and researchers to understand the nursing home industry (Levit et al., 1997). The demand for nursing home beds is growing with the aging of the population and many other factors (Zedlewski and McBride, 1992). As the need for care grows, the nation's nursing facilities are an increasing subject of concern. The specific characteristics of the facilities, staff, and residents are of critical importance to the delivery of nursing home care.

The quality of care provided in nursing homes has long been a matter of great concern to consumers, professionals, and policy-makers. Because of the growing concern about nursing home quality, Congress requested a study by the Institute of Medicine (IOM). The IOM's Study on Nursing Home Regulation (1986) and other studies reported widespread quality of care problems and recommended the strengthening of federal regulations for nursing homes (USGAO, 1987; US Senate, 1986; Zimmerman et al., 1985). The IOM Committee recommendations and the active efforts of many consumer advocates resulted in Congress passing Nursing Home Reform Legislation (OBRA, 1987).

The OBRA 1987, implemented by HCFA regulations in 1990 and in 1992, mandated a number of changes. First, the regulations eliminated the priority hierarchy of conditions, standards, and elements that were in the prior regulations. Second, comprehensive assessments of all nursing home residents were mandated to determine the functional, cognitive, and affective levels of residents which must be used in the care planning process (Morris et al., 1990). Third, more specific requirements for nursing, medical and psychosocial services were designed to attain and maintain the highest possible mental and physical functional status by focusing on outcomes (such as incontinence, immobility, and decubitus ulcers). Regulations detailing and protecting residents' rights were added. Major changes were made by the Health Care Financing Administration in the federal survey reports and the enforcement procedures in July 1995.

One valuable source of data on nursing facilities and the quality of care in these facilities is from the On-line Survey, Certification, and Reporting system (OSCAR). The OSCAR system has information from the state surveys of all (about 15,500) certified nursing facilities in the U.S., which are entered into a uniform, computerized database.

Purpose of the Data Book

This book presents calendar year data on nursing facilities, staffing, resident characteristics, and surveyor reports of quality deficiencies by state. These OSCAR data are from surveys in 1992 through 1998 collected by state agency surveyors on nursing facilities during the federal certification process.

The OSCAR data were collected from surveys conducted during each calendar year. Unfortunately, because of the way the historical data files were overwritten when a new survey was conducted by the Health Care Financing Administration (HCFA), some facility data were not available from the historical files for 1992, and 1993. The OSCAR data reported here includes the large majority of facilities and no systematic biases were identified for those facilities not included in those years. Data for the remaining periods were complete.

The report presents a description of facility characteristics. Detailed summaries about the type of certification, bed size, occupancy, ownership, hospital-based and chain affiliations and other facility characteristics are presented.

Resident characteristics are shown as reported by the nursing facilities. These include activities of daily living (ADLs), restraints, incontinence, psychological problems, and other special care needs of residents.

Nurse staffing (RNs, LVNs, and NAs) hours per resident day are presented for

nursing facilities. These data are reported by facilities for a two-week period prior to when the state survey was conducted. The data are the only major source of information for all facilities on staffing levels.

Finally, data are presented on facility deficiencies based on state surveyor evaluations of the process and outcomes of care in the facilities. Deficiency data are presented for the 17 major areas used in the survey process: (1) resident rights; (2) admission, transfer and discharge rights; (3) resident behavior and facility practices; (4) quality of life; (5) resident assessment; (6) quality of care; (7) nursing services; (8) dietary services; (9) physician services; (10) rehabilitation services; (11) dental services; (12) pharmacy services; (13) infection control; (14) physical environment; (15) administration; (16) laboratory services; and (17) other. The information compiled shows differences in the frequency of the deficiencies by type and category.

In order to use the OSCAR data for this report, the researchers have undertaken a process to prepare the data. Certain decision rules were developed to use different components of the data. Technical issues are described in detail in the Appendix.

Background on the Survey System and Data Collection

Every facility must have an initial survey to verify compliance with all federal regulatory requirements in order to be certified. Certified facilities are resurveyed annually in order to continue certification. States are required to survey each facility no less often than every 15 months, and the state average for all facilities is about every 12 months. Follow-up surveys may be conducted to assure that facilities correct identified deficiencies. In addition, surveys are required when there are substantial changes in a facility's organization and management. Finally, surveys may be conducted to follow-up a complaint which alleges substandard care.

OSCAR data are collected in two different ways. First, the facility characteristics, resident characteristics, and staffing levels are completed on standardized forms by individual nursing homes at the beginning of each survey and are certified by the facility as being accurate. The data are provided to the state surveyors on the appropriate forms as the state begins the survey process. During the survey, state surveyors review the data and conduct checks by comparing the facility report with individual resident medical records, staffing records, and observations of residents. After the review of the survey data, state staff enter these data from written forms into a computerized on-line OSCAR data base.

Second, state surveyors make decisions regarding whether the facility has met or not met each standard after the facility survey has been completed. If a facility is judged to not meet a standard, the facility is given a deficiency and OSCAR reports that the standard was NOT MET.

The survey evaluations are based upon data from a combination of sources including, but not limited to, the assessment of a selected sample of individual residents; interviews with a sample of residents, family members and staff; a review of the resident records and facility documents; and other data. After these judgments are made, the state surveyors record and enter the data for each item for each facility into the on-line OSCAR data system. Thus, the determinations of deficiencies are made by state surveyors independently of the facility, with standard forms, sampling and survey procedures to ensure accuracy. State surveyor decisions are reviewed by team members and state supervisors. Facilities have the option to challenge and appeal decisions through an administrative review process.

Because of these checks in the system, the likelihood of false positive deficiencies is low, and errors tend to be in under-reporting of failures to meet standards (USGAO, 1998). Thus, a note of caution is needed that under-reporting of deficiencies is more likely to be a problem than over-reporting.

HCFA Procedures and State Survey Variation

HCFA uses "front-end" edit screens to ensure the accuracy of the OSCAR data. State staff enter the data for each survey item into the OSCAR data set within 45 days of each survey. Some "front-end edit" checks are established in the OSCAR program for entering the data for each component of the survey to identify entry errors. This computerized edit system has resolved many data problems. Beyond this, the regional offices conduct reviews of OSCAR data from each state survey.

One concern about the OSCAR data has been with the survey procedures and the intersurvey reliability (both across states and within states) in judging the quality of facilities (IOM, 1986; U.S. GAO, 1988). This issue has been addressed in part by the new 1990 federal survey procedures. First, the new procedures require accuracy checks by surveyors to determine whether facilities are conducting comprehensive assessments of residents and whether or not these assessments are accurate and appropriately used in the care planning process. The new federal regulations and survey forms have improved the sampling procedures and survey methods used by the survey teams. The federal procedures require state surveyors to use a stratified random sample of residents for in-depth reviews and to conduct face-to-face resident assessments, closed record reviews, and individual and group structured interviews. These changes were designed to improve the reliability of the survey process and the data reported on OSCAR and to make surveys more oriented toward the residents.

Moreover, HCFA has provided extensive new federal training for state surveyors.

In addition, the Health Care Standards and Quality Bureau of HCFA, using federal survey teams from the regional offices, conducts periodic oversight surveys. In the past, Federal staff resurveyed the same facilities within 60 days of the state survey for a sample of facilities. Regional HCFA offices developed a survey concurrence index for key survey components (from OSCAR) for each state. This annual concurrence index becomes a part of the federal monitoring criteria along with other components conducted by HCFA. States that fall below the concurrence standards established by HCFA are critiqued and monitored by HCFA. Using new procedures since July 1995, federal surveyors now accompany state surveyors on a selected number of surveys to observe the surveys.

Even though HCFA has made efforts to standardize the reporting of deficiencies by state survey staff, some regional variations may exist. Different states may vary their survey procedures, training efforts, and enforcement stringency (USGAO, 1999; USOIG, 1993). The US Office of the Inspector General (USOIG, 1993) reported that staff turnover and recruitment problems and fiscal problems at the state level may hamper survey and enforcement efforts. Preliminary results from a recent national evaluation of the nursing home certification survey process conducted by Abt et al. (1993) also found some variations in the survey

process. Since it is difficult to distinguish between real differences in the quality of facilities and differences in survey procedures, regional variations should be taken into account by the user of the report.

It is hoped that this report will be useful to consumers, nursing facilities, researchers, and policy makers to understand trends over time and across states.

FACILITY CHARACTERISTICS

Background

Facility characteristics are important. The most important feature of a facility is the number of beds which are certified for Medicare and Medicaid residents. The size of the facility determines the number of residents which can be admitted. Occupancy rates are important in showing the potential availability of beds and such occupancy rates influence the financial status of the facility. High occupancy rates can limit access to care, especially for those on Medicaid (USGAO, 1990).

The percentage of Medicare and Medicaid patients in a facility is an important factor. Nursing homes have historically considered Medicaid reimbursement rates to be low and prefer private pay patients (Phillips and Hawes, 1988). Nyman (1988b) found that nursing homes in Iowa with more private pay residents provided better quality of care. Gertler (1989) also found a relationship between greater Medicaid patients and poorer quality of nursing home care. Spector and Takada (1991) were able to confirm that facilities with a low percentage of private residents were associated with poorer outcomes of care. Thus, the percentage of Medicare or private pay patients should be included in descriptive information about facilities (Nyman, 1988a,b; 1989b; Davis, 1993).

One of the major debates in research circles is whether the proprietary nature of the nursing home industry affects process and outcomes in terms of quality of care. A review of the research studies

on ownership and quality shows a mixed picture in terms of the relationship (Koetting, 1980; O'Brien et al., 1983; Greene and Monahan, 1981; Hawes and Phillips, 1986; Ullman, 1987; Nyman et al., 1990; Davis, 1991; Aaronson et al., 1994). Nyman (1988b) found that nonprofit nursing homes in Iowa were associated with higher quality of care. Davis (1993) found that for-profit and chain facilities in Kentucky had lower operating costs, lower quality (as measured by a composite index of the likelihood rates for decubitus ulcers, catheterization, physical restraints, chemical restraints, and drug error rates) even though they also had higher ratios of registered nurses per resident and lower overall staffing levels. Thus, proprietary ownership is an area of great debate, but proprietary facilities and chains may be associated with lower staffing levels and poorer process and outcome measures.

Hospital-based nursing homes may have higher quality of care because they have more Medicare patients, have higher staffing levels, and/or are more likely to be non-profit in ownership. Having accreditation may be positively associated with higher staffing levels and with higher quality of care. The existence of dedicated special care units, such as those for persons with Alzheimer's disease, may also be associated with higher quality of care because of higher staffing levels. Large size facilities may also be associated with higher quality although findings are mixed (Ullmann, 1981; Nyman 1988b;

Davis, 1991). Those facilities with organized residents groups or organized family groups may have higher quality of care. Facilities with the capacity to conduct research may also be expected to have higher quality of care.

The following section presents data from OSCAR to describe certified nursing facilities in the U.S.: beds by certification types (Medicare, Medicaid, or both), occupancy rate (number of residents divided by total number of beds), ownership (non-profit religious, non-profit private, non-profit other,

proprietary, or government), owned or leased by a multi-facility organization (chain), and hospital-based facility (yes or no).

In addition, the number of beds in special care units (such as Alzheimer's, AIDS, etc.) was reported. Facilities that have an organized residents' group (yes or no) or organized family member group (yes or no) were also reported. Summary data on each of these structural features are presented for each state.

FINDINGS

FACILITY CHARACTERISTICS

Total Number of Certified Nursing Facilities By Calendar Year

Table 1 shows the total number of certified nursing facilities surveyed in the U.S. by calendar year available for this report. Data for 1992 and 1993 were underreported because of incomplete historical files from HCFA. Surveys during the calendar years of 1994 through 1998 were more complete.

**TABLE 1
TOTAL NUMBER OF CERTIFIED NURSING FACILITIES IN THE U.S.
BY CALENDAR YEAR**

| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AK | 15 | 12 | 14 | 13 | 16 | 14 | 14 |
| AL | 207 | 194 | 203 | 198 | 208 | 196 | 216 |
| AR | 233 | 239 | 242 | 260 | 256 | 255 | 236 |
| AZ | 127 | 118 | 135 | 112 | 142 | 118 | 129 |
| CA | 1,126 | 1,138 | 1,295 | 1,252 | 1,311 | 1,298 | 1,194 |
| CO | 192 | 200 | 197 | 203 | 190 | 208 | 212 |
| CT | 220 | 243 | 255 | 251 | 228 | 253 | 225 |
| DC | 15 | 15 | 18 | 13 | 18 | 22 | 14 |
| DE | 33 | 37 | 43 | 33 | 37 | 42 | 27 |
| FL | 526 | 572 | 616 | 569 | 586 | 620 | 660 |
| GA | 325 | 339 | 338 | 353 | 353 | 299 | 350 |
| HI | 35 | 25 | 26 | 42 | 40 | 42 | 44 |
| IA | 423 | 436 | 431 | 412 | 429 | 407 | 419 |
| ID | 63 | 65 | 78 | 80 | 74 | 77 | 79 |
| IL | 741 | 764 | 772 | 832 | 838 | 837 | 834 |
| IN | 464 | 362 | 501 | 523 | 538 | 548 | 540 |
| KS | 391 | 417 | 361 | 390 | 354 | 368 | 400 |
| KY | 236 | 259 | 259 | 234 | 280 | 260 | 304 |
| LA | 303 | 295 | 305 | 327 | 330 | 337 | 339 |
| MA | 403 | 481 | 491 | 484 | 483 | 529 | 477 |
| MD | 178 | 189 | 200 | 186 | 207 | 215 | 171 |
| ME | 141 | 125 | 131 | 115 | 125 | 125 | 118 |
| MI | 404 | 380 | 412 | 366 | 411 | 406 | 394 |
| MN | 428 | 427 | 354 | 380 | 358 | 388 | 401 |
| MO | 474 | 444 | 514 | 503 | 507 | 548 | 500 |
| MS | 160 | 164 | 162 | 199 | 190 | 201 | 200 |
| MT | 96 | 95 | 96 | 100 | 93 | 95 | 92 |
| NC | 321 | 348 | 369 | 386 | 366 | 379 | 385 |
| ND | 75 | 80 | 81 | 83 | 87 | 75 | 88 |
| NE | 220 | 219 | 221 | 226 | 229 | 233 | 230 |
| NH | 66 | 66 | 67 | 72 | 70 | 75 | 75 |
| NJ | 294 | 263 | 294 | 303 | 301 | 292 | 306 |
| NM | 71 | 69 | 77 | 77 | 79 | 63 | 66 |
| NV | 33 | 31 | 40 | 36 | 39 | 38 | 41 |
| NY | 538 | 524 | 609 | 547 | 558 | 532 | 540 |
| OH | 906 | 846 | 875 | 884 | 973 | 918 | 918 |
| OK | 360 | 331 | 341 | 383 | 379 | 383 | 297 |
| OR | 158 | 156 | 150 | 150 | 154 | 152 | 155 |
| PA | 644 | 628 | 710 | 640 | 722 | 775 | 764 |
| RI | 97 | 77 | 92 | 82 | 86 | 92 | 89 |
| SC | 146 | 135 | 134 | 154 | 165 | 175 | 163 |
| SD | 112 | 108 | 106 | 111 | 100 | 101 | 86 |
| TN | 269 | 289 | 298 | 300 | 324 | 341 | 349 |
| TX | 1,062 | 883 | 1,185 | 1,190 | 1,198 | 1,175 | 1,136 |
| UT | 84 | 88 | 90 | 76 | 79 | 91 | 89 |
| VA | 240 | 244 | 263 | 238 | 252 | 237 | 231 |
| VT | 44 | 41 | 18 | 40 | 37 | 37 | 34 |
| WA | 267 | 263 | 269 | 269 | 267 | 276 | 271 |
| WI | 393 | 394 | 388 | 400 | 389 | 399 | 390 |
| WV | 107 | 80 | 128 | 67 | 110 | 78 | 69 |
| WY | 35 | 28 | 34 | 38 | 37 | 36 | 40 |
| US | 14,501 | 14,226 | 15,288 | 15,182 | 15,603 | 15,661 | 15,401 |

Total Number of Certified Nursing Facility Beds By Calendar Year

Table 2 shows the number of certified nursing facility beds in the U.S. surveyed during a calendar year which were available for the report. The total reported was an undercount for 1992 and 1993. There were 1,617,036 nursing facility beds reported in 1994, and 1,598,495 in 1998.

TABLE 2
TOTAL NUMBER OF CERTIFIED NURSING FACILITY BEDS IN THE U.S.
BY CALENDAR YEAR

| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| AK | 727 | 618 | 671 | 582 | 733 | 633 | 675 |
| AL | 21,632 | 20,328 | 21,320 | 21,275 | 22,531 | 21,357 | 24,056 |
| AR | 22,392 | 22,966 | 23,868 | 25,274 | 24,733 | 24,863 | 23,337 |
| AZ | 13,186 | 11,857 | 15,019 | 12,104 | 15,090 | 12,955 | 14,091 |
| CA | 103,600 | 101,865 | 120,927 | 113,726 | 118,898 | 119,015 | 108,655 |
| CO | 17,534 | 17,670 | 18,217 | 18,487 | 17,331 | 18,436 | 18,759 |
| CT | 26,351 | 28,361 | 30,952 | 30,363 | 29,123 | 31,691 | 27,962 |
| DC | 2,705 | 2,945 | 3,102 | 1,976 | 2,461 | 3,116 | 2,175 |
| DE | 3,016 | 3,367 | 4,869 | 3,693 | 3,869 | 4,776 | 3,169 |
| FL | 58,266 | 62,068 | 72,041 | 64,358 | 65,236 | 68,368 | 72,598 |
| GA | 34,845 | 36,067 | 37,082 | 38,020 | 37,969 | 33,325 | 37,934 |
| HI | 2,697 | 1,574 | 2,144 | 3,530 | 3,413 | 3,696 | 3,860 |
| IA | 30,712 | 31,880 | 34,055 | 32,299 | 33,572 | 32,420 | 31,986 |
| ID | 4,981 | 4,981 | 5,790 | 5,814 | 5,343 | 5,693 | 5,883 |
| IL | 87,335 | 87,901 | 95,673 | 102,729 | 105,211 | 103,943 | 103,731 |
| IN | 43,948 | 34,143 | 54,443 | 55,762 | 57,542 | 58,974 | 58,371 |
| KS | 26,797 | 28,514 | 25,708 | 27,675 | 25,225 | 25,622 | 27,698 |
| KY | 18,503 | 20,331 | 20,918 | 19,091 | 23,048 | 21,466 | 24,828 |
| LA | 32,458 | 31,959 | 34,554 | 37,240 | 37,136 | 37,848 | 38,828 |
| MA | 38,617 | 46,982 | 50,366 | 48,162 | 48,826 | 54,270 | 49,628 |
| MD | 22,582 | 23,664 | 26,416 | 23,732 | 26,072 | 26,287 | 20,065 |
| ME | 9,895 | 8,391 | 9,537 | 7,856 | 8,907 | 8,709 | 7,848 |
| MI | 43,705 | 41,906 | 47,492 | 41,569 | 47,581 | 46,451 | 44,932 |
| MN | 43,785 | 43,840 | 36,161 | 38,513 | 36,720 | 39,111 | 39,757 |
| MO | 41,993 | 39,242 | 50,342 | 48,193 | 48,718 | 53,386 | 47,931 |
| MS | 14,936 | 14,985 | 14,837 | 16,997 | 15,819 | 16,466 | 16,837 |
| MT | 6,842 | 6,651 | 7,062 | 7,232 | 6,510 | 6,844 | 6,743 |
| NC | 30,911 | 34,381 | 36,501 | 37,899 | 35,951 | 37,081 | 37,979 |
| ND | 6,458 | 6,910 | 6,725 | 6,634 | 7,115 | 6,031 | 7,055 |
| NE | 16,927 | 16,697 | 17,427 | 17,538 | 17,710 | 17,800 | 17,678 |
| NH | 6,484 | 5,992 | 6,538 | 7,006 | 6,958 | 7,399 | 7,247 |
| NJ | 42,905 | 38,519 | 43,479 | 43,995 | 44,734 | 43,061 | 43,080 |
| NM | 6,284 | 6,363 | 6,372 | 6,500 | 6,911 | 5,402 | 5,779 |
| NV | 3,321 | 3,091 | 3,981 | 3,617 | 3,586 | 3,083 | 3,721 |
| NY | 91,044 | 88,175 | 106,753 | 92,669 | 97,936 | 92,031 | 95,393 |
| OH | 82,250 | 75,897 | 88,762 | 87,628 | 99,553 | 93,726 | 94,173 |
| OK | 29,427 | 27,091 | 28,329 | 32,123 | 32,107 | 31,474 | 24,395 |
| OR | 13,067 | 12,886 | 13,075 | 12,988 | 13,270 | 13,144 | 13,367 |
| PA | 83,803 | 82,140 | 91,460 | 81,036 | 90,142 | 93,680 | 91,648 |
| RI | 9,821 | 7,414 | 9,547 | 8,485 | 8,936 | 9,398 | 9,293 |
| SC | 14,242 | 13,252 | 13,575 | 15,626 | 16,621 | 17,472 | 16,299 |
| SD | 8,175 | 7,899 | 7,684 | 8,093 | 7,178 | 7,054 | 6,257 |
| TN | 31,339 | 33,578 | 34,536 | 34,174 | 36,892 | 37,476 | 38,832 |
| TX | 98,942 | 79,499 | 115,895 | 113,362 | 116,290 | 113,412 | 111,589 |
| UT | 6,600 | 6,828 | 7,078 | 5,609 | 6,724 | 7,261 | 7,025 |
| VA | 26,859 | 26,562 | 29,113 | 26,671 | 28,393 | 26,243 | 25,153 |
| VT | 3,395 | 3,174 | 1,334 | 3,383 | 3,077 | 3,129 | 2,787 |
| WA | 25,975 | 26,011 | 26,515 | 26,053 | 25,877 | 25,996 | 25,216 |
| WI | 46,608 | 47,096 | 45,135 | 46,685 | 45,174 | 44,830 | 43,593 |
| WV | 8,974 | 6,590 | 10,852 | 5,600 | 8,846 | 7,760 | 5,441 |
| WY | 2,850 | 2,169 | 2,804 | 3,125 | 3,082 | 2,892 | 3,158 |
| US | 1,470,701 | 1,433,270 | 1,617,036 | 1,572,751 | 1,630,680 | 1,626,556 | 1,598,495 |

Average Number of Certified Beds Per Nursing Facility

The number of nursing beds per facility is calculated by dividing the total number of beds in a state by the total number of facilities in the state. Table 3 shows the overall average size of certified facilities in the U.S. was about 104-106 beds per facility in the 1992-1998 period. These data are similar to the average size of licensed nursing homes reported at 102 beds in 1994 (DuNah et. al., 1994). Larger licensed facilities may be slightly more likely to be certified than small facilities.

Average Size of Nursing Facilities

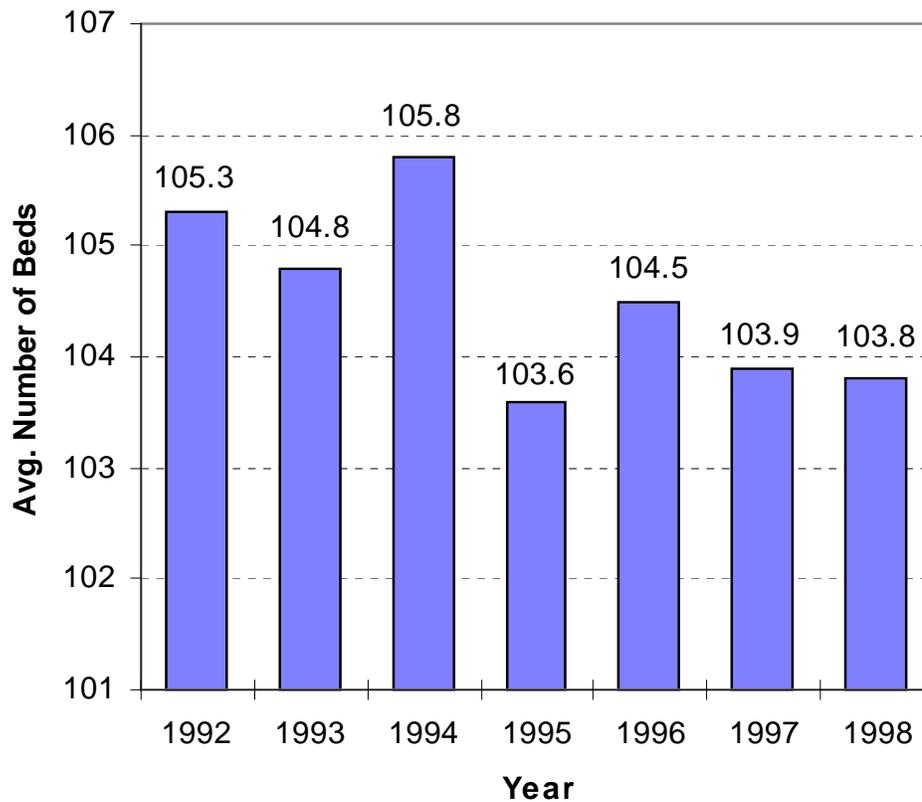


TABLE 3
AVERAGE NUMBER OF CERTIFIED NURSING FACILITY BEDS IN THE
U.S. BY CALENDAR YEAR

| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| AK | 52.7 | 56.8 | 47.9 | 44.8 | 45.8 | 45.2 | 48.2 |
| AL | 105.1 | 106.0 | 105.0 | 107.4 | 108.3 | 109.0 | 111.4 |
| AR | 96.5 | 97.4 | 98.6 | 97.2 | 96.6 | 97.5 | 98.9 |
| AZ | 112.9 | 111.2 | 111.3 | 108.1 | 106.3 | 109.8 | 109.2 |
| CA | 94.0 | 93.1 | 93.4 | 90.8 | 90.7 | 91.7 | 91.0 |
| CO | 95.4 | 93.5 | 92.5 | 91.1 | 91.2 | 88.6 | 88.5 |
| CT | 121.3 | 118.8 | 121.4 | 121.0 | 127.7 | 125.3 | 124.3 |
| DC | 180.3 | 197.0 | 172.3 | 152.0 | 136.7 | 141.6 | 155.4 |
| DE | 107.2 | 101.1 | 113.2 | 111.9 | 104.6 | 113.7 | 117.4 |
| FL | 117.9 | 115.6 | 116.9 | 113.1 | 111.3 | 110.3 | 110.0 |
| GA | 108.3 | 108.6 | 109.7 | 107.7 | 107.6 | 111.5 | 108.4 |
| HI | 77.1 | 63.2 | 82.5 | 84.0 | 85.3 | 88.0 | 87.7 |
| IA | 78.6 | 78.6 | 79.0 | 78.4 | 78.3 | 79.7 | 76.3 |
| ID | 81.2 | 79.7 | 74.2 | 72.7 | 72.2 | 73.9 | 74.5 |
| IL | 126.2 | 123.4 | 123.9 | 123.5 | 125.6 | 124.2 | 124.4 |
| IN | 105.3 | 106.4 | 108.7 | 106.6 | 107.0 | 107.6 | 108.1 |
| KS | 70.8 | 71.3 | 71.2 | 71.0 | 71.3 | 69.6 | 69.2 |
| KY | 83.7 | 83.4 | 80.8 | 81.6 | 82.3 | 82.6 | 81.7 |
| LA | 111.5 | 112.7 | 113.3 | 113.9 | 112.5 | 112.3 | 114.5 |
| MA | 97.3 | 99.2 | 102.6 | 99.5 | 101.1 | 102.6 | 104.0 |
| MD | 132.1 | 130.5 | 132.1 | 127.6 | 126.0 | 122.3 | 117.3 |
| ME | 70.3 | 67.1 | 72.8 | 68.3 | 71.3 | 69.7 | 66.5 |
| MI | 113.0 | 115.5 | 115.3 | 113.6 | 115.8 | 114.4 | 114.0 |
| MN | 102.9 | 103.7 | 102.1 | 101.4 | 102.6 | 100.8 | 99.1 |
| MO | 97.5 | 96.8 | 97.9 | 95.8 | 96.1 | 97.4 | 95.9 |
| MS | 93.9 | 91.8 | 91.6 | 85.4 | 83.3 | 81.9 | 84.2 |
| MT | 71.8 | 70.0 | 73.6 | 72.3 | 70.0 | 72.0 | 73.3 |
| NC | 96.8 | 98.9 | 98.9 | 98.2 | 98.2 | 97.8 | 98.6 |
| ND | 86.2 | 86.4 | 83.0 | 79.9 | 81.8 | 80.4 | 80.2 |
| NE | 78.4 | 78.2 | 78.9 | 77.6 | 77.3 | 76.4 | 76.9 |
| NH | 99.3 | 92.3 | 97.6 | 97.3 | 99.4 | 98.7 | 96.6 |
| NJ | 147.2 | 147.8 | 147.9 | 145.2 | 148.6 | 147.5 | 140.8 |
| NM | 89.3 | 93.2 | 82.8 | 84.4 | 87.5 | 85.7 | 87.6 |
| NV | 100.6 | 99.7 | 99.5 | 100.5 | 91.9 | 81.1 | 90.8 |
| NY | 169.3 | 168.5 | 175.3 | 169.4 | 175.5 | 173.0 | 176.7 |
| OH | 99.5 | 98.4 | 101.4 | 99.1 | 102.3 | 102.1 | 102.6 |
| OK | 83.2 | 83.3 | 83.1 | 83.9 | 84.7 | 82.2 | 82.1 |
| OR | 86.4 | 85.9 | 87.2 | 86.6 | 86.2 | 86.5 | 86.2 |
| PA | 131.3 | 132.3 | 128.8 | 126.6 | 124.9 | 120.9 | 120.0 |
| RI | 101.8 | 98.7 | 103.8 | 103.5 | 103.9 | 102.2 | 104.4 |
| SC | 103.0 | 104.9 | 101.3 | 101.5 | 100.7 | 99.8 | 100.0 |
| SD | 73.1 | 73.3 | 72.5 | 72.9 | 71.8 | 69.8 | 72.8 |
| TN | 117.5 | 117.6 | 115.9 | 113.9 | 113.9 | 109.9 | 111.3 |
| TX | 101.1 | 96.5 | 97.8 | 95.3 | 97.1 | 96.5 | 98.2 |
| UT | 79.7 | 78.2 | 78.6 | 73.8 | 85.1 | 79.8 | 78.9 |
| VA | 115.3 | 111.6 | 110.7 | 112.1 | 112.7 | 110.7 | 108.9 |
| VT | 77.7 | 84.1 | 74.1 | 84.6 | 83.2 | 84.6 | 82.0 |
| WA | 99.9 | 100.9 | 98.6 | 96.9 | 96.9 | 94.2 | 93.0 |
| WI | 118.8 | 119.7 | 116.3 | 116.7 | 116.1 | 112.4 | 111.8 |
| WV | 84.9 | 83.0 | 84.8 | 83.6 | 80.4 | 99.5 | 78.9 |
| WY | 81.4 | 77.5 | 82.5 | 82.2 | 83.3 | 80.3 | 79.0 |
| US | 105.3 | 104.8 | 105.8 | 103.6 | 104.5 | 103.9 | 103.8 |

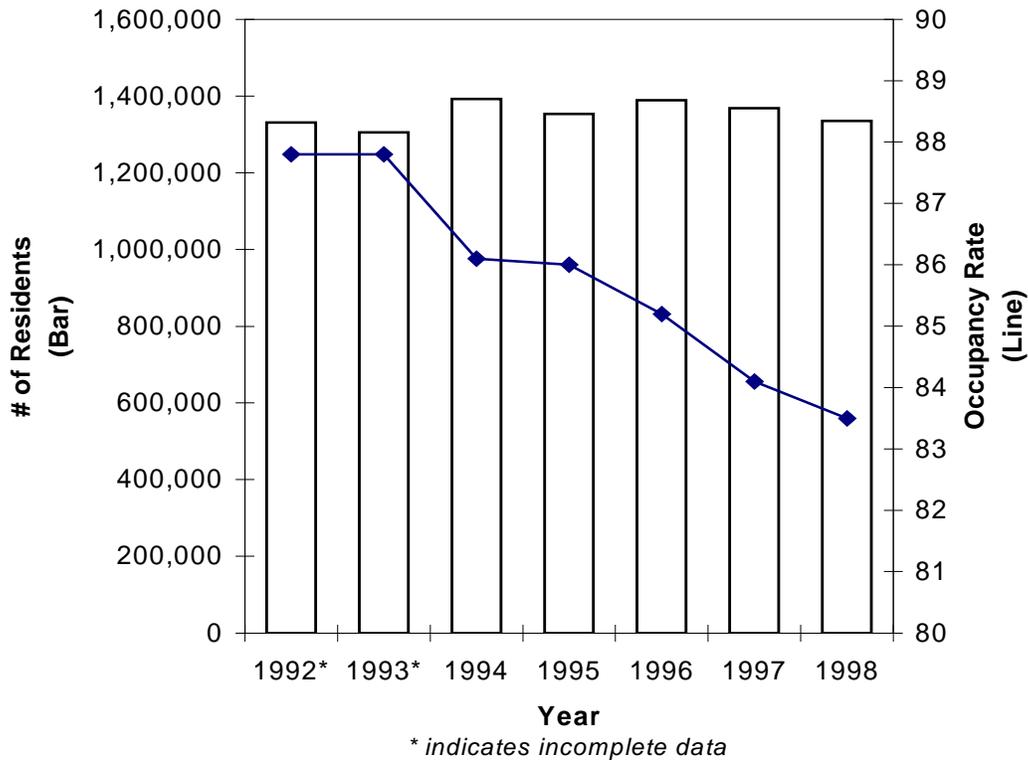
Number of Nursing Facility Residents

Table 4 reports the total number of nursing facility residents in each state during a calendar year available for the report. Again, there was under reporting for 1992 and 1993. There were 1,335,216 residents reported in nursing facilities in 1998. The variation over the years is probably related to differences in the state surveys in each of the calendar years.

Average Occupancy Rates

Table 4 shows that the average certified nursing facility occupancy rate for the U.S. was about 88 percent in 1992. Facility occupancy rates are calculated by dividing the number of nursing residents in a facility by the total number of beds. The occupancy rates declined gradually from 87.8 to 83.5 percent over the 1992 to 1998 period. See the Technical Notes.

Number of Residents and Facility Occupancy Rates



**TABLE 4
TOTAL NUMBER OF RESIDENTS AND FACILITY OCCUPANCY RATES
FOR CERTIFIED NURSING FACILITIES**

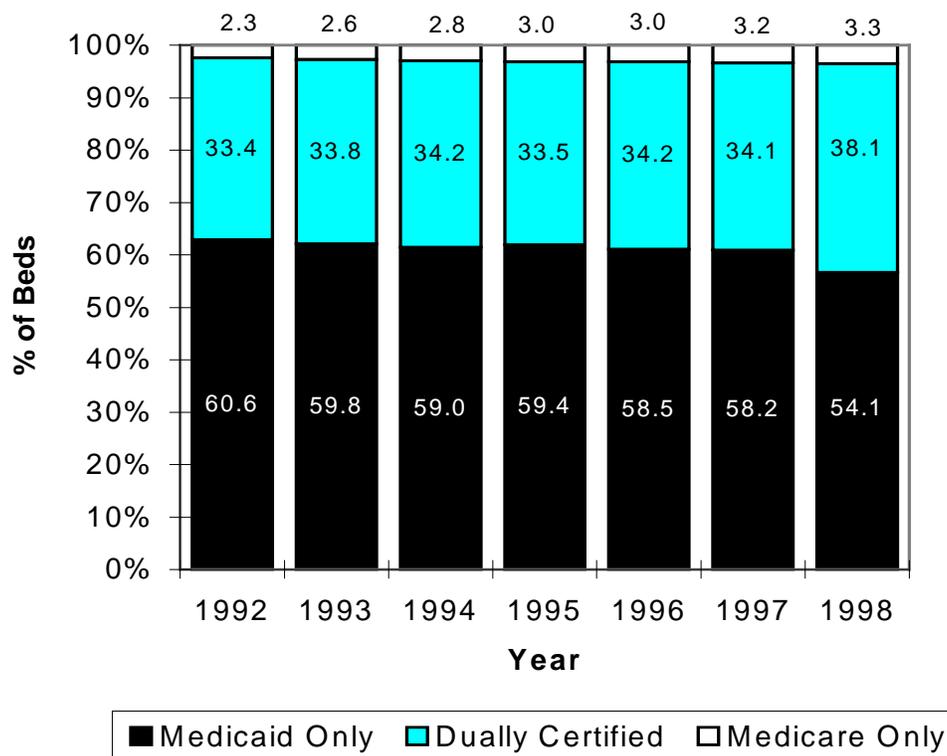
| State | Number of Residents | | | | | | | Facility Occupancy | | | | | | |
|-----------|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 619 | 496 | 601 | 526 | 626 | 535 | 601 | 77.5 | 71.7 | 89.6 | 90.4 | 85.4 | 84.5 | 89.0 |
| AL | 20,525 | 19,450 | 19,700 | 19,750 | 20,614 | 19,947 | 22,330 | 94.7 | 95.4 | 92.4 | 92.8 | 91.5 | 93.4 | 92.8 |
| AR | 19,693 | 19,802 | 19,990 | 20,888 | 20,104 | 19,919 | 18,061 | 86.4 | 84.5 | 83.8 | 82.6 | 81.3 | 80.1 | 77.4 |
| AZ | 11,796 | 10,522 | 11,554 | 9,281 | 12,339 | 9,758 | 10,983 | 82.7 | 80.9 | 76.9 | 76.7 | 81.8 | 75.3 | 77.9 |
| CA | 90,420 | 90,445 | 103,000 | 97,828 | 99,989 | 98,412 | 89,825 | 86.8 | 86.2 | 85.2 | 86.0 | 84.1 | 82.7 | 82.7 |
| CO | 15,478 | 16,143 | 15,681 | 15,964 | 15,235 | 15,349 | 15,647 | 84.0 | 84.4 | 86.1 | 86.4 | 87.9 | 83.3 | 83.4 |
| CT | 24,542 | 25,813 | 27,879 | 28,248 | 27,352 | 29,435 | 25,683 | 92.6 | 91.9 | 90.1 | 93.0 | 93.9 | 92.9 | 91.8 |
| DC | 2,422 | 2,668 | 2,357 | 1,918 | 2,137 | 2,964 | 2,089 | 91.8 | 92.9 | 76.0 | 97.1 | 86.8 | 95.1 | 96.0 |
| DE | 2,718 | 2,989 | 3,895 | 3,044 | 3,274 | 3,723 | 2,430 | 79.2 | 79.8 | 80.0 | 82.4 | 84.6 | 78.0 | 76.7 |
| FL | 55,161 | 59,048 | 61,334 | 55,486 | 55,109 | 57,677 | 59,754 | 89.0 | 89.6 | 85.1 | 86.1 | 84.5 | 84.4 | 82.3 |
| GA | 33,137 | 34,668 | 34,681 | 35,709 | 35,552 | 30,709 | 34,960 | 94.6 | 95.0 | 93.5 | 93.9 | 93.6 | 92.2 | 92.2 |
| HI | 2,578 | 1,470 | 2,059 | 3,215 | 3,204 | 3,395 | 3,551 | 92.5 | 92.2 | 96.0 | 91.1 | 93.9 | 91.9 | 92.0 |
| IA | 28,177 | 29,302 | 28,491 | 26,966 | 27,781 | 26,459 | 26,227 | 88.6 | 87.9 | 83.7 | 83.5 | 82.8 | 81.6 | 82.0 |
| ID | 4,224 | 4,233 | 4,897 | 4,870 | 4,462 | 4,340 | 4,533 | 85.9 | 82.7 | 84.6 | 83.8 | 83.5 | 76.2 | 77.1 |
| IL | 75,943 | 77,837 | 78,032 | 82,876 | 83,230 | 81,724 | 80,504 | 82.9 | 83.8 | 81.6 | 80.7 | 79.1 | 78.6 | 77.6 |
| IN | 36,588 | 28,471 | 40,144 | 41,217 | 42,178 | 42,461 | 41,169 | 77.9 | 77.1 | 73.7 | 73.9 | 73.3 | 72.0 | 70.5 |
| KS | 24,388 | 25,496 | 21,503 | 23,178 | 20,503 | 20,820 | 22,765 | 87.7 | 86.6 | 83.6 | 83.8 | 81.3 | 80.8 | 82.2 |
| KY | 18,290 | 19,383 | 18,216 | 16,828 | 20,531 | 19,074 | 22,181 | 90.6 | 89.3 | 87.1 | 88.1 | 89.1 | 88.9 | 89.3 |
| LA | 29,009 | 28,947 | 29,500 | 31,763 | 30,791 | 30,799 | 30,922 | 84.1 | 85.0 | 85.4 | 85.3 | 82.9 | 81.4 | 79.6 |
| MA | 36,122 | 44,411 | 45,529 | 43,254 | 44,076 | 48,493 | 44,232 | 93.3 | 93.5 | 90.4 | 89.8 | 90.3 | 89.4 | 89.1 |
| MD | 20,758 | 21,943 | 22,884 | 20,923 | 22,491 | 21,832 | 16,441 | 89.2 | 89.2 | 86.6 | 88.2 | 86.3 | 83.1 | 81.9 |
| ME | 8,164 | 8,034 | 8,909 | 7,135 | 7,812 | 7,645 | 6,897 | 94.9 | 95.2 | 93.4 | 90.8 | 87.7 | 87.8 | 87.9 |
| MI | 40,620 | 38,689 | 41,622 | 36,582 | 40,959 | 40,357 | 38,032 | 90.6 | 90.4 | 87.6 | 88.0 | 86.1 | 86.9 | 84.6 |
| MN | 41,382 | 41,489 | 33,714 | 36,166 | 33,651 | 36,159 | 36,196 | 94.3 | 94.1 | 93.2 | 93.7 | 91.6 | 92.5 | 91.0 |
| MO | 35,381 | 33,492 | 38,583 | 35,841 | 36,303 | 39,236 | 34,801 | 78.0 | 78.8 | 76.6 | 74.4 | 74.5 | 73.5 | 72.6 |
| MS | 14,577 | 14,617 | 14,059 | 16,089 | 15,012 | 15,397 | 15,717 | 96.6 | 96.2 | 94.8 | 94.7 | 94.9 | 93.5 | 93.3 |
| MT | 6,063 | 6,030 | 6,311 | 6,377 | 5,628 | 5,694 | 5,508 | 89.2 | 90.7 | 89.4 | 88.2 | 86.5 | 83.2 | 81.7 |
| NC | 28,078 | 31,605 | 32,557 | 35,423 | 33,911 | 34,770 | 34,882 | 90 | 91.5 | 89.2 | 93.5 | 94.3 | 93.8 | 91.8 |
| ND | 6,171 | 6,671 | 6,450 | 6,372 | 6,782 | 5,649 | 6,569 | 95.9 | 95.3 | 95.9 | 96.1 | 95.3 | 93.7 | 93.1 |
| NE | 15,254 | 15,240 | 15,725 | 15,517 | 15,583 | 15,297 | 15,057 | 89.6 | 89.7 | 90.2 | 88.5 | 88.0 | 85.9 | 85.2 |
| NH | 6,054 | 5,659 | 5,938 | 6,520 | 6,532 | 6,889 | 6,702 | 90.4 | 90.8 | 90.8 | 93.1 | 93.9 | 93.1 | 92.5 |
| NJ | 39,797 | 36,283 | 39,894 | 40,718 | 41,529 | 39,516 | 39,089 | 92 | 93.2 | 91.8 | 92.6 | 92.8 | 91.8 | 90.7 |
| NM | 5,634 | 5,652 | 5,425 | 5,585 | 5,808 | 4,522 | 4,989 | 90.0 | 88.9 | 85.1 | 85.9 | 84.0 | 83.7 | 86.3 |
| NV | 2,991 | 2,668 | 3,592 | 3,213 | 3,208 | 2,743 | 3,128 | 90.3 | 88.6 | 90.2 | 88.8 | 89.5 | 89.0 | 84.1 |
| NY | 87,119 | 84,499 | 101,421 | 88,160 | 93,688 | 87,959 | 91,264 | 95.9 | 96.7 | 95.0 | 95.1 | 95.7 | 95.6 | 95.7 |
| OH | 76,302 | 70,611 | 73,767 | 72,540 | 80,378 | 75,505 | 75,303 | 86.5 | 85.9 | 83.1 | 82.8 | 80.7 | 80.6 | 80.0 |
| OK | 24,185 | 21,939 | 22,129 | 24,999 | 24,403 | 22,930 | 17,656 | 80.7 | 79.7 | 78.1 | 77.8 | 76.0 | 72.9 | 72.4 |
| OR | 11,750 | 11,260 | 11,062 | 10,807 | 10,779 | 10,491 | 10,497 | 86.2 | 85.0 | 84.6 | 83.2 | 81.2 | 79.8 | 78.5 |
| PA | 77,028 | 75,706 | 83,131 | 73,849 | 81,770 | 84,504 | 82,239 | 91.0 | 90.2 | 90.9 | 91.1 | 90.7 | 90.2 | 89.7 |
| RI | 9,427 | 7,200 | 9,102 | 7,792 | 8,330 | 8,617 | 8,293 | 95.1 | 93.9 | 95.3 | 91.8 | 93.2 | 91.7 | 89.2 |
| SC | 13,330 | 12,389 | 11,723 | 13,625 | 14,648 | 15,172 | 14,017 | 89.6 | 86.8 | 86.4 | 87.2 | 88.1 | 86.8 | 86.0 |
| SD | 7,785 | 7,583 | 7,377 | 7,658 | 6,795 | 6,641 | 5,778 | 95.3 | 95.9 | 96.0 | 94.6 | 94.7 | 94.1 | 92.3 |
| TN | 29,119 | 31,820 | 31,315 | 30,889 | 33,533 | 33,864 | 34,887 | 92.3 | 92.7 | 90.7 | 90.4 | 90.9 | 90.4 | 89.8 |
| TX | 81,070 | 63,745 | 84,795 | 81,822 | 82,556 | 79,603 | 76,125 | 77.3 | 76.4 | 73.2 | 72.2 | 71.0 | 70.2 | 68.2 |
| UT | 5,431 | 5,544 | 5,809 | 4,588 | 5,507 | 5,746 | 5,436 | 79.5 | 81.0 | 82.1 | 81.8 | 81.9 | 79.1 | 77.4 |
| VA | 25,575 | 25,357 | 27,236 | 25,088 | 25,965 | 23,861 | 22,705 | 93.5 | 92.6 | 93.6 | 94.1 | 91.4 | 90.9 | 90.3 |
| VT | 3,284 | 3,274 | 1,276 | 3,280 | 2,899 | 2,939 | 2,486 | 95.2 | 92.8 | 95.7 | 97.0 | 94.2 | 93.9 | 89.2 |
| WA | 23,795 | 23,568 | 23,650 | 22,596 | 21,935 | 21,329 | 20,652 | 90.4 | 89.7 | 89.2 | 86.7 | 84.8 | 82.0 | 81.9 |
| WI | 42,640 | 43,060 | 41,406 | 42,466 | 40,606 | 39,627 | 37,873 | 91.7 | 91.7 | 91.7 | 91.0 | 89.9 | 88.4 | 86.9 |
| WV | 8,340 | 6,257 | 10,139 | 5,312 | 8,230 | 5,419 | 4,917 | 93.1 | 94.5 | 93.4 | 94.9 | 93.0 | 69.8 | 90.4 |
| WY | 2,444 | 1,734 | 2,490 | 2,731 | 2,584 | 2,414 | 2,633 | 84.0 | 82.9 | 88.8 | 87.4 | 83.8 | 83.5 | 83.4 |
| US | 1,331,378 | 1,305,212 | 1,392,534 | 1,353,472 | 1,388,902 | 1,368,320 | 1,335,216 | 87.8 | 87.8 | 86.1 | 86.0 | 85.2 | 84.1 | 83.5 |

Facility Beds by Certification Category

Licensed nursing facilities may apply to be certified for participation in the Medicare and/or Medicaid program on a voluntary basis. Facilities may apply to participate in: (1) the Medicaid only (Title 19) program, (2) the Medicare only (Title 18) program, or (3) in the Medicare/Medicaid dually certified (Title 18 and 19) program. Since 1991, the Medicare program classified facilities as skilled nursing facilities (SNFs) while the Medicaid-certified facilities are designed as "nursing facilities" (NFs). Certification requirements are detailed in the federal regulations 42 CFR 483. Federal Medicare certification allows for all or part of a facility to be certified.

Table 5 shows the percent of certified nursing facility beds for each program. The number of beds certified for Medicare-only increased slightly from 2.3 percent of the total beds in the 1992-98 period. Medicaid-only certified beds declined slightly from 60.6 percent in 1992 to 54.1 percent in 1998, while dually certified beds increased slightly to make up the difference. The slight increase in the number of facilities that were dually certified occurred after the federal criteria for Medicare nursing home benefits were liberalized.

Percent of Nursing Facility Beds by Category



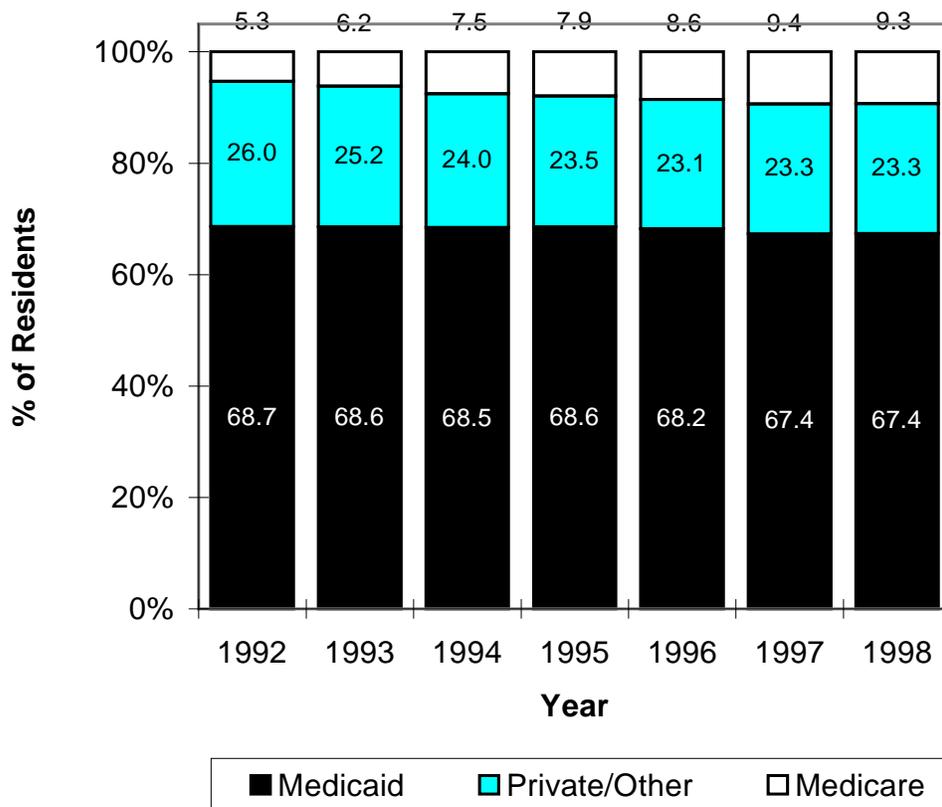
**TABLE 5
PERCENT OF NURSING FACILITY BEDS BY CERTIFICATION CATEGORY IN THE U.S.**

| State | Medicaid Only | | | | | | | Medicare Only | | | | | | | Dually Certified | | | | | | |
|-----------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|------------|------------|------------|------------|------------|------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 60.9 | 46.2 | 38.0 | 31.1 | 34.8 | 38.1 | 35.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 0.0 | 31.0 | 44.4 | 62.0 | 68.9 | 65.2 | 59.4 | 64.3 |
| AL | 55.9 | 58.9 | 59.2 | 60.4 | 58.9 | 60.8 | 57.2 | 1.5 | 1.5 | 2.0 | 1.2 | 1.7 | 1.4 | 1.9 | 42.0 | 38.4 | 37.8 | 37.5 | 38.4 | 37.0 | 39.8 |
| AR | 90.1 | 89.1 | 86.2 | 85.8 | 84.5 | 83.2 | 80.9 | 1.6 | 1.8 | 2.5 | 2.7 | 3.1 | 3.8 | 3.7 | 7.9 | 7.8 | 8.9 | 9.1 | 9.3 | 9.9 | 12.5 |
| AZ | 72.5 | 69.4 | 70.1 | 66.6 | 71.6 | 66.3 | 67.5 | 15.8 | 16.6 | 4.9 | 4.7 | 3.2 | 4.1 | 3.1 | 3.7 | 4.3 | 19.8 | 19.3 | 20.3 | 20.1 | 26.1 |
| CA | 49.3 | 50.8 | 55.6 | 56.1 | 54.3 | 54.0 | 52.9 | 5.3 | 4.6 | 4.2 | 4.3 | 3.7 | 3.7 | 3.6 | 43.2 | 40.7 | 38.0 | 38.1 | 39.4 | 39.2 | 40.1 |
| CO | 76.5 | 71.8 | 69.5 | 69.1 | 68.1 | 65.6 | 56.2 | 1.5 | 2.5 | 4.0 | 4.1 | 3.7 | 4.1 | 5.8 | 17.8 | 20.3 | 20.4 | 21.2 | 23.2 | 23.3 | 32.6 |
| CT | 22.1 | 23.1 | 32.2 | 31.5 | 34.5 | 34.9 | 26.4 | 0.9 | 1.7 | 1.2 | 1.3 | 0.9 | 0.9 | 1.1 | 75.7 | 73.5 | 65.2 | 65.1 | 63.5 | 61.6 | 69.8 |
| DC | 80.5 | 77.1 | 50.9 | 58.1 | 53.6 | 60.0 | 53.2 | 0.0 | 0.0 | 0.8 | 0.0 | 1.5 | 1.9 | 3.0 | 19.5 | 22.6 | 33.4 | 41.9 | 44.9 | 37.9 | 43.8 |
| DE | 44.5 | 45.3 | 49.6 | 43.5 | 40.8 | 45.5 | 53.2 | 12.7 | 11.2 | 11.6 | 12.9 | 9.7 | 11.5 | 8.5 | 28.1 | 33.4 | 29.3 | 33.6 | 40.4 | 31.9 | 27.4 |
| FL | 64.6 | 63.2 | 63.0 | 62.4 | 61.3 | 61.0 | 59.3 | 4.7 | 5.2 | 6.5 | 7.2 | 6.8 | 7.6 | 8.0 | 24.6 | 25.4 | 24.9 | 24.9 | 26.1 | 25.3 | 26.5 |
| GA | 78.7 | 73.3 | 68.2 | 68.8 | 64.6 | 65.5 | 55.8 | 0.7 | 0.7 | 0.9 | 1.0 | 0.9 | 1.1 | 1.1 | 19.6 | 24.0 | 29.3 | 28.5 | 32.6 | 31.8 | 42.3 |
| HI | 25.3 | 37.0 | 28.9 | 24.1 | 17.8 | 27.6 | 22.2 | 5.4 | 11.4 | 1.7 | 1.5 | 1.4 | 2.7 | 1.9 | 69.3 | 51.3 | 67.9 | 73.5 | 79.8 | 68.8 | 73.7 |
| IA | 87.7 | 84.5 | 76.8 | 77.8 | 69.7 | 57.6 | 49.7 | 0.3 | 0.4 | 1.6 | 1.6 | 1.1 | 1.1 | 1.0 | 4.3 | 8.2 | 15.2 | 15.9 | 22.8 | 35.0 | 44.5 |
| ID | 51.0 | 50.1 | 58.5 | 59.0 | 47.7 | 41.2 | 33.5 | 0.0 | 1.2 | 3.4 | 3.7 | 3.1 | 4.5 | 7.2 | 46.4 | 44.8 | 36.9 | 36.1 | 42.0 | 40.6 | 50.4 |
| IL | 82.2 | 81.7 | 77.5 | 76.1 | 76.2 | 75.9 | 75.3 | 2.5 | 2.9 | 3.3 | 3.5 | 3.4 | 3.5 | 3.6 | 8.7 | 8.6 | 11.4 | 11.5 | 11.6 | 11.6 | 12.4 |
| IN | 73.0 | 71.5 | 70.0 | 70.2 | 70.0 | 71.4 | 62.6 | 1.8 | 1.8 | 2.9 | 3.0 | 3.5 | 3.7 | 3.8 | 15.2 | 15.3 | 15.0 | 14.9 | 15.2 | 13.3 | 21.6 |
| KS | 89.8 | 86.9 | 79.5 | 77.0 | 71.0 | 69.2 | 65.5 | 1.3 | 1.6 | 1.6 | 1.8 | 1.8 | 2.1 | 2.0 | 5.7 | 7.3 | 14.6 | 16.8 | 21.2 | 22.1 | 25.9 |
| KY | 43.8 | 42.5 | 43.6 | 45.5 | 45.6 | 46.3 | 41.4 | 2.4 | 3.3 | 4.4 | 4.2 | 4.2 | 3.9 | 5.3 | 47.5 | 48.4 | 46.2 | 45.1 | 45.4 | 45.6 | 48.2 |
| LA | 86.3 | 88.0 | 83.5 | 83.8 | 82.2 | 81.4 | 76.0 | 2.3 | 2.2 | 2.9 | 3.1 | 3.6 | 3.8 | 4.1 | 7.5 | 5.8 | 9.2 | 8.9 | 10.3 | 10.3 | 15.1 |
| MA | 57.1 | 52.5 | 51.9 | 51.3 | 53.7 | 55.7 | 49.5 | 0.2 | 0.5 | 0.4 | 0.5 | 0.5 | 0.9 | 0.9 | 41.2 | 45.5 | 46.2 | 46.7 | 44.4 | 41.8 | 48.0 |
| MD | 39.3 | 43.4 | 49.5 | 53.0 | 50.5 | 55.4 | 51.9 | 2.6 | 3.1 | 3.3 | 3.3 | 2.3 | 2.2 | 2.3 | 54.2 | 49.4 | 43.0 | 39.5 | 43.0 | 38.0 | 39.4 |
| ME | 79.4 | 77.8 | 69.7 | 67.7 | 65.7 | 62.2 | 56.0 | 3.9 | 15.6 | 19.3 | 20.4 | 13.4 | 10.7 | 7.7 | 16.5 | 6.6 | 10.8 | 11.1 | 20.5 | 26.6 | 36.3 |
| MI | 52.8 | 55.5 | 56.2 | 57.1 | 54.8 | 55.5 | 53.9 | 1.6 | 2.0 | 2.4 | 2.5 | 3.1 | 3.5 | 3.3 | 41.4 | 38.0 | 37.5 | 36.3 | 36.0 | 36.7 | 37.9 |
| MN | 17.3 | 16.7 | 19.1 | 18.3 | 20.4 | 20.0 | 17.9 | 0.9 | 0.8 | 1.4 | 1.1 | 1.3 | 0.6 | 0.9 | 81.2 | 81.5 | 78.1 | 79.5 | 76.8 | 78.7 | 80.2 |
| MO | 76.5 | 76.9 | 74.4 | 72.8 | 75.3 | 75.0 | 74.4 | 2.8 | 3.9 | 3.5 | 3.8 | 3.6 | 3.7 | 3.9 | 11.5 | 10.5 | 13.5 | 13.1 | 12.0 | 12.5 | 13.6 |
| MS | 87.2 | 86.1 | 83.7 | 81.2 | 79.3 | 78.4 | 74.6 | 0.5 | 0.7 | 1.5 | 2.8 | 3.9 | 5.0 | 4.0 | 11.7 | 12.6 | 14.4 | 14.9 | 15.6 | 15.6 | 20.9 |
| MT | 40.0 | 39.0 | 45.5 | 44.6 | 45.6 | 43.1 | 34.1 | 0.5 | 0.9 | 1.0 | 1.2 | 1.6 | 1.9 | 0.8 | 58.7 | 60.1 | 53.3 | 54.0 | 52.6 | 54.5 | 64.1 |
| NC | 54.6 | 56.4 | 56.8 | 58.1 | 60.2 | 61.1 | 55.4 | 1.4 | 1.6 | 2.0 | 2.0 | 2.3 | 1.9 | 2.3 | 43.5 | 41.9 | 40.7 | 39.7 | 37.3 | 36.0 | 41.3 |
| ND | 1.1 | 0.0 | 0.0 | 2.6 | 3.3 | 2.3 | 0.0 | 0.0 | 0.3 | 1.2 | 2.5 | 2.3 | 2.0 | 1.2 | 98.8 | 99.7 | 98.8 | 94.9 | 94.4 | 95.7 | 98.8 |
| NE | 87.0 | 86.3 | 79.6 | 75.2 | 67.1 | 64.4 | 55.6 | 0.4 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.6 | 10.7 | 10.6 | 16.7 | 20.3 | 27.8 | 29.9 | 38.4 |
| NH | 90.5 | 88.4 | 70.5 | 68.6 | 67.5 | 60.6 | 59.0 | 0.5 | 1.3 | 0.6 | 1.9 | 1.5 | 1.7 | 1.2 | 7.9 | 8.7 | 28.0 | 29.1 | 30.5 | 37.0 | 36.3 |
| NJ | 52.8 | 53.0 | 55.7 | 54.2 | 58.0 | 57.9 | 48.8 | 1.4 | 1.8 | 2.2 | 3.2 | 2.9 | 2.9 | 3.4 | 44.9 | 44.3 | 40.3 | 40.4 | 37.9 | 37.3 | 46.0 |
| NM | 84.2 | 86.2 | 74.3 | 73.4 | 69.4 | 72.8 | 64.8 | 0.8 | 0.0 | 1.5 | 1.7 | 3.0 | 2.5 | 4.4 | 14.2 | 12.8 | 20.6 | 21.2 | 23.3 | 22.0 | 27.2 |
| NV | 4.2 | 0.6 | 10.5 | 4.4 | 7.8 | 1.3 | 7.6 | 15.7 | 16.9 | 15.2 | 17.5 | 18.3 | 20.7 | 18.8 | 80.1 | 82.5 | 72.9 | 78.1 | 73.8 | 77.1 | 73.6 |
| NY | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 99.6 | 99.5 | 99.7 | 99.7 | 99.5 | 99.6 | 99.7 |
| OH | 49.2 | 51.4 | 54.6 | 55.8 | 53.8 | 57.0 | 52.1 | 2.7 | 2.8 | 2.7 | 2.4 | 2.6 | 2.6 | 2.3 | 39.3 | 36.9 | 33.3 | 32.5 | 33.2 | 31.4 | 36.7 |
| OK | 95.7 | 94.3 | 90.4 | 90.1 | 90.5 | 87.2 | 81.1 | 1.7 | 2.1 | 2.2 | 2.1 | 2.3 | 2.4 | 2.7 | 0.8 | 1.7 | 5.3 | 6.2 | 5.5 | 8.4 | 14.4 |
| OR | 77.3 | 75.4 | 71.2 | 73.0 | 75.9 | 72.4 | 62.4 | 1.1 | 1.2 | 2.0 | 1.6 | 1.4 | 1.6 | 3.7 | 17.3 | 19.6 | 23.8 | 22.2 | 22.2 | 23.6 | 31.4 |
| PA | 47.9 | 46.2 | 50.5 | 51.4 | 52.5 | 54.5 | 53.2 | 3.5 | 3.5 | 3.5 | 4.1 | 4.0 | 4.7 | 4.9 | 47.8 | 49.1 | 45.1 | 43.6 | 42.4 | 39.8 | 41.0 |
| RI | 57.5 | 59.2 | 58.2 | 57.8 | 59.2 | 56.8 | 50.8 | 1.5 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 1.2 | 40.5 | 38.1 | 41.2 | 40.9 | 39.7 | 41.6 | 46.9 |
| SC | 27.4 | 27.3 | 37.7 | 38.8 | 40.7 | 41.9 | 39.4 | 3.9 | 5.6 | 4.7 | 4.7 | 5.1 | 6.3 | 5.4 | 63.3 | 60.7 | 52.4 | 50.2 | 47.4 | 45.4 | 48.5 |
| SD | 88.2 | 79.0 | 61.5 | 57.5 | 48.8 | 40.1 | 35.0 | 0.4 | 0.6 | 0.6 | 0.8 | 0.6 | 0.0 | 0.0 | 11.3 | 20.2 | 37.9 | 41.7 | 50.6 | 59.7 | 65.0 |
| TN | 76.2 | 77.2 | 74.7 | 73.0 | 73.4 | 72.2 | 70.9 | 1.2 | 1.5 | 2.0 | 2.2 | 2.6 | 3.2 | 3.2 | 21.7 | 20.0 | 21.9 | 23.5 | 22.7 | 22.5 | 24.3 |
| TX | 81.3 | 79.9 | 76.2 | 75.4 | 73.9 | 73.0 | 69.4 | 2.6 | 3.3 | 4.3 | 4.5 | 4.7 | 5.1 | 5.0 | 8.3 | 10.1 | 11.8 | 12.0 | 12.6 | 14.0 | 15.5 |
| UT | 50.7 | 75.7 | 70.3 | 72.6 | 61.0 | 74.4 | 67.0 | 9.6 | 14.4 | 18.9 | 20.2 | 20.5 | 19.9 | 19.7 | 38.2 | 9.1 | 10.0 | 7.0 | 16.7 | 4.7 | 11.3 |
| VA | 80.5 | 79.5 | 79.3 | 78.0 | 78.9 | 77.1 | 75.5 | 1.3 | 1.5 | 1.7 | 2.0 | 1.6 | 2.1 | 2.7 | 15.3 | 16.6 | 16.6 | 17.1 | 16.6 | 18.0 | 19.3 |
| VT | 66.2 | 60.2 | 46.9 | 47.4 | 49.7 | 48.0 | 38.6 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.4 | 30.4 | 31.9 | 51.0 | 49.7 | 50.3 | 51.8 | 45.6 |
| WA | 71.9 | 70.6 | 70.4 | 71.0 | 70.1 | 65.9 | 59.3 | 1.1 | 0.9 | 0.7 | 0.7 | 0.5 | 0.9 | 1.4 | 24.4 | 26.5 | 27.0 | 26.7 | 27.0 | 29.5 | 36.4 |
| WI | 73.6 | 69.0 | 61.6 | 61.4 | 57.6 | 52.9 | 45.1 | 0.4 | 0.6 | 0.3 | 0.4 | 1.0 | 1.1 | 1.5 | 25.9 | 30.3 | 38.0 | 38.1 | 41.2 | 45.7 | 53.2 |
| WV | 70.9 | 75.4 | 65.7 | 62.3 | 68.3 | 46.2 | 57.0 | 1.6 | 1.9 | 1.9 | 2.0 | 3.2 | 4.0 | 5.8 | 26.3 | 22.0 | 31.6 | 35.6 | 27.2 | 25.6 | 36.2 |
| WY | 67.7 | 65.1 | 54.6 | 56.3 | 57.1 | 55.7 | 27.5 | 0.7 | 1.5 | 1.2 | 1.1 | 1.1 | 1.1 | 1.5 | 31.6 | 33.3 | 44.3 | 42.6 | 41.7 | 42.7 | 70.6 |
| US | 60.6 | 59.8 | 59.0 | 59.4 | 58.5 | 58.2 | 54.1 | 2.3 | 2.6 | 2.8 | 3.0 | 3.0 | 3.2 | 3.3 | 33.4 | 33.8 | 34.2 | 33.5 | 34.2 | 34.1 | 38.1 |

Residents by Payer Source

The percent of certified nursing facility residents by primary payer source is shown in Table 6. The percentage of total residents primarily paid for by Medicaid was about 67-69 percent of total residents in the 1992-1998 period. Medicare paid for 9.3 percent of total residents in 1998, increasing from 5.3 percent in 1992. Private payers and other sources declined from 26.0 percent in 1992 to 23.3 percent in 1998. The increase in Medicare residents was consistent with the liberalization of Medicare eligibility requirements.

Percent of Facility Residents by Payer



**TABLE 6
PERCENT OF CERTIFIED NURSING FACILITY RESIDENTS BY PRIMARY PAYER SOURCE**

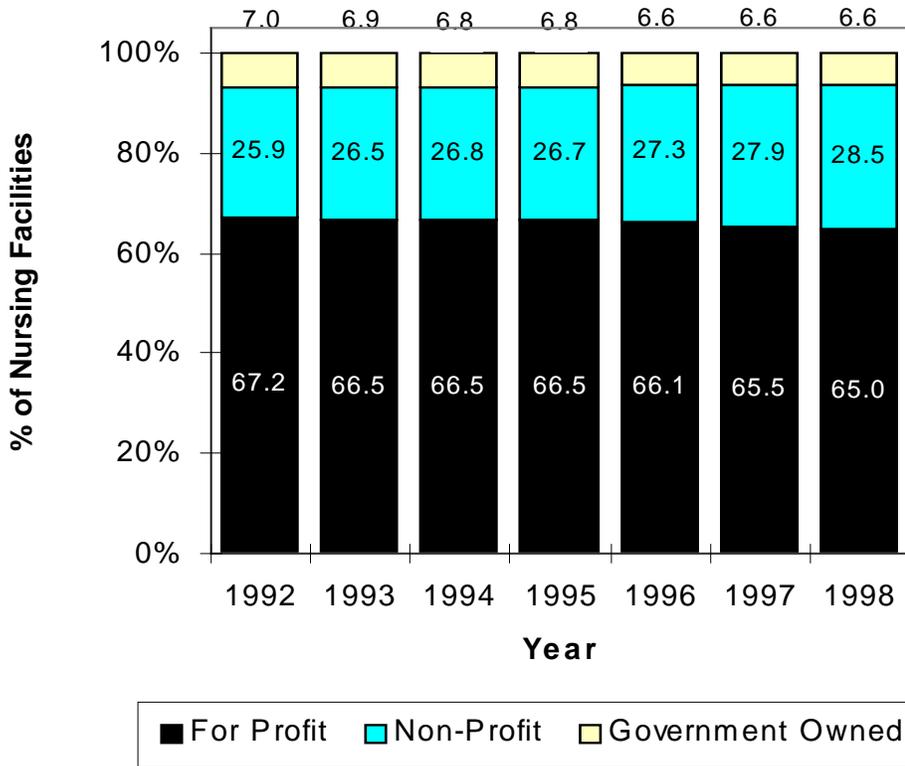
| State | Medicaid | | | | | | | Medicare | | | | | | | Private/Other | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 88.1 | 85.7 | 86.0 | 79.7 | 85.5 | 80.7 | 81.5 | 3.4 | 5.7 | 6.7 | 11.6 | 7.0 | 9.5 | 9.8 | 8.6 | 8.7 | 7.3 | 8.7 | 7.5 | 9.7 | 8.7 |
| AL | 72.0 | 71.8 | 73.2 | 73.7 | 72.8 | 71.0 | 71.3 | 6.1 | 6.7 | 7.8 | 8.8 | 9.3 | 10.3 | 9.7 | 22.0 | 21.4 | 19.0 | 17.5 | 17.9 | 18.8 | 19.0 |
| AR | 78.2 | 77.5 | 76.2 | 76.2 | 75.7 | 73.8 | 74.4 | 3.7 | 4.2 | 5.1 | 5.8 | 6.8 | 7.7 | 7.7 | 18.2 | 18.4 | 18.7 | 18.0 | 17.5 | 18.5 | 17.9 |
| AZ | 58.9 | 58.8 | 60.8 | 60.0 | 58.4 | 54.2 | 61.5 | 8.7 | 9.6 | 9.7 | 10.4 | 10.0 | 13.5 | 10.2 | 32.4 | 31.6 | 29.5 | 29.6 | 31.6 | 32.3 | 28.3 |
| CA | 64.6 | 66.2 | 66.1 | 65.9 | 64.7 | 64.7 | 64.2 | 7.9 | 8.5 | 9.1 | 9.2 | 9.5 | 9.6 | 9.4 | 27.4 | 25.3 | 24.8 | 24.8 | 25.9 | 25.8 | 26.4 |
| CO | 62.4 | 62.0 | 62.1 | 62.1 | 62.1 | 61.5 | 61.2 | 4.6 | 6.5 | 7.3 | 7.4 | 7.6 | 8.1 | 8.4 | 33.0 | 31.5 | 30.6 | 30.5 | 30.2 | 30.4 | 30.4 |
| CT | 68.8 | 68.0 | 68.2 | 68.5 | 68.5 | 67.9 | 68.1 | 6.6 | 8.4 | 9.8 | 10.4 | 10.9 | 11.5 | 11.1 | 24.7 | 23.6 | 22.0 | 21.0 | 20.6 | 20.6 | 20.8 |
| DC | 88.3 | 91.2 | 87.4 | 86.9 | 81.9 | 81.3 | 83.0 | 2.3 | 2.7 | 4.3 | 7.4 | 8.9 | 8.5 | 7.6 | 9.5 | 6.2 | 8.2 | 5.8 | 9.2 | 10.3 | 9.5 |
| DE | 51.7 | 54.9 | 54.4 | 50.5 | 59.6 | 49.7 | 57.2 | 5.6 | 5.7 | 7.3 | 9.0 | 9.0 | 15.9 | 14.5 | 42.7 | 39.4 | 38.3 | 40.5 | 31.4 | 34.4 | 28.2 |
| FL | 63.5 | 62.3 | 64.0 | 63.9 | 63.6 | 63.5 | 63.4 | 9.5 | 10.9 | 12.2 | 14.4 | 14.3 | 14.6 | 14.3 | 27.0 | 26.9 | 23.9 | 21.7 | 22.1 | 21.9 | 22.2 |
| GA | 81.5 | 82.2 | 82.0 | 80.7 | 80.2 | 77.3 | 77.8 | 3.6 | 4.3 | 5.4 | 6.1 | 6.8 | 8.1 | 8.2 | 14.9 | 13.5 | 12.6 | 13.2 | 13.0 | 14.6 | 14.0 |
| HI | 75.9 | 71.7 | 77.8 | 73.9 | 79.0 | 73.5 | 72.1 | 8.9 | 4.9 | 5.1 | 10.5 | 7.6 | 8.1 | 7.8 | 15.2 | 23.4 | 17.1 | 15.6 | 13.5 | 18.4 | 20.1 |
| IA | 51.9 | 48.7 | 47.6 | 51.1 | 49.5 | 50.0 | 49.2 | 1.8 | 3.7 | 4.3 | 3.0 | 3.5 | 4.0 | 4.1 | 46.3 | 47.6 | 48.1 | 45.9 | 47.0 | 46.0 | 46.6 |
| ID | 63.5 | 61.3 | 59.5 | 61.7 | 63.9 | 61.9 | 64.2 | 5.6 | 7.8 | 10.5 | 10.8 | 10.6 | 12.6 | 11.7 | 30.9 | 30.9 | 30.1 | 27.5 | 25.5 | 25.5 | 24.1 |
| IL | 64.4 | 64.1 | 64.2 | 64.5 | 64.3 | 64.0 | 63.4 | 4.6 | 5.1 | 6.1 | 6.4 | 6.9 | 7.3 | 7.2 | 31.0 | 30.8 | 29.7 | 29.0 | 28.8 | 28.7 | 29.4 |
| IN | 65.8 | 66.2 | 67.2 | 67.8 | 65.9 | 65.0 | 64.7 | 6.1 | 7.0 | 7.4 | 7.8 | 8.9 | 10.0 | 10.3 | 28.2 | 26.7 | 25.5 | 24.4 | 25.2 | 25.1 | 25.1 |
| KS | 52.9 | 49.9 | 46.4 | 53.1 | 53.4 | 52.6 | 52.8 | 2.2 | 5.6 | 9.2 | 4.1 | 4.8 | 5.7 | 5.0 | 45.0 | 44.5 | 44.4 | 42.9 | 41.8 | 41.8 | 42.2 |
| KY | 75.7 | 76.2 | 75.4 | 76.4 | 75.8 | 75.5 | 75.3 | 5.7 | 7.5 | 9.4 | 9.9 | 9.2 | 10.0 | 10.0 | 18.7 | 16.3 | 15.2 | 13.8 | 15.1 | 14.5 | 14.7 |
| LA | 81.2 | 81.9 | 83.0 | 83.1 | 82.8 | 80.4 | 79.7 | 2.5 | 2.7 | 3.0 | 3.3 | 4.5 | 5.5 | 5.6 | 16.3 | 15.5 | 14.1 | 13.6 | 12.7 | 14.0 | 14.7 |
| MA | 75.2 | 72.9 | 72.0 | 71.2 | 70.6 | 70.4 | 70.5 | 5.0 | 7.5 | 8.6 | 10.0 | 10.6 | 10.9 | 10.5 | 19.8 | 19.7 | 19.4 | 18.8 | 18.9 | 18.6 | 19.0 |
| MD | 66.5 | 67.1 | 66.5 | 66.0 | 64.8 | 65.8 | 63.2 | 4.8 | 5.2 | 6.0 | 7.6 | 8.5 | 9.7 | 9.6 | 28.7 | 27.7 | 27.5 | 26.4 | 26.8 | 24.5 | 27.2 |
| ME | 78.3 | 78.3 | 77.2 | 75.4 | 74.7 | 72.4 | 70.9 | 1.3 | 3.0 | 4.6 | 7.1 | 9.2 | 10.7 | 11.6 | 20.5 | 18.7 | 18.1 | 17.5 | 16.1 | 16.9 | 17.6 |
| MI | 68.5 | 67.3 | 67.5 | 66.1 | 66.3 | 66.2 | 66.5 | 7.6 | 9.5 | 11.5 | 11.9 | 12.5 | 13.0 | 12.1 | 24.0 | 23.2 | 21.1 | 22.0 | 21.2 | 20.8 | 21.3 |
| MN | 62.8 | 63.7 | 63.3 | 63.8 | 63.7 | 62.7 | 61.0 | 5.4 | 5.7 | 7.1 | 7.9 | 7.9 | 7.6 | 8.1 | 31.8 | 30.6 | 29.6 | 28.3 | 28.4 | 29.7 | 30.9 |
| MO | 66.8 | 64.5 | 64.5 | 65.4 | 65.7 | 63.5 | 64.2 | 6.1 | 8.8 | 9.4 | 8.6 | 8.9 | 9.2 | 8.4 | 27.1 | 26.7 | 26.0 | 26.0 | 25.4 | 27.3 | 27.4 |
| MS | 82.8 | 82.3 | 78.3 | 79.9 | 78.4 | 77.7 | 79.4 | 2.1 | 3.0 | 5.1 | 5.5 | 7.7 | 8.5 | 8.5 | 15.1 | 14.7 | 16.5 | 14.6 | 13.9 | 13.8 | 12.1 |
| MT | 61.7 | 61.5 | 61.6 | 61.0 | 60.1 | 60.5 | 57.8 | 5.0 | 5.5 | 6.9 | 7.1 | 7.3 | 8.1 | 8.3 | 33.3 | 33.0 | 31.6 | 31.9 | 32.6 | 31.4 | 33.8 |
| NC | 76.5 | 76.1 | 75.2 | 75.0 | 74.0 | 73.8 | 73.7 | 6.1 | 7.5 | 8.7 | 9.5 | 10.7 | 11.0 | 12.2 | 17.5 | 16.4 | 16.1 | 15.4 | 15.3 | 15.2 | 14.1 |
| ND | 56.6 | 57.2 | 57.9 | 56.3 | 55.4 | 56.0 | 54.3 | 2.8 | 2.9 | 3.6 | 4.3 | 5.3 | 4.6 | 4.8 | 40.6 | 39.9 | 38.5 | 39.4 | 39.3 | 39.4 | 40.9 |
| NE | 52.4 | 52.7 | 50.2 | 53.1 | 53.7 | 53.5 | 53.0 | 2.6 | 3.7 | 6.1 | 4.3 | 5.2 | 5.9 | 5.6 | 45.0 | 43.6 | 43.6 | 42.5 | 41.0 | 40.6 | 41.3 |
| NH | 71.4 | 71.9 | 66.5 | 68.4 | 72.3 | 70.8 | 69.0 | 2.1 | 3.0 | 9.1 | 9.8 | 5.5 | 7.1 | 7.0 | 26.5 | 25.1 | 24.3 | 21.8 | 22.3 | 22.1 | 24.0 |
| NJ | 70.2 | 69.4 | 70.4 | 69.6 | 71.6 | 69.9 | 69.5 | 3.0 | 4.2 | 4.7 | 6.1 | 6.7 | 7.7 | 8.5 | 26.8 | 26.4 | 24.9 | 24.3 | 21.7 | 22.4 | 22.0 |
| NM | 71.6 | 71.5 | 71.8 | 69.8 | 70.1 | 68.1 | 67.4 | 3.9 | 3.3 | 3.9 | 5.9 | 6.4 | 7.4 | 8.1 | 24.5 | 25.2 | 24.2 | 24.3 | 23.5 | 24.5 | 24.6 |
| NV | 68.6 | 65.0 | 68.1 | 62.5 | 62.4 | 60.5 | 61.9 | 7.4 | 8.9 | 8.5 | 10.9 | 11.0 | 12.4 | 10.9 | 23.9 | 26.1 | 23.4 | 26.6 | 26.6 | 27.2 | 27.2 |
| NY | 78.7 | 78.6 | 77.1 | 77.0 | 76.6 | 75.2 | 74.3 | 6.0 | 6.4 | 8.4 | 7.9 | 10.1 | 11.4 | 11.5 | 15.4 | 15.0 | 14.6 | 15.1 | 13.2 | 13.4 | 14.2 |
| OH | 69.3 | 69.4 | 68.4 | 69.2 | 67.6 | 66.4 | 66.4 | 4.8 | 5.4 | 7.2 | 7.1 | 8.7 | 9.1 | 8.9 | 25.9 | 25.2 | 24.5 | 23.8 | 23.7 | 24.5 | 24.7 |
| OK | 65.3 | 65.7 | 69.0 | 66.5 | 67.0 | 66.6 | 66.6 | 1.4 | 2.2 | 2.7 | 3.4 | 4.1 | 5.4 | 5.2 | 33.3 | 32.2 | 28.3 | 30.1 | 28.9 | 27.9 | 28.2 |
| OR | 61.5 | 61.0 | 60.8 | 61.3 | 62.8 | 60.4 | 62.3 | 6.7 | 6.9 | 7.9 | 6.8 | 6.6 | 8.3 | 7.1 | 31.8 | 32.1 | 31.3 | 31.8 | 30.6 | 31.3 | 30.6 |
| PA | 62.9 | 63.8 | 63.7 | 63.8 | 63.5 | 63.1 | 63.7 | 6.8 | 7.2 | 7.9 | 8.4 | 9.2 | 9.8 | 9.3 | 30.3 | 29.0 | 28.4 | 27.8 | 27.3 | 27.1 | 27.1 |
| RI | 73.2 | 75.2 | 75.9 | 75.5 | 74.6 | 73.1 | 73.3 | 5.9 | 5.4 | 5.3 | 6.8 | 7.2 | 9.3 | 10.4 | 20.8 | 19.4 | 18.7 | 17.7 | 18.2 | 17.6 | 16.3 |
| SC | 73.5 | 73.6 | 74.0 | 72.3 | 72.6 | 70.9 | 70.7 | 5.7 | 6.6 | 8.1 | 8.9 | 10.4 | 11.9 | 12.6 | 20.7 | 19.9 | 17.9 | 18.8 | 17.0 | 17.2 | 16.7 |
| SD | 56.9 | 55.6 | 56.2 | 58.1 | 57.6 | 57.7 | 58.9 | 2.6 | 3.5 | 4.5 | 4.4 | 6.4 | 6.5 | 6.0 | 40.6 | 41.0 | 39.3 | 37.5 | 36.0 | 35.8 | 35.1 |
| TN | 74.4 | 76.9 | 74.4 | 74.9 | 73.4 | 73.1 | 72.4 | 6.8 | 5.6 | 8.3 | 8.4 | 9.3 | 10.0 | 10.3 | 18.8 | 17.5 | 17.3 | 16.6 | 17.3 | 16.9 | 17.3 |
| TX | 73.9 | 75.6 | 75.1 | 74.6 | 73.9 | 74.7 | 75.0 | 4.2 | 4.6 | 6.3 | 7.6 | 8.6 | 9.2 | 8.8 | 22.0 | 19.8 | 18.6 | 17.8 | 17.6 | 16.0 | 16.2 |
| UT | 64.3 | 64.7 | 62.1 | 61.8 | 59.8 | 61.3 | 60.3 | 7.2 | 8.1 | 9.6 | 10.9 | 11.1 | 11.2 | 11.6 | 28.6 | 27.2 | 28.3 | 27.3 | 29.1 | 27.6 | 28.2 |
| VA | 70.7 | 70.0 | 68.3 | 68.5 | 68.5 | 67.0 | 67.2 | 3.9 | 4.9 | 6.0 | 7.1 | 7.5 | 9.0 | 8.7 | 25.5 | 25.2 | 25.7 | 24.5 | 24.0 | 24.0 | 24.1 |
| VT | 69.6 | 67.5 | 60.3 | 70.3 | 70.6 | 63.4 | 66.3 | 3.0 | 2.6 | 4.2 | 5.1 | 6.2 | 10.1 | 11.9 | 27.4 | 29.9 | 35.6 | 24.6 | 23.2 | 26.5 | 21.9 |
| WA | 67.1 | 66.5 | 67.6 | 67.1 | 66.0 | 63.4 | 64.0 | 6.2 | 7.6 | 8.4 | 9.2 | 9.5 | 10.5 | 10.5 | 26.7 | 26.0 | 24.0 | 23.7 | 24.4 | 26.2 | 25.5 |
| WI | 67.3 | 67.8 | 67.2 | 67.1 | 67.0 | 65.9 | 67.1 | 4.2 | 5.1 | 6.4 | 6.6 | 7.4 | 7.9 | 8.4 | 28.5 | 27.1 | 26.3 | 26.3 | 25.6 | 26.2 | 24.6 |
| WV | 73.8 | 75.3 | 76.0 | 78.0 | 73.5 | 74.1 | 72.8 | 4.4 | 5.1 | 5.5 | 4.5 | 8.8 | 8.6 | 11.0 | 21.8 | 19.7 | 18.5 | 17.5 | 17.7 | 17.4 | 16.2 |
| WY | 67.1 | 65.6 | 62.2 | 64.5 | 65.0 | 65.9 | 62.3 | 3.2 | 3.5 | 6.5 | 7.1 | 6.5 | 6.2 | 7.8 | 29.7 | 31.0 | 31.2 | 28.4 | 28.5 | 28.0 | 29.9 |
| US | 68.7 | 68.6 | 68.5 | 68.6 | 68.2 | 67.4 | 67.4 | 5.3 | 6.2 | 7.5 | 7.9 | 8.6 | 9.4 | 9.3 | 26.0 | 25.2 | 24.0 | 23.5 | 23.1 | 23.3 | 23.3 |

Distribution of Facilities by Ownership Type

Nursing facility ownership patterns were fairly stable in the 1992-1998 period, when the large majority of nursing facilities were proprietary. Table 7 shows the percent of for-profit facilities was about 65.0 percent in 1998. Non-profit facilities were 28.5 percent and government owned facilities were 6.6 percent.

Ownership patterns vary widely across states. Alaska and Wyoming have a high percentage of government owned facilities. Alaska, The District of Columbia, Minnesota, North Dakota, and South Dakota have a high percentage of non-profit facilities. Arkansas, Nevada, Oklahoma, and Texas have the highest percentages of proprietary facilities.

Percent Distribution by Ownership Type



**TABLE 7
PERCENT DISTRIBUTION OF NURSING FACILITIES BY OWNERSHIP TYPE**

| State | For Profit | | | | | | | Non-Profit | | | | | | | Government Owned | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | |
| AK | 0.0 | 8.3 | 7.1 | 7.7 | 6.3 | 7.1 | 7.1 | 66.7 | 50.0 | 50.0 | 46.2 | 56.3 | 57.1 | 57.1 | 33.3 | 41.7 | 42.9 | 46.2 | 37.5 | 35.7 | 35.7 |
| AL | 78.3 | 78.4 | 76.8 | 76.3 | 76.4 | 76.5 | 76.4 | 13.5 | 12.4 | 12.8 | 12.6 | 13.5 | 14.3 | 13.9 | 8.2 | 9.3 | 10.3 | 11.1 | 10.1 | 9.2 | 9.7 |
| AR | 80.7 | 81.2 | 80.2 | 81.9 | 79.7 | 78.8 | 80.1 | 13.7 | 14.2 | 14.5 | 13.1 | 15.2 | 16.1 | 14.8 | 5.6 | 4.6 | 5.4 | 5.0 | 5.1 | 5.1 | 5.1 |
| AZ | 63.8 | 62.7 | 63.0 | 67.0 | 62.0 | 65.3 | 63.6 | 33.9 | 34.8 | 35.6 | 30.4 | 36.6 | 33.9 | 34.1 | 2.4 | 2.5 | 1.5 | 2.7 | 1.4 | 0.8 | 2.3 |
| CA | 74.3 | 73.0 | 73.4 | 73.8 | 73.8 | 74.0 | 74.2 | 21.9 | 23.1 | 22.3 | 22.0 | 21.9 | 21.7 | 22.2 | 3.8 | 3.9 | 4.2 | 4.2 | 4.3 | 4.2 | 3.6 |
| CO | 59.9 | 60.0 | 63.5 | 62.1 | 62.6 | 63.0 | 62.3 | 29.2 | 29.5 | 27.4 | 26.6 | 26.3 | 26.9 | 27.8 | 10.9 | 10.5 | 9.1 | 11.3 | 11.1 | 10.1 | 9.9 |
| CT | 77.3 | 77.8 | 78.8 | 77.7 | 79.4 | 77.9 | 77.8 | 21.8 | 21.8 | 20.8 | 21.5 | 19.7 | 21.3 | 21.8 | 0.9 | 0.4 | 0.4 | 0.8 | 0.9 | 0.8 | 0.4 |
| DC | 26.7 | 40.0 | 33.3 | 38.5 | 33.3 | 31.8 | 14.3 | 53.3 | 40.0 | 50.0 | 46.2 | 61.1 | 59.1 | 71.4 | 20.0 | 20.0 | 16.7 | 15.4 | 5.6 | 9.1 | 14.3 |
| DE | 54.6 | 59.5 | 51.2 | 42.4 | 54.1 | 42.9 | 40.7 | 42.4 | 32.4 | 39.5 | 45.5 | 37.8 | 47.6 | 48.1 | 3.0 | 8.1 | 9.3 | 12.1 | 8.1 | 9.5 | 11.1 |
| FL | 78.1 | 78.2 | 77.9 | 76.4 | 75.9 | 77.7 | 77.4 | 19.0 | 19.4 | 19.6 | 21.3 | 21.8 | 20.5 | 20.8 | 2.9 | 2.5 | 2.4 | 2.3 | 2.2 | 1.8 | 1.8 |
| GA | 76.3 | 75.2 | 74.3 | 75.1 | 75.6 | 76.6 | 75.4 | 16.9 | 16.8 | 17.5 | 16.7 | 17.6 | 16.4 | 17.7 | 6.8 | 8.0 | 8.3 | 8.2 | 6.8 | 7.0 | 6.9 |
| HI | 31.4 | 40.0 | 34.6 | 38.1 | 37.5 | 42.9 | 43.2 | 37.1 | 36.0 | 34.6 | 33.3 | 35.0 | 33.3 | 31.8 | 31.4 | 24.0 | 30.8 | 28.6 | 27.5 | 23.8 | 25.0 |
| IA | 53.9 | 54.1 | 55.2 | 53.9 | 53.4 | 53.1 | 54.4 | 40.4 | 39.9 | 39.4 | 41.0 | 41.3 | 42.0 | 40.6 | 5.7 | 6.0 | 5.3 | 5.1 | 5.4 | 4.9 | 5.0 |
| ID | 58.7 | 58.5 | 59.0 | 57.5 | 59.5 | 61.0 | 58.2 | 14.3 | 16.9 | 16.7 | 18.8 | 14.9 | 15.6 | 17.7 | 27.0 | 24.6 | 24.4 | 23.8 | 25.7 | 23.4 | 24.1 |
| IL | 64.9 | 64.0 | 64.2 | 63.8 | 64.3 | 64.5 | 63.3 | 29.5 | 29.8 | 30.1 | 30.2 | 29.8 | 30.3 | 31.1 | 5.5 | 6.2 | 5.7 | 6.0 | 5.8 | 5.1 | 5.6 |
| IN | 76.9 | 77.9 | 77.4 | 77.2 | 74.9 | 74.8 | 73.7 | 20.0 | 19.9 | 20.2 | 20.5 | 22.3 | 22.3 | 23.5 | 3.0 | 2.2 | 2.4 | 2.3 | 2.8 | 2.9 | 2.8 |
| KS | 55.8 | 56.8 | 54.3 | 54.4 | 54.0 | 53.0 | 52.3 | 29.7 | 29.5 | 33.0 | 33.1 | 32.5 | 34.2 | 33.5 | 14.6 | 13.7 | 12.7 | 12.6 | 13.6 | 12.8 | 14.3 |
| KY | 69.5 | 68.3 | 68.3 | 68.4 | 67.1 | 64.2 | 64.8 | 25.8 | 28.2 | 28.6 | 28.2 | 28.9 | 31.9 | 32.2 | 4.7 | 3.5 | 3.1 | 3.4 | 3.9 | 3.8 | 3.0 |
| LA | 76.9 | 77.3 | 73.8 | 74.0 | 74.8 | 73.3 | 73.2 | 17.5 | 18.0 | 18.7 | 18.7 | 17.9 | 19.3 | 19.5 | 5.6 | 4.8 | 7.5 | 7.3 | 7.3 | 7.4 | 7.4 |
| MA | 80.2 | 79.6 | 77.8 | 76.4 | 74.5 | 71.1 | 68.6 | 17.4 | 17.7 | 20.0 | 21.3 | 23.0 | 26.5 | 28.7 | 2.5 | 2.7 | 2.2 | 2.3 | 2.5 | 2.5 | 2.7 |
| MD | 66.9 | 67.2 | 63.0 | 62.4 | 57.5 | 57.7 | 56.7 | 29.2 | 29.6 | 33.5 | 34.4 | 39.6 | 39.1 | 40.9 | 3.9 | 3.2 | 3.5 | 3.2 | 2.9 | 3.3 | 2.3 |
| ME | 76.6 | 82.4 | 74.0 | 72.2 | 72.8 | 72.0 | 74.6 | 18.4 | 14.4 | 22.1 | 23.5 | 23.2 | 24.8 | 22.0 | 5.0 | 3.2 | 3.8 | 4.3 | 4.0 | 3.2 | 3.4 |
| MI | 60.6 | 62.1 | 62.6 | 65.0 | 62.8 | 63.5 | 61.9 | 28.2 | 27.4 | 27.2 | 25.1 | 27.7 | 26.6 | 27.9 | 11.1 | 10.5 | 10.2 | 9.8 | 9.5 | 9.9 | 10.2 |
| MN | 36.7 | 31.8 | 31.4 | 31.8 | 35.2 | 30.4 | 30.9 | 47.7 | 52.2 | 54.5 | 52.6 | 50.8 | 54.6 | 56.4 | 15.7 | 15.9 | 14.1 | 15.5 | 14.0 | 14.9 | 12.7 |
| MO | 64.8 | 64.6 | 64.4 | 65.0 | 64.7 | 65.3 | 63.2 | 26.8 | 27.0 | 26.8 | 26.8 | 26.0 | 26.3 | 27.8 | 8.4 | 8.3 | 8.8 | 8.2 | 9.3 | 8.4 | 9.0 |
| MS | 77.5 | 75.6 | 72.8 | 72.4 | 70.5 | 68.7 | 68.5 | 8.8 | 9.8 | 10.5 | 11.1 | 13.7 | 16.9 | 16.5 | 13.8 | 14.6 | 16.7 | 16.6 | 15.8 | 14.4 | 15.0 |
| MT | 42.7 | 43.2 | 40.6 | 39.0 | 37.6 | 36.8 | 35.9 | 36.5 | 37.9 | 38.5 | 41.0 | 43.0 | 45.3 | 46.7 | 20.8 | 19.0 | 20.8 | 20.0 | 19.4 | 17.9 | 17.4 |
| NC | 76.6 | 75.0 | 74.5 | 73.8 | 74.0 | 73.4 | 73.5 | 18.4 | 20.4 | 20.9 | 21.8 | 21.9 | 22.2 | 22.9 | 5.0 | 4.6 | 4.6 | 4.4 | 4.1 | 4.5 | 3.6 |
| ND | 10.7 | 11.3 | 9.9 | 12.0 | 11.5 | 13.3 | 11.4 | 88.0 | 88.8 | 87.7 | 85.5 | 86.2 | 84.0 | 85.2 | 1.3 | 0.0 | 2.5 | 2.4 | 2.3 | 2.7 | 3.4 |
| NE | 45.0 | 45.2 | 45.2 | 44.7 | 45.4 | 45.1 | 45.7 | 31.8 | 30.6 | 30.8 | 32.7 | 32.3 | 32.6 | 31.7 | 23.2 | 24.2 | 24.0 | 22.6 | 22.3 | 22.3 | 22.6 |
| NH | 48.5 | 48.5 | 50.7 | 52.8 | 54.3 | 52.0 | 54.7 | 36.4 | 39.4 | 31.3 | 31.9 | 30.0 | 33.3 | 29.3 | 15.2 | 12.1 | 17.9 | 15.3 | 15.7 | 14.7 | 16.0 |
| NJ | 67.0 | 66.2 | 64.6 | 66.7 | 63.8 | 64.4 | 60.5 | 25.8 | 28.5 | 28.2 | 27.1 | 29.6 | 30.1 | 34.6 | 7.1 | 5.3 | 7.1 | 6.3 | 6.6 | 5.5 | 4.9 |
| NM | 60.6 | 59.4 | 57.1 | 58.4 | 58.2 | 58.7 | 65.2 | 31.0 | 31.9 | 32.5 | 29.9 | 32.9 | 30.2 | 28.8 | 8.5 | 8.7 | 10.4 | 11.7 | 8.9 | 11.1 | 6.1 |
| NV | 81.8 | 74.2 | 77.5 | 77.8 | 74.4 | 73.7 | 78.0 | 9.1 | 12.9 | 7.5 | 11.1 | 12.8 | 7.9 | 7.3 | 9.1 | 12.9 | 15.0 | 11.1 | 12.8 | 18.4 | 14.6 |
| NY | 46.8 | 46.2 | 47.8 | 47.9 | 46.2 | 47.2 | 48.0 | 43.7 | 44.5 | 43.2 | 43.3 | 45.0 | 42.7 | 43.1 | 9.5 | 9.4 | 9.0 | 8.8 | 8.8 | 10.2 | 8.9 |
| OH | 76.3 | 74.9 | 73.5 | 75.1 | 73.4 | 73.2 | 73.6 | 20.2 | 21.5 | 22.9 | 21.7 | 23.3 | 23.5 | 23.4 | 3.5 | 3.6 | 3.7 | 3.2 | 3.3 | 3.3 | 2.9 |
| OK | 85.0 | 83.4 | 81.8 | 82.2 | 81.8 | 79.1 | 78.8 | 11.7 | 13.6 | 13.5 | 12.8 | 13.5 | 14.4 | 14.1 | 3.3 | 3.0 | 4.7 | 5.0 | 4.7 | 6.5 | 7.1 |
| OR | 74.7 | 75.6 | 76.7 | 74.0 | 77.3 | 75.0 | 74.8 | 22.1 | 19.2 | 19.3 | 21.3 | 18.8 | 21.7 | 21.9 | 3.2 | 5.1 | 4.0 | 4.7 | 3.9 | 3.3 | 3.2 |
| PA | 48.0 | 46.0 | 45.2 | 43.8 | 41.8 | 41.2 | 41.0 | 43.8 | 45.9 | 47.9 | 49.4 | 51.9 | 53.3 | 53.4 | 8.2 | 8.1 | 6.9 | 6.9 | 6.2 | 5.5 | 5.6 |
| RI | 77.3 | 76.6 | 78.3 | 78.0 | 74.4 | 77.2 | 77.5 | 22.7 | 23.4 | 21.7 | 22.0 | 25.6 | 22.8 | 22.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SC | 74.0 | 75.6 | 73.9 | 73.4 | 73.9 | 75.4 | 74.8 | 13.0 | 12.6 | 15.7 | 13.6 | 15.2 | 12.6 | 13.5 | 13.0 | 11.9 | 10.4 | 13.0 | 10.9 | 12.0 | 11.7 |
| SD | 32.1 | 31.5 | 34.9 | 32.4 | 36.0 | 36.6 | 34.9 | 63.4 | 63.9 | 60.4 | 63.1 | 60.0 | 59.4 | 59.3 | 4.5 | 4.6 | 4.7 | 4.5 | 4.0 | 4.0 | 5.8 |
| TN | 72.9 | 72.3 | 69.5 | 70.3 | 69.4 | 69.2 | 67.6 | 19.7 | 20.1 | 22.1 | 22.3 | 22.2 | 22.9 | 22.6 | 7.4 | 7.6 | 8.4 | 7.3 | 8.3 | 7.9 | 9.7 |
| TX | 84.5 | 83.8 | 82.5 | 81.6 | 83.1 | 80.9 | 81.0 | 12.9 | 13.0 | 14.7 | 15.7 | 14.2 | 15.8 | 15.8 | 2.6 | 3.2 | 2.8 | 2.7 | 2.8 | 3.3 | 3.3 |
| UT | 71.4 | 75.0 | 77.8 | 80.3 | 79.7 | 81.3 | 77.5 | 21.4 | 17.0 | 16.7 | 14.5 | 16.5 | 14.3 | 18.0 | 7.1 | 8.0 | 5.6 | 5.3 | 3.8 | 4.4 | 4.5 |
| VA | 62.5 | 61.9 | 62.0 | 65.1 | 64.3 | 64.1 | 61.9 | 31.7 | 32.0 | 32.7 | 30.3 | 31.3 | 32.5 | 33.3 | 5.8 | 6.2 | 5.3 | 4.6 | 4.4 | 3.4 | 4.8 |
| VT | 65.9 | 70.7 | 72.2 | 75.0 | 75.7 | 73.0 | 64.7 | 29.5 | 24.4 | 22.2 | 22.5 | 21.6 | 27.0 | 32.4 | 4.6 | 4.9 | 5.6 | 2.5 | 2.7 | 0.0 | 2.9 |
| WA | 73.0 | 71.1 | 70.6 | 70.6 | 70.0 | 68.1 | 68.3 | 21.7 | 22.0 | 21.6 | 21.6 | 22.1 | 23.9 | 24.0 | 5.2 | 6.8 | 7.8 | 7.8 | 7.9 | 8.0 | 7.7 |
| WI | 48.6 | 50.0 | 49.2 | 48.0 | 48.3 | 47.6 | 49.0 | 35.6 | 34.0 | 35.3 | 36.8 | 36.8 | 37.6 | 36.4 | 15.8 | 16.0 | 15.5 | 15.3 | 14.9 | 14.8 | 14.6 |
| WV | 67.3 | 68.8 | 66.4 | 64.2 | 65.5 | 61.5 | 65.2 | 23.4 | 22.5 | 23.4 | 23.9 | 23.6 | 28.2 | 30.4 | 9.4 | 8.8 | 10.2 | 11.9 | 10.9 | 10.3 | 4.3 |
| WY | 40.0 | 39.3 | 44.1 | 44.7 | 48.6 | 44.4 | 45.0 | 25.7 | 21.4 | 20.6 | 21.1 | 13.5 | 16.7 | 15.0 | 34.3 | 39.3 | 35.3 | 34.2 | 37.8 | 38.9 | 40.0 |
| US | 67.2 | 66.5 | 66.5 | 66.5 | 66.1 | 65.5 | 65.0 | 25.9 | 26.5 | 26.8 | 26.7 | 27.3 | 27.9 | 28.5 | 7.0 | 6.9 | 6.8 | 6.8 | 6.6 | 6.6 | 6.6 |

Facilities By Affiliation

Table 8 shows the percent of facilities which were owned or leased by multi-facility organizations (chains). The percentage that were owned or leased by chains increased from 47.5 percent in 1992 to 54.9 percent in 1998.

A number of nursing facilities are hospital-based. Table 8 shows that certified facilities increased from 10.0 percent in 1992 to 14.0 percent in 1998. This supports the conversion of hospital acute care beds to nursing home beds.

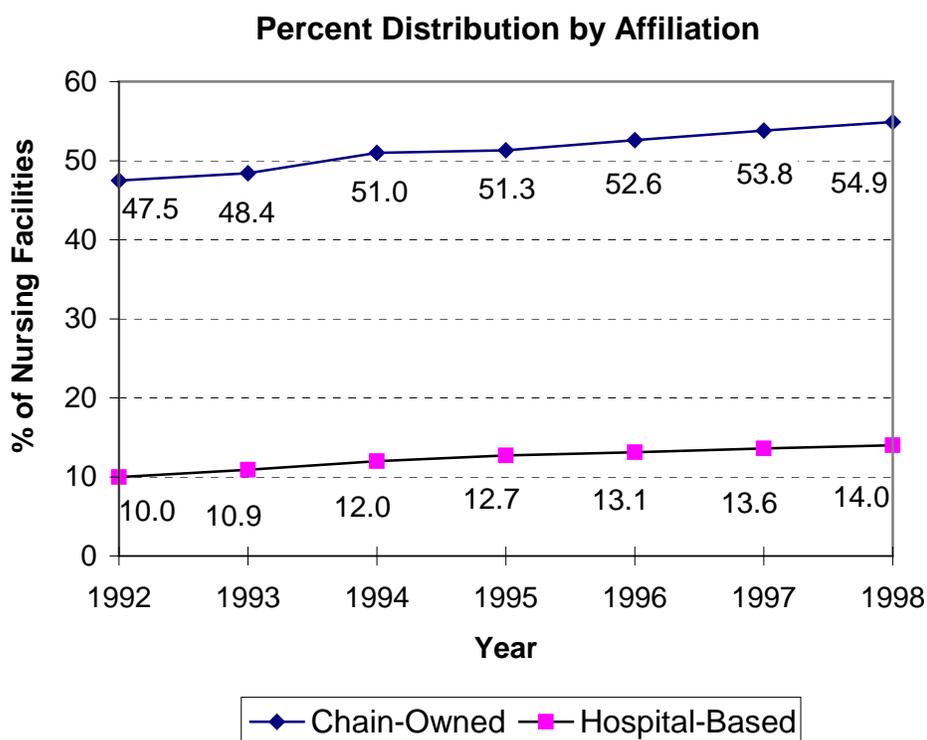


TABLE 8
PERCENT DISTRIBUTION OF CERTIFIED NURSING FACILITIES BY AFFILIATION IN THE U.S.

| State | Chain-Owned | | | | | | | Hospital-Based | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 26.7 | 25.0 | 14.3 | 15.4 | 31.3 | 28.6 | 28.6 | 53.3 | 58.3 | 57.1 | 61.5 | 62.5 | 57.1 | 64.3 |
| AL | 55.6 | 57.2 | 62.1 | 60.6 | 61.5 | 63.3 | 62.0 | 8.2 | 9.3 | 9.9 | 10.6 | 11.1 | 11.2 | 11.1 |
| AR | 53.7 | 52.3 | 55.8 | 53.1 | 55.1 | 54.5 | 54.2 | 8.6 | 8.4 | 9.5 | 10.0 | 12.1 | 12.9 | 11.4 |
| AZ | 62.2 | 59.3 | 68.1 | 66.1 | 69.7 | 72.9 | 65.1 | 15.8 | 17.8 | 20.7 | 19.6 | 23.2 | 20.3 | 21.7 |
| CA | 48.3 | 51.4 | 56.5 | 56.9 | 59.3 | 59.9 | 62.6 | 13.3 | 15.1 | 16.4 | 18.2 | 17.2 | 18.8 | 18.1 |
| CO | 59.9 | 63.0 | 67.0 | 64.5 | 65.8 | 64.4 | 65.6 | 12.5 | 15.0 | 17.3 | 17.7 | 16.3 | 16.3 | 15.6 |
| CT | 35.0 | 32.5 | 40.8 | 38.2 | 44.7 | 46.6 | 47.6 | 1.8 | 2.1 | 1.6 | 1.6 | 2.2 | 2.0 | 1.8 |
| DC | 33.3 | 20.0 | 22.2 | 30.8 | 22.2 | 27.3 | 14.3 | 6.7 | 6.7 | 16.7 | 15.4 | 27.8 | 27.3 | 28.6 |
| DE | 63.6 | 56.8 | 62.8 | 57.6 | 62.2 | 57.1 | 63.0 | 6.1 | 5.4 | 4.7 | 6.1 | 2.7 | 9.5 | 11.1 |
| FL | 65.0 | 65.2 | 70.3 | 70.7 | 72.4 | 73.7 | 71.7 | 5.1 | 7.0 | 7.5 | 8.8 | 9.9 | 10.0 | 11.1 |
| GA | 61.5 | 65.2 | 68.3 | 68.6 | 72.5 | 72.6 | 73.7 | 14.8 | 15.0 | 16.9 | 16.7 | 16.7 | 17.1 | 16.6 |
| HI | 31.4 | 24.0 | 30.8 | 28.6 | 27.5 | 35.7 | 34.1 | 51.4 | 44.0 | 42.3 | 45.2 | 47.5 | 42.9 | 43.2 |
| IA | 48.9 | 49.3 | 47.8 | 49.0 | 48.3 | 51.8 | 50.8 | 11.6 | 10.8 | 11.4 | 11.4 | 11.7 | 10.3 | 11.5 |
| ID | 58.7 | 60.0 | 59.0 | 61.3 | 58.1 | 62.3 | 64.6 | 23.8 | 26.1 | 30.8 | 32.5 | 32.4 | 33.8 | 32.9 |
| IL | 38.2 | 39.0 | 39.9 | 39.5 | 41.1 | 43.8 | 44.6 | 9.5 | 10.2 | 11.0 | 11.5 | 11.5 | 12.5 | 12.7 |
| IN | 64.7 | 64.6 | 62.5 | 62.3 | 64.7 | 66.1 | 64.8 | 6.7 | 6.6 | 8.2 | 8.8 | 10.2 | 10.6 | 11.5 |
| KS | 48.9 | 50.6 | 51.2 | 51.5 | 51.1 | 51.9 | 53.3 | 14.1 | 13.9 | 15.0 | 14.9 | 17.5 | 17.1 | 16.3 |
| KY | 51.3 | 49.8 | 54.4 | 56.8 | 55.7 | 56.5 | 54.6 | 14.4 | 15.4 | 18.9 | 18.8 | 19.6 | 20.4 | 20.4 |
| LA | 42.6 | 47.1 | 47.9 | 49.5 | 48.5 | 48.7 | 46.9 | 15.2 | 13.6 | 16.7 | 15.6 | 17.6 | 16.9 | 16.8 |
| MA | 40.7 | 40.3 | 44.6 | 43.8 | 46.6 | 51.2 | 52.8 | 1.5 | 1.9 | 3.3 | 5.4 | 6.2 | 8.1 | 8.6 |
| MD | 34.3 | 37.0 | 43.0 | 44.6 | 43.5 | 47.4 | 49.7 | 4.5 | 5.3 | 6.0 | 8.1 | 11.1 | 12.6 | 16.4 |
| ME | 39.0 | 37.6 | 42.0 | 40.0 | 44.8 | 48.0 | 45.8 | 9.2 | 7.2 | 9.9 | 11.3 | 9.6 | 10.4 | 9.3 |
| MI | 43.1 | 45.0 | 44.2 | 44.5 | 47.9 | 48.0 | 50.8 | 5.9 | 4.5 | 5.6 | 5.7 | 5.6 | 5.9 | 6.9 |
| MN | 43.7 | 45.0 | 49.7 | 47.1 | 49.2 | 49.0 | 51.4 | 15.9 | 16.6 | 16.4 | 15.8 | 16.8 | 15.5 | 17.0 |
| MO | 47.9 | 46.9 | 51.4 | 48.5 | 48.9 | 47.4 | 47.4 | 13.7 | 14.6 | 14.4 | 15.1 | 14.0 | 13.3 | 14.6 |
| MS | 47.5 | 47.0 | 47.5 | 51.8 | 54.7 | 56.2 | 59.0 | 16.3 | 17.1 | 22.2 | 24.6 | 27.4 | 28.9 | 29.0 |
| MT | 29.2 | 33.7 | 34.4 | 32.0 | 35.5 | 34.7 | 37.0 | 36.5 | 36.8 | 38.5 | 40.0 | 44.1 | 42.1 | 43.5 |
| NC | 59.5 | 61.2 | 62.1 | 63.0 | 62.6 | 65.4 | 67.0 | 11.2 | 11.5 | 12.5 | 13.2 | 13.4 | 13.5 | 14.8 |
| ND | 46.7 | 46.3 | 43.2 | 47.0 | 46.0 | 48.0 | 44.3 | 21.3 | 18.8 | 21.0 | 24.1 | 24.1 | 26.7 | 25.0 |
| NE | 46.4 | 45.7 | 49.8 | 50.0 | 50.2 | 49.8 | 50.4 | 13.2 | 13.7 | 14.5 | 15.0 | 14.4 | 16.3 | 15.7 |
| NH | 37.9 | 40.9 | 44.8 | 47.2 | 45.7 | 50.7 | 52.0 | 7.6 | 6.1 | 4.5 | 4.2 | 5.7 | 4.0 | 6.7 |
| NJ | 28.9 | 31.2 | 31.0 | 32.3 | 32.6 | 32.9 | 36.6 | 4.1 | 3.8 | 4.4 | 4.6 | 4.3 | 4.5 | 7.5 |
| NM | 66.2 | 62.3 | 63.6 | 61.0 | 65.8 | 65.1 | 71.2 | 8.5 | 13.0 | 18.2 | 19.5 | 17.7 | 19.0 | 15.2 |
| NV | 48.5 | 51.6 | 50.0 | 61.1 | 64.1 | 63.2 | 70.7 | 21.2 | 22.6 | 27.5 | 25.0 | 33.3 | 47.4 | 41.5 |
| NY | 10.6 | 10.1 | 9.9 | 11.7 | 12.0 | 11.8 | 14.3 | 12.3 | 13.2 | 12.8 | 13.0 | 12.7 | 11.8 | 11.7 |
| OH | 44.3 | 47.5 | 47.3 | 48.0 | 48.6 | 50.7 | 52.6 | 4.1 | 6.4 | 7.2 | 7.0 | 7.8 | 8.7 | 8.8 |
| OK | 35.3 | 35.4 | 39.6 | 40.2 | 43.3 | 41.5 | 42.4 | 5.6 | 6.7 | 7.6 | 7.3 | 7.9 | 9.7 | 10.8 |
| OR | 50.0 | 51.3 | 60.0 | 58.7 | 61.7 | 65.1 | 67.1 | 5.7 | 6.4 | 6.7 | 7.3 | 8.4 | 9.2 | 9.7 |
| PA | 43.8 | 42.0 | 43.5 | 42.8 | 42.8 | 44.1 | 46.3 | 8.5 | 9.6 | 10.7 | 12.8 | 14.4 | 16.5 | 17.1 |
| RI | 8.3 | 9.1 | 8.7 | 9.8 | 8.1 | 10.9 | 16.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 2.2 | 3.4 |
| SC | 48.6 | 46.7 | 58.2 | 57.1 | 64.2 | 62.9 | 65.0 | 9.6 | 9.6 | 11.9 | 11.7 | 12.1 | 13.1 | 14.1 |
| SD | 52.7 | 54.6 | 54.7 | 55.0 | 58.0 | 56.4 | 55.8 | 16.1 | 17.6 | 17.9 | 17.1 | 17.0 | 19.8 | 17.4 |
| TN | 54.7 | 56.4 | 62.1 | 62.3 | 65.4 | 65.4 | 66.5 | 8.6 | 10.7 | 13.1 | 14.0 | 14.2 | 14.4 | 16.0 |
| TX | 66.3 | 66.7 | 69.0 | 70.1 | 70.7 | 72.3 | 71.7 | 9.1 | 12.5 | 13.9 | 15.0 | 14.2 | 14.6 | 13.5 |
| UT | 52.4 | 59.1 | 66.7 | 68.4 | 68.4 | 70.3 | 75.3 | 9.5 | 13.6 | 18.9 | 18.4 | 13.9 | 16.5 | 20.2 |
| VA | 61.3 | 60.7 | 57.4 | 62.6 | 59.5 | 61.2 | 61.9 | 11.3 | 12.3 | 12.2 | 11.3 | 11.5 | 11.0 | 12.1 |
| VT | 38.6 | 41.5 | 33.3 | 45.0 | 37.8 | 43.2 | 41.2 | 6.8 | 7.3 | 11.1 | 7.5 | 5.4 | 8.1 | 8.8 |
| WA | 61.8 | 60.8 | 60.6 | 63.2 | 64.0 | 66.3 | 66.4 | 7.5 | 8.4 | 8.6 | 8.9 | 9.0 | 9.4 | 9.6 |
| WI | 35.9 | 40.4 | 40.2 | 40.0 | 40.9 | 43.6 | 45.1 | 7.6 | 7.1 | 8.0 | 8.3 | 8.0 | 10.0 | 9.0 |
| WV | 43.9 | 51.3 | 44.5 | 38.8 | 48.2 | 41.0 | 47.8 | 15.9 | 13.8 | 17.2 | 17.9 | 20.0 | 28.2 | 21.7 |
| WY | 51.4 | 57.1 | 52.9 | 52.6 | 54.1 | 52.8 | 52.5 | 28.6 | 39.3 | 26.5 | 26.3 | 27.0 | 27.8 | 30.0 |
| US | 47.5 | 48.4 | 51.0 | 51.3 | 52.6 | 53.8 | 54.9 | 10.0 | 10.9 | 12.0 | 12.7 | 13.1 | 13.6 | 14.0 |

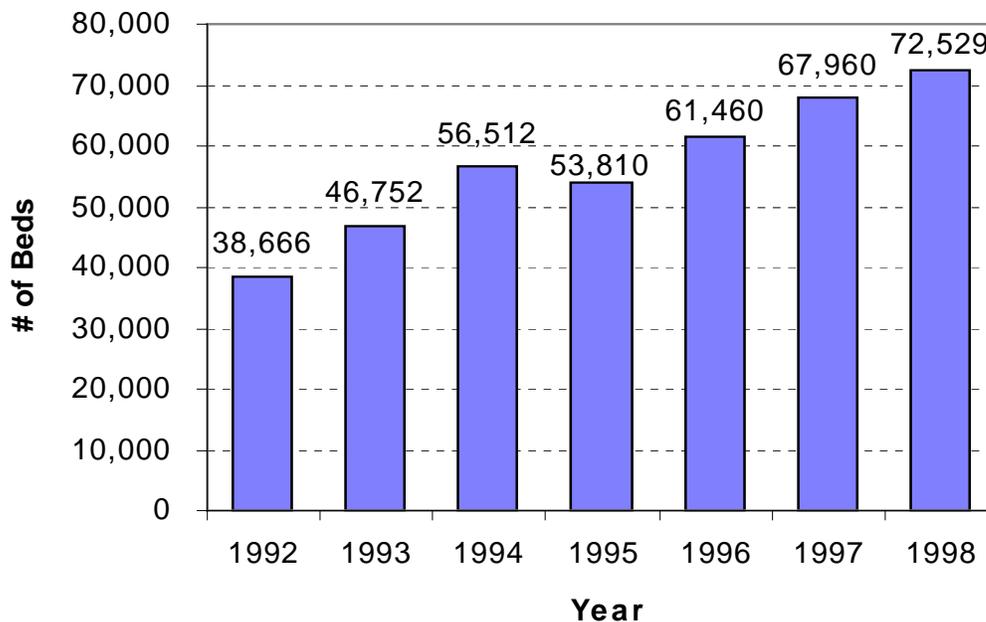
Special Care Beds

Facilities reported the number of beds available in dedicated special care units. Table 9 shows the number of beds in special care units for Alzheimer's, AIDS and Hospice for 1992 through 1998. The total number of dedicated Alzheimer's beds was 72,529 in 1998. This number still is less than 5 percent of the total certified beds in the U.S.

The number of dedicated AIDS beds was 1,799 in 1998, but this represented less than a fraction of one percent of all beds in the U.S.

The number of hospice beds was 2,774 in 1998, but the number is also a small fraction of all certified beds in the U.S. This reflects the general trend to provide hospice care either in the home or in hospitals.

Total Number of Alzheimer Beds



**TABLE 9
TOTAL NUMBER OF SPECIAL CARE BEDS IN CERTIFIED NURSING FACILITIES IN THE U.S.**

| State | Alzheimers | | | | | | | AIDS | | | | | | | Hospice | | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | |
| AK | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AL | 185 | 281 | 352 | 254 | 305 | 383 | 515 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 23 | 23 | 28 | 45 | 15 |
| AR | 87 | 126 | 254 | 265 | 377 | 393 | 556 | 0 | 20 | 18 | 18 | 0 | 0 | 1 | 0 | 11 | 1 | 1 | 18 | 8 | 3 | |
| AZ | 1,058 | 1,191 | 1,362 | 1,402 | 1,317 | 1,336 | 1,694 | 215 | 0 | 185 | 140 | 157 | 31 | 141 | 94 | 115 | 157 | 150 | 67 | 18 | 82 | |
| CA | 3,250 | 3,898 | 4,760 | 4,001 | 3,936 | 3,978 | 3,893 | 121 | 102 | 350 | 356 | 460 | 186 | 94 | 367 | 391 | 660 | 694 | 428 | 356 | 554 | |
| CO | 1,555 | 1,606 | 1,749 | 1,741 | 1,594 | 1,840 | 2,047 | 1 | 0 | 15 | 15 | 0 | 10 | 5 | 105 | 76 | 175 | 171 | 161 | 72 | 107 | |
| CT | 788 | 1,001 | 1,179 | 1,118 | 1,209 | 1,573 | 1,338 | 0 | 0 | 114 | 106 | 60 | 187 | 24 | 12 | 11 | 34 | 47 | 48 | 172 | 27 | |
| DC | 46 | 46 | 10 | 10 | 0 | 36 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | 9 | |
| DE | 261 | 232 | 235 | 138 | 227 | 324 | 189 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FL | 1,844 | 2,350 | 2,871 | 2,388 | 2,921 | 3,677 | 4,234 | 120 | 214 | 210 | 67 | 208 | 65 | 217 | 383 | 86 | 189 | 87 | 384 | 96 | 102 | |
| GA | 454 | 606 | 907 | 927 | 822 | 785 | 903 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 1 | 59 | 277 | 274 | 225 | 6 | 179 | |
| HI | 60 | 90 | 60 | 60 | 50 | 88 | 102 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 6 | 6 | 10 | 16 | 6 | 88 | 6 | |
| IA | 623 | 784 | 875 | 877 | 1,025 | 1,107 | 1,245 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 3 | 76 | 5 | 5 | 39 | 66 | 67 | |
| ID | 377 | 430 | 428 | 428 | 427 | 412 | 492 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 16 | 15 | 16 | 14 | 2 | 0 | |
| IL | 2,451 | 2,932 | 3,487 | 3,694 | 4,078 | 4,167 | 5,186 | 127 | 100 | 169 | 159 | 174 | 44 | 44 | 35 | 147 | 169 | 173 | 239 | 90 | 44 | |
| IN | 1,904 | 2,163 | 2,688 | 2,631 | 2,471 | 2,765 | 2,827 | 39 | 39 | 49 | 49 | 68 | 58 | 39 | 88 | 31 | 254 | 164 | 163 | 91 | 36 | |
| KS | 546 | 646 | 1,387 | 1,202 | 1,503 | 1,456 | 1,914 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 2 | 65 | 64 | 61 | 1 | 63 | |
| KY | 150 | 204 | 209 | 137 | 295 | 483 | 260 | 2 | 2 | 12 | 14 | 12 | 14 | 14 | 8 | 11 | 14 | 10 | 98 | 1 | 6 | |
| LA | 512 | 671 | 804 | 960 | 949 | 1,234 | 1,181 | 12 | 12 | 98 | 108 | 120 | 36 | 14 | 0 | 0 | 73 | 73 | 72 | 11 | 4 | |
| MA | 890 | 1,349 | 1,660 | 1,506 | 1,956 | 2,725 | 2,724 | 0 | 15 | 15 | 15 | 0 | 0 | 0 | 155 | 15 | 15 | 48 | 63 | 58 | 0 | |
| MD | 587 | 401 | 608 | 602 | 1,016 | 1,191 | 743 | 16 | 16 | 155 | 143 | 98 | 125 | 48 | 16 | 20 | 32 | 20 | 1 | 22 | 3 | |
| ME | 230 | 332 | 443 | 405 | 589 | 862 | 843 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 5 | 13 | 2 | 12 | 3 | 3 | 9 | |
| MI | 470 | 739 | 778 | 649 | 859 | 1,263 | 1,354 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 51 | 62 | 90 | 25 | 23 | 169 | |
| MN | 1,817 | 1,856 | 2,129 | 2,329 | 2,259 | 2,636 | 2,706 | 3 | 25 | 191 | 191 | 18 | 37 | 18 | 37 | 33 | 179 | 185 | 27 | 30 | 30 | |
| MO | 1,370 | 1,804 | 2,645 | 2,400 | 2,793 | 3,389 | 3,536 | 15 | 2 | 4 | 4 | 0 | 4 | 16 | 154 | 12 | 43 | 43 | 163 | 30 | 92 | |
| MS | 114 | 0 | 100 | 100 | 181 | 189 | 189 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | |
| MT | 202 | 292 | 396 | 381 | 408 | 404 | 408 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 1 | 0 | 1 | 1 | 3 | 0 | 4 | |
| NC | 512 | 798 | 1,207 | 1,285 | 1,295 | 1,349 | 1,330 | 0 | 10 | 8 | 8 | 8 | 8 | 0 | 104 | 0 | 5 | 5 | 0 | 62 | 124 | |
| ND | 117 | 119 | 142 | 134 | 129 | 67 | 217 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| NE | 455 | 456 | 709 | 684 | 794 | 822 | 857 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 14 | 16 | 5 | 19 | 18 | 19 | |
| NH | 433 | 515 | 553 | 526 | 577 | 669 | 712 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 50 | 50 | 50 | 0 | |
| NJ | 584 | 541 | 364 | 443 | 686 | 513 | 658 | 0 | 120 | 0 | 60 | 69 | 60 | 60 | 18 | 6 | 6 | 6 | 126 | 12 | 12 | |
| NM | 96 | 207 | 295 | 310 | 269 | 379 | 382 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 0 | 0 | 0 | |
| NV | 143 | 252 | 232 | 232 | 248 | 168 | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 4 | 2 | 0 | 2 | |
| NY | 1,221 | 1,566 | 2,113 | 2,055 | 3,029 | 2,421 | 3,235 | 238 | 449 | 611 | 620 | 1,082 | 1,088 | 811 | 4 | 321 | 156 | 134 | 41 | 23 | 44 | |
| OH | 2,686 | 3,081 | 3,500 | 2,591 | 4,105 | 4,372 | 4,810 | 21 | 21 | 244 | 244 | 103 | 41 | 23 | 15 | 2 | 40 | 189 | 628 | 256 | 265 | |
| OK | 485 | 635 | 729 | 832 | 917 | 1,129 | 902 | 4 | 13 | 29 | 0 | 29 | 0 | 0 | 5 | 4 | 9 | 11 | 11 | 243 | 2 | |
| OR | 760 | 761 | 835 | 864 | 698 | 848 | 893 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 4 | 5 | 80 | 78 | 72 | |
| PA | 2,184 | 2,791 | 3,634 | 3,372 | 4,267 | 5,280 | 5,353 | 49 | 25 | 45 | 29 | 4 | 34 | 34 | 14 | 45 | 25 | 64 | 32 | 270 | 230 | |
| RI | 103 | 246 | 468 | 508 | 573 | 420 | 559 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SC | 0 | 60 | 175 | 333 | 377 | 745 | 746 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | |
| SD | 128 | 169 | 215 | 226 | 191 | 216 | 231 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 2 | 0 | 1 | |
| TN | 254 | 259 | 300 | 256 | 378 | 340 | 359 | 0 | 0 | 7 | 7 | 16 | 0 | 0 | 45 | 0 | 4 | 4 | 10 | 0 | 0 | |
| TX | 1,768 | 2,210 | 2,795 | 2,872 | 3,056 | 2,863 | 2,928 | 85 | 24 | 51 | 51 | 12 | 0 | 25 | 64 | 48 | 35 | 237 | 230 | 42 | 8 | |
| UT | 354 | 431 | 487 | 445 | 499 | 591 | 826 | 4 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8 | 9 | |
| VA | 582 | 1,027 | 753 | 724 | 885 | 828 | 739 | 18 | 40 | 12 | 12 | 29 | 27 | 17 | 0 | 0 | 0 | 0 | 5 | 1 | 10 | |
| VT | 103 | 147 | 154 | 163 | 116 | 137 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| WA | 1,570 | 1,643 | 1,879 | 1,721 | 1,804 | 1,928 | 2,013 | 40 | 76 | 100 | 30 | 77 | 75 | 75 | 182 | 177 | 198 | 48 | 209 | 241 | 212 | |
| WI | 1,851 | 2,387 | 2,195 | 2,255 | 2,724 | 2,847 | 2,980 | 2 | 12 | 52 | 52 | 2 | 2 | 2 | 208 | 236 | 347 | 371 | 300 | 238 | 146 | |
| WV | 155 | 102 | 143 | 53 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| WY | 291 | 319 | 237 | 299 | 276 | 332 | 303 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 3 | |
| US | #### | ### |

Special Care Beds (continued)

Table 10 shows that there were 18,000 rehabilitation beds in special units in certified nursing facilities in the U.S. in 1998. This was only one percent of the certified nursing facility beds in the U.S. There were also only 5,406 ventilator beds reported in special units in 1998. There were 283 dialysis unit beds surveyed in 1998.

Overall, these data suggest that dedicated special care units in certified nursing facilities are growing in number, but are only a small percent of the total beds.

It should be noted that many nursing home facilities accept residents with Alzheimer's and other special problems but do not maintain separate units for such residents.

TABLE 10
TOTAL NUMBER OF SPECIAL CARE BEDS IN CERTIFIED NURSING FACILITIES IN THE U.S.

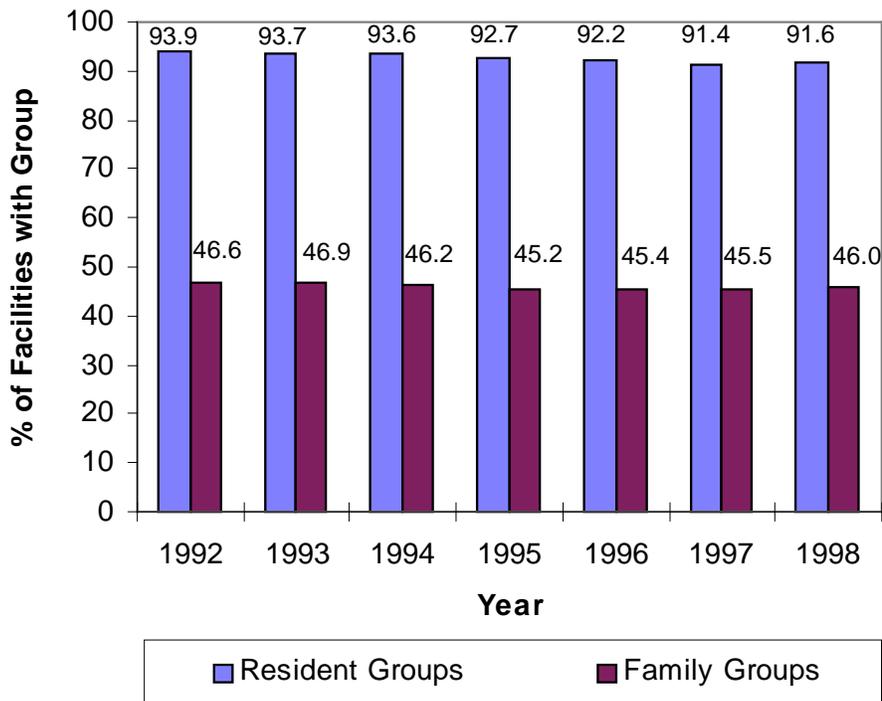
| State | Rehabilitation | | | | | | | Ventilator | | | | | | | Dialysis | | | | | | | | | | |
|-----------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|-----|-----|--|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | ### | |
| AK | 0 | 16 | 16 | 16 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| AL | 0 | 29 | 309 | 176 | 384 | 301 | 265 | 17 | 43 | 37 | 37 | 17 | 62 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| AR | 10 | 0 | 178 | 192 | 70 | 82 | 82 | 19 | 18 | 6 | 12 | 7 | 18 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | |
| AZ | 180 | 75 | 96 | 100 | 188 | 184 | 236 | 50 | 30 | 64 | 38 | 87 | 93 | 165 | 60 | 0 | 64 | 60 | 75 | 0 | 0 | 0 | 60 | | |
| CA | 2,513 | 2,787 | 3,461 | 3,062 | 3,470 | 2,409 | 2,331 | 557 | 849 | 1,195 | 1,155 | 1,236 | 976 | 1,156 | 82 | 3 | 77 | 99 | 52 | 14 | 19 | | | | |
| CO | 183 | 319 | 239 | 236 | 203 | 213 | 215 | 34 | 10 | 70 | 73 | 54 | 56 | 13 | 0 | 0 | 7 | 7 | 4 | 22 | 5 | | | | |
| CT | 647 | 774 | 1,166 | 1,031 | 1,236 | 1,517 | 1,455 | 120 | 81 | 136 | 136 | 130 | 133 | 43 | 0 | 2 | 20 | 0 | 4 | 4 | 4 | | | | |
| DC | 78 | 78 | 66 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| DE | 24 | 148 | 59 | 59 | 59 | 59 | 59 | 50 | 9 | 60 | 56 | 30 | 34 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| FL | 501 | 641 | 1,189 | 1,073 | 1,101 | 1,218 | 1,101 | 170 | 314 | 450 | 497 | 496 | 361 | 465 | 2 | 4 | 0 | 0 | 69 | 17 | 44 | | | | |
| GA | 74 | 110 | 321 | 275 | 197 | 163 | 263 | 18 | 8 | 8 | 8 | 32 | 32 | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| HI | 83 | 0 | 10 | 10 | 0 | 22 | 0 | 10 | 0 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | |
| IA | 60 | 34 | 40 | 57 | 133 | 135 | 112 | 3 | 0 | 9 | 9 | 57 | 31 | 0 | 0 | 0 | 0 | 0 | 10 | 4 | 1 | | | | |
| ID | 245 | 34 | 112 | 147 | 89 | 135 | 119 | 277 | 0 | 4 | 8 | 4 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| IL | 253 | 1,334 | 1,937 | 1,921 | 1,408 | 1,588 | 1,584 | 147 | 148 | 353 | 343 | 334 | 402 | 366 | 34 | 14 | 23 | 33 | 2 | 33 | 13 | | | | |
| IN | 304 | 413 | 515 | 424 | 766 | 628 | 567 | 337 | 342 | 175 | 398 | 140 | 126 | 71 | 0 | 0 | 0 | 0 | 19 | 19 | 0 | | | | |
| KS | 237 | 126 | 329 | 215 | 160 | 147 | 125 | 6 | 6 | 5 | 5 | 14 | 8 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| KY | 10 | 58 | 86 | 91 | 131 | 78 | 109 | 68 | 60 | 230 | 60 | 67 | 97 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| LA | 35 | 59 | 103 | 139 | 278 | 299 | 249 | 12 | 24 | 83 | 83 | 102 | 114 | 94 | 2 | 22 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 2 | |
| MA | 659 | 655 | 1,017 | 1,070 | 962 | 637 | 515 | 156 | 187 | 235 | 121 | 190 | 171 | 118 | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | |
| MD | 89 | 76 | 240 | 361 | 454 | 362 | 93 | 0 | 51 | 50 | 41 | 76 | 150 | 99 | 10 | 10 | 512 | 11 | 10 | 34 | 6 | | | | |
| ME | 44 | 34 | 15 | 15 | 143 | 174 | 197 | 0 | 0 | 3 | 3 | 0 | 25 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| MI | 606 | 190 | 221 | 144 | 237 | 253 | 337 | 32 | 136 | 94 | 101 | 71 | 110 | 100 | 9 | 1 | 0 | 0 | 0 | 1 | 1 | | | | |
| MN | 235 | 269 | 495 | 632 | 748 | 872 | 958 | 0 | 16 | 57 | 56 | 47 | 47 | 43 | 0 | 0 | 148 | 148 | 0 | 0 | 0 | 0 | 0 | 12 | |
| MO | 96 | 86 | 174 | 184 | 168 | 152 | 185 | 24 | 46 | 34 | 34 | 42 | 47 | 32 | 5 | 1 | 5 | 5 | 50 | 0 | 1 | | | | |
| MS | 5 | 0 | 33 | 43 | 49 | 98 | 187 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| MT | 0 | 30 | 46 | 46 | 14 | 35 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | |
| NC | 159 | 297 | 388 | 328 | 216 | 312 | 137 | 50 | 103 | 146 | 152 | 164 | 154 | 166 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ND | 0 | 0 | 29 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| NE | 162 | 160 | 136 | 136 | 182 | 162 | 176 | 106 | 106 | 55 | 55 | 59 | 63 | 62 | 6 | 6 | 0 | 0 | 0 | 0 | 2 | 0 | | | |
| NH | 22 | 142 | 86 | 62 | 118 | 90 | 72 | 0 | 50 | 62 | 62 | 72 | 62 | 0 | 0 | 0 | 50 | 50 | 50 | 50 | 0 | | | | |
| NJ | 241 | 190 | 142 | 142 | 223 | 350 | 388 | 101 | 109 | 127 | 107 | 106 | 148 | 201 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | | | | |
| NM | 20 | 0 | 29 | 29 | 0 | 0 | 16 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| NV | 0 | 0 | 0 | 0 | 0 | 47 | 37 | 23 | 0 | 13 | 12 | 1 | 144 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| NY | 553 | 450 | 258 | 505 | 883 | 914 | 1,557 | 39 | 152 | 152 | 113 | 196 | 403 | 400 | 4 | 4 | 10 | 10 | 20 | 3 | 9 | | | | |
| OH | 281 | 424 | 518 | 367 | 723 | 986 | 884 | 259 | 287 | 474 | 457 | 706 | 803 | 593 | 1 | 1 | 1 | 3 | 0 | 27 | 0 | | | | |
| OK | 99 | 49 | 114 | 129 | 99 | 247 | 165 | 26 | 19 | 42 | 46 | 25 | 23 | 14 | 7 | 6 | 3 | 3 | 1 | 8 | 8 | | | | |
| OR | 112 | 179 | 139 | 118 | 121 | 97 | 104 | 8 | 4 | 1 | 1 | 10 | 16 | 0 | 0 | 0 | 4 | 4 | 2 | 4 | 0 | | | | |
| PA | 200 | 715 | 923 | 846 | 1,060 | 831 | 923 | 183 | 231 | 263 | 237 | 240 | 289 | 510 | 4 | 12 | 1 | 1 | 5 | 3 | 3 | | | | |
| RI | 18 | 138 | 64 | 64 | 114 | 76 | 164 | 1 | 14 | 22 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | |
| SC | 0 | 0 | 71 | 148 | 216 | 120 | 151 | 0 | 0 | 0 | 0 | 0 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | |
| SD | 0 | 0 | 48 | 48 | 79 | 61 | 50 | 0 | 0 | 24 | 24 | 36 | 36 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| TN | 95 | 254 | 159 | 109 | 183 | 62 | 175 | 12 | 12 | 73 | 85 | 77 | 3 | 56 | 0 | 0 | 1 | 1 | 9 | 0 | 1 | | | | |
| TX | 158 | 247 | 278 | 299 | 233 | 336 | 145 | 16 | 44 | 161 | 141 | 164 | 159 | 93 | 4 | 10 | 18 | 18 | 4 | 0 | 4 | | | | |
| UT | 31 | 156 | 180 | 214 | 139 | 114 | 100 | 2 | 20 | 6 | 12 | 12 | 0 | 5 | 0 | 6 | 0 | 0 | 10 | 0 | 0 | | | | |
| VA | 172 | 265 | 351 | 363 | 394 | 322 | 222 | 81 | 124 | 131 | 108 | 142 | 134 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| VT | 0 | 32 | 60 | 120 | 60 | 80 | 112 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| WA | 345 | 169 | 139 | 133 | 187 | 365 | 198 | 81 | 94 | 107 | 172 | 85 | 66 | 64 | 16 | 10 | 0 | 13 | 6 | 1 | 4 | | | | |
| WI | 588 | 618 | 1,030 | 990 | 842 | 822 | 785 | 36 | 56 | 103 | 103 | 95 | 76 | 72 | 0 | 0 | 2 | 2 | 4 | 10 | 10 | | | | |
| WV | 90 | 0 | 32 | 20 | 0 | 0 | 36 | 6 | 2 | 34 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | |
| WY | 25 | 24 | 0 | 0 | 19 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| US | 10542 | ##### | ##### | ##### | ##### | ##### | ##### | ### | 254 | 139 | 968 | 522 | 426 | 265 | 283 | | | | |

Resident Groups/ Family Groups

Facilities may have an organized group of residents which meet regularly to discuss and offer suggestions about policies and procedures affecting residents' care, treatment, and quality of life; to support each other; to plan resident and family activities; to participate in educational activities or for any other purposes. Table 11 shows that the percent of facilities with resident groups was about 92-94 percent over the 1992-1998 period.

Facilities may have organized groups of family members which meet regularly to discuss issues about residents' care, treatment, and quality of life. Table 11 shows that approximately 46.6 percent of facilities reported family groups in 1992, but this decreased to 46.0 percent in 1998.

Percent of Nursing Facilities with Resident and Family Groups



**TABLE 11
PERCENT CERTIFIED NURSING FACILITIES WITH RESIDENT GROUPS AND FAMILY GROUPS**

| State | Resident Groups | | | | | | | Family Groups | | | | | | |
|-----------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 93.3 | 83.3 | 71.4 | 69.2 | 31.3 | 0.0 | 7.1 | 53.3 | 41.7 | 42.9 | 46.2 | 6.3 | 0.0 | 7.1 |
| AL | 97.1 | 95.9 | 96.6 | 96.5 | 96.2 | 96.4 | 97.7 | 77.3 | 75.8 | 68.5 | 69.7 | 65.9 | 67.9 | 66.2 |
| AR | 90.6 | 90.8 | 91.3 | 89.6 | 89.5 | 88.2 | 89.4 | 51.1 | 53.1 | 54.1 | 54.2 | 53.1 | 49.8 | 47.5 |
| AZ | 95.3 | 94.9 | 89.6 | 85.7 | 88.0 | 83.1 | 85.3 | 57.5 | 57.6 | 49.6 | 49.1 | 50.0 | 44.9 | 43.4 |
| CA | 94.6 | 94.7 | 93.7 | 92.3 | 91.8 | 91.3 | 91.3 | 55.6 | 56.9 | 53.4 | 53.0 | 53.3 | 49.7 | 48.2 |
| CO | 93.2 | 92.5 | 92.9 | 92.1 | 92.6 | 91.3 | 92.5 | 63.5 | 61.0 | 58.9 | 56.2 | 57.4 | 58.2 | 59.4 |
| CT | 96.8 | 96.7 | 98.4 | 97.6 | 98.2 | 98.4 | 99.1 | 47.7 | 42.8 | 50.6 | 49.4 | 53.1 | 58.5 | 62.7 |
| DC | 93.3 | 100.0 | 94.4 | 92.3 | 88.9 | 81.8 | 78.6 | 60.0 | 73.3 | 72.2 | 76.9 | 77.8 | 68.2 | 78.6 |
| DE | 90.9 | 97.3 | 97.7 | 93.9 | 91.9 | 90.5 | 92.6 | 30.3 | 48.6 | 51.2 | 45.5 | 43.2 | 50.0 | 59.3 |
| FL | 98.1 | 96.7 | 96.1 | 93.8 | 93.2 | 92.3 | 91.5 | 77.2 | 75.9 | 77.6 | 75.7 | 75.6 | 72.7 | 74.2 |
| GA | 96.6 | 95.3 | 97.0 | 96.6 | 94.9 | 95.0 | 94.3 | 52.0 | 52.2 | 56.2 | 55.0 | 51.6 | 52.8 | 50.6 |
| HI | 74.3 | 72.0 | 96.2 | 85.7 | 82.5 | 90.5 | 84.1 | 42.9 | 28.0 | 53.8 | 50.0 | 45.0 | 57.1 | 43.2 |
| IA | 83.7 | 84.6 | 84.5 | 85.2 | 82.5 | 78.6 | 85.9 | 26.0 | 25.5 | 25.5 | 25.5 | 21.2 | 22.9 | 20.8 |
| ID | 90.5 | 90.8 | 89.7 | 87.5 | 86.5 | 84.4 | 84.8 | 52.4 | 47.7 | 33.3 | 32.5 | 35.1 | 39.0 | 36.7 |
| IL | 97.0 | 97.0 | 96.5 | 96.2 | 96.1 | 96.7 | 95.4 | 43.3 | 42.4 | 38.5 | 39.5 | 37.6 | 39.3 | 41.4 |
| IN | 95.0 | 92.8 | 94.0 | 94.1 | 92.0 | 92.3 | 89.8 | 51.5 | 47.8 | 37.1 | 36.7 | 34.9 | 33.0 | 32.6 |
| KS | 88.2 | 89.0 | 89.8 | 89.7 | 88.7 | 88.6 | 89.5 | 38.9 | 38.1 | 37.1 | 34.1 | 37.0 | 35.6 | 42.0 |
| KY | 94.9 | 95.4 | 93.8 | 89.7 | 92.9 | 90.4 | 90.8 | 47.0 | 46.7 | 45.9 | 39.7 | 45.0 | 45.8 | 46.4 |
| LA | 82.8 | 84.4 | 83.6 | 84.1 | 82.7 | 84.3 | 82.0 | 24.4 | 24.7 | 27.9 | 28.4 | 25.5 | 27.9 | 27.4 |
| MA | 97.0 | 98.1 | 97.6 | 96.1 | 95.0 | 95.7 | 95.0 | 36.7 | 39.9 | 38.5 | 37.4 | 40.2 | 42.2 | 48.0 |
| MD | 94.4 | 94.2 | 93.0 | 90.9 | 90.3 | 86.5 | 86.5 | 53.9 | 50.3 | 54.0 | 53.2 | 50.2 | 47.4 | 42.1 |
| ME | 96.5 | 96.8 | 96.9 | 96.5 | 98.4 | 96.0 | 94.1 | 25.5 | 24.8 | 27.5 | 27.8 | 28.0 | 32.8 | 35.6 |
| MI | 98.0 | 97.6 | 99.5 | 99.5 | 99.5 | 99.3 | 98.2 | 44.1 | 45.5 | 50.5 | 51.9 | 57.2 | 60.8 | 57.4 |
| MN | 98.6 | 98.8 | 98.6 | 98.9 | 98.3 | 97.9 | 97.3 | 70.1 | 71.7 | 70.1 | 69.7 | 71.2 | 67.8 | 67.3 |
| MO | 87.3 | 85.4 | 89.7 | 87.9 | 86.2 | 86.9 | 85.8 | 36.1 | 31.1 | 33.7 | 30.8 | 35.7 | 39.8 | 39.4 |
| MS | 96.9 | 96.3 | 92.6 | 88.4 | 87.4 | 89.6 | 89.0 | 51.9 | 54.3 | 56.8 | 52.8 | 50.0 | 54.7 | 48.5 |
| MT | 92.7 | 92.6 | 94.8 | 93.0 | 92.5 | 88.4 | 90.2 | 37.5 | 44.2 | 40.6 | 35.0 | 38.7 | 35.8 | 33.7 |
| NC | 94.7 | 94.3 | 94.6 | 94.3 | 93.2 | 95.0 | 95.1 | 48.0 | 49.7 | 48.2 | 46.9 | 46.7 | 53.0 | 52.2 |
| ND | 96.0 | 97.5 | 98.8 | 98.8 | 97.7 | 96.0 | 98.9 | 21.3 | 23.8 | 25.9 | 25.3 | 25.3 | 29.3 | 29.5 |
| NE | 92.3 | 92.7 | 94.6 | 92.9 | 95.6 | 93.1 | 93.9 | 37.3 | 37.9 | 33.5 | 35.8 | 35.8 | 33.0 | 31.3 |
| NH | 93.9 | 93.9 | 94.0 | 95.8 | 97.1 | 94.7 | 93.3 | 34.8 | 22.7 | 34.3 | 37.5 | 32.9 | 46.7 | 45.3 |
| NJ | 96.9 | 97.3 | 98.3 | 98.3 | 98.3 | 97.3 | 95.8 | 43.5 | 50.6 | 49.3 | 48.5 | 51.5 | 49.7 | 53.6 |
| NM | 91.5 | 92.8 | 83.1 | 81.8 | 83.5 | 82.5 | 86.4 | 57.7 | 52.2 | 45.5 | 49.4 | 54.4 | 54.0 | 54.5 |
| NV | 97.0 | 80.6 | 80.0 | 86.1 | 71.8 | 60.5 | 82.9 | 48.5 | 45.2 | 45.0 | 44.4 | 30.8 | 23.7 | 36.6 |
| NY | 98.9 | 99.0 | 99.7 | 97.6 | 98.2 | 99.1 | 99.6 | 63.0 | 62.6 | 64.4 | 61.6 | 60.2 | 58.5 | 65.0 |
| OH | 96.0 | 96.1 | 95.4 | 95.8 | 95.2 | 93.7 | 94.3 | 29.4 | 29.3 | 30.3 | 30.0 | 32.1 | 33.3 | 31.9 |
| OK | 92.8 | 92.4 | 91.5 | 92.7 | 91.0 | 89.3 | 88.9 | 27.8 | 26.9 | 25.8 | 27.2 | 26.4 | 27.4 | 24.9 |
| OR | 92.4 | 95.5 | 94.7 | 94.0 | 93.5 | 93.4 | 94.8 | 48.7 | 43.6 | 45.3 | 48.7 | 44.8 | 44.7 | 48.4 |
| PA | 92.9 | 92.7 | 94.2 | 93.3 | 91.1 | 90.8 | 90.4 | 37.9 | 42.0 | 41.5 | 39.4 | 39.2 | 40.4 | 41.9 |
| RI | 93.8 | 98.7 | 94.6 | 93.9 | 90.7 | 92.4 | 95.5 | 28.9 | 26.0 | 31.5 | 32.9 | 29.1 | 25.0 | 30.3 |
| SC | 95.2 | 94.8 | 95.5 | 94.2 | 90.9 | 90.9 | 91.4 | 61.6 | 59.3 | 56.0 | 56.5 | 57.0 | 55.4 | 55.8 |
| SD | 97.3 | 97.2 | 97.2 | 97.3 | 98.0 | 96.0 | 97.7 | 41.1 | 45.4 | 50.0 | 52.3 | 58.0 | 52.5 | 47.7 |
| TN | 92.6 | 91.3 | 90.9 | 90.3 | 89.5 | 87.7 | 88.3 | 56.9 | 57.8 | 56.4 | 56.3 | 59.3 | 54.8 | 55.9 |
| TX | 89.7 | 87.0 | 85.7 | 84.6 | 85.7 | 83.7 | 84.2 | 43.3 | 46.5 | 44.6 | 42.9 | 43.7 | 43.1 | 43.9 |
| UT | 95.2 | 94.3 | 88.9 | 85.5 | 96.2 | 89.0 | 85.4 | 59.5 | 56.8 | 53.3 | 46.1 | 45.6 | 37.4 | 38.2 |
| VA | 90.0 | 91.4 | 93.2 | 93.3 | 92.9 | 94.1 | 93.5 | 39.2 | 45.5 | 42.2 | 40.8 | 43.7 | 47.3 | 49.4 |
| VT | 93.2 | 87.8 | 94.4 | 95.0 | 94.6 | 100.0 | 94.1 | 31.8 | 34.1 | 33.3 | 25.0 | 24.3 | 32.4 | 35.3 |
| WA | 97.4 | 97.3 | 96.7 | 96.3 | 94.8 | 91.7 | 96.3 | 67.0 | 63.5 | 57.6 | 56.9 | 54.3 | 53.3 | 51.3 |
| WI | 96.4 | 97.5 | 96.6 | 97.0 | 96.1 | 95.0 | 96.7 | 44.3 | 40.9 | 43.0 | 44.5 | 43.4 | 43.9 | 43.1 |
| WV | 94.4 | 92.5 | 92.2 | 89.6 | 88.2 | 84.6 | 84.1 | 50.5 | 56.3 | 48.4 | 49.3 | 50.9 | 43.6 | 39.1 |
| WY | 94.3 | 89.3 | 91.2 | 92.1 | 91.9 | 88.9 | 87.5 | 57.1 | 32.1 | 50.0 | 50.0 | 29.7 | 30.6 | 25.0 |
| US | 93.9 | 93.7 | 93.6 | 92.7 | 92.2 | 91.4 | 91.6 | 46.6 | 46.9 | 46.2 | 45.2 | 45.4 | 45.5 | 46.0 |

RESIDENT CHARACTERISTICS

Background

Nursing homes vary in the type of residents they serve. Resident characteristics affect the environment of the facility. Moreover, the special characteristics of nursing home residents require different levels and types of staff resources and affect the facility's success in providing high quality care. A number of nursing home resident classification systems have been developed and are often referred to as "case mix" indicators.

The resource utilization group system (RUGS-II) is the most well established case mix approach tested for reliability and validity (Fries and Cooney, 1985; Schneider et al., 1988; Fries et al., 1989). RUGS II was developed from a study of Medicaid nursing home residents in New York and consists of 16 groups which are first divided into five categories: special care, rehabilitation, clinically complex, severe behavioral problems, and reduced physical functioning. Subgroups are formed under each of these categories by degree of dependency in activities of daily living (ADL). RUGS III is the latest version developed for the current HCFA Nursing Home Case Mix demonstration project (Fries et al. 1994).

The OSCAR report has summary data on residents at the facility level describing resident's need for assistance with activities of daily living (ADL). Although interesting, such data are difficult to understand unless they are summarized in some way. Two types of summary data are presented.

First, a simple summary of three major activities of daily living (ADLs) was compiled. The facilities were asked to rate each resident's ADLs on a scale of 1 to 3 from needs little or no assistance to needs extensive assistance. The three ADL scores were for those residents who needed assistance in: (1) eating, (2) toileting, and (3) transferring. A score of 1 was assigned to residents who were independent. A score of 2 was assigned to those that needed some supervision. A score of 3 was assigned to those who were dependent.

Each ADL score was multiplied by the number of residents in that category for each facility. An average composite score was developed by adding each of the three scores together and dividing by the total number of residents in the facility to compute each facility's index score. Thus, a summary case mix score ranging from 3-9 was compiled for each facility based on resident ADL characteristics. Individual facility scores were then summarized for each state. Because of reporting changes by HCFA, data for the earlier years could not be computed for this report.

The second approach used was based upon a composite case mix index for nursing home facilities. This approach was developed by Thoms (1975) and used by Dor (1989), Cohen and Dubay (1990), and by Cowles (Health Data Associates 1994). This approach constructed a casemix score by multiplying the proportion of residents with selected ADL limitations and

selected patient problems times the estimated number of management minutes required for care of those selected problems, developed from a study of service requirements by Thoms (1975). Thus, a weighted score is multiplied by the percentage of residents in various categories as follows: completely bedfast times 46; needing assistance with ambulation times 32; needing full eating assistance times 45; needing some eating assistance times 20; having an indwelling catheter times 20; incontinent times 48; having decubitus ulcers times 20; receiving bowel or bladder retraining times 26; and receiving special skin care times 10.

Thus, an index was constructed for each facility and then summarized to develop an average resident acuity at the state level.

In addition, the following characteristics show the type of more advanced care that residents receive: percent of clients receiving special treatments (injections, ostomy care, IV feedings, tube feedings, or suctioning), and percentage with organic psychiatric or other psychiatric conditions. Other characteristics that may be important are the percentage who receive psychotropic drugs and who have decubitus ulcers, contractures, incontinence, and catheters.

FINDINGS

RESIDENT CHARACTERISTICS AND SERVICES PROVIDED

Assistance with Activities of Daily Living

Table 12 shows the average score for residents' needing assistance with eating in facilities by state. Each state has an average score from 1 to 3 in terms of the need for assistance with eating, where 1 indicates the lowest need and 3 the greatest need for assistance. The U.S. average resident need for eating assistance was 1.8 to 1.6 for all facilities in the 1994-1998 period.

The average score for residents' needing assistance in toileting is shown in Table 12. The U.S. average resident need for toileting assistance was 2.2 to 2.1 for all facilities in the 1994-1998 period.

Finally, the need for resident assistance with transferring from surfaces such as to and from the bed, chair, wheelchair or to and from a standing position is shown in Table 12. The average resident need was 2.1 to 2.0 for transferring in the 1994-1998 period.

Avg. Activities of Daily Living Scores

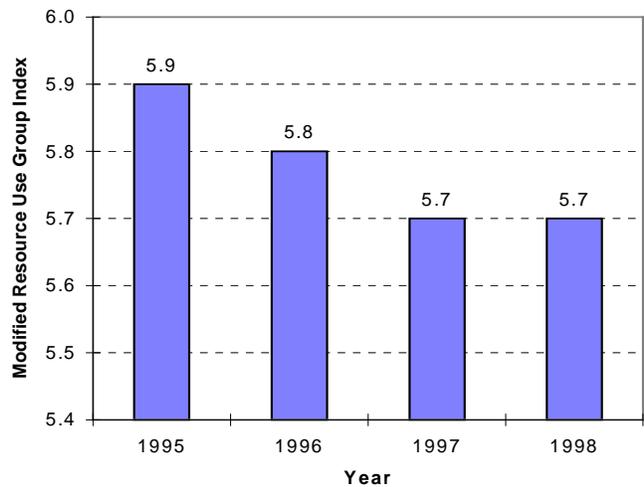


Table 12 also shows the average summary scores for these three activities of daily living for all facilities in each state. The average resident need score for eating, toileting, and transferring for all facilities in the U.S. was 6.1 in 1994 and 5.7 in 1998. This approach of summary scores on a three point scale shows little variation across states.

**TABLE 12
AVERAGE FACILITY SCORES FOR ACTIVITIES OF DAILY LIVING**

| State | Eating* | | | | | Toileting* | | | | | Transferring* | | | | | Modified Resource Use Group Index** | | | | |
|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------------|------------|------------|------------|------------|-------------------------------------|------------|------------|------------|------------|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1994 | 1995 | 1996 | 1997 | 1998 | 1994 | 1995 | 1996 | 1997 | 1998 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 1.8 | 1.7 | 1.6 | 1.5 | 1.5 | 2.2 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 1.8 | 2.0 | 1.8 | 2.0 | 6.0 | 5.5 | 5.7 | 5.4 | 5.6 |
| AL | 1.9 | 1.9 | 1.7 | 1.8 | 1.8 | 2.2 | 2.2 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 6.3 | 6.2 | 6.0 | 6.0 | 6.0 |
| AR | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 6.0 | 5.9 | 5.7 | 5.8 | 5.8 |
| AZ | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 6.1 | 5.9 | 5.7 | 5.6 | 5.6 |
| CA | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 6.3 | 6.2 | 6.1 | 6.1 | 6.0 |
| CO | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 5.7 | 5.6 | 5.3 | 5.3 | 5.3 |
| CT | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 5.8 | 5.6 | 5.5 | 5.5 | 5.5 |
| DC | 2.0 | 1.9 | 1.8 | 1.8 | 1.8 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.1 | 6.6 | 6.1 | 6.1 | 6.1 | 6.2 |
| DE | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 6.0 | 5.9 | 5.8 | 5.8 | 5.7 |
| FL | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 6.1 | 6.0 | 5.8 | 5.8 | 5.8 |
| GA | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 2.2 | 2.2 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 6.1 | 6.0 | 5.9 | 5.9 | 5.9 |
| HI | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 6.6 | 6.6 | 6.4 | 6.4 | 6.3 |
| IA | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 5.6 | 5.5 | 5.3 | 5.2 | 5.2 |
| ID | 1.7 | 1.6 | 1.5 | 1.5 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 5.7 | 5.6 | 5.5 | 5.4 | 5.6 |
| IL | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 5.6 | 5.4 | 5.2 | 5.2 | 5.2 |
| IN | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 5.9 | 5.7 | 5.5 | 5.5 | 5.5 |
| KS | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 5.6 | 5.5 | 5.3 | 5.3 | 5.3 |
| KY | 2.2 | 2.1 | 1.9 | 1.9 | 1.9 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 6.9 | 6.7 | 6.5 | 6.4 | 6.4 |
| LA | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 5.9 | 5.8 | 5.7 | 5.6 | 5.6 |
| MA | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 6.0 | 5.8 | 5.6 | 5.7 | 5.7 |
| MD | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.1 | 2.2 | 2.1 | 2.2 | 2.1 | 6.3 | 6.3 | 6.2 | 6.2 | 6.1 |
| ME | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| MI | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 6.0 | 5.9 | 5.7 | 5.7 | 5.7 |
| MN | 1.7 | 1.7 | 1.5 | 1.6 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 5.8 | 5.6 | 5.4 | 5.5 | 5.4 |
| MO | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 1.9 | 1.9 | 1.9 | 6.0 | 5.8 | 5.5 | 5.5 | 5.6 |
| MS | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 5.9 | 5.8 | 5.7 | 5.7 | 5.7 |
| MT | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 5.4 | 5.3 | 5.2 | 5.2 | 5.3 |
| NC | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 6.4 | 6.3 | 6.2 | 6.1 | 6.2 |
| ND | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 5.6 | 5.6 | 5.4 | 5.4 | 5.4 |
| NE | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 5.6 | 5.5 | 5.3 | 5.3 | 5.4 |
| NH | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 5.6 | 5.5 | 5.3 | 5.4 | 5.4 |
| NJ | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 6.1 | 5.9 | 5.8 | 5.8 | 5.7 |
| NM | 1.8 | 1.7 | 1.6 | 1.5 | 1.5 | 2.2 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 6.0 | 5.8 | 5.6 | 5.5 | 5.5 |
| NV | 1.8 | 1.8 | 1.6 | 1.5 | 1.6 | 2.2 | 2.2 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.0 | 1.9 | 2.0 | 6.1 | 6.0 | 5.7 | 5.5 | 5.7 |
| NY | 2.0 | 1.9 | 1.8 | 1.8 | 1.8 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 6.4 | 6.2 | 6.0 | 6.0 | 6.0 |
| OH | 2.0 | 1.8 | 1.7 | 1.6 | 1.7 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 6.3 | 6.1 | 5.8 | 5.8 | 5.8 |
| OK | 1.8 | 1.7 | 1.6 | 1.6 | 1.7 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 5.8 | 5.8 | 5.6 | 5.6 | 5.6 |
| OR | 1.8 | 1.8 | 1.7 | 1.6 | 1.7 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 6.2 | 6.1 | 5.9 | 5.8 | 5.9 |
| PA | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 6.3 | 6.1 | 6.0 | 5.9 | 5.9 |
| RI | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 5.7 | 5.7 | 5.5 | 5.5 | 5.4 |
| SC | 2.0 | 1.9 | 1.8 | 1.8 | 1.8 | 2.4 | 2.4 | 2.3 | 2.3 | 2.4 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 6.7 | 6.5 | 6.4 | 6.3 | 6.3 |
| SD | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 5.5 | 5.4 | 5.2 | 5.3 | 5.3 |
| TN | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 6.4 | 6.3 | 6.1 | 6.1 | 6.1 |
| TX | 1.8 | 1.8 | 1.7 | 1.6 | 1.6 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 6.1 | 6.0 | 5.8 | 5.7 | 5.7 |
| UT | 1.7 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 5.6 | 5.4 | 5.3 | 5.4 | 5.3 |
| VA | 2.1 | 2.0 | 1.9 | 2.0 | 2.0 | 2.4 | 2.4 | 2.3 | 2.4 | 2.4 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 6.8 | 6.7 | 6.5 | 6.6 | 6.6 |
| VT | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 5.9 | 5.7 | 5.7 | 5.8 | 5.7 |
| WA | 1.8 | 1.7 | 1.7 | 1.6 | 1.7 | 2.2 | 2.2 | 2.2 | 2.1 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 5.9 | 5.9 | 5.8 | 5.8 | 5.9 |
| WI | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 5.7 | 5.5 | 5.4 | 5.4 | 5.3 |
| WV | 2.0 | 2.0 | 2.0 | 1.8 | 1.8 | 2.3 | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.1 | 2.1 | 6.5 | 6.6 | 6.7 | 6.1 | 6.0 |
| WY | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.8 | 5.5 | 5.4 | 5.3 | 5.1 | 5.2 |
| US | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 6.1 | 5.9 | 5.8 | 5.7 | 5.7 |

* Scale is 1-3 with a score of 3 needing the most assistance.

**Average resident dependence summary score for eating, toileting, and transferring.

Summary Resident Acuity Index

Table 13 shows the average summary score for resident acuity using the management minute approach. This index is based on a compilation of resident characteristics including being bedfast, needing assistance with ambulation, needing full eating assistance, needing some eating assistance, having an indwelling catheter, being incontinent, having a pressure ulcer, receiving bowel or bladder retraining, and receiving special skin care. Each of these characteristics were weighted by the average amount of management minutes or the time needed to provide nursing care.

The average index was 97.8 in 1992 and 99.2 in 1998 for the U.S. This index allows for comparisons of acuity differences in facilities across states, which ranged from 68.9 in Iowa to 124.2 in Virginia in 1998. This shows a wide variation in levels across states.

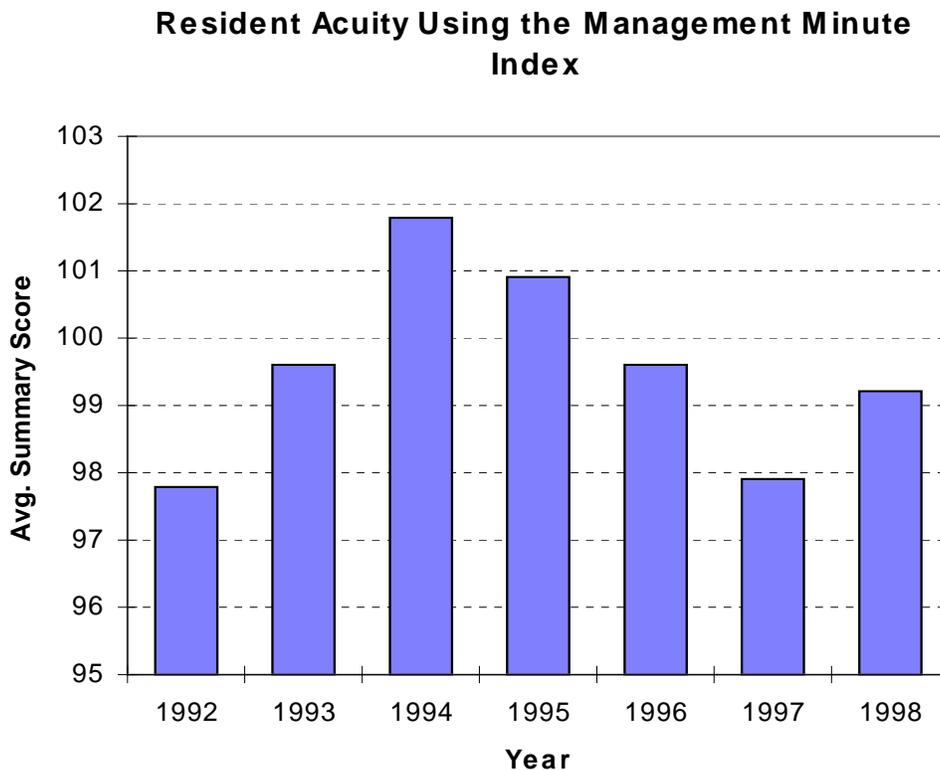


TABLE 13
AVERAGE SUMMARY SCORE FOR RESIDENT ACUITY
USING THE MANAGEMENT MINUTE INDEX

| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------|-------------|-------------|--------------|--------------|-------------|-------------|-------------|
| AK | 115.6 | 106.3 | 106.8 | 107.5 | 90.5 | 92.2 | 94.0 |
| AL | 106.3 | 107.0 | 108.6 | 106.3 | 103.9 | 103.2 | 104.2 |
| AR | 96.8 | 96.3 | 99.2 | 98.4 | 95.4 | 95.9 | 97.2 |
| AZ | 98.5 | 94.7 | 98.6 | 97.6 | 95.2 | 96.3 | 96.2 |
| CA | 106.1 | 108.7 | 109.1 | 110.2 | 109.1 | 107.4 | 109.0 |
| CO | 87.4 | 85.3 | 82.9 | 86.1 | 87.1 | 88.6 | 85.4 |
| CT | 98.8 | 93.4 | 95.2 | 94.1 | 92.9 | 89.2 | 89.9 |
| DC | 106.2 | 108.6 | 108.2 | 110.2 | 103.6 | 106.4 | 115.0 |
| DE | 90.8 | 97.6 | 95.9 | 93.3 | 97.5 | 99.1 | 105.1 |
| FL | 97.0 | 99.7 | 100.3 | 97.4 | 97.2 | 96.4 | 98.0 |
| GA | 100.8 | 103.3 | 102.7 | 105.2 | 101.2 | 101.9 | 103.6 |
| HI | 149.2 | 119.3 | 128.2 | 134.2 | 127.1 | 116.4 | 114.7 |
| IA | 73.3 | 75.0 | 76.1 | 73.1 | 69.7 | 69.7 | 68.9 |
| ID | 92.2 | 91.8 | 93.2 | 84.2 | 93.9 | 84.2 | 93.2 |
| IL | 86.1 | 89.3 | 90.3 | 86.5 | 83.3 | 80.2 | 81.1 |
| IN | 91.0 | 91.9 | 93.4 | 93.6 | 91.1 | 91.7 | 91.3 |
| KS | 79.9 | 84.7 | 87.5 | 85.3 | 82.9 | 83.5 | 82.8 |
| KY | 114.3 | 114.0 | 117.4 | 113.7 | 112.4 | 108.6 | 111.1 |
| LA | 79.6 | 81.8 | 86.8 | 88.5 | 91.4 | 91.6 | 94.8 |
| MA | 93.1 | 97.0 | 99.2 | 98.6 | 96.5 | 91.0 | 92.5 |
| MD | 104.8 | 109.1 | 112.8 | 110.7 | 111.3 | 109.4 | 113.1 |
| ME | 99.1 | 99.2 | 101.7 | 105.3 | 113.2 | 108.8 | 115.0 |
| MI | 98.0 | 102.2 | 101.0 | 101.1 | 100.0 | 96.8 | 98.6 |
| MN | 93.7 | 98.1 | 98.0 | 97.2 | 92.7 | 91.8 | 91.0 |
| MO | 92.6 | 94.7 | 93.3 | 90.2 | 86.6 | 85.7 | 89.4 |
| MS | 98.8 | 108.3 | 110.5 | 109.5 | 104.7 | 97.9 | 98.9 |
| MT | 86.7 | 87.6 | 82.7 | 86.8 | 80.1 | 82.7 | 85.8 |
| NC | 116.6 | 112.4 | 112.8 | 112.0 | 111.4 | 110.4 | 112.5 |
| ND | 82.2 | 82.3 | 80.7 | 80.5 | 84.1 | 83.9 | 88.2 |
| NE | 80.8 | 81.6 | 83.0 | 78.7 | 72.6 | 67.9 | 72.4 |
| NH | 82.7 | 84.1 | 82.5 | 83.3 | 82.3 | 83.2 | 85.3 |
| NJ | 96.2 | 95.3 | 94.3 | 92.6 | 94.8 | 92.3 | 95.1 |
| NM | 92.6 | 86.7 | 94.3 | 88.2 | 92.4 | 88.5 | 86.8 |
| NV | 97.6 | 104.9 | 104.6 | 106.9 | 105.4 | 93.4 | 106.1 |
| NY | 122.9 | 122.3 | 124.5 | 123.2 | 121.4 | 120.2 | 121.4 |
| OH | 96.2 | 101.1 | 106.2 | 107.5 | 106.1 | 104.4 | 104.7 |
| OK | 87.4 | 86.3 | 89.4 | 90.3 | 88.9 | 90.0 | 91.1 |
| OR | 107.7 | 110.8 | 104.7 | 106.5 | 105.1 | 103.8 | 103.6 |
| PA | 106.4 | 108.5 | 110.5 | 110.6 | 107.9 | 103.9 | 104.4 |
| RI | 87.7 | 84.4 | 87.5 | 89.2 | 79.5 | 77.5 | 76.5 |
| SC | 122.1 | 121.0 | 121.4 | 116.4 | 124.2 | 119.6 | 117.6 |
| SD | 84.4 | 90.2 | 96.3 | 98.3 | 96.4 | 99.4 | 100.3 |
| TN | 102.8 | 104.3 | 107.6 | 107.4 | 105.8 | 105.3 | 106.2 |
| TX | 95.5 | 98.3 | 103.2 | 101.8 | 99.9 | 99.6 | 100.4 |
| UT | 84.5 | 80.7 | 81.4 | 87.2 | 91.0 | 89.0 | 87.5 |
| VA | 118.6 | 121.0 | 123.9 | 122.7 | 122.9 | 122.2 | 124.2 |
| VT | 90.7 | 93.4 | 97.8 | 96.2 | 98.4 | 97.2 | 91.1 |
| WA | 90.5 | 92.0 | 90.9 | 101.1 | 105.9 | 106.0 | 109.1 |
| WI | 90.8 | 92.6 | 96.2 | 95.3 | 95.4 | 92.3 | 89.3 |
| WV | 99.0 | 106.2 | 110.5 | 110.4 | 102.3 | 89.5 | 86.0 |
| WY | 76.9 | 74.6 | 84.0 | 81.1 | 92.8 | 85.7 | 79.6 |
| US | 97.8 | 99.6 | 101.8 | 100.9 | 99.6 | 97.9 | 99.2 |

Residents Who Are Bedfast or Chairbound

Table 14 shows the percent of total residents who were bedfast in the 1992 to 1998 period. This includes residents who were in a bed or recliner for 22 or more hours per day in the week before the survey. The percent of bedfast residents increased from 4.2 in 1992 to 7.5 in 1998. The average percent who were bedfast ranged from 2.2 in North Dakota to 15.2 percent in Louisiana in 1998.

A number of residents depend on a chair for mobility or are unable to walk without extensive or constant support from others. The percent of total residents who were chairbound averaged from 46.8 to 48.4 percent in the U.S. in 1992-1998 (See Table 14). The percent of chairbound residents ranged from 27.9 percent in Rhode Island to 61.8 percent in Virginia across states in 1998.

% Residents who are Bedfast or Chairbound

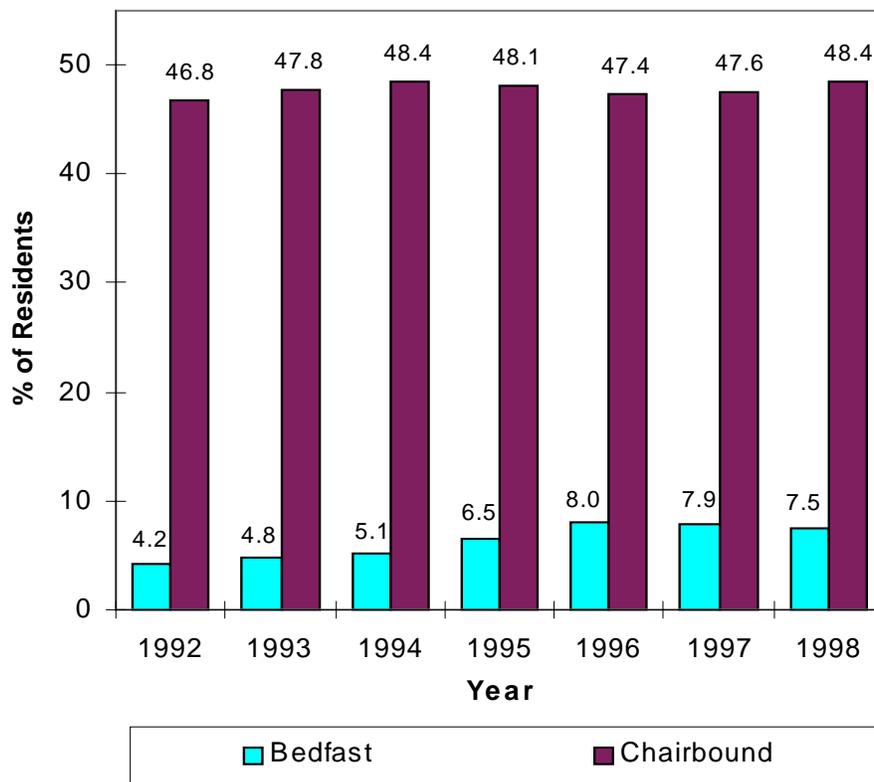


TABLE 14
PERCENTAGE OF RESIDENTS
WHO ARE BEDFAST OR CHAIRBOUND

| State | Bedfast | | | | | | | Chairbound | | | | | | |
|-----------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 4.4 | 4.3 | 6.7 | 7.7 | 10.8 | 8.5 | 9.0 | 47.8 | 52.5 | 44.8 | 43.4 | 43.4 | 47.5 | 50.5 |
| AL | 6.0 | 6.8 | 7.2 | 10.3 | 12.3 | 13.1 | 13.5 | 48.4 | 48.7 | 51.3 | 49.7 | 47.3 | 48.0 | 47.1 |
| AR | 5.9 | 6.3 | 6.4 | 7.2 | 9.6 | 9.9 | 9.3 | 46.4 | 47.0 | 47.6 | 47.8 | 43.2 | 43.8 | 44.6 |
| AZ | 4.1 | 5.3 | 5.1 | 5.6 | 7.6 | 9.2 | 8.3 | 49.2 | 51.8 | 48.7 | 50.5 | 50.0 | 48.5 | 49.2 |
| CA | 5.1 | 5.8 | 5.6 | 7.7 | 9.3 | 9.7 | 9.3 | 54.9 | 55.6 | 57.2 | 54.4 | 52.0 | 52.9 | 52.0 |
| CO | 1.8 | 1.8 | 1.9 | 2.8 | 3.3 | 4.3 | 4.0 | 42.0 | 40.4 | 41.6 | 40.3 | 41.7 | 45.9 | 44.5 |
| CT | 1.1 | 2.0 | 2.3 | 3.2 | 3.6 | 3.4 | 3.6 | 39.1 | 40.6 | 39.6 | 41.5 | 45.1 | 44.4 | 43.7 |
| DC | 1.8 | 3.5 | 8.0 | 6.1 | 9.1 | 10.3 | 7.9 | 56.7 | 54.5 | 55.0 | 49.1 | 49.6 | 50.4 | 56.7 |
| DE | 4.0 | 5.4 | 3.5 | 4.8 | 5.3 | 9.0 | 7.6 | 39.7 | 40.0 | 44.5 | 43.1 | 47.2 | 49.2 | 51.2 |
| FL | 2.5 | 3.3 | 3.6 | 4.5 | 6.5 | 7.1 | 7.3 | 48.3 | 50.6 | 50.9 | 52.2 | 52.3 | 52.1 | 51.6 |
| GA | 5.2 | 5.8 | 6.1 | 8.2 | 10.8 | 10.1 | 11.0 | 50.5 | 50.9 | 53.2 | 54.0 | 51.5 | 52.0 | 51.5 |
| HI | 17.0 | 12.7 | 12.6 | 15.1 | 15.4 | 16.7 | 14.8 | 61.0 | 62.9 | 57.2 | 60.8 | 52.4 | 49.5 | 53.2 |
| IA | 2.3 | 2.4 | 2.5 | 3.3 | 4.5 | 3.6 | 3.2 | 35.5 | 36.0 | 34.1 | 36.8 | 37.9 | 40.9 | 41.0 |
| ID | 2.9 | 3.4 | 3.0 | 4.3 | 4.9 | 5.3 | 4.1 | 42.3 | 49.5 | 49.8 | 45.7 | 45.5 | 46.5 | 47.4 |
| IL | 2.7 | 3.1 | 3.0 | 4.1 | 4.9 | 4.5 | 4.3 | 39.7 | 42.2 | 42.7 | 43.7 | 41.6 | 41.5 | 43.7 |
| IN | 2.7 | 3.9 | 4.7 | 5.4 | 7.6 | 6.7 | 6.8 | 42.4 | 44.7 | 44.3 | 46.8 | 47.0 | 49.4 | 50.2 |
| KS | 3.3 | 3.6 | 3.5 | 4.2 | 5.1 | 5.1 | 4.3 | 40.4 | 43.9 | 43.1 | 41.7 | 40.8 | 40.2 | 43.5 |
| KY | 6.7 | 7.5 | 6.6 | 9.4 | 12.5 | 13.2 | 14.0 | 50.9 | 50.2 | 49.6 | 49.9 | 49.2 | 48.1 | 48.7 |
| LA | 10.7 | 10.2 | 10.8 | 12.3 | 16.2 | 14.7 | 15.2 | 40.3 | 42.2 | 43.2 | 43.8 | 41.2 | 41.9 | 42.0 |
| MA | 1.4 | 2.5 | 2.3 | 2.8 | 3.2 | 3.2 | 2.8 | 35.7 | 35.7 | 36.8 | 36.4 | 38.8 | 38.9 | 41.5 |
| MD | 4.0 | 5.4 | 5.3 | 5.7 | 10.2 | 9.1 | 8.4 | 45.7 | 49.0 | 50.9 | 49.3 | 47.9 | 50.4 | 47.8 |
| ME | 3.6 | 6.4 | 5.3 | 6.8 | 7.1 | 7.4 | 7.0 | 39.1 | 38.2 | 40.5 | 44.5 | 48.9 | 46.7 | 49.5 |
| MI | 2.7 | 2.9 | 3.3 | 4.4 | 5.6 | 6.1 | 4.9 | 48.0 | 49.7 | 51.0 | 50.5 | 51.0 | 51.3 | 53.3 |
| MN | 1.2 | 1.6 | 1.5 | 2.4 | 2.8 | 2.3 | 2.4 | 43.8 | 45.8 | 46.7 | 45.7 | 43.3 | 45.0 | 47.3 |
| MO | 5.4 | 5.3 | 5.1 | 5.6 | 7.3 | 7.3 | 6.5 | 46.8 | 47.9 | 47.0 | 46.0 | 45.2 | 46.3 | 47.8 |
| MS | 7.8 | 8.7 | 10.9 | 12.3 | 13.1 | 12.7 | 13.8 | 46.8 | 50.2 | 52.3 | 51.3 | 52.6 | 48.4 | 45.1 |
| MT | 2.4 | 2.5 | 2.8 | 3.6 | 5.5 | 4.4 | 4.9 | 40.7 | 45.2 | 41.7 | 42.8 | 39.1 | 40.0 | 44.3 |
| NC | 4.9 | 6.0 | 6.4 | 8.8 | 12.7 | 12.2 | 13.3 | 57.5 | 56.2 | 56.0 | 55.2 | 52.2 | 53.6 | 54.1 |
| ND | 2.9 | 2.1 | 3.5 | 3.7 | 3.5 | 2.6 | 2.2 | 45.4 | 46.9 | 43.6 | 42.4 | 41.7 | 49.2 | 51.9 |
| NE | 1.9 | 1.9 | 2.0 | 2.9 | 3.7 | 3.2 | 2.8 | 41.1 | 40.5 | 41.5 | 43.0 | 38.2 | 42.5 | 45.1 |
| NH | 2.7 | 3.1 | 3.3 | 3.7 | 3.8 | 3.6 | 3.8 | 38.5 | 38.1 | 36.6 | 36.5 | 38.4 | 38.7 | 40.0 |
| NJ | 2.9 | 4.1 | 3.5 | 5.3 | 5.1 | 6.1 | 5.8 | 47.0 | 49.0 | 49.7 | 49.2 | 49.6 | 49.3 | 51.5 |
| NM | 4.0 | 3.2 | 2.8 | 6.1 | 9.3 | 6.6 | 5.9 | 51.1 | 47.3 | 47.7 | 48.1 | 47.6 | 46.6 | 50.6 |
| NV | 2.5 | 4.2 | 3.5 | 7.2 | 9.0 | 9.7 | 8.7 | 50.2 | 45.2 | 51.6 | 50.1 | 42.3 | 46.9 | 52.1 |
| NY | 2.8 | 3.4 | 2.9 | 4.4 | 5.3 | 5.2 | 5.0 | 56.3 | 56.4 | 56.6 | 56.6 | 57.7 | 56.8 | 57.4 |
| OH | 3.2 | 4.3 | 4.9 | 6.5 | 7.3 | 7.1 | 6.1 | 43.5 | 43.2 | 46.2 | 46.9 | 47.7 | 46.4 | 46.3 |
| OK | 6.6 | 7.5 | 7.8 | 8.7 | 11.5 | 11.3 | 10.6 | 42.3 | 42.5 | 42.6 | 44.2 | 42.4 | 43.9 | 43.1 |
| OR | 3.5 | 4.5 | 6.8 | 8.4 | 9.3 | 8.6 | 8.2 | 56.0 | 56.7 | 52.2 | 54.1 | 54.6 | 52.9 | 50.8 |
| PA | 3.7 | 4.3 | 4.5 | 7.2 | 7.6 | 7.7 | 7.2 | 53.0 | 52.9 | 52.8 | 51.5 | 51.0 | 49.0 | 49.4 |
| RI | 2.4 | 3.3 | 2.6 | 3.7 | 4.6 | 3.8 | 3.9 | 31.6 | 33.1 | 35.7 | 34.1 | 32.5 | 27.7 | 27.9 |
| SC | 5.8 | 7.1 | 8.8 | 8.4 | 11.4 | 12.1 | 12.0 | 59.0 | 59.6 | 57.8 | 56.7 | 57.0 | 57.8 | 57.9 |
| SD | 1.1 | 1.8 | 3.4 | 3.3 | 3.0 | 3.3 | 2.8 | 46.4 | 47.2 | 46.5 | 47.9 | 45.4 | 46.6 | 47.3 |
| TN | 7.9 | 8.9 | 9.9 | 10.7 | 13.9 | 13.5 | 13.5 | 47.4 | 49.0 | 49.4 | 48.6 | 46.7 | 47.2 | 45.6 |
| TX | 9.5 | 10.1 | 10.1 | 12.4 | 13.4 | 13.0 | 12.4 | 48.3 | 50.0 | 50.8 | 49.3 | 46.3 | 46.0 | 47.4 |
| UT | 3.5 | 3.1 | 3.2 | 4.6 | 5.9 | 6.4 | 5.2 | 36.8 | 36.5 | 35.0 | 39.4 | 41.8 | 42.8 | 42.4 |
| VA | 5.3 | 7.1 | 6.6 | 8.3 | 11.4 | 10.9 | 9.1 | 60.9 | 58.7 | 59.6 | 59.6 | 57.9 | 59.2 | 61.8 |
| VT | 1.8 | 3.7 | 3.5 | 3.9 | 4.0 | 4.5 | 4.1 | 41.1 | 45.2 | 37.8 | 43.4 | 40.9 | 37.1 | 41.4 |
| WA | 3.3 | 3.0 | 3.5 | 4.3 | 6.6 | 6.8 | 5.7 | 52.5 | 55.8 | 54.0 | 47.7 | 56.9 | 55.1 | 58.7 |
| WI | 1.6 | 2.2 | 2.5 | 3.1 | 3.4 | 3.1 | 3.0 | 44.0 | 47.1 | 49.4 | 50.0 | 46.4 | 47.7 | 49.3 |
| WV | 4.4 | 7.1 | 10.3 | 9.4 | 13.9 | 15.0 | 13.1 | 52.8 | 50.2 | 44.3 | 45.5 | 44.6 | 42.4 | 43.2 |
| WY | 1.8 | 3.5 | 2.3 | 4.2 | 4.3 | 4.1 | 5.3 | 38.2 | 42.8 | 42.9 | 43.2 | 38.5 | 38.5 | 39.7 |
| US | 4.2 | 4.8 | 5.1 | 6.5 | 8.0 | 7.9 | 7.5 | 46.8 | 47.8 | 48.4 | 48.1 | 47.4 | 47.6 | 48.4 |

Contractures

Contractures, which are restrictions in full range of motion of any joint due to deformity, disuse, and pain, are common problems of nursing home residents. In 1992, 16.7 percent of residents were reported as having contractures which increased to 23.2 percent in 1998 (See Table 15). The average percentage reported ranged from 13.8 percent in Oklahoma facilities to 58.8 percent in New York in 1998.

Physical Restraints

Physical restraints are frequently used by nursing facilities. Restraints include physical or mechanical devices, material or equipment which cannot be easily removed by residents to restrict freedom of movement or normal access to one's own body. In 1992, 20.3 percent of facilities reported using such restraints but this declined to 12.3 percent in 1998 (See Table 15). The reduction may have been related to new regulations and greater training about the negative effects of restraints and the need to reduce the use of restraints.

% Residents with Contractures or Physical Restraints

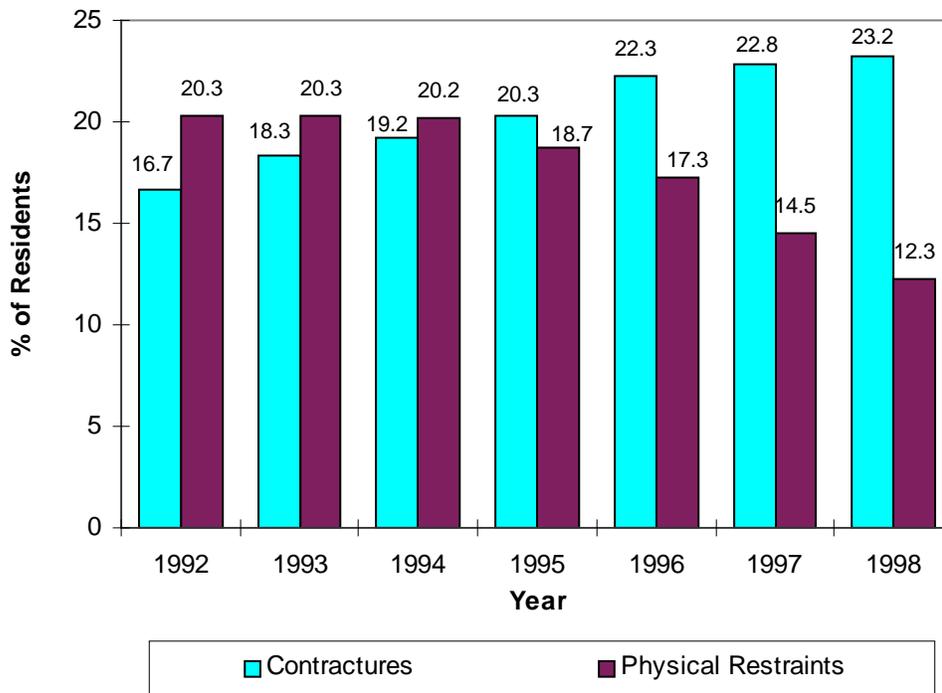


TABLE 15
PERCENT OF RESIDENTS
WITH CONTRACTURES AND PHYSICAL RESTRAINTS

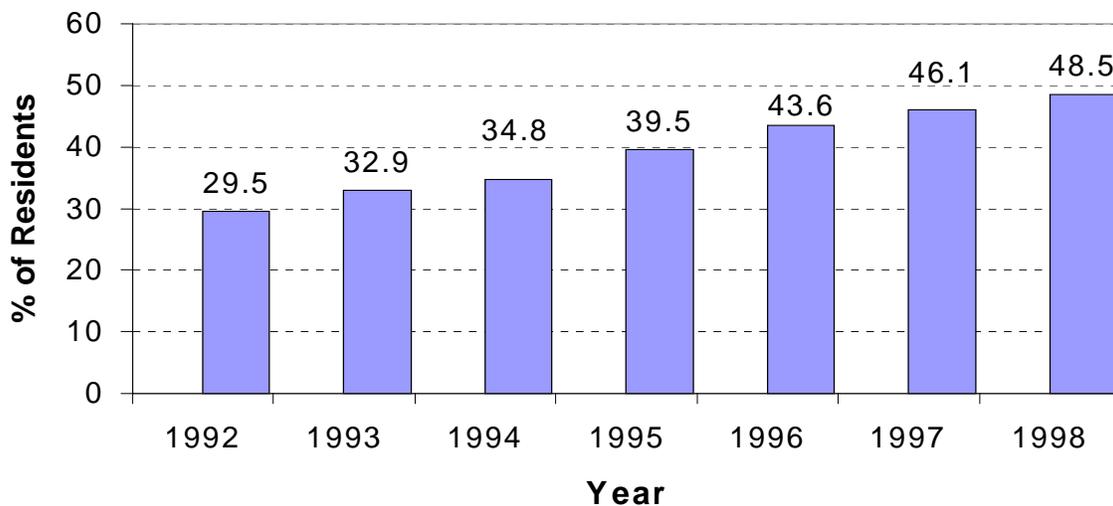
| State | Contractures | | | | | | | Physical Restraints | | | | | | |
|-----------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 22.6 | 21.2 | 25.2 | 25.9 | 27.3 | 18.0 | 22.2 | 135.0 | 20.1 | 19.9 | 17.9 | 20.2 | 30.3 | 15.5 |
| AL | 18.2 | 19.0 | 19.9 | 20.8 | 22.4 | 23.7 | 23.5 | 27.1 | 22.6 | 20.8 | 14.3 | 9.6 | 5.7 | 5.5 |
| AR | 13.2 | 14.5 | 14.6 | 14.4 | 15.9 | 15.7 | 18.5 | 20.5 | 21.8 | 21.8 | 22.4 | 21.7 | 23.8 | 21.2 |
| AZ | 12.8 | 14.4 | 11.9 | 13.0 | 15.0 | 17.1 | 17.7 | 22.4 | 20.2 | 20.9 | 21.2 | 16.3 | 16.2 | 15.2 |
| CA | 15.4 | 16.8 | 16.8 | 18.3 | 21.4 | 22.2 | 23.3 | 25.1 | 24.5 | 24.8 | 25.8 | 26.2 | 23.7 | 20.9 |
| CO | 14.8 | 14.5 | 14.6 | 15.8 | 16.1 | 16.7 | 17.0 | 19.3 | 20.3 | 17.4 | 15.9 | 18.7 | 18.7 | 18.1 |
| CT | 12.0 | 12.1 | 13.0 | 13.0 | 13.5 | 13.7 | 14.0 | 24.9 | 23.5 | 23.4 | 18.8 | 16.9 | 14.8 | 12.2 |
| DC | 21.4 | 18.7 | 23.0 | 17.4 | 22.2 | 19.7 | 25.9 | 10.8 | 14.2 | 11.2 | 11.1 | 11.7 | 13.0 | 17.0 |
| DE | 12.4 | 16.2 | 16.0 | 18.4 | 19.9 | 20.7 | 24.7 | 11.9 | 16.6 | 14.7 | 12.9 | 18.5 | 10.2 | 7.8 |
| FL | 16.0 | 16.5 | 17.2 | 17.0 | 17.4 | 17.2 | 17.5 | 14.4 | 14.3 | 14.0 | 11.4 | 10.2 | 8.5 | 7.3 |
| GA | 17.0 | 18.4 | 19.3 | 20.1 | 21.7 | 23.7 | 23.4 | 24.4 | 24.8 | 24.7 | 17.9 | 13.0 | 10.6 | 9.1 |
| HI | 33.0 | 26.3 | 25.6 | 36.6 | 36.0 | 34.3 | 32.0 | 33.4 | 25.6 | 21.2 | 30.1 | 20.1 | 14.2 | 13.2 |
| IA | 14.5 | 15.5 | 17.1 | 18.4 | 21.4 | 22.0 | 21.5 | 9.5 | 6.8 | 6.3 | 4.6 | 3.2 | 2.9 | 2.2 |
| ID | 17.3 | 15.2 | 15.8 | 14.9 | 21.5 | 22.1 | 22.7 | 22.8 | 18.3 | 16.3 | 16.1 | 21.4 | 11.4 | 11.4 |
| IL | 15.3 | 15.2 | 14.8 | 16.6 | 17.9 | 17.7 | 18.2 | 18.6 | 18.8 | 18.2 | 17.6 | 15.1 | 10.4 | 7.8 |
| IN | 14.4 | 15.3 | 16.0 | 15.9 | 17.0 | 18.0 | 19.1 | 21.5 | 21.7 | 22.4 | 19.7 | 17.7 | 15.4 | 11.6 |
| KS | 15.7 | 17.2 | 19.2 | 21.0 | 25.5 | 27.9 | 25.8 | 17.2 | 15.5 | 13.8 | 8.5 | 6.5 | 6.1 | 5.7 |
| KY | 18.6 | 20.0 | 21.1 | 20.4 | 20.8 | 22.1 | 21.3 | 24.0 | 20.3 | 18.9 | 14.6 | 11.4 | 9.3 | 8.1 |
| LA | 11.0 | 11.2 | 10.6 | 12.0 | 14.1 | 14.9 | 15.8 | 17.5 | 21.3 | 21.2 | 21.6 | 22.0 | 24.9 | 23.5 |
| MA | 14.2 | 14.5 | 15.3 | 15.3 | 15.7 | 15.3 | 15.5 | 17.0 | 20.2 | 27.1 | 24.3 | 24.3 | 13.5 | 10.4 |
| MD | 14.8 | 16.2 | 15.6 | 15.8 | 15.9 | 16.9 | 19.5 | 17.2 | 17.6 | 20.1 | 18.8 | 17.1 | 15.2 | 15.4 |
| ME | 26.0 | 29.2 | 34.7 | 36.8 | 38.0 | 34.6 | 36.8 | 14.5 | 12.6 | 13.6 | 10.6 | 11.4 | 12.8 | 13.2 |
| MI | 20.1 | 21.4 | 22.2 | 22.7 | 24.3 | 22.9 | 23.1 | 21.8 | 20.7 | 19.6 | 19.2 | 16.5 | 13.2 | 12.5 |
| MN | 12.8 | 13.6 | 12.8 | 14.3 | 16.8 | 19.0 | 19.3 | 23.8 | 29.4 | 30.2 | 23.3 | 17.9 | 15.0 | 9.1 |
| MO | 16.3 | 15.8 | 15.8 | 16.0 | 17.5 | 17.9 | 18.8 | 18.1 | 17.7 | 14.8 | 9.0 | 8.3 | 7.8 | 7.6 |
| MS | 20.8 | 29.9 | 37.2 | 35.8 | 36.2 | 31.1 | 30.0 | 25.4 | 27.8 | 26.0 | 21.5 | 19.7 | 14.9 | 15.4 |
| MT | 16.2 | 16.5 | 15.1 | 18.8 | 20.9 | 21.8 | 22.7 | 23.0 | 16.4 | 13.4 | 15.1 | 11.6 | 13.7 | 14.5 |
| NC | 25.5 | 25.6 | 26.4 | 25.7 | 27.1 | 27.7 | 28.6 | 26.3 | 21.8 | 20.5 | 17.0 | 11.6 | 9.3 | 7.6 |
| ND | 19.4 | 20.4 | 21.2 | 20.8 | 26.4 | 31.4 | 35.5 | 11.1 | 9.8 | 11.3 | 12.1 | 15.0 | 13.2 | 12.2 |
| NE | 15.6 | 16.5 | 17.3 | 17.6 | 20.1 | 21.4 | 21.3 | 10.9 | 8.6 | 7.1 | 4.9 | 3.8 | 3.5 | 3.5 |
| NH | 13.6 | 18.5 | 20.4 | 24.7 | 27.6 | 27.1 | 24.1 | 9.2 | 11.0 | 8.2 | 11.4 | 12.7 | 11.5 | 10.4 |
| NJ | 14.9 | 15.1 | 15.7 | 16.2 | 17.2 | 17.8 | 17.4 | 12.5 | 10.8 | 9.7 | 10.1 | 10.0 | 8.2 | 7.1 |
| NM | 16.1 | 14.8 | 13.7 | 12.7 | 12.8 | 14.7 | 15.8 | 17.6 | 16.4 | 16.3 | 16.5 | 19.2 | 17.2 | 14.7 |
| NV | 14.0 | 13.9 | 12.4 | 12.1 | 16.9 | 17.3 | 19.6 | 27.0 | 30.4 | 25.8 | 26.0 | 23.7 | 14.1 | 15.5 |
| NY | 35.8 | 44.2 | 50.1 | 54.1 | 57.4 | 59.5 | 58.8 | 16.9 | 15.7 | 14.5 | 14.0 | 13.1 | 11.6 | 10.5 |
| OH | 15.0 | 21.3 | 26.5 | 33.1 | 38.5 | 41.2 | 42.3 | 18.9 | 18.8 | 20.3 | 21.2 | 20.1 | 14.0 | 10.7 |
| OK | 13.6 | 14.2 | 12.7 | 13.7 | 14.2 | 14.5 | 13.8 | 14.4 | 13.7 | 14.0 | 15.4 | 15.4 | 16.2 | 16.0 |
| OR | 22.8 | 23.9 | 22.1 | 22.0 | 23.2 | 25.1 | 25.1 | 21.9 | 19.1 | 15.0 | 14.8 | 15.0 | 14.4 | 13.1 |
| PA | 15.7 | 16.4 | 16.5 | 16.7 | 17.6 | 17.0 | 17.1 | 26.3 | 28.2 | 27.5 | 26.8 | 22.0 | 15.2 | 11.9 |
| RI | 10.4 | 11.1 | 11.1 | 12.3 | 11.4 | 15.2 | 16.8 | 18.6 | 21.5 | 22.0 | 18.0 | 16.4 | 12.0 | 9.8 |
| SC | 23.5 | 22.9 | 25.9 | 27.2 | 30.5 | 32.0 | 30.2 | 27.4 | 31.1 | 25.8 | 19.3 | 14.5 | 8.9 | 6.6 |
| SD | 24.9 | 33.8 | 37.1 | 39.2 | 38.3 | 41.7 | 43.0 | 19.9 | 22.2 | 22.2 | 20.9 | 25.8 | 25.4 | 20.8 |
| TN | 14.4 | 15.5 | 15.7 | 16.1 | 18.1 | 17.8 | 18.9 | 26.4 | 25.0 | 23.1 | 20.8 | 18.9 | 14.5 | 13.5 |
| TX | 15.3 | 16.4 | 15.4 | 16.0 | 16.1 | 16.3 | 15.3 | 20.3 | 21.8 | 22.7 | 22.3 | 22.1 | 20.5 | 19.5 |
| UT | 10.0 | 9.3 | 9.7 | 9.2 | 11.9 | 11.4 | 14.6 | 16.9 | 15.0 | 17.8 | 19.6 | 19.1 | 15.4 | 15.4 |
| VA | 17.1 | 19.0 | 20.0 | 20.9 | 21.4 | 22.8 | 22.9 | 29.7 | 28.4 | 23.4 | 19.7 | 15.5 | 12.6 | 10.1 |
| VT | 21.5 | 20.9 | 18.0 | 24.8 | 24.4 | 29.9 | 31.8 | 9.3 | 8.2 | 13.3 | 11.1 | 12.4 | 14.4 | 11.3 |
| WA | 17.9 | 20.6 | 19.9 | 22.2 | 29.6 | 33.4 | 29.8 | 19.0 | 18.2 | 17.0 | 17.7 | 18.3 | 18.6 | 16.9 |
| WI | 13.9 | 14.0 | 14.5 | 16.0 | 18.1 | 17.7 | 18.5 | 25.0 | 29.2 | 34.2 | 32.6 | 33.8 | 24.1 | 17.0 |
| WV | 15.6 | 23.3 | 26.7 | 26.4 | 28.5 | 24.3 | 29.4 | 20.5 | 19.9 | 17.3 | 24.6 | 21.6 | 20.2 | 12.5 |
| WY | 15.7 | 14.7 | 17.0 | 19.3 | 21.6 | 22.4 | 20.6 | 21.7 | 19.3 | 23.9 | 29.6 | 17.3 | 19.9 | 19.1 |
| US | 16.7 | 18.3 | 19.2 | 20.3 | 22.3 | 22.8 | 23.2 | 20.3 | 20.3 | 20.2 | 18.7 | 17.3 | 14.5 | 12.3 |

Psychoactive Drugs

The percent of residents receiving psychoactive medications is reported in Table 16. Such drugs include anti-depressants, anti-anxiety drugs, sedatives and hypnotics, and anti-psychotics. In 1992, 29.5 percent of residents in facilities in the U.S. were reported to be receiving such medications. This percent increased to 48.5 percent in 1998. These percentages ranged from 23.6 percent in Hawaii to 55.9 percent in Vermont.

The increase is somewhat surprising because new federal regulations prohibit the use of anti-psychotics and other psychoactive drugs unless such drugs are shown to be necessary for particular resident problems. On the other hand, anti-depressants are frequently underprescribed and new educational efforts are focused on the appropriate use of anti-depressants.

Residents Receiving Psychoactive Medication



Mental Retardation

New federal regulations from OBRA 1987 require screening of all new residents to ensure that those who are mentally retarded, developmentally disabled, or mentally disabled are placed in appropriate facilities where they receive services designed to meet their needs. Only those with exceptional needs are appropriately placed in nursing facilities. The percent of residents with mental retardation was reported. This includes residents who have mild to profound mental retardation. Table 16 shows that 2.8 percent of residents were mentally retarded in 1992 but that this declined slightly to 2.5 percent in 1998.

TABLE 16
PERCENT OF RESIDENTS
RECEIVING PSYCHOACTIVE MEDICATION AND HAVING MENTAL RETARDATION

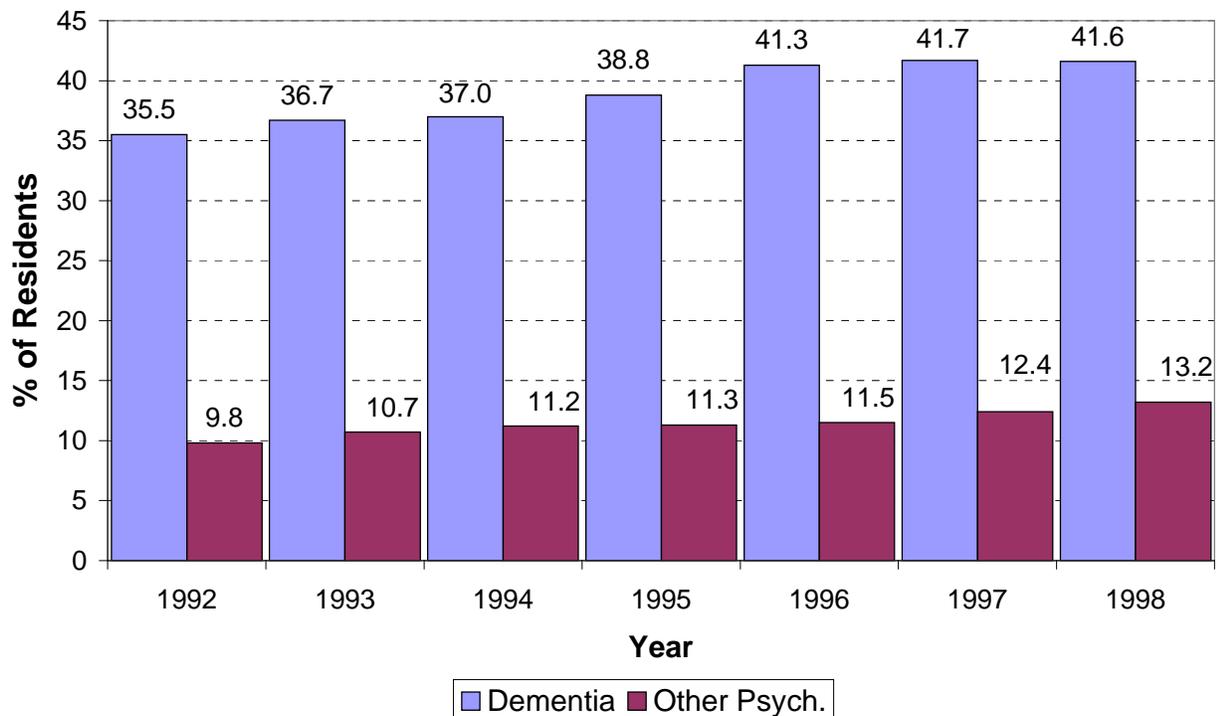
| State | Receiving Psychoactive Medications | | | | | | | Mental Retardation | | | | | | |
|-----------|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 24.8 | 25.4 | 32.0 | 37.0 | 40.0 | 47.9 | 47.3 | 2.1 | 2.2 | 2.2 | 2.3 | 2.5 | 2.4 | 1.5 |
| AL | 31.3 | 34.3 | 37.1 | 37.3 | 40.7 | 43.3 | 46.0 | 5.4 | 4.7 | 5.1 | 5.0 | 5.0 | 5.2 | 5.3 |
| AR | 30.8 | 36.0 | 36.7 | 42.6 | 47.1 | 48.1 | 51.9 | 4.4 | 4.4 | 4.0 | 4.1 | 3.8 | 3.8 | 4.2 |
| AZ | 25.6 | 28.8 | 33.3 | 37.4 | 42.1 | 44.7 | 45.1 | 0.8 | 1.0 | 1.0 | 2.9 | 0.9 | 0.9 | 0.9 |
| CA | 28.0 | 28.3 | 30.2 | 33.5 | 37.1 | 39.2 | 40.9 | 2.0 | 1.5 | 3.0 | 2.4 | 2.0 | 2.4 | 2.0 |
| CO | 31.8 | 32.4 | 31.0 | 37.1 | 42.9 | 44.6 | 48.5 | 2.2 | 1.7 | 1.8 | 1.8 | 1.3 | 1.5 | 1.4 |
| CT | 33.7 | 36.4 | 37.5 | 45.7 | 48.8 | 51.0 | 53.2 | 3.4 | 3.4 | 2.8 | 2.3 | 2.4 | 2.2 | 2.3 |
| DC | 22.6 | 24.5 | 21.8 | 24.8 | 26.5 | 34.1 | 43.3 | 11.1 | 6.5 | 4.5 | 2.8 | 1.2 | 2.2 | 2.6 |
| DE | 20.9 | 29.4 | 31.6 | 35.1 | 40.4 | 41.5 | 48.0 | 1.2 | 1.4 | 1.6 | 2.1 | 2.1 | 2.5 | 2.5 |
| FL | 24.7 | 28.7 | 30.5 | 36.4 | 41.2 | 43.6 | 46.7 | 1.2 | 1.2 | 1.4 | 1.4 | 1.4 | 1.4 | 1.2 |
| GA | 27.9 | 32.8 | 35.5 | 41.5 | 45.1 | 46.7 | 49.5 | 4.6 | 4.8 | 4.7 | 4.5 | 4.7 | 4.5 | 4.5 |
| HI | 17.0 | 16.1 | 17.6 | 17.3 | 20.8 | 20.7 | 23.6 | 2.5 | 2.0 | 2.7 | 2.2 | 2.1 | 1.9 | 2.7 |
| IA | 29.1 | 29.8 | 32.0 | 34.8 | 39.9 | 42.8 | 45.2 | 2.4 | 2.2 | 2.5 | 2.0 | 2.4 | 2.3 | 2.1 |
| ID | 34.0 | 35.7 | 37.3 | 41.9 | 45.5 | 48.5 | 50.0 | 2.0 | 1.8 | 1.6 | 1.6 | 1.6 | 1.5 | 2.3 |
| IL | 32.2 | 35.1 | 36.7 | 40.9 | 42.8 | 43.6 | 45.6 | 3.2 | 2.8 | 2.6 | 2.5 | 2.5 | 2.3 | 2.3 |
| IN | 29.4 | 35.6 | 38.4 | 42.7 | 46.5 | 49.1 | 51.3 | 4.0 | 3.8 | 3.5 | 3.7 | 3.3 | 3.4 | 3.5 |
| KS | 32.4 | 34.5 | 36.3 | 40.1 | 44.6 | 48.9 | 51.4 | 2.2 | 1.9 | 1.9 | 1.7 | 1.7 | 1.6 | 1.5 |
| KY | 30.0 | 35.8 | 36.2 | 38.5 | 44.5 | 46.0 | 49.6 | 4.2 | 3.6 | 3.2 | 3.3 | 3.4 | 3.7 | 3.5 |
| LA | 30.6 | 36.2 | 39.0 | 44.0 | 46.6 | 49.2 | 49.8 | 3.7 | 4.1 | 3.9 | 3.4 | 3.3 | 3.3 | 3.3 |
| MA | 34.5 | 38.5 | 41.0 | 44.3 | 51.4 | 52.7 | 55.8 | 3.2 | 3.2 | 2.7 | 3.0 | 3.0 | 2.9 | 2.7 |
| MD | 28.5 | 32.0 | 34.2 | 37.2 | 41.2 | 44.7 | 45.9 | 3.6 | 3.9 | 3.4 | 2.3 | 2.6 | 2.5 | 2.1 |
| ME | 32.3 | 35.1 | 38.3 | 42.4 | 47.2 | 50.9 | 54.5 | 1.7 | 1.6 | 1.7 | 1.7 | 2.0 | 1.9 | 1.7 |
| MI | 24.7 | 27.0 | 29.1 | 32.9 | 36.8 | 41.8 | 45.4 | 3.5 | 2.8 | 2.4 | 2.6 | 2.2 | 2.0 | 2.0 |
| MN | 34.0 | 36.9 | 39.3 | 43.5 | 46.4 | 47.6 | 51.2 | 2.2 | 1.9 | 1.8 | 1.7 | 1.8 | 1.9 | 1.8 |
| MO | 31.4 | 34.3 | 36.4 | 39.4 | 44.4 | 47.8 | 50.7 | 3.0 | 2.7 | 2.7 | 2.3 | 2.6 | 2.5 | 2.7 |
| MS | 31.3 | 33.6 | 36.0 | 39.0 | 43.8 | 45.7 | 48.8 | 3.8 | 2.8 | 3.3 | 2.2 | 1.8 | 1.8 | 2.2 |
| MT | 31.4 | 31.9 | 32.3 | 39.0 | 43.3 | 48.5 | 47.5 | 2.1 | 1.8 | 1.6 | 1.6 | 1.4 | 1.8 | 1.9 |
| NC | 25.0 | 30.2 | 32.3 | 38.8 | 44.9 | 47.6 | 50.7 | 2.2 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.2 |
| ND | 31.3 | 33.7 | 35.7 | 42.7 | 44.4 | 47.4 | 50.9 | 2.9 | 2.9 | 2.9 | 2.5 | 3.0 | 2.3 | 2.2 |
| NE | 28.8 | 32.1 | 33.7 | 37.2 | 42.1 | 45.9 | 48.8 | 2.5 | 2.4 | 2.4 | 2.2 | 2.3 | 2.4 | 2.4 |
| NH | 33.9 | 32.3 | 36.8 | 42.6 | 47.0 | 51.0 | 56.1 | 2.7 | 1.9 | 1.7 | 1.6 | 1.9 | 1.6 | 1.7 |
| NJ | 22.1 | 24.4 | 27.1 | 31.8 | 36.1 | 38.4 | 40.8 | 3.5 | 3.7 | 3.6 | 3.5 | 3.5 | 3.3 | 3.5 |
| NM | 20.8 | 23.0 | 25.6 | 31.8 | 36.1 | 39.3 | 44.8 | 1.5 | 1.6 | 1.6 | 1.4 | 1.6 | 1.7 | 1.7 |
| NV | 29.5 | 30.4 | 34.1 | 32.3 | 40.3 | 39.1 | 44.5 | 2.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.7 | 1.5 |
| NY | 28.9 | 29.5 | 31.2 | 33.8 | 36.9 | 40.1 | 42.3 | 4.1 | 3.9 | 4.2 | 4.2 | 3.6 | 4.4 | 4.1 |
| OH | 30.0 | 36.5 | 39.9 | 45.7 | 49.5 | 51.9 | 54.0 | 2.2 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 | 2.5 |
| OK | 23.8 | 29.5 | 29.1 | 33.9 | 40.5 | 44.2 | 46.3 | 2.9 | 2.9 | 2.7 | 2.7 | 2.7 | 2.3 | 1.9 |
| OR | 29.6 | 32.4 | 32.9 | 40.7 | 45.4 | 48.5 | 52.8 | 2.6 | 2.6 | 2.0 | 2.3 | 2.0 | 2.1 | 2.1 |
| PA | 30.1 | 35.3 | 36.6 | 43.3 | 46.3 | 47.4 | 49.5 | 3.3 | 3.2 | 2.6 | 2.7 | 2.5 | 2.4 | 2.3 |
| RI | 32.6 | 37.4 | 39.1 | 46.2 | 50.2 | 50.7 | 51.6 | 2.3 | 1.7 | 1.7 | 1.5 | 1.6 | 1.6 | 1.5 |
| SC | 24.8 | 28.2 | 31.4 | 40.0 | 41.1 | 44.2 | 45.3 | 1.8 | 2.0 | 2.7 | 2.0 | 2.0 | 2.0 | 2.0 |
| SD | 32.8 | 35.3 | 37.2 | 41.0 | 41.0 | 45.1 | 45.8 | 1.8 | 1.8 | 1.5 | 1.6 | 2.0 | 2.1 | 2.2 |
| TN | 33.3 | 35.9 | 38.6 | 44.8 | 49.8 | 51.8 | 54.4 | 3.4 | 3.3 | 3.4 | 3.3 | 3.0 | 3.0 | 3.1 |
| TX | 28.4 | 32.5 | 35.4 | 40.2 | 46.3 | 47.9 | 50.0 | 2.4 | 2.2 | 2.0 | 2.3 | 2.1 | 2.0 | 2.0 |
| UT | 38.3 | 39.8 | 40.3 | 47.1 | 47.0 | 55.0 | 54.5 | 1.9 | 1.8 | 1.8 | 1.6 | 2.0 | 2.2 | 1.8 |
| VA | 30.0 | 33.2 | 35.0 | 41.1 | 45.3 | 47.4 | 50.2 | 4.5 | 5.0 | 4.4 | 4.2 | 4.0 | 3.8 | 4.1 |
| VT | 34.2 | 35.5 | 37.8 | 44.2 | 49.5 | 52.0 | 55.9 | 3.2 | 1.8 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 |
| WA | 32.3 | 36.5 | 36.9 | 42.6 | 44.4 | 47.5 | 50.9 | 3.0 | 2.9 | 2.3 | 3.7 | 3.7 | 3.6 | 4.1 |
| WI | 30.2 | 35.0 | 36.9 | 40.5 | 45.1 | 47.9 | 48.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.5 | 1.4 |
| WV | 27.0 | 30.5 | 37.2 | 40.7 | 41.7 | 41.2 | 45.4 | 2.8 | 2.9 | 2.9 | 3.8 | 2.9 | 4.3 | 3.4 |
| WY | 30.3 | 36.8 | 32.2 | 34.9 | 41.5 | 43.8 | 46.3 | 2.3 | 2.2 | 1.9 | 1.8 | 2.1 | 2.0 | 1.8 |
| US | 29.5 | 32.9 | 34.8 | 39.5 | 43.6 | 46.1 | 48.5 | 2.8 | 2.7 | 2.7 | 2.6 | 2.5 | 2.5 | 2.5 |

Dementia & Other Psychological Diagnoses

Table 17 shows the percent of residents that were reported by facilities and states as having a dementia diagnosis. The average percent of residents reported with dementia increased slightly from 35.5 percent in 1992 to 41.6 percent in 1998 for the U.S. The percent varied from 31.8 percent in Illinois to 54.3 percent in Michigan in 1998.

The percent of residents with other psychiatric conditions (other than organic mental syndrome) such as schizophrenia, mood disorders, and other problems is reported in Table 17. Other psychiatric conditions varied from 9.8 percent of residents in 1992 to 13.2 percent in 1998. The percentage of conditions varied from 4.0 percent in Hawaii to 19.4 percent in Ohio in 1998.

Dementia and Other Psych. Diagnoses



**TABLE 17
PERCENT OF RESIDENTS
WITH DEMENTIA AND OTHER PSYCHOLOGICAL DIAGNOSES**

| State | Dementia | | | | | | | | Other Psychological Diagnosis | | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------------------------|-------------|-------------|-------------|-------------|-------------|--|--|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | | |
| AK | 30.7 | 36.1 | 44.6 | 38.1 | 34.5 | 43.9 | 45.3 | 5.9 | 10.6 | 10.2 | 11.8 | 9.8 | 11.6 | 15.0 | | |
| AL | 39.6 | 43.0 | 43.3 | 44.6 | 45.4 | 47.9 | 49.5 | 8.0 | 8.4 | 10.1 | 10.3 | 9.8 | 12.1 | 12.8 | | |
| AR | 33.0 | 35.3 | 35.0 | 34.2 | 34.4 | 33.8 | 35.8 | 10.7 | 11.6 | 12.4 | 12.9 | 13.8 | 14.7 | 16.1 | | |
| AZ | 35.3 | 35.1 | 32.9 | 35.7 | 36.1 | 36.5 | 36.7 | 5.7 | 6.1 | 6.6 | 9.4 | 7.6 | 7.7 | 9.7 | | |
| CA | 30.9 | 31.9 | 32.2 | 33.5 | 36.2 | 35.6 | 35.5 | 10.4 | 10.1 | 11.1 | 11.7 | 12.2 | 12.4 | 12.9 | | |
| CO | 39.2 | 41.7 | 37.6 | 40.4 | 44.7 | 42.6 | 41.2 | 10.9 | 12.2 | 13.2 | 11.1 | 10.0 | 11.9 | 11.1 | | |
| CT | 39.1 | 39.7 | 40.0 | 41.3 | 42.1 | 43.1 | 44.0 | 15.0 | 14.5 | 15.1 | 13.6 | 12.0 | 11.5 | 12.8 | | |
| DC | 34.6 | 40.8 | 35.6 | 38.4 | 40.6 | 38.4 | 37.7 | 14.6 | 16.6 | 14.1 | 14.1 | 7.6 | 11.1 | 15.9 | | |
| DE | 31.5 | 36.3 | 38.6 | 41.8 | 41.6 | 39.7 | 37.2 | 8.1 | 10.5 | 11.3 | 10.1 | 11.4 | 9.1 | 14.7 | | |
| FL | 36.3 | 36.8 | 37.3 | 36.8 | 40.1 | 40.7 | 39.4 | 6.8 | 7.8 | 8.3 | 8.3 | 8.2 | 9.5 | 10.8 | | |
| GA | 33.8 | 35.4 | 38.1 | 42.1 | 44.5 | 45.2 | 46.5 | 9.7 | 10.6 | 10.7 | 10.1 | 12.4 | 13.7 | 13.5 | | |
| HI | 33.3 | 34.5 | 38.0 | 42.1 | 48.7 | 45.4 | 48.7 | 2.1 | 2.1 | 2.8 | 2.8 | 4.4 | 3.2 | 4.0 | | |
| IA | 36.3 | 37.6 | 37.1 | 40.0 | 43.9 | 46.0 | 44.9 | 8.6 | 10.0 | 9.7 | 9.1 | 8.7 | 10.2 | 10.7 | | |
| ID | 43.9 | 40.6 | 39.9 | 43.3 | 44.3 | 44.2 | 40.1 | 7.6 | 7.3 | 10.0 | 8.4 | 8.9 | 8.1 | 9.2 | | |
| IL | 27.0 | 29.5 | 28.5 | 30.5 | 32.5 | 31.8 | 31.8 | 13.8 | 14.5 | 14.5 | 15.0 | 15.8 | 16.6 | 17.3 | | |
| IN | 30.4 | 32.4 | 33.7 | 36.3 | 37.5 | 37.0 | 38.6 | 9.8 | 11.2 | 12.1 | 11.9 | 11.1 | 12.1 | 12.3 | | |
| KS | 30.9 | 31.8 | 33.2 | 34.8 | 39.6 | 41.4 | 43.0 | 10.5 | 11.7 | 12.3 | 12.3 | 13.0 | 14.5 | 17.5 | | |
| KY | 38.6 | 41.1 | 39.7 | 40.9 | 43.6 | 43.7 | 44.0 | 6.9 | 9.6 | 9.7 | 9.4 | 9.5 | 10.0 | 10.4 | | |
| LA | 25.7 | 27.8 | 28.1 | 29.3 | 30.8 | 33.2 | 34.9 | 11.8 | 11.7 | 12.9 | 13.2 | 14.6 | 17.4 | 19.1 | | |
| MA | 36.1 | 37.9 | 38.6 | 40.4 | 42.3 | 42.2 | 43.4 | 16.6 | 18.7 | 19.3 | 19.7 | 17.6 | 17.8 | 16.9 | | |
| MD | 40.2 | 39.9 | 44.1 | 41.8 | 40.9 | 41.3 | 40.7 | 14.2 | 16.0 | 14.3 | 14.7 | 11.8 | 13.3 | 11.8 | | |
| ME | 39.8 | 41.3 | 41.1 | 48.2 | 50.3 | 52.9 | 54.0 | 7.5 | 8.3 | 8.7 | 7.3 | 8.0 | 7.5 | 9.5 | | |
| MI | 41.1 | 44.0 | 46.4 | 49.2 | 52.1 | 54.9 | 54.3 | 8.4 | 10.6 | 12.0 | 12.2 | 9.9 | 11.2 | 12.8 | | |
| MN | 35.9 | 37.2 | 36.5 | 40.7 | 40.9 | 41.1 | 40.7 | 11.9 | 12.9 | 13.8 | 12.5 | 15.3 | 14.9 | 16.6 | | |
| MO | 33.9 | 33.5 | 34.4 | 36.3 | 36.8 | 38.4 | 38.7 | 10.1 | 11.7 | 13.1 | 11.6 | 12.3 | 13.0 | 13.9 | | |
| MS | 41.7 | 43.4 | 38.8 | 38.4 | 44.1 | 46.0 | 45.8 | 8.3 | 8.0 | 9.5 | 7.3 | 10.8 | 13.9 | 16.0 | | |
| MT | 38.3 | 37.8 | 40.9 | 38.1 | 42.7 | 44.2 | 44.1 | 7.6 | 7.5 | 9.1 | 7.2 | 7.7 | 11.8 | 11.0 | | |
| NC | 40.7 | 39.3 | 37.8 | 41.3 | 43.6 | 44.7 | 43.2 | 6.4 | 7.1 | 8.4 | 8.3 | 8.6 | 9.7 | 10.0 | | |
| ND | 34.8 | 37.3 | 38.9 | 36.7 | 40.0 | 41.4 | 41.6 | 10.4 | 11.8 | 12.1 | 11.7 | 13.5 | 12.0 | 12.0 | | |
| NE | 33.8 | 34.1 | 33.4 | 34.3 | 37.6 | 37.4 | 37.4 | 8.8 | 9.6 | 9.9 | 9.1 | 8.9 | 12.0 | 13.3 | | |
| NH | 38.3 | 40.0 | 37.8 | 40.3 | 41.4 | 45.5 | 44.4 | 11.0 | 9.8 | 10.9 | 10.7 | 10.6 | 9.9 | 15.3 | | |
| NJ | 36.6 | 38.2 | 39.0 | 40.8 | 41.5 | 38.5 | 39.5 | 11.0 | 11.8 | 12.5 | 12.1 | 11.5 | 11.5 | 11.5 | | |
| NM | 41.8 | 38.1 | 35.9 | 37.5 | 40.8 | 42.5 | 40.1 | 5.5 | 6.4 | 5.1 | 6.9 | 6.0 | 5.9 | 9.7 | | |
| NV | 40.8 | 39.1 | 35.6 | 33.0 | 40.3 | 33.9 | 38.9 | 8.1 | 5.4 | 6.9 | 6.2 | 11.7 | 10.0 | 12.8 | | |
| NY | 44.9 | 46.1 | 46.4 | 46.5 | 48.3 | 48.3 | 47.5 | 10.1 | 10.3 | 10.7 | 10.1 | 9.9 | 11.1 | 12.0 | | |
| OH | 37.6 | 37.8 | 38.5 | 42.9 | 46.7 | 47.5 | 46.3 | 11.6 | 13.6 | 14.5 | 17.1 | 17.7 | 18.9 | 19.4 | | |
| OK | 33.6 | 33.5 | 35.0 | 37.1 | 38.2 | 38.9 | 39.7 | 7.3 | 7.1 | 7.7 | 8.7 | 10.0 | 9.5 | 10.3 | | |
| OR | 42.0 | 43.0 | 44.0 | 47.5 | 48.4 | 49.6 | 46.7 | 9.9 | 11.5 | 11.7 | 11.8 | 10.7 | 11.6 | 12.1 | | |
| PA | 35.2 | 35.0 | 36.8 | 40.4 | 41.0 | 41.8 | 39.9 | 6.8 | 7.3 | 8.1 | 8.1 | 8.5 | 8.8 | 9.8 | | |
| RI | 36.9 | 39.6 | 45.1 | 47.9 | 47.0 | 48.5 | 43.3 | 14.8 | 13.3 | 13.5 | 11.4 | 10.9 | 11.2 | 11.7 | | |
| SC | 39.4 | 43.7 | 48.4 | 49.2 | 50.8 | 52.4 | 51.6 | 7.2 | 7.9 | 7.3 | 8.8 | 7.3 | 9.0 | 9.5 | | |
| SD | 29.2 | 34.7 | 37.6 | 39.2 | 40.9 | 43.7 | 46.3 | 9.7 | 12.0 | 10.4 | 12.3 | 9.8 | 10.0 | 13.9 | | |
| TN | 37.7 | 38.8 | 39.6 | 41.2 | 45.6 | 45.0 | 44.2 | 7.3 | 8.3 | 9.1 | 10.4 | 10.9 | 10.8 | 11.9 | | |
| TX | 33.0 | 34.6 | 34.3 | 36.3 | 38.6 | 39.2 | 37.9 | 9.0 | 9.9 | 10.0 | 9.9 | 10.3 | 12.1 | 11.7 | | |
| UT | 38.6 | 38.2 | 36.2 | 38.3 | 44.0 | 42.7 | 40.9 | 11.7 | 10.2 | 10.0 | 11.1 | 10.3 | 11.5 | 10.5 | | |
| VA | 38.4 | 41.7 | 42.7 | 44.5 | 44.9 | 44.6 | 45.7 | 7.9 | 8.8 | 10.4 | 10.0 | 10.4 | 9.9 | 11.4 | | |
| VT | 41.3 | 43.7 | 49.5 | 47.6 | 48.3 | 49.4 | 47.8 | 11.7 | 8.1 | 9.5 | 7.7 | 9.6 | 10.7 | 11.7 | | |
| WA | 42.9 | 44.5 | 43.2 | 39.9 | 50.5 | 52.3 | 53.0 | 9.2 | 8.3 | 6.2 | 7.4 | 9.9 | 10.7 | 13.0 | | |
| WI | 37.7 | 37.7 | 37.4 | 38.8 | 41.9 | 41.8 | 42.4 | 10.3 | 11.0 | 11.4 | 10.8 | 11.1 | 10.5 | 11.4 | | |
| WV | 26.2 | 25.1 | 21.9 | 34.8 | 46.2 | 39.8 | 39.6 | 4.0 | 4.0 | 4.0 | 6.9 | 9.0 | 13.5 | 13.8 | | |
| WY | 36.5 | 32.4 | 34.6 | 38.0 | 41.5 | 44.3 | 39.5 | 7.5 | 10.6 | 9.9 | 8.6 | 9.6 | 11.9 | 7.4 | | |
| US | 35.5 | 36.7 | 37.0 | 38.8 | 41.3 | 41.7 | 41.6 | 9.8 | 10.7 | 11.2 | 11.3 | 11.5 | 12.4 | 13.2 | | |

Pressure Sores and Skin Care

Pressure sores/ulcers (or decubitus ulcers) are areas of the skin and underlying tissues which erode as a result of pressure or friction and/or lack of blood supply. The severity of the ulcer ranges from persistent skin redness (without a break in the skin) to large open lesions which can expose skin tissue and bone. Table 18 shows the percent of residents in facilities with pressure sores was 7.1 percent in 1992 and in 1998 in the U.S. The percent ranged from 3.3 percent in Montana to 9.9 percent in the Louisiana in 1998.

Special skin care is non-routine care according to a resident care plan or physician's order, usually designed to prevent or reduce pressure ulcers of the skin. In 1992, 28.3 percent and in 1998, 54.7 percent of nursing facilities reported providing special skin care to residents (See Table 18). Thus, as expected, the rate of such care is higher than the percent of actual pressure sores reported by facilities.

% Residents with Pressure Sores and Skin Care

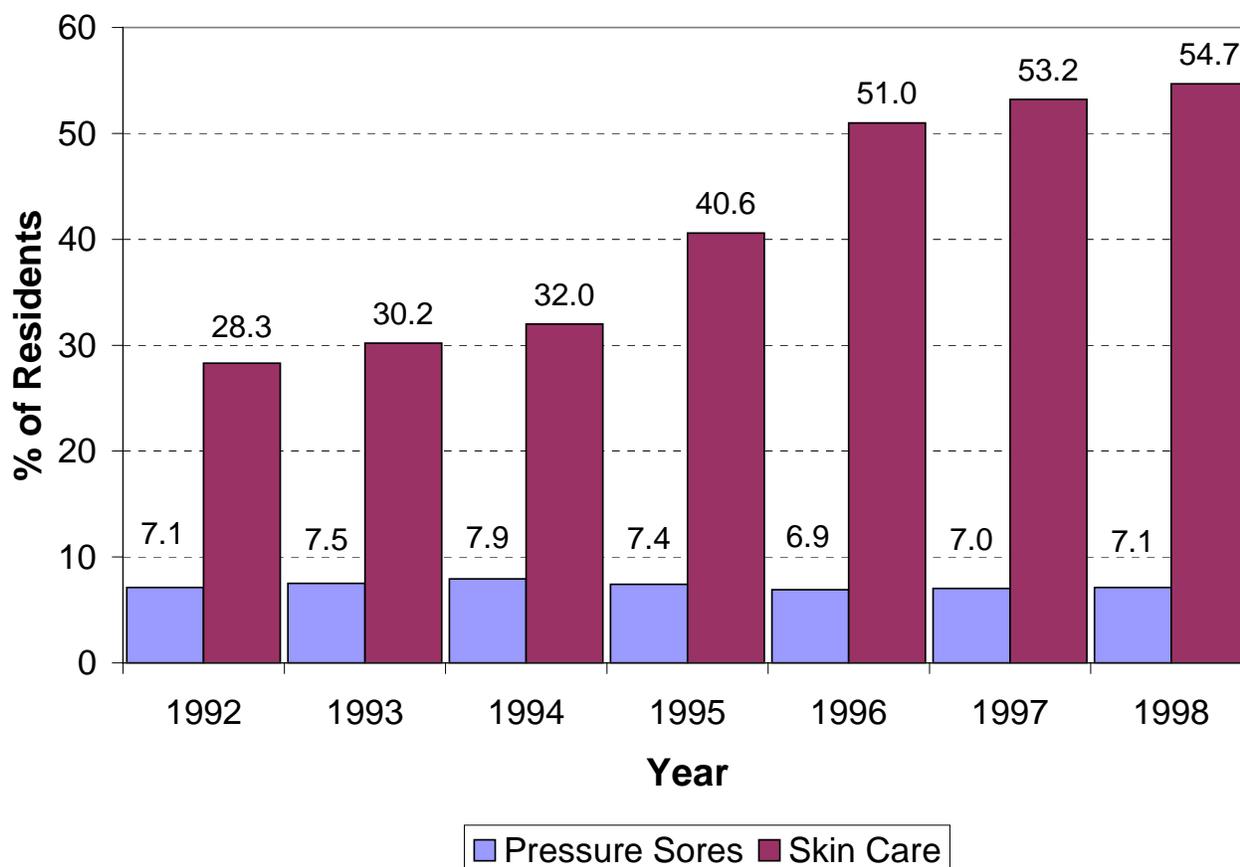


TABLE 18
PERCENT OF RESIDENTS
WITH PRESSURE SORES AND RECEIVING SPECIAL SKIN CARE

| State | Pressure Sores | | | | | | | Special Skin Care | | | | | | |
|-----------|----------------|------------|------------|------------|------------|------------|------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.8 | 4.2 | 3.5 | 2.1 | 4.1 | 7.0 | 4.1 | 40.3 | 42.8 | 36.9 | 45.2 | 49.5 | 57.9 | 71.5 |
| AL | 6.5 | 7.3 | 9.1 | 7.2 | 6.8 | 6.4 | 6.3 | 23.9 | 22.7 | 27.6 | 33.7 | 44.0 | 53.8 | 58.2 |
| AR | 6.9 | 7.5 | 7.9 | 7.4 | 7.9 | 7.8 | 7.9 | 25.8 | 21.2 | 22.1 | 32.7 | 45.3 | 46.9 | 50.9 |
| AZ | 8.5 | 8.1 | 10.3 | 8.3 | 7.4 | 8.5 | 9.2 | 24.8 | 25.9 | 28.0 | 40.3 | 50.2 | 56.7 | 52.7 |
| CA | 9.6 | 10.0 | 9.7 | 9.5 | 8.8 | 9.2 | 8.7 | 25.7 | 26.3 | 27.2 | 38.6 | 46.4 | 49.3 | 50.3 |
| CO | 6.2 | 6.2 | 7.6 | 6.6 | 5.5 | 5.6 | 5.4 | 25.7 | 26.4 | 29.9 | 39.6 | 50.4 | 54.6 | 53.9 |
| CT | 5.3 | 5.5 | 5.2 | 4.9 | 4.5 | 4.5 | 5.1 | 24.8 | 24.8 | 25.3 | 31.1 | 39.9 | 39.8 | 42.2 |
| DC | 8.3 | 10.7 | 8.8 | 8.7 | 9.9 | 13.6 | 9.8 | 24.2 | 23.9 | 31.2 | 33.0 | 47.1 | 60.5 | 57.7 |
| DE | 6.5 | 6.3 | 6.3 | 6.7 | 6.4 | 6.8 | 7.6 | 26.6 | 28.5 | 35.6 | 37.8 | 43.3 | 47.2 | 52.9 |
| FL | 8.3 | 8.8 | 8.6 | 9.0 | 7.9 | 8.2 | 8.5 | 30.4 | 32.0 | 33.5 | 42.2 | 52.4 | 55.6 | 59.5 |
| GA | 7.6 | 7.5 | 8.2 | 7.8 | 7.5 | 7.9 | 7.9 | 28.4 | 30.5 | 31.4 | 38.2 | 44.7 | 47.7 | 49.7 |
| HI | 6.6 | 6.4 | 5.6 | 4.5 | 5.4 | 6.6 | 5.0 | 25.8 | 19.4 | 39.3 | 48.6 | 61.2 | 51.4 | 54.7 |
| IA | 4.9 | 5.0 | 5.2 | 4.8 | 3.8 | 3.7 | 3.6 | 22.2 | 23.9 | 25.2 | 33.0 | 41.8 | 42.8 | 44.3 |
| ID | 5.2 | 4.7 | 6.5 | 7.8 | 5.1 | 4.4 | 5.1 | 24.9 | 30.4 | 30.3 | 41.0 | 41.9 | 46.2 | 44.2 |
| IL | 7.6 | 8.2 | 7.8 | 7.6 | 7.1 | 7.2 | 7.4 | 31.6 | 31.9 | 33.3 | 41.3 | 49.9 | 51.0 | 54.4 |
| IN | 7.7 | 7.5 | 8.3 | 7.9 | 6.7 | 6.8 | 7.3 | 30.9 | 32.6 | 33.4 | 43.0 | 49.9 | 55.9 | 55.4 |
| KS | 5.7 | 5.8 | 5.2 | 5.9 | 4.9 | 5.5 | 5.6 | 21.5 | 24.8 | 29.4 | 36.2 | 55.8 | 56.2 | 54.4 |
| KY | 9.1 | 8.4 | 9.4 | 8.5 | 7.7 | 7.4 | 7.8 | 29.6 | 30.2 | 30.2 | 35.8 | 51.3 | 49.3 | 55.2 |
| LA | 7.8 | 8.0 | 9.5 | 8.5 | 8.6 | 9.2 | 9.9 | 21.9 | 25.3 | 28.4 | 35.1 | 45.0 | 44.7 | 42.7 |
| MA | 6.0 | 8.3 | 7.7 | 6.4 | 5.7 | 6.1 | 6.0 | 36.1 | 37.5 | 37.8 | 43.4 | 55.9 | 58.6 | 62.7 |
| MD | 6.9 | 6.6 | 7.8 | 7.2 | 9.1 | 8.5 | 8.1 | 30.8 | 34.8 | 39.8 | 47.4 | 58.1 | 53.7 | 57.9 |
| ME | 3.7 | 4.6 | 5.5 | 5.2 | 4.5 | 4.7 | 6.2 | 33.3 | 40.7 | 45.0 | 51.4 | 71.3 | 73.3 | 64.5 |
| MI | 8.4 | 8.8 | 8.7 | 8.0 | 6.8 | 6.5 | 6.5 | 29.6 | 32.5 | 33.5 | 40.9 | 48.6 | 53.4 | 57.4 |
| MN | 3.5 | 4.3 | 3.9 | 3.5 | 3.9 | 3.6 | 3.4 | 26.6 | 28.2 | 29.7 | 37.0 | 41.4 | 43.9 | 46.4 |
| MO | 7.5 | 8.1 | 7.8 | 6.8 | 6.6 | 6.5 | 6.8 | 29.9 | 33.4 | 29.4 | 40.6 | 46.6 | 48.9 | 52.2 |
| MS | 6.1 | 7.4 | 10.5 | 9.0 | 7.5 | 7.9 | 8.3 | 28.5 | 31.9 | 33.1 | 44.9 | 64.3 | 54.4 | 54.6 |
| MT | 4.5 | 5.3 | 4.9 | 3.9 | 3.7 | 4.4 | 3.3 | 21.2 | 21.2 | 22.5 | 26.7 | 36.3 | 42.4 | 44.6 |
| NC | 8.6 | 8.8 | 9.0 | 8.5 | 8.1 | 8.0 | 8.3 | 33.4 | 32.2 | 32.9 | 44.1 | 55.8 | 57.0 | 56.4 |
| ND | 3.4 | 3.9 | 3.6 | 4.3 | 3.2 | 3.1 | 3.7 | 17.1 | 17.4 | 16.5 | 23.6 | 36.8 | 40.5 | 43.1 |
| NE | 4.5 | 4.8 | 4.4 | 4.5 | 3.7 | 3.6 | 4.3 | 23.3 | 32.7 | 32.8 | 46.4 | 56.4 | 55.7 | 55.8 |
| NH | 4.4 | 4.5 | 5.0 | 5.0 | 4.3 | 4.7 | 5.1 | 34.1 | 37.7 | 39.2 | 47.9 | 52.3 | 58.2 | 63.8 |
| NJ | 7.5 | 8.4 | 8.1 | 7.4 | 7.5 | 7.8 | 8.7 | 23.4 | 22.3 | 22.4 | 29.5 | 38.8 | 39.3 | 41.2 |
| NM | 8.4 | 6.7 | 8.6 | 8.8 | 6.9 | 9.3 | 8.5 | 21.6 | 24.9 | 23.4 | 41.7 | 55.4 | 52.3 | 50.9 |
| NV | 7.7 | 7.8 | 8.2 | 9.5 | 9.4 | 8.3 | 8.7 | 23.8 | 18.1 | 35.0 | 37.7 | 53.0 | 42.8 | 60.2 |
| NY | 7.0 | 6.9 | 7.0 | 6.9 | 6.4 | 6.6 | 6.7 | 32.4 | 32.8 | 32.5 | 38.5 | 49.3 | 53.9 | 56.7 |
| OH | 6.1 | 6.5 | 7.7 | 6.6 | 6.2 | 6.1 | 6.0 | 25.2 | 33.4 | 40.2 | 55.3 | 72.9 | 76.7 | 74.2 |
| OK | 7.1 | 7.6 | 8.1 | 7.7 | 7.3 | 7.7 | 7.5 | 27.1 | 28.6 | 28.6 | 35.3 | 43.0 | 45.8 | 43.4 |
| OR | 7.1 | 7.6 | 7.4 | 6.6 | 7.6 | 6.3 | 6.5 | 33.4 | 30.6 | 30.0 | 44.5 | 47.0 | 52.9 | 48.2 |
| PA | 8.4 | 8.7 | 9.4 | 8.3 | 7.7 | 7.9 | 8.4 | 33.3 | 35.4 | 37.6 | 45.4 | 51.1 | 54.9 | 58.7 |
| RI | 4.3 | 4.0 | 4.6 | 4.5 | 5.8 | 4.5 | 6.3 | 27.6 | 29.3 | 30.6 | 38.4 | 43.0 | 47.2 | 47.9 |
| SC | 7.2 | 6.7 | 9.0 | 7.7 | 7.4 | 8.1 | 8.0 | 32.5 | 31.1 | 36.3 | 43.3 | 61.2 | 59.7 | 61.3 |
| SD | 3.8 | 4.3 | 4.2 | 4.6 | 4.6 | 5.0 | 4.3 | 31.3 | 39.2 | 46.3 | 58.6 | 77.0 | 84.0 | 78.5 |
| TN | 6.8 | 7.8 | 7.5 | 8.2 | 7.4 | 7.3 | 7.8 | 23.4 | 23.3 | 24.0 | 33.9 | 48.7 | 50.6 | 52.4 |
| TX | 8.0 | 9.8 | 9.5 | 10.0 | 9.0 | 9.4 | 8.9 | 24.5 | 24.6 | 26.1 | 34.6 | 47.7 | 49.8 | 51.1 |
| UT | 4.6 | 4.7 | 5.8 | 5.5 | 5.6 | 5.3 | 5.6 | 22.5 | 23.4 | 21.1 | 31.6 | 45.2 | 54.7 | 48.5 |
| VA | 8.5 | 9.1 | 8.7 | 8.5 | 8.0 | 8.7 | 7.7 | 34.2 | 36.1 | 35.6 | 42.9 | 52.0 | 52.3 | 54.6 |
| VT | 5.1 | 5.6 | 5.4 | 5.1 | 3.6 | 4.6 | 5.0 | 31.4 | 39.1 | 47.6 | 56.4 | 62.0 | 68.1 | 65.9 |
| WA | 7.2 | 6.8 | 6.4 | 6.6 | 6.1 | 6.2 | 6.7 | 41.7 | 49.9 | 57.1 | 57.2 | 62.9 | 65.5 | 68.8 |
| WI | 5.3 | 5.2 | 5.4 | 5.4 | 5.1 | 4.6 | 4.8 | 29.3 | 30.6 | 31.3 | 39.8 | 46.6 | 47.7 | 50.0 |
| WV | 8.5 | 9.4 | 11.5 | 11.2 | 7.0 | 7.1 | 7.9 | 47.8 | 56.8 | 70.8 | 70.8 | 80.9 | 71.5 | 72.1 |
| WY | 5.1 | 7.8 | 6.4 | 7.2 | 4.0 | 5.1 | 5.8 | 27.0 | 21.1 | 29.1 | 37.9 | 43.4 | 65.8 | 52.5 |
| US | 7.1 | 7.5 | 7.9 | 7.4 | 6.9 | 7.0 | 7.1 | 28.3 | 30.2 | 32.0 | 40.6 | 51.0 | 53.2 | 54.7 |

Rehabilitation and Other Special Treatments

Rehabilitation services are provided under the direction of a rehabilitation professional (physical therapist, occupational therapist, etc.) to improve functional ability. In 1992, 16.7 percent of residents in nursing facilities received such services and this increased to 19.0 percent in 1998 (See Table 19). These services varied from 12.7 percent of residents in South Dakota facilities to 46.0 percent in Alaska.

Ostomy care includes special care for a skin opening to the intestinal and/or urinary tract such as a colostomy (opening to the colon). Such care was provided to 2.1 to 2.9 percent of nursing facility residents in 1992-1998 (See Table 19).

TABLE 19
PERCENT OF RESIDENTS
RECEIVING REHABILITATION AND OSTOMY CARE

| State | Rehabilitation | | | | | | | Ostomy Care | | | | | | |
|-----------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 56.3 | 33.6 | 64.3 | 31.6 | 33.1 | 38.4 | 46.0 | 2.2 | 3.9 | 2.9 | 4.1 | 2.8 | 2.9 | 7.0 |
| AL | 10.5 | 9.7 | 13.1 | 12.8 | 13.0 | 13.6 | 13.4 | 1.9 | 2.4 | 2.7 | 3.4 | 3.9 | 4.5 | 5.4 |
| AR | 16.3 | 17.3 | 17.6 | 15.8 | 16.9 | 16.7 | 15.0 | 2.2 | 1.8 | 2.2 | 1.9 | 1.8 | 2.7 | 3.4 |
| AZ | 16.4 | 21.5 | 28.1 | 24.9 | 24.6 | 26.7 | 24.5 | 1.9 | 2.0 | 2.0 | 2.6 | 2.0 | 1.8 | 2.4 |
| CA | 15.1 | 18.4 | 20.1 | 20.1 | 18.7 | 19.3 | 18.7 | 2.0 | 2.3 | 2.4 | 2.4 | 2.5 | 3.0 | 3.5 |
| CO | 18.8 | 22.2 | 22.5 | 24.9 | 22.9 | 24.1 | 21.6 | 2.2 | 2.3 | 2.0 | 2.0 | 1.7 | 2.0 | 2.3 |
| CT | 13.5 | 15.9 | 17.4 | 15.8 | 15.8 | 15.9 | 16.3 | 1.8 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 |
| DC | 23.9 | 24.4 | 27.2 | 29.2 | 26.3 | 25.0 | 21.6 | 2.4 | 5.9 | 5.7 | 1.5 | 1.6 | 1.9 | 2.9 |
| DE | 16.5 | 16.8 | 16.7 | 17.9 | 19.6 | 23.3 | 22.5 | 1.3 | 2.9 | 2.3 | 2.5 | 1.8 | 2.2 | 2.7 |
| FL | 15.8 | 18.9 | 22.2 | 24.5 | 25.2 | 26.6 | 26.0 | 1.9 | 2.2 | 2.4 | 2.5 | 2.4 | 2.7 | 3.1 |
| GA | 18.2 | 18.3 | 19.6 | 17.7 | 15.6 | 15.6 | 16.1 | 1.7 | 2.0 | 1.9 | 2.2 | 2.2 | 2.3 | 2.4 |
| HI | 17.7 | 16.4 | 19.7 | 15.9 | 16.5 | 12.7 | 15.4 | 4.4 | 5.2 | 3.1 | 4.9 | 2.3 | 2.9 | 3.2 |
| IA | 16.7 | 15.7 | 15.8 | 15.8 | 13.7 | 15.1 | 13.7 | 1.8 | 1.5 | 1.7 | 1.8 | 1.7 | 2.2 | 1.8 |
| ID | 17.2 | 19.9 | 27.9 | 26.2 | 19.9 | 27.6 | 21.0 | 1.5 | 1.6 | 1.9 | 2.0 | 1.9 | 1.5 | 1.7 |
| IL | 29.9 | 34.0 | 32.7 | 28.3 | 20.9 | 20.7 | 19.4 | 2.7 | 2.7 | 2.8 | 2.7 | 2.8 | 3.0 | 3.4 |
| IN | 11.5 | 13.0 | 14.2 | 16.2 | 17.4 | 18.8 | 19.3 | 2.1 | 2.1 | 2.3 | 2.1 | 2.1 | 2.5 | 2.9 |
| KS | 21.8 | 20.2 | 17.6 | 17.5 | 17.3 | 16.5 | 14.1 | 1.6 | 1.7 | 1.7 | 2.0 | 1.8 | 1.7 | 1.9 |
| KY | 17.6 | 18.1 | 19.5 | 20.5 | 18.1 | 20.9 | 19.8 | 2.8 | 2.4 | 3.0 | 4.0 | 2.9 | 3.0 | 3.1 |
| LA | 10.8 | 11.2 | 15.0 | 15.4 | 16.8 | 17.5 | 16.7 | 2.4 | 3.1 | 2.8 | 3.2 | 3.1 | 3.5 | 3.8 |
| MA | 13.2 | 19.8 | 24.6 | 26.6 | 18.9 | 20.6 | 20.5 | 2.0 | 2.1 | 2.3 | 1.9 | 2.3 | 2.3 | 2.3 |
| MD | 12.0 | 13.7 | 14.3 | 16.2 | 17.4 | 19.7 | 22.7 | 2.3 | 2.2 | 2.6 | 2.3 | 2.4 | 2.8 | 2.7 |
| ME | 7.9 | 7.8 | 9.9 | 10.3 | 12.9 | 15.7 | 15.2 | 2.4 | 2.8 | 2.6 | 2.7 | 2.9 | 3.2 | 3.5 |
| MI | 13.7 | 13.6 | 14.6 | 14.6 | 14.9 | 15.7 | 15.4 | 2.2 | 2.2 | 2.1 | 1.9 | 2.0 | 2.1 | 2.4 |
| MN | 20.6 | 21.3 | 20.1 | 20.2 | 16.0 | 16.9 | 15.1 | 2.0 | 2.1 | 2.1 | 2.1 | 1.9 | 2.1 | 2.1 |
| MO | 22.1 | 25.5 | 27.0 | 26.4 | 23.2 | 21.8 | 21.6 | 2.2 | 2.2 | 2.2 | 2.0 | 2.1 | 2.1 | 2.6 |
| MS | 8.2 | 12.2 | 17.6 | 20.4 | 21.5 | 24.1 | 23.3 | 2.3 | 3.2 | 3.8 | 3.6 | 3.8 | 5.2 | 5.0 |
| MT | 14.6 | 15.7 | 15.6 | 17.3 | 16.7 | 17.4 | 16.9 | 1.8 | 1.7 | 1.6 | 2.1 | 1.8 | 1.7 | 1.6 |
| NC | 13.7 | 15.0 | 16.7 | 16.9 | 17.7 | 18.8 | 17.5 | 2.1 | 2.3 | 2.5 | 2.4 | 2.5 | 2.8 | 3.0 |
| ND | 25.5 | 46.2 | 44.1 | 44.1 | 27.9 | 26.9 | 21.8 | 1.9 | 1.6 | 1.8 | 2.1 | 2.4 | 2.8 | 2.1 |
| NE | 19.0 | 18.9 | 16.3 | 16.0 | 15.1 | 13.9 | 13.4 | 1.5 | 1.8 | 1.9 | 2.0 | 1.8 | 2.2 | 2.3 |
| NH | 16.4 | 17.2 | 19.7 | 20.7 | 19.1 | 19.4 | 19.2 | 1.9 | 1.9 | 2.0 | 1.8 | 2.3 | 1.9 | 2.0 |
| NJ | 12.6 | 14.0 | 15.0 | 15.4 | 14.6 | 16.1 | 19.5 | 2.3 | 1.8 | 2.5 | 2.5 | 2.1 | 2.4 | 2.8 |
| NM | 15.4 | 18.7 | 22.2 | 25.8 | 23.8 | 26.7 | 24.3 | 1.8 | 2.0 | 2.8 | 1.9 | 1.6 | 2.3 | 2.1 |
| NV | 11.7 | 17.4 | 17.8 | 20.4 | 26.3 | 32.9 | 24.3 | 2.5 | 1.6 | 1.8 | 2.9 | 1.9 | 3.4 | 3.1 |
| NY | 19.2 | 19.1 | 19.2 | 19.1 | 19.2 | 19.6 | 20.6 | 3.1 | 3.7 | 3.3 | 3.2 | 3.5 | 4.1 | 4.2 |
| OH | 15.2 | 15.1 | 17.0 | 16.3 | 15.8 | 16.9 | 16.4 | 1.9 | 2.4 | 2.8 | 3.0 | 2.9 | 3.8 | 4.0 |
| OK | 25.1 | 27.0 | 29.3 | 22.8 | 19.1 | 19.2 | 17.8 | 2.2 | 2.3 | 2.1 | 1.9 | 1.9 | 2.1 | 2.5 |
| OR | 14.0 | 14.5 | 17.5 | 14.6 | 14.0 | 14.4 | 15.6 | 2.0 | 2.3 | 1.8 | 2.2 | 2.4 | 2.1 | 2.0 |
| PA | 18.0 | 20.7 | 20.9 | 23.7 | 24.0 | 26.6 | 25.8 | 2.3 | 2.6 | 2.4 | 2.5 | 2.4 | 2.5 | 2.9 |
| RI | 7.0 | 8.5 | 10.3 | 12.1 | 9.1 | 12.1 | 14.8 | 1.8 | 1.9 | 1.8 | 2.0 | 1.8 | 1.9 | 2.1 |
| SC | 9.8 | 11.0 | 15.0 | 16.1 | 18.5 | 22.3 | 20.8 | 2.3 | 2.5 | 3.1 | 3.5 | 3.1 | 2.9 | 2.8 |
| SD | 18.9 | 17.9 | 17.1 | 18.7 | 16.9 | 10.6 | 12.7 | 2.0 | 1.9 | 2.1 | 1.9 | 2.2 | 2.3 | 2.8 |
| TN | 14.0 | 17.6 | 22.6 | 22.8 | 20.2 | 22.0 | 21.0 | 1.9 | 1.9 | 1.9 | 2.0 | 1.7 | 2.2 | 2.0 |
| TX | 10.1 | 14.0 | 17.7 | 18.5 | 19.6 | 19.6 | 19.9 | 2.0 | 1.8 | 2.3 | 2.3 | 2.0 | 2.4 | 2.4 |
| UT | 24.3 | 33.5 | 36.4 | 32.7 | 25.3 | 29.7 | 30.7 | 1.9 | 1.2 | 1.8 | 1.9 | 2.5 | 2.0 | 1.4 |
| VA | 14.5 | 17.1 | 16.2 | 15.4 | 14.9 | 16.5 | 15.4 | 2.1 | 2.0 | 2.4 | 2.5 | 2.7 | 2.7 | 2.9 |
| VT | 9.7 | 11.6 | 10.1 | 10.5 | 12.3 | 13.0 | 17.7 | 3.1 | 3.4 | 2.6 | 2.7 | 1.9 | 2.6 | 4.1 |
| WA | 30.4 | 31.9 | 34.0 | 26.8 | 20.4 | 20.7 | 17.9 | 1.7 | 1.7 | 1.9 | 2.0 | 2.4 | 2.4 | 2.9 |
| WI | 17.8 | 18.1 | 19.3 | 18.4 | 17.0 | 17.5 | 15.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 2.2 | 2.2 |
| WV | 12.5 | 12.6 | 15.2 | 15.4 | 16.3 | 20.3 | 24.8 | 1.8 | 2.2 | 2.6 | 3.1 | 3.0 | 3.5 | 6.5 |
| WY | 16.9 | 24.4 | 18.8 | 18.4 | 26.7 | 17.1 | 20.4 | 1.1 | 1.5 | 2.5 | 2.1 | 2.6 | 1.2 | 1.5 |
| US | 16.7 | 18.8 | 20.2 | 19.9 | 18.6 | 19.5 | 19.0 | 2.1 | 2.2 | 2.4 | 2.4 | 2.4 | 2.7 | 2.9 |

Injections and Intravenous Therapy

Injections are provided by facilities for a variety of medications. In 1992, 10.8 percent of residents in facilities were receiving injections compared with 12.1 percent in 1998 (See Table 20). The percent receiving injections ranged from 8.3 percent in Hawaii to 19.2 percent in Nevada in 1998.

Intravenous therapy and/or blood transfusions are used to provide fluid, medications, nutritional substances, and blood products for residents. The percent of resident reported receiving such therapy in nursing facilities was 1.3 percent in 1992 and 2.8 percent in 1998 (See Table 20).

TABLE 20
PERCENT OF RESIDENTS
RECEIVING INJECTION AND INTRAVENOUS THERAPY

| State | Injections | | | | | | | Intravenous Therapy | | | | | | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 8.5 | 16.5 | 15.2 | 12.8 | 18.5 | 12.4 | 11.5 | 0.8 | 0.7 | 2.8 | 2.0 | 4.0 | 3.5 | 5.5 |
| AL | 11.8 | 13.9 | 14.7 | 13.5 | 11.1 | 12.1 | 12.1 | 0.2 | 0.3 | 0.5 | 0.8 | 0.6 | 0.9 | 0.8 |
| AR | 10.6 | 11.4 | 12.0 | 10.9 | 11.2 | 11.7 | 11.2 | 1.6 | 1.2 | 2.4 | 2.0 | 2.3 | 4.4 | 2.5 |
| AZ | 9.0 | 9.5 | 11.2 | 10.1 | 12.0 | 12.4 | 13.6 | 2.4 | 3.7 | 7.2 | 5.5 | 5.5 | 6.5 | 7.6 |
| CA | 9.4 | 10.2 | 10.7 | 11.1 | 11.1 | 11.8 | 12.6 | 2.1 | 2.5 | 3.3 | 3.6 | 3.1 | 4.0 | 4.1 |
| CO | 10.7 | 12.4 | 12.7 | 12.5 | 10.1 | 10.6 | 10.4 | 1.2 | 1.7 | 2.0 | 1.4 | 1.4 | 2.6 | 2.8 |
| CT | 10.1 | 10.3 | 10.7 | 9.7 | 9.3 | 9.1 | 9.6 | 0.0 | 0.1 | 0.2 | 0.2 | 0.4 | 0.5 | 0.6 |
| DC | 12.0 | 12.8 | 13.8 | 14.7 | 16.5 | 16.6 | 18.3 | 0.0 | 0.0 | 2.2 | 1.3 | 0.9 | 2.6 | 1.0 |
| DE | 7.4 | 9.2 | 9.3 | 8.3 | 9.2 | 9.7 | 10.8 | 0.1 | 0.3 | 0.4 | 0.9 | 0.9 | 3.1 | 2.1 |
| FL | 9.6 | 10.3 | 10.9 | 11.0 | 10.5 | 12.1 | 12.3 | 0.7 | 1.1 | 1.5 | 2.0 | 2.2 | 2.7 | 3.2 |
| GA | 11.5 | 11.7 | 12.8 | 12.3 | 10.9 | 11.3 | 12.7 | 0.4 | 0.8 | 0.6 | 1.0 | 0.7 | 1.7 | 1.3 |
| HI | 8.0 | 9.3 | 9.2 | 8.8 | 9.7 | 9.6 | 8.3 | 2.6 | 3.2 | 2.2 | 2.3 | 2.3 | 3.7 | 1.7 |
| IA | 9.4 | 9.9 | 10.5 | 10.0 | 8.9 | 8.9 | 9.7 | 1.0 | 0.9 | 1.3 | 1.1 | 1.3 | 0.9 | 1.3 |
| ID | 11.2 | 9.8 | 12.6 | 13.4 | 11.1 | 11.5 | 12.4 | 0.3 | 0.3 | 2.3 | 1.5 | 1.9 | 1.9 | 2.2 |
| IL | 11.1 | 11.5 | 12.3 | 11.9 | 11.4 | 11.3 | 12.4 | 1.3 | 1.6 | 2.5 | 2.6 | 2.7 | 2.8 | 2.7 |
| IN | 11.6 | 12.6 | 13.6 | 12.2 | 12.1 | 12.9 | 13.1 | 1.5 | 2.3 | 2.8 | 2.9 | 2.3 | 3.1 | 3.2 |
| KS | 10.7 | 11.1 | 12.0 | 11.2 | 9.4 | 10.0 | 10.0 | 1.7 | 1.5 | 2.2 | 2.0 | 1.5 | 2.3 | 2.1 |
| KY | 12.2 | 12.9 | 14.0 | 14.2 | 11.8 | 13.7 | 13.3 | 1.6 | 2.5 | 3.1 | 3.4 | 3.3 | 3.9 | 3.2 |
| LA | 14.0 | 14.0 | 15.2 | 14.8 | 13.6 | 13.9 | 14.5 | 5.0 | 4.9 | 7.3 | 5.5 | 5.9 | 5.8 | 6.5 |
| MA | 11.0 | 11.6 | 11.6 | 11.4 | 8.5 | 9.2 | 10.0 | 0.1 | 0.2 | 0.4 | 0.8 | 1.1 | 1.4 | 1.8 |
| MD | 10.5 | 11.3 | 11.2 | 12.5 | 13.1 | 12.8 | 14.7 | 0.8 | 0.7 | 0.6 | 1.6 | 1.5 | 2.6 | 3.6 |
| ME | 11.1 | 9.9 | 11.6 | 10.3 | 9.4 | 10.5 | 11.5 | 0.2 | 0.2 | 0.3 | 0.3 | 0.7 | 1.0 | 0.6 |
| MI | 10.2 | 10.7 | 11.3 | 10.2 | 9.4 | 10.2 | 10.6 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.7 | 0.9 |
| MN | 10.2 | 10.6 | 11.3 | 10.0 | 9.2 | 10.0 | 9.8 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| MO | 12.2 | 13.7 | 13.5 | 12.5 | 11.0 | 11.4 | 12.2 | 3.5 | 4.1 | 3.5 | 3.7 | 3.5 | 3.4 | 4.1 |
| MS | 11.6 | 13.6 | 13.7 | 13.0 | 13.6 | 15.8 | 16.4 | 0.2 | 1.5 | 1.9 | 2.4 | 4.2 | 4.9 | 5.4 |
| MT | 9.0 | 9.3 | 9.7 | 9.2 | 9.6 | 12.5 | 11.9 | 0.3 | 0.9 | 0.6 | 0.8 | 1.0 | 0.6 | 1.2 |
| NC | 12.3 | 13.6 | 13.5 | 13.4 | 12.4 | 13.1 | 13.8 | 0.4 | 0.8 | 1.2 | 1.0 | 1.4 | 1.7 | 1.8 |
| ND | 10.5 | 11.3 | 11.9 | 11.0 | 10.7 | 12.5 | 10.6 | 0.2 | 0.2 | 1.3 | 3.2 | 1.4 | 2.0 | 2.5 |
| NE | 10.1 | 10.4 | 11.7 | 11.2 | 9.3 | 10.1 | 10.2 | 0.5 | 0.8 | 0.9 | 1.6 | 1.1 | 1.3 | 1.4 |
| NH | 10.5 | 9.6 | 11.3 | 9.0 | 7.5 | 8.4 | 9.6 | 0.3 | 0.7 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 |
| NJ | 7.8 | 8.1 | 9.1 | 8.2 | 7.8 | 8.2 | 8.9 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.7 | 1.4 |
| NM | 9.9 | 9.5 | 10.1 | 15.2 | 12.4 | 14.5 | 12.7 | 1.8 | 0.5 | 2.4 | 2.2 | 4.8 | 2.7 | 2.5 |
| NV | 7.6 | 6.7 | 13.0 | 10.0 | 11.1 | 13.5 | 19.2 | 0.5 | 0.9 | 4.6 | 2.8 | 5.8 | 7.6 | 5.0 |
| NY | 9.9 | 11.0 | 10.9 | 9.8 | 8.8 | 9.1 | 10.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 |
| OH | 11.5 | 12.1 | 13.8 | 12.5 | 12.7 | 12.7 | 13.9 | 1.1 | 1.3 | 2.0 | 1.6 | 2.1 | 2.3 | 2.4 |
| OK | 11.8 | 13.1 | 12.6 | 11.8 | 10.2 | 9.8 | 10.8 | 2.1 | 1.8 | 2.6 | 2.4 | 2.5 | 3.6 | 4.4 |
| OR | 8.5 | 9.0 | 9.7 | 9.0 | 9.7 | 10.5 | 10.6 | 0.8 | 0.8 | 1.5 | 1.1 | 1.1 | 1.3 | 1.9 |
| PA | 11.6 | 12.1 | 13.4 | 12.8 | 12.3 | 13.8 | 14.0 | 1.3 | 1.8 | 2.2 | 2.7 | 2.8 | 3.5 | 4.2 |
| RI | 10.2 | 10.8 | 10.7 | 10.4 | 8.8 | 8.8 | 10.8 | 0.2 | 0.1 | 0.1 | 0.3 | 2.0 | 0.9 | 1.4 |
| SC | 12.1 | 12.8 | 15.5 | 13.9 | 11.4 | 12.1 | 13.0 | 0.3 | 0.5 | 0.5 | 1.5 | 1.6 | 3.0 | 2.7 |
| SD | 10.4 | 11.8 | 11.0 | 9.9 | 9.0 | 9.4 | 10.4 | 0.1 | 0.3 | 0.5 | 0.7 | 0.6 | 0.9 | 0.8 |
| TN | 12.8 | 13.1 | 13.9 | 13.3 | 11.5 | 12.6 | 14.1 | 1.5 | 1.8 | 2.5 | 2.5 | 2.6 | 3.0 | 4.3 |
| TX | 11.5 | 12.8 | 13.3 | 12.8 | 12.1 | 12.3 | 12.7 | 2.9 | 3.5 | 4.7 | 4.8 | 4.6 | 4.7 | 4.8 |
| UT | 11.7 | 13.2 | 12.4 | 11.9 | 11.4 | 12.6 | 12.3 | 2.5 | 2.7 | 2.0 | 3.1 | 2.7 | 2.2 | 2.3 |
| VA | 11.4 | 11.8 | 12.3 | 12.0 | 11.0 | 12.8 | 11.6 | 0.7 | 0.8 | 1.5 | 1.5 | 1.6 | 2.0 | 1.6 |
| VT | 8.7 | 8.1 | 9.9 | 10.8 | 9.3 | 11.0 | 10.2 | 0.0 | 0.0 | 0.4 | 0.3 | 0.2 | 0.9 | 1.1 |
| WA | 8.7 | 10.0 | 10.0 | 9.5 | 10.1 | 11.4 | 14.1 | 0.9 | 1.0 | 1.4 | 1.3 | 2.0 | 2.0 | 2.7 |
| WI | 10.9 | 10.6 | 11.5 | 10.3 | 9.5 | 10.2 | 10.5 | 0.2 | 0.3 | 0.3 | 0.4 | 0.7 | 0.8 | 0.8 |
| WV | 11.3 | 12.3 | 12.9 | 14.9 | 11.6 | 12.8 | 13.5 | 3.8 | 2.8 | 3.8 | 3.8 | 4.0 | 6.5 | 6.0 |
| WY | 10.9 | 11.5 | 10.1 | 11.7 | 9.8 | 10.1 | 10.5 | 0.9 | 4.1 | 1.1 | 2.0 | 2.2 | 3.1 | 2.5 |
| US | 10.8 | 11.5 | 12.2 | 11.6 | 10.9 | 11.5 | 12.1 | 1.3 | 1.5 | 2.1 | 2.1 | 2.2 | 2.6 | 2.8 |

Tube Feeding

Tube feedings are used to provide nutritional substances to residents into the gastrointestinal system. Table 21 shows that in 1992, 5.5 percent of residents were receiving tube feedings compared with 6.9 percent in 1998. The percent varied from 1.9 percent in Wyoming to 15.0 percent in Hawaii in 1998.

Respiratory Therapy

Respiratory treatment is provided for respirators/ ventilators, oxygen, inhalation therapy, and other treatment. In 1992, 4.8 percent of facility residents received treatment compared to 8.5 percent in 1998 (See Table 21). Wyoming reported 20.0 percent of residents receiving respiratory treatment compared with to 4.1 percent in Hawaii.

TABLE 21
PERCENT OF RESIDENTS
RECEIVING TUBE FEEDING AND RESPIRATORY TREATMENT

| State | Tube Feeding | | | | | | | Respiratory Treatment | | | | | | |
|-----------|--------------|------------|------------|------------|------------|------------|------------|-----------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.0 | 5.7 | 5.3 | 4.9 | 4.6 | 6.0 | 8.2 | 9.1 | 8.9 | 9.1 | 10.5 | 10.9 | 14.4 | 11.9 |
| AL | 8.1 | 8.4 | 10.1 | 11.8 | 11.8 | 12.5 | 13.0 | 2.3 | 2.9 | 4.1 | 4.4 | 5.0 | 5.3 | 6.2 |
| AR | 4.9 | 5.4 | 5.7 | 5.2 | 5.8 | 6.1 | 6.5 | 3.3 | 4.6 | 5.4 | 6.5 | 6.1 | 6.1 | 7.7 |
| AZ | 4.7 | 5.0 | 5.5 | 4.6 | 4.3 | 6.1 | 5.7 | 8.0 | 8.9 | 14.0 | 10.2 | 10.0 | 11.5 | 11.1 |
| CA | 8.2 | 9.5 | 9.5 | 9.8 | 10.4 | 11.1 | 11.8 | 4.9 | 6.4 | 7.0 | 7.9 | 7.7 | 8.9 | 8.8 |
| CO | 3.2 | 3.2 | 3.6 | 3.2 | 3.3 | 3.4 | 3.8 | 11.0 | 12.1 | 15.3 | 15.6 | 12.7 | 13.8 | 15.2 |
| CT | 3.3 | 3.3 | 3.5 | 3.8 | 4.0 | 4.2 | 4.6 | 3.8 | 4.3 | 5.3 | 5.6 | 6.0 | 6.6 | 7.4 |
| DC | 8.5 | 8.7 | 15.2 | 10.6 | 13.0 | 13.6 | 13.4 | 2.5 | 3.0 | 9.1 | 3.6 | 5.5 | 6.8 | 4.8 |
| DE | 5.5 | 5.8 | 6.5 | 7.4 | 7.6 | 7.9 | 6.8 | 4.1 | 4.7 | 4.2 | 4.9 | 6.5 | 8.4 | 7.4 |
| FL | 7.1 | 7.6 | 7.7 | 7.9 | 8.1 | 8.7 | 8.9 | 4.3 | 5.6 | 6.6 | 8.0 | 8.2 | 8.6 | 9.3 |
| GA | 6.4 | 7.3 | 8.0 | 8.6 | 9.2 | 9.2 | 9.6 | 3.2 | 3.6 | 4.3 | 5.5 | 5.0 | 6.5 | 7.4 |
| HI | 19.8 | 17.2 | 13.7 | 18.3 | 14.7 | 13.5 | 15.0 | 3.7 | 6.3 | 3.9 | 4.5 | 7.0 | 4.4 | 4.1 |
| IA | 2.3 | 2.3 | 2.5 | 2.4 | 2.3 | 2.5 | 2.6 | 5.4 | 5.5 | 6.4 | 6.5 | 6.7 | 6.7 | 7.5 |
| ID | 1.7 | 1.8 | 2.5 | 2.2 | 2.3 | 2.5 | 2.0 | 6.9 | 7.7 | 9.0 | 10.8 | 9.8 | 10.3 | 10.9 |
| IL | 3.9 | 4.1 | 4.1 | 4.1 | 4.4 | 4.5 | 4.8 | 3.7 | 4.5 | 4.8 | 5.1 | 5.4 | 6.5 | 6.4 |
| IN | 5.0 | 5.2 | 6.1 | 6.3 | 6.2 | 6.2 | 6.3 | 7.2 | 8.7 | 9.2 | 8.6 | 8.4 | 8.8 | 9.0 |
| KS | 1.6 | 1.5 | 1.8 | 2.1 | 2.0 | 2.1 | 2.6 | 4.3 | 5.4 | 6.0 | 6.9 | 7.2 | 8.2 | 7.9 |
| KY | 10.5 | 11.2 | 12.4 | 12.8 | 11.2 | 11.3 | 10.5 | 8.9 | 10.6 | 11.5 | 10.5 | 10.0 | 10.8 | 11.8 |
| LA | 8.0 | 8.2 | 8.7 | 8.3 | 9.3 | 10.4 | 10.9 | 5.8 | 5.9 | 9.2 | 8.1 | 8.9 | 8.3 | 8.5 |
| MA | 2.9 | 2.9 | 3.3 | 3.3 | 3.9 | 3.9 | 4.0 | 3.6 | 4.4 | 5.2 | 5.9 | 6.2 | 7.3 | 7.7 |
| MD | 6.2 | 7.7 | 7.9 | 9.1 | 9.3 | 9.3 | 8.7 | 4.1 | 4.0 | 4.5 | 6.2 | 6.9 | 7.0 | 7.5 |
| ME | 2.9 | 2.7 | 2.3 | 2.3 | 2.8 | 3.2 | 2.9 | 4.8 | 5.0 | 6.0 | 5.7 | 6.9 | 7.7 | 8.8 |
| MI | 4.2 | 4.7 | 4.8 | 4.7 | 4.9 | 5.0 | 5.2 | 3.9 | 4.5 | 5.0 | 5.4 | 5.9 | 6.6 | 6.4 |
| MN | 2.0 | 2.1 | 2.0 | 1.9 | 2.0 | 2.1 | 2.2 | 4.1 | 4.8 | 5.5 | 5.9 | 6.4 | 7.4 | 7.6 |
| MO | 5.9 | 5.8 | 5.6 | 4.9 | 5.5 | 5.2 | 5.6 | 6.9 | 8.6 | 7.9 | 8.2 | 7.9 | 8.5 | 9.1 |
| MS | 5.8 | 6.9 | 8.0 | 7.6 | 8.4 | 9.1 | 9.2 | 1.8 | 3.0 | 4.2 | 5.2 | 5.8 | 7.4 | 7.9 |
| MT | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.2 | 2.5 | 8.4 | 9.3 | 10.8 | 10.4 | 11.7 | 11.5 | 11.2 |
| NC | 9.6 | 9.3 | 9.7 | 9.7 | 9.7 | 10.1 | 10.5 | 4.2 | 5.0 | 5.9 | 6.7 | 6.3 | 7.3 | 7.7 |
| ND | 2.1 | 2.5 | 2.3 | 3.2 | 3.0 | 2.6 | 2.5 | 3.3 | 3.5 | 5.5 | 7.0 | 6.5 | 7.7 | 7.5 |
| NE | 2.0 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 | 2.5 | 3.7 | 5.0 | 6.0 | 6.7 | 6.8 | 7.6 | 8.2 |
| NH | 1.3 | 1.2 | 1.8 | 1.9 | 2.4 | 1.8 | 2.5 | 4.2 | 4.2 | 5.1 | 5.1 | 7.1 | 5.7 | 7.5 |
| NJ | 6.3 | 7.4 | 7.9 | 7.9 | 7.6 | 7.8 | 8.0 | 3.0 | 3.1 | 3.4 | 3.7 | 3.4 | 4.9 | 6.1 |
| NM | 4.0 | 3.4 | 3.1 | 3.5 | 3.4 | 3.9 | 4.1 | 7.2 | 9.0 | 11.6 | 10.6 | 13.3 | 14.8 | 13.0 |
| NV | 7.3 | 6.1 | 9.5 | 7.7 | 8.5 | 8.4 | 10.9 | 7.6 | 7.1 | 11.1 | 10.7 | 14.0 | 13.1 | 12.8 |
| NY | 6.7 | 7.0 | 7.5 | 7.3 | 7.7 | 8.0 | 7.9 | 2.6 | 3.0 | 3.5 | 3.9 | 4.4 | 5.3 | 6.1 |
| OH | 6.0 | 6.5 | 7.0 | 7.1 | 7.6 | 7.7 | 7.8 | 5.5 | 6.8 | 7.2 | 7.3 | 8.6 | 9.4 | 9.8 |
| OK | 6.1 | 5.7 | 6.3 | 5.8 | 6.3 | 7.1 | 6.6 | 5.0 | 5.9 | 6.7 | 6.0 | 6.7 | 7.6 | 8.8 |
| OR | 2.9 | 3.8 | 3.5 | 3.6 | 4.2 | 4.2 | 3.9 | 3.6 | 5.0 | 5.7 | 6.0 | 4.1 | 5.7 | 5.4 |
| PA | 6.5 | 6.4 | 6.3 | 6.3 | 6.5 | 6.6 | 6.7 | 5.5 | 6.4 | 7.1 | 8.7 | 9.8 | 10.4 | 11.6 |
| RI | 2.5 | 2.5 | 2.6 | 2.8 | 3.1 | 3.3 | 4.2 | 2.3 | 2.7 | 3.8 | 5.1 | 4.7 | 5.4 | 4.5 |
| SC | 7.4 | 7.1 | 8.9 | 8.5 | 8.8 | 9.4 | 9.8 | 2.4 | 2.5 | 3.5 | 5.2 | 4.3 | 7.0 | 6.6 |
| SD | 1.3 | 1.3 | 1.6 | 1.7 | 1.7 | 1.9 | 2.3 | 4.0 | 4.8 | 5.1 | 6.2 | 6.2 | 7.0 | 7.2 |
| TN | 7.4 | 8.1 | 8.1 | 8.7 | 8.5 | 7.9 | 8.2 | 4.2 | 4.9 | 6.7 | 7.5 | 6.9 | 8.6 | 8.6 |
| TX | 6.8 | 6.6 | 7.7 | 8.1 | 8.1 | 8.5 | 8.4 | 4.7 | 6.3 | 7.9 | 8.1 | 9.1 | 9.2 | 9.4 |
| UT | 2.6 | 2.7 | 2.5 | 2.5 | 2.5 | 2.2 | 2.7 | 6.7 | 9.6 | 9.4 | 10.5 | 8.8 | 11.1 | 12.1 |
| VA | 7.9 | 8.1 | 7.9 | 8.6 | 8.1 | 9.1 | 9.2 | 5.0 | 6.1 | 6.5 | 7.7 | 8.1 | 8.4 | 8.3 |
| VT | 2.1 | 2.9 | 1.0 | 2.3 | 2.0 | 3.4 | 2.8 | 3.8 | 4.3 | 6.7 | 4.9 | 6.1 | 7.5 | 7.6 |
| WA | 3.8 | 3.9 | 4.4 | 4.8 | 4.4 | 4.9 | 4.8 | 4.6 | 6.1 | 6.8 | 6.6 | 6.7 | 7.5 | 8.2 |
| WI | 2.5 | 2.7 | 2.8 | 2.8 | 2.7 | 2.9 | 2.7 | 4.3 | 4.7 | 5.3 | 5.5 | 5.9 | 6.7 | 7.3 |
| WV | 5.7 | 6.7 | 6.9 | 8.8 | 7.2 | 6.6 | 7.1 | 7.5 | 6.5 | 7.8 | 8.8 | 9.6 | 12.7 | 10.9 |
| WY | 2.1 | 2.1 | 1.6 | 2.0 | 2.4 | 1.7 | 1.9 | 10.1 | 17.7 | 15.1 | 14.4 | 15.1 | 14.9 | 20.0 |
| US | 5.5 | 5.7 | 6.2 | 6.3 | 6.5 | 6.7 | 6.9 | 4.8 | 5.7 | 6.6 | 7.0 | 7.3 | 8.1 | 8.5 |

Urinary Incontinence and Bladder Training

Bladder or urinary incontinence more often than one time a week is a common problem in nursing facility residents. Table 22 shows that 47 percent of all residents were reported to have this problem in 1992 compared with 50.7 percent in 1998. This percentage ranged from 32.5 percent in West Virginia to 63.9 percent in Virginia.

Bladder training programs are designed to assist residents to gain control and maintain bladder control (such as by pelvic exercises or frequently toileting). Table 22 shows that the percent of residents with training programs ranged from 4.8 percent between 1992 to 5.7 percent in 1998 in the U.S. These programs vary across states with only 1.3 percent of West Virginia facilities having such programs to 17.4 percent of Wyoming facilities in 1998. The discrepancy between the high percentage of residents with incontinence problems and the low percentage of training programs is notable.

% Residents with Bladder Incontinence and Training

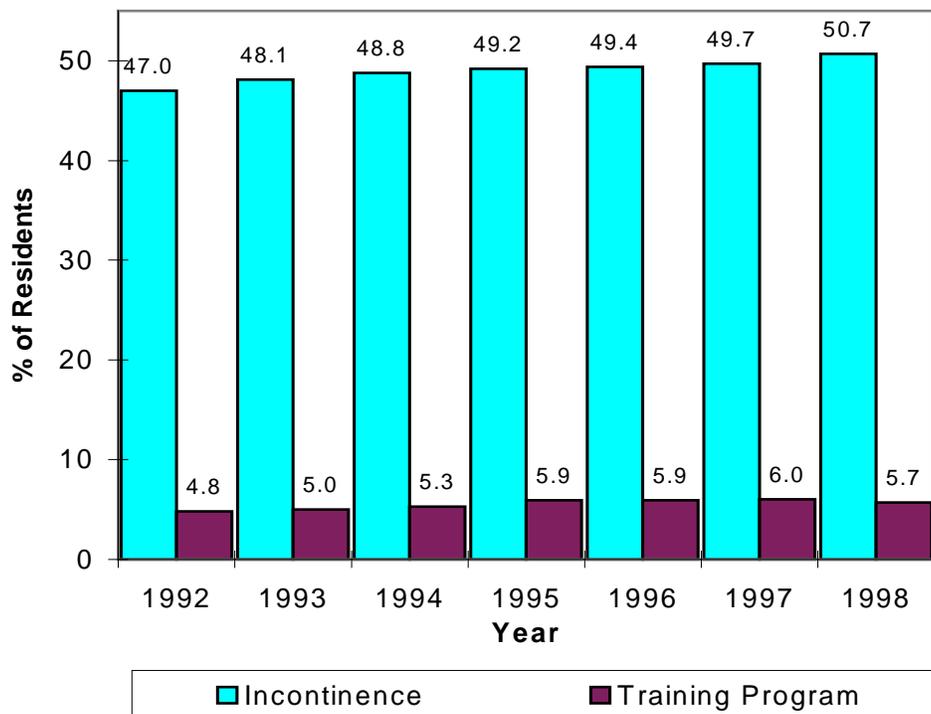


TABLE 22
PERCENT OF RESIDENTS
WITH BLADDER INCONTINENCE & IN BLADDER TRAINING PROGRAM

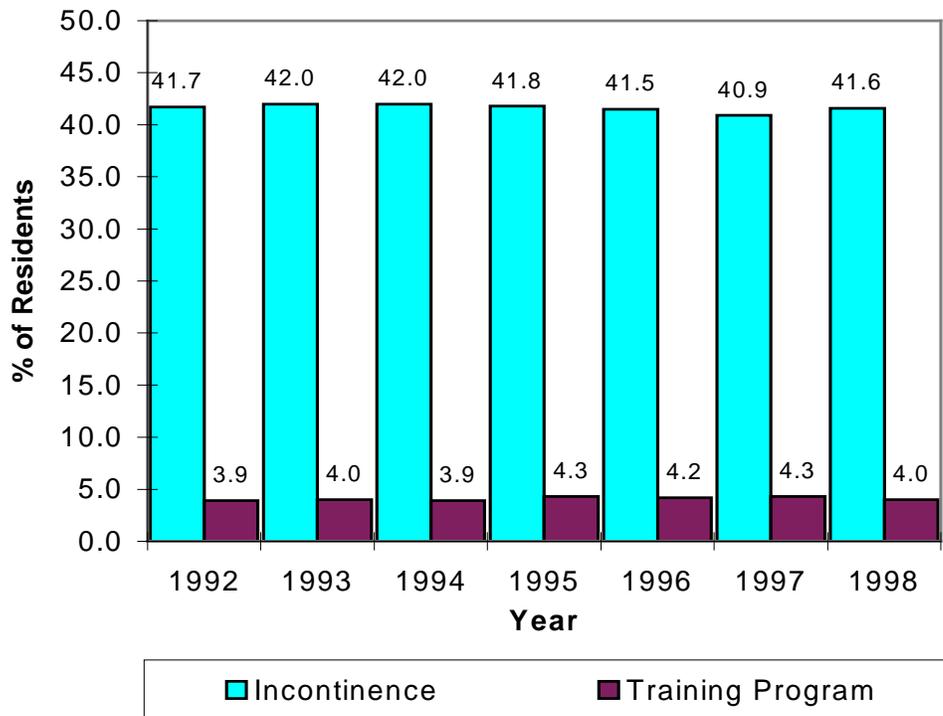
| State | Bladder Incontinence | | | | | | | Bladder Training Program | | | | | | |
|-----------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 54.3 | 52.8 | 46.9 | 48.8 | 45.0 | 47.8 | 50.4 | 26.0 | 15.2 | 22.6 | 15.9 | 12.9 | 8.3 | 14.6 |
| AL | 48.6 | 50.9 | 52.1 | 52.1 | 52.2 | 53.0 | 55.5 | 5.7 | 5.6 | 4.4 | 7.8 | 10.4 | 10.7 | 12.4 |
| AR | 45.0 | 43.8 | 46.0 | 44.6 | 43.9 | 45.9 | 46.0 | 6.3 | 6.1 | 6.6 | 5.5 | 4.9 | 3.8 | 3.9 |
| AZ | 46.1 | 46.4 | 47.7 | 46.6 | 48.2 | 47.7 | 47.2 | 2.0 | 2.0 | 3.5 | 2.9 | 2.0 | 2.5 | 3.1 |
| CA | 47.8 | 50.2 | 49.3 | 49.5 | 49.9 | 49.1 | 49.9 | 2.7 | 2.6 | 2.9 | 3.4 | 3.3 | 3.4 | 3.1 |
| CO | 44.1 | 43.0 | 45.4 | 46.5 | 45.7 | 46.3 | 46.8 | 3.6 | 4.6 | 4.4 | 4.9 | 4.4 | 3.9 | 3.0 |
| CT | 51.6 | 51.6 | 50.2 | 50.7 | 50.0 | 50.5 | 51.0 | 1.8 | 2.4 | 3.5 | 5.2 | 5.2 | 3.9 | 4.7 |
| DC | 53.0 | 56.1 | 54.9 | 56.9 | 55.9 | 56.2 | 57.3 | 3.8 | 7.5 | 13.0 | 6.3 | 6.4 | 12.8 | 4.5 |
| DE | 47.7 | 52.3 | 55.2 | 54.4 | 54.7 | 53.5 | 55.7 | 6.8 | 2.9 | 1.7 | 3.1 | 8.8 | 10.8 | 11.7 |
| FL | 48.6 | 49.2 | 48.8 | 48.3 | 47.7 | 47.8 | 47.8 | 6.5 | 7.2 | 6.6 | 7.5 | 8.4 | 7.3 | 7.5 |
| GA | 47.2 | 48.6 | 48.1 | 49.7 | 49.7 | 50.8 | 52.8 | 3.2 | 2.7 | 4.5 | 6.1 | 5.3 | 4.7 | 4.4 |
| HI | 62.6 | 59.9 | 60.6 | 59.8 | 56.0 | 53.8 | 59.6 | 4.3 | 6.5 | 5.8 | 11.9 | 10.1 | 7.0 | 6.3 |
| IA | 41.3 | 44.4 | 45.2 | 46.3 | 47.6 | 49.0 | 49.5 | 7.3 | 7.7 | 7.1 | 6.5 | 4.7 | 3.8 | 4.4 |
| ID | 50.4 | 48.9 | 47.1 | 45.4 | 49.8 | 46.2 | 51.3 | 4.2 | 6.3 | 5.4 | 8.5 | 6.8 | 4.9 | 7.1 |
| IL | 39.9 | 40.6 | 40.5 | 41.3 | 40.5 | 41.0 | 42.2 | 5.9 | 6.3 | 5.9 | 5.2 | 5.5 | 5.1 | 3.7 |
| IN | 42.6 | 43.8 | 44.2 | 44.4 | 44.6 | 45.9 | 46.4 | 4.2 | 4.0 | 4.0 | 5.1 | 5.7 | 4.5 | 4.4 |
| KS | 40.3 | 43.3 | 44.1 | 46.0 | 45.0 | 47.6 | 48.6 | 4.5 | 5.0 | 6.8 | 6.6 | 7.4 | 6.9 | 7.0 |
| KY | 51.1 | 51.1 | 53.0 | 51.5 | 53.6 | 53.7 | 57.1 | 4.6 | 4.7 | 4.3 | 3.9 | 3.8 | 3.6 | 2.8 |
| LA | 31.3 | 32.6 | 33.6 | 35.5 | 37.3 | 38.4 | 40.4 | 4.1 | 4.8 | 4.9 | 3.9 | 3.7 | 3.5 | 2.9 |
| MA | 53.1 | 54.2 | 54.3 | 53.7 | 53.7 | 53.0 | 54.4 | 2.3 | 2.1 | 1.8 | 2.3 | 3.4 | 3.4 | 3.4 |
| MD | 54.8 | 56.8 | 57.2 | 56.3 | 55.0 | 54.7 | 55.9 | 5.6 | 7.4 | 8.2 | 9.0 | 8.6 | 9.6 | 8.0 |
| ME | 53.2 | 51.4 | 49.6 | 53.6 | 60.9 | 62.1 | 62.5 | 9.4 | 9.8 | 14.8 | 14.9 | 16.5 | 16.2 | 17.1 |
| MI | 50.3 | 51.3 | 52.3 | 52.8 | 52.8 | 52.5 | 53.0 | 5.5 | 6.4 | 7.3 | 7.3 | 6.7 | 8.0 | 8.8 |
| MN | 48.9 | 50.3 | 51.9 | 53.3 | 52.1 | 53.9 | 54.5 | 4.7 | 4.5 | 5.7 | 6.0 | 5.8 | 7.6 | 7.3 |
| MO | 44.6 | 46.2 | 47.4 | 46.7 | 47.2 | 47.5 | 48.8 | 4.7 | 5.1 | 5.2 | 6.9 | 5.7 | 6.0 | 5.4 |
| MS | 45.2 | 46.8 | 44.8 | 48.0 | 44.6 | 44.0 | 45.3 | 3.6 | 5.6 | 6.3 | 6.6 | 5.4 | 4.1 | 3.7 |
| MT | 47.4 | 48.6 | 44.4 | 47.5 | 46.7 | 47.0 | 48.0 | 6.1 | 5.8 | 5.6 | 7.3 | 9.7 | 8.8 | 8.2 |
| NC | 51.4 | 52.3 | 51.9 | 53.1 | 52.7 | 54.1 | 55.5 | 2.7 | 2.4 | 3.5 | 5.3 | 8.6 | 9.7 | 8.5 |
| ND | 44.2 | 44.3 | 44.8 | 46.2 | 49.0 | 48.6 | 52.1 | 2.1 | 3.0 | 2.9 | 3.9 | 3.6 | 2.7 | 2.5 |
| NE | 43.8 | 45.0 | 44.5 | 46.0 | 44.5 | 44.6 | 45.9 | 6.9 | 8.4 | 7.7 | 10.4 | 10.6 | 6.8 | 7.5 |
| NH | 50.6 | 48.2 | 48.7 | 48.1 | 47.6 | 49.5 | 51.5 | 9.2 | 10.2 | 12.4 | 13.2 | 9.1 | 9.8 | 8.5 |
| NJ | 51.1 | 53.4 | 51.7 | 51.9 | 53.2 | 51.4 | 51.2 | 3.7 | 3.7 | 4.0 | 3.7 | 4.4 | 3.9 | 3.8 |
| NM | 46.9 | 48.9 | 45.5 | 44.4 | 45.3 | 46.6 | 49.3 | 3.5 | 4.0 | 5.3 | 6.0 | 4.4 | 4.5 | 3.4 |
| NV | 46.4 | 42.9 | 50.5 | 49.5 | 49.7 | 41.4 | 49.3 | 1.6 | 5.4 | 4.9 | 4.1 | 4.4 | 2.3 | 6.0 |
| NY | 59.7 | 59.9 | 61.1 | 60.7 | 60.9 | 61.0 | 60.8 | 5.2 | 5.6 | 5.5 | 6.1 | 5.9 | 6.7 | 6.0 |
| OH | 46.3 | 45.8 | 48.2 | 48.1 | 48.6 | 48.2 | 50.3 | 7.1 | 7.2 | 8.6 | 10.1 | 9.6 | 13.5 | 12.5 |
| OK | 40.1 | 40.6 | 42.3 | 43.5 | 44.2 | 44.3 | 46.2 | 5.1 | 5.4 | 4.3 | 3.8 | 3.8 | 3.2 | 2.8 |
| OR | 56.8 | 58.2 | 55.4 | 56.5 | 56.1 | 56.8 | 57.7 | 3.5 | 4.4 | 5.2 | 6.2 | 3.6 | 4.3 | 2.7 |
| PA | 51.6 | 52.7 | 54.1 | 54.4 | 54.4 | 54.5 | 54.3 | 6.2 | 5.9 | 6.8 | 7.8 | 7.8 | 8.1 | 7.8 |
| RI | 46.6 | 45.7 | 47.3 | 49.3 | 48.5 | 46.7 | 48.1 | 4.9 | 6.2 | 5.2 | 7.1 | 6.3 | 5.4 | 8.1 |
| SC | 57.0 | 56.1 | 57.8 | 58.9 | 60.6 | 60.7 | 59.6 | 1.7 | 2.2 | 2.1 | 2.8 | 2.6 | 4.3 | 2.1 |
| SD | 43.3 | 45.6 | 45.2 | 48.9 | 45.6 | 46.3 | 48.9 | 7.6 | 9.1 | 13.2 | 12.3 | 9.2 | 16.9 | 11.0 |
| TN | 45.7 | 46.5 | 48.5 | 49.3 | 48.2 | 50.3 | 50.1 | 4.4 | 4.8 | 5.2 | 5.5 | 6.7 | 5.4 | 5.0 |
| TX | 42.7 | 45.0 | 46.8 | 46.4 | 47.2 | 48.0 | 48.3 | 2.2 | 1.8 | 1.6 | 1.6 | 1.4 | 1.2 | 1.5 |
| UT | 43.4 | 42.4 | 42.8 | 45.9 | 48.4 | 46.2 | 46.8 | 6.2 | 5.8 | 4.5 | 6.7 | 6.0 | 7.2 | 3.0 |
| VA | 56.7 | 57.8 | 59.0 | 60.5 | 62.2 | 62.0 | 63.9 | 6.4 | 5.8 | 6.0 | 6.9 | 8.5 | 7.3 | 7.5 |
| VT | 58.0 | 56.6 | 56.6 | 52.4 | 59.2 | 53.6 | 53.7 | 3.6 | 2.6 | 11.6 | 12.7 | 9.1 | 7.4 | 8.6 |
| WA | 44.3 | 42.7 | 45.1 | 54.8 | 57.2 | 55.6 | 58.0 | 3.3 | 4.8 | 4.3 | 6.0 | 6.6 | 4.6 | 3.6 |
| WI | 45.9 | 46.7 | 46.9 | 48.0 | 48.9 | 49.0 | 48.9 | 8.1 | 7.3 | 7.1 | 8.9 | 8.2 | 9.3 | 10.1 |
| WV | 44.6 | 49.1 | 52.1 | 44.5 | 34.8 | 34.4 | 32.5 | 8.1 | 6.8 | 8.1 | 6.5 | 2.1 | 3.2 | 1.3 |
| WY | 40.9 | 42.0 | 40.5 | 39.1 | 45.4 | 42.5 | 43.2 | 3.8 | 4.9 | 11.1 | 17.7 | 24.3 | 16.7 | 17.4 |
| US | 47.0 | 48.1 | 48.8 | 49.2 | 49.4 | 49.7 | 50.7 | 4.8 | 5.0 | 5.3 | 5.9 | 5.9 | 6.0 | 5.7 |

Bowel Incontinence and Bowel Training

Bowel incontinence more often than one time a week was also a common problem of nursing home residents. The prevalence of this problem ranged from 41.7 percent in 1992 to 41.6 percent in 1998 in the U.S (Table 23). The percent varied from 26.3 percent in Wyoming to 58.5 percent in the South Carolina in 1998.

Bowel training programs are also designed to assist residents to gain and maintain control through the use of diet, fluids, and regular schedules. In the 1992-1998 period, about 4 percent of residents in nursing facilities had such programs in the U.S (See Table 23). There was also a large discrepancy between the percent of residents with bowel incontinence and the percent who were in training programs.

% Residents with Bowel Incontinence and Training

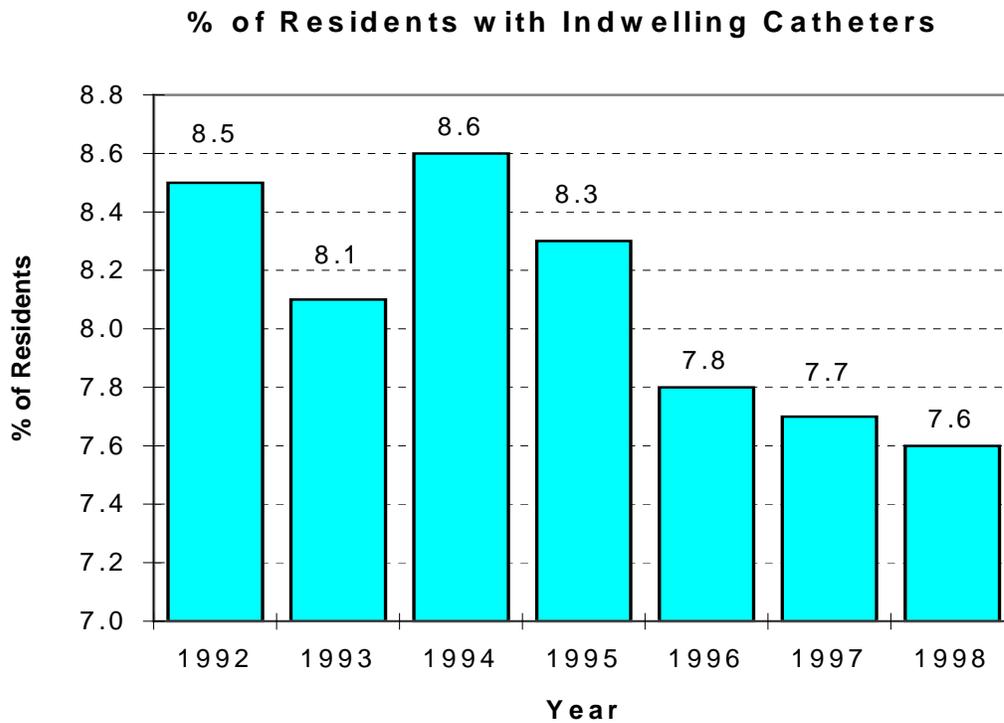


**TABLE 23
PERCENT OF RESIDENTS
WITH BOWEL INCONTINENCE & IN BOWEL TRAINING PROGRAM**

| State | Bowel Incontinence | | | | | | | Bowel Training Program | | | | | | |
|-----------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 40.6 | 42.7 | 34.8 | 32.3 | 37.4 | 28.3 | 31.0 | 12.7 | 20.9 | 12.3 | 11.0 | 12.6 | 9.9 | 11.8 |
| AL | 48.6 | 50.2 | 52.4 | 49.7 | 47.7 | 48.9 | 49.6 | 5.0 | 4.7 | 3.3 | 5.1 | 7.6 | 7.8 | 8.4 |
| AR | 42.0 | 41.3 | 43.7 | 43.2 | 40.2 | 42.2 | 41.5 | 6.0 | 5.7 | 5.9 | 6.0 | 4.4 | 3.6 | 3.7 |
| AZ | 42.6 | 43.2 | 42.6 | 41.6 | 41.4 | 42.3 | 44.0 | 1.5 | 2.2 | 2.1 | 2.4 | 1.9 | 2.4 | 2.5 |
| CA | 45.2 | 46.6 | 44.5 | 45.0 | 45.4 | 43.4 | 44.9 | 2.0 | 2.0 | 2.5 | 2.7 | 2.5 | 2.7 | 2.3 |
| CO | 36.1 | 33.4 | 32.8 | 36.0 | 35.1 | 34.3 | 34.9 | 2.5 | 3.2 | 2.9 | 4.0 | 3.6 | 2.5 | 2.5 |
| CT | 44.3 | 43.2 | 41.7 | 39.3 | 41.2 | 39.7 | 39.8 | 1.1 | 1.9 | 2.3 | 3.9 | 2.9 | 2.6 | 2.7 |
| DC | 42.9 | 47.2 | 46.2 | 46.4 | 51.8 | 45.7 | 50.9 | 7.3 | 8.0 | 10.4 | 4.5 | 4.8 | 7.2 | 4.1 |
| DE | 43.2 | 43.1 | 47.2 | 45.4 | 46.3 | 45.9 | 44.5 | 5.1 | 3.2 | 2.5 | 3.0 | 7.2 | 8.3 | 6.7 |
| FL | 45.9 | 46.1 | 44.5 | 44.5 | 41.9 | 42.7 | 42.6 | 5.9 | 6.3 | 5.4 | 5.6 | 5.7 | 5.1 | 5.3 |
| GA | 45.7 | 47.1 | 45.2 | 47.0 | 45.9 | 46.0 | 47.6 | 2.9 | 2.2 | 2.9 | 4.1 | 4.1 | 3.9 | 2.7 |
| HI | 66.3 | 51.4 | 51.9 | 53.7 | 51.9 | 47.3 | 51.5 | 4.3 | 3.8 | 6.9 | 10.4 | 6.8 | 5.6 | 3.8 |
| IA | 28.7 | 30.0 | 29.0 | 28.8 | 29.5 | 29.7 | 29.1 | 5.1 | 4.9 | 4.2 | 4.3 | 3.5 | 3.3 | 3.5 |
| ID | 40.3 | 40.0 | 35.1 | 32.9 | 36.8 | 34.5 | 34.4 | 2.4 | 3.8 | 4.6 | 7.0 | 6.5 | 5.2 | 4.8 |
| IL | 33.3 | 33.2 | 33.3 | 32.7 | 31.7 | 30.8 | 31.0 | 3.9 | 3.8 | 3.5 | 3.0 | 3.0 | 2.6 | 2.4 |
| IN | 38.7 | 40.3 | 39.1 | 38.7 | 37.6 | 37.5 | 38.8 | 3.1 | 3.2 | 2.9 | 3.5 | 3.9 | 3.4 | 3.0 |
| KS | 31.8 | 33.1 | 33.9 | 35.3 | 32.5 | 33.3 | 33.9 | 3.8 | 3.9 | 5.0 | 4.3 | 4.9 | 4.8 | 4.5 |
| KY | 53.1 | 51.6 | 51.9 | 51.5 | 50.8 | 50.3 | 51.4 | 4.7 | 4.1 | 3.5 | 2.9 | 2.9 | 2.7 | 2.6 |
| LA | 32.5 | 33.8 | 35.0 | 35.1 | 37.3 | 39.1 | 40.0 | 4.1 | 4.1 | 4.2 | 3.2 | 3.0 | 2.5 | 2.4 |
| MA | 43.9 | 44.7 | 45.1 | 44.4 | 42.8 | 41.9 | 44.3 | 1.6 | 1.4 | 0.9 | 0.7 | 1.2 | 1.3 | 0.9 |
| MD | 48.2 | 49.8 | 49.9 | 49.1 | 48.0 | 47.8 | 46.9 | 4.8 | 6.7 | 8.1 | 6.8 | 7.4 | 8.3 | 5.8 |
| ME | 39.2 | 39.1 | 35.4 | 39.1 | 43.5 | 43.2 | 45.2 | 9.0 | 10.5 | 13.6 | 12.3 | 10.5 | 11.7 | 10.9 |
| MI | 41.6 | 43.0 | 41.1 | 41.6 | 41.4 | 39.0 | 39.5 | 4.5 | 4.8 | 5.1 | 5.0 | 4.6 | 5.1 | 6.3 |
| MN | 33.7 | 34.5 | 34.9 | 35.2 | 35.0 | 35.4 | 36.1 | 6.6 | 8.2 | 7.2 | 8.4 | 10.6 | 12.1 | 11.5 |
| MO | 40.9 | 41.7 | 41.9 | 40.2 | 39.9 | 39.2 | 40.5 | 3.7 | 3.8 | 4.2 | 5.2 | 4.5 | 5.2 | 3.7 |
| MS | 42.7 | 43.9 | 41.4 | 42.7 | 41.3 | 38.7 | 41.3 | 2.8 | 4.7 | 6.0 | 4.5 | 4.0 | 3.3 | 2.2 |
| MT | 33.3 | 31.9 | 30.5 | 29.8 | 31.0 | 29.7 | 29.2 | 6.6 | 4.8 | 4.1 | 5.8 | 6.7 | 6.9 | 8.0 |
| NC | 52.5 | 51.8 | 49.8 | 50.5 | 49.4 | 50.2 | 51.4 | 2.1 | 2.0 | 2.3 | 3.3 | 5.6 | 6.0 | 5.2 |
| ND | 30.3 | 29.2 | 27.0 | 31.5 | 28.3 | 28.4 | 30.8 | 2.0 | 1.9 | 2.2 | 2.9 | 2.9 | 2.8 | 2.6 |
| NE | 30.2 | 30.8 | 29.0 | 28.6 | 27.6 | 27.4 | 28.1 | 4.9 | 5.6 | 4.3 | 6.2 | 6.3 | 5.7 | 6.9 |
| NH | 37.9 | 34.0 | 32.8 | 29.3 | 30.2 | 29.4 | 31.3 | 7.0 | 4.6 | 6.8 | 6.6 | 8.7 | 8.3 | 4.6 |
| NJ | 45.3 | 46.9 | 44.7 | 44.4 | 45.3 | 43.9 | 43.6 | 3.4 | 3.3 | 3.1 | 3.0 | 2.9 | 3.0 | 3.0 |
| NM | 43.1 | 39.2 | 39.9 | 39.1 | 40.7 | 39.7 | 41.3 | 3.2 | 3.1 | 2.5 | 4.5 | 3.7 | 3.7 | 2.1 |
| NV | 45.6 | 40.5 | 42.3 | 45.5 | 46.0 | 37.7 | 46.0 | 1.5 | 6.1 | 3.0 | 4.1 | 2.0 | 2.0 | 2.2 |
| NY | 52.6 | 51.5 | 51.8 | 50.6 | 50.5 | 50.4 | 49.4 | 3.0 | 2.9 | 3.3 | 3.5 | 3.2 | 3.4 | 3.4 |
| OH | 41.2 | 39.8 | 40.1 | 39.7 | 39.2 | 37.8 | 39.3 | 4.5 | 4.4 | 5.0 | 5.2 | 5.0 | 6.4 | 5.0 |
| OK | 37.3 | 38.4 | 40.7 | 40.2 | 39.8 | 40.9 | 41.6 | 4.5 | 4.8 | 3.9 | 3.8 | 2.9 | 2.6 | 2.3 |
| OR | 49.4 | 50.4 | 47.2 | 46.6 | 45.8 | 45.5 | 47.0 | 2.8 | 4.3 | 5.1 | 6.8 | 3.1 | 4.2 | 2.6 |
| PA | 47.3 | 48.1 | 47.9 | 47.4 | 46.1 | 45.9 | 45.7 | 5.3 | 5.1 | 5.2 | 5.9 | 5.9 | 5.6 | 5.4 |
| RI | 39.0 | 37.2 | 38.8 | 38.7 | 36.3 | 33.3 | 34.0 | 5.5 | 3.9 | 4.1 | 3.8 | 2.7 | 3.4 | 4.3 |
| SC | 55.3 | 53.6 | 56.3 | 55.1 | 57.9 | 58.5 | 56.8 | 1.6 | 2.5 | 1.7 | 2.1 | 1.8 | 2.8 | 1.2 |
| SD | 28.8 | 28.9 | 27.3 | 27.8 | 25.0 | 26.8 | 28.2 | 5.3 | 6.4 | 8.5 | 6.7 | 5.4 | 8.9 | 6.2 |
| TN | 45.1 | 45.6 | 46.9 | 47.8 | 45.7 | 45.8 | 47.0 | 4.1 | 4.2 | 4.5 | 4.9 | 5.1 | 4.0 | 3.9 |
| TX | 43.8 | 46.0 | 46.4 | 46.2 | 46.4 | 45.9 | 45.5 | 1.9 | 1.5 | 1.4 | 1.1 | 1.1 | 0.9 | 0.9 |
| UT | 35.8 | 32.9 | 33.8 | 34.1 | 37.7 | 36.1 | 36.8 | 5.4 | 4.4 | 4.2 | 6.2 | 5.5 | 6.2 | 3.3 |
| VA | 54.0 | 54.6 | 55.7 | 56.7 | 58.1 | 57.0 | 58.4 | 6.3 | 5.2 | 5.5 | 6.7 | 7.8 | 6.9 | 7.2 |
| VT | 43.1 | 40.9 | 39.2 | 37.9 | 39.0 | 37.7 | 34.1 | 2.9 | 1.2 | 8.8 | 10.2 | 7.3 | 10.5 | 14.6 |
| WA | 32.0 | 29.5 | 30.2 | 39.3 | 42.8 | 40.0 | 43.8 | 2.0 | 3.2 | 3.7 | 4.7 | 5.0 | 5.5 | 4.1 |
| WI | 35.1 | 34.6 | 34.2 | 33.5 | 34.1 | 33.5 | 31.8 | 6.5 | 6.2 | 5.9 | 7.0 | 5.8 | 6.7 | 7.0 |
| WV | 44.3 | 46.2 | 48.7 | 42.3 | 28.3 | 27.4 | 23.0 | 2.0 | 0.9 | 1.1 | 1.0 | 1.3 | 2.1 | 1.2 |
| WY | 26.9 | 29.5 | 28.7 | 27.9 | 30.3 | 26.3 | 25.3 | 3.5 | 2.0 | 5.7 | 11.5 | 17.3 | 12.2 | 13.6 |
| US | 41.7 | 42.0 | 42.0 | 41.8 | 41.5 | 40.9 | 41.6 | 3.9 | 4.0 | 3.9 | 4.3 | 4.2 | 4.3 | 4.0 |

Catheters

Indwelling catheters are tubes used to drain the bladder. In 1992, about 8.5 percent of facility residents were reported using catheters and this declined to 7.6 percent in 1998 (See Table 24). The 1998 figure represents a decrease of 10.6 percent since 1992.



**TABLE 24
PERCENTAGE OF RESIDENTS
WITH INDWELLING CATHETERS**

| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| AK | 4.3 | 8.4 | 6.0 | 6.1 | 7.2 | 7.4 | 12.0 |
| AL | 7.2 | 6.9 | 7.7 | 6.8 | 5.9 | 5.7 | 5.4 |
| AR | 9.7 | 10.5 | 9.8 | 9.8 | 9.0 | 9.5 | 9.4 |
| AZ | 9.5 | 8.5 | 11.2 | 10.0 | 9.9 | 10.8 | 10.9 |
| CA | 10.5 | 9.8 | 10.4 | 10.3 | 9.6 | 9.5 | 9.7 |
| CO | 6.7 | 7.0 | 7.3 | 7.7 | 6.9 | 7.5 | 8.1 |
| CT | 4.2 | 4.0 | 4.6 | 4.3 | 4.0 | 4.1 | 3.9 |
| DC | 5.7 | 4.4 | 6.6 | 9.9 | 7.9 | 8.3 | 6.5 |
| DE | 4.6 | 4.3 | 4.9 | 5.2 | 5.0 | 5.6 | 6.3 |
| FL | 8.9 | 8.5 | 8.6 | 8.7 | 8.1 | 8.0 | 8.0 |
| GA | 7.7 | 7.3 | 8.1 | 7.6 | 6.6 | 6.8 | 7.4 |
| HI | 9.5 | 5.9 | 6.2 | 5.6 | 6.2 | 5.8 | 4.0 |
| IA | 6.8 | 6.2 | 6.2 | 6.0 | 5.3 | 5.1 | 5.3 |
| ID | 5.9 | 6.7 | 5.9 | 8.8 | 7.1 | 8.3 | 7.0 |
| IL | 9.5 | 9.5 | 9.0 | 8.8 | 8.0 | 7.8 | 7.2 |
| IN | 11.2 | 10.9 | 10.7 | 10.3 | 9.3 | 8.7 | 8.4 |
| KS | 7.0 | 6.8 | 7.3 | 6.8 | 5.9 | 6.5 | 6.5 |
| KY | 13.8 | 12.5 | 12.4 | 13.1 | 10.9 | 10.4 | 10.9 |
| LA | 12.9 | 12.6 | 14.7 | 12.2 | 12.9 | 13.5 | 13.3 |
| MA | 4.7 | 4.5 | 5.4 | 5.0 | 4.6 | 4.9 | 5.1 |
| MD | 6.0 | 5.8 | 6.6 | 7.2 | 5.8 | 6.2 | 6.0 |
| ME | 4.6 | 5.1 | 5.6 | 5.1 | 5.9 | 6.3 | 6.8 |
| MI | 6.5 | 6.4 | 6.8 | 6.3 | 5.9 | 5.4 | 5.3 |
| MN | 4.3 | 4.5 | 4.8 | 4.6 | 4.5 | 4.4 | 4.2 |
| MO | 10.9 | 9.8 | 9.2 | 8.1 | 7.4 | 8.0 | 8.0 |
| MS | 7.7 | 7.8 | 8.1 | 8.0 | 8.0 | 8.6 | 8.9 |
| MT | 5.4 | 5.4 | 5.7 | 5.4 | 5.9 | 5.8 | 6.2 |
| NC | 9.7 | 8.4 | 8.7 | 8.2 | 7.0 | 6.8 | 7.1 |
| ND | 4.1 | 3.7 | 4.4 | 5.1 | 5.0 | 5.1 | 4.9 |
| NE | 5.7 | 5.3 | 5.5 | 5.5 | 5.5 | 5.5 | 5.3 |
| NH | 5.4 | 5.3 | 5.8 | 4.5 | 4.4 | 4.7 | 4.3 |
| NJ | 6.3 | 5.9 | 6.4 | 5.9 | 5.4 | 5.8 | 5.6 |
| NM | 9.7 | 7.7 | 8.7 | 9.4 | 9.6 | 8.1 | 7.5 |
| NV | 9.1 | 8.0 | 10.6 | 10.4 | 11.4 | 9.9 | 8.4 |
| NY | 4.5 | 4.4 | 5.0 | 4.7 | 4.7 | 4.9 | 5.0 |
| OH | 8.0 | 8.0 | 8.0 | 7.7 | 7.6 | 7.5 | 7.3 |
| OK | 9.9 | 10.6 | 10.4 | 10.2 | 9.8 | 10.4 | 10.4 |
| OR | 8.1 | 7.4 | 7.3 | 7.3 | 7.8 | 7.0 | 7.6 |
| PA | 9.6 | 9.1 | 9.5 | 8.9 | 8.0 | 7.8 | 8.0 |
| RI | 6.5 | 5.8 | 6.0 | 5.4 | 4.1 | 4.0 | 4.6 |
| SC | 7.4 | 6.5 | 7.4 | 6.9 | 6.1 | 6.9 | 6.0 |
| SD | 4.5 | 5.0 | 5.4 | 5.5 | 5.2 | 5.6 | 4.7 |
| TN | 10.2 | 10.5 | 11.6 | 9.8 | 9.9 | 9.1 | 9.4 |
| TX | 12.7 | 12.8 | 13.6 | 13.1 | 12.6 | 11.5 | 10.9 |
| UT | 7.5 | 7.6 | 8.4 | 7.6 | 7.5 | 7.8 | 7.9 |
| VA | 10.4 | 9.5 | 9.4 | 9.4 | 8.2 | 8.3 | 8.4 |
| VT | 5.3 | 5.6 | 7.0 | 4.8 | 5.1 | 5.1 | 5.8 |
| WA | 6.5 | 6.5 | 6.8 | 6.5 | 7.3 | 8.0 | 7.9 |
| WI | 6.4 | 6.0 | 6.5 | 6.3 | 6.0 | 6.0 | 5.8 |
| WV | 10.5 | 9.8 | 9.3 | 10.4 | 8.6 | 9.5 | 8.1 |
| WY | 7.4 | 9.4 | 8.7 | 7.9 | 5.1 | 8.6 | 7.8 |
| US | 8.5 | 8.1 | 8.6 | 8.3 | 7.8 | 7.7 | 7.6 |

STAFFING LEVELS

Background

There is agreement that there is a strong relationship between resident characteristics, nurse staffing time requirements, and nursing costs in nursing homes. Numerous studies have examined these relationships and it is this relationship which serves as the basis for the casemix reimbursement systems used in some states (Fries and Cooney, 1985; Schneider et al., 1988; Fries et al., 1989; 1994).

Not surprisingly, higher staffing levels in nursing homes have been associated with higher quality of care. One of the early studies which documented this relationship found that homes with more RN hours per patients were associated with patients being alive, having improved physically, and being discharged to home (Linn et al., 1977). Fottler, Smith and James (1981) also found nursing hours to be a positive indicator of quality. Nyman (1988b) found that higher nursing hours per resident were significantly and positively associated with three of eight quality measures in Iowa nursing homes. Spector and Takada (1991) examined nursing homes in Rhode Island and found that low staffing in homes with very dependent residents was associated with reduced likelihood of improvement. Cohen and Spector (in press) also had similar findings about the importance of RN staffing.

The evidence from these studies recently led the Institute of Medicine Committee

on Nurse Staff in Hospitals and Nursing Homes (1996) to conclude that the preponderance of evidence from a number of studies with different types of quality measures shows a positive relationship between nursing staffing and quality of nursing home care. Because of the low staffing levels and poor quality of care in some facilities, the IOM Committee (1996) recommended that higher staffing levels are needed in nursing facilities.

The level of registered nurse staffing is a growing concern for quality of care because of controls on Medicaid reimbursement and prospective payment for hospitals and subsequent reductions in staffing levels (Kanda and Mezey, 1991; Swan et al., 1997).

Nursing personnel in nursing facilities were of particular interest for this report. Nursing personnel included: registered nurses (RNs); licensed practical/vocational nurses (LPN/LVNs), and nursing aides/orderlies/ assistants (NAs). Staffing hours (including full-time, part-time, and contract staff) are reported by facilities as total hours worked in a fourteen day period. Nursing personnel hours are examined for each of the above three categories separately, for all licensed nursing personnel (RNs and LPN/LVNs combined), and for total nursing personnel (RNs, LPN/LVNs, and NAs). The staff time includes all administrative and direct care time.

To compute the staffing ratios for this report, the total number of staffing payroll hours reported in a two week period was divided by the total number of residents and by the 14 days in the reporting period. In examining the staffing data, there were some facilities that reported very high or low levels of staffing. In order to minimize the number of facilities which may have reported erroneous data, we developed standard rules to remove these facilities from the data set. A conservative approach was taken by eliminating the lower one percent of facilities and the upper 2 percent after eliminating facilities with extreme outliers. For the details of the data cleaning process, see the technical notes in the appendix.

Nursing facilities are required by regulation to meet minimum nursing standards. Facilities must have sufficient nursing staff to provide nursing and related services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of residents. Facilities must also provide sufficient numbers of licensed nursing personnel to provide care on a 24 hour basis to all residents in accordance with resident care plans.

Facilities must also use the services of a registered nurse for at least 8 consecutive hours a day, 7 days a week, except when they have been given a waiver. A Medicare only skilled nursing facility may have a waiver if it is located in a rural area and has one registered nurse who is on duty 40 hours a week.

Waivers may be granted under certain conditions where there is a shortage of appropriate personnel and where the

health and safety of individuals is not jeopardized. A total of 518 waivers were granted to Medicaid only facilities by state agencies in 1993. Of these, 66 were for the 24 hour licensed nursing coverage and 490 were for the 8 hours of RN coverage. Sixteen waivers were given to Title 18 and to Title 18/19 certified facilities (HCFA, 1994).

For this report, the total hours of staffing per resident day were examined separately for Medicaid only (Title 19) and/or dually certified facilities (Title 18/19) and for Medicare only facilities (Title 18). The two types of facilities are examined separately because Title 18 facilities have traditionally had higher staffing ratios. Many Title 18 certified facilities are located in hospitals and have residents with higher acuity levels and such facilities usually have more RNs to provide care.

It should be noted that the reported staffing ratios reflect payroll hours per resident day and not the actual hours of care delivered directly to residents. These data are reported by each facility for the two weeks prior to the facility survey. Also note a correction was made in the data reports 1994 through 1996.

Facilities with Medicaid Only and Medicare and/or Medicaid Beds (Title 19 and Title 18/19)

Tables 25 and 26 show the total facilities with Medicaid-only and Medicare/Medicaid beds in the U.S. for the 1992 through 1998 period. The number of facilities varied by year and category because of some missing or erroneous data which were cleaned, using consistent procedures over the time period. There were 12,445 facilities with beds in this category for RNs in 1998.

Registered Nursing Hours

The average RN hours per resident day are shown in Table 25. The average hours was 0.3 in 1992 and 0.6 in 1998. This converts to 36 minutes per resident day or about 12 minutes per 8 hour shift in the 1998 period. The average ratio of RNs hours varied across states from 0.2 hours (in Arkansas and Louisiana) to 1.2 hours (in Alaska) in 1998. This includes nurses who are in administrative positions.

LPN/LVN Nursing Hours

The average LPN/LVN hours per resident day are shown in Table 25. There was an average of 0.6 hours (36 minutes) per resident day (or 12 minutes per shift) in 1992-1998. These data showed no change over the period.

Nursing Aide/Assistant Hours

The average NA hours per resident day are shown in Table 25. The average was 1.9 to 2.0 hours (114 to 120 minutes) in the 1992-1998 period. This is about 38 to 40 minutes per 8 hour shift.

Avg. Nursing Hours Per Resident Day for Facilities with Medicaid and Medicare/Medicaid Beds

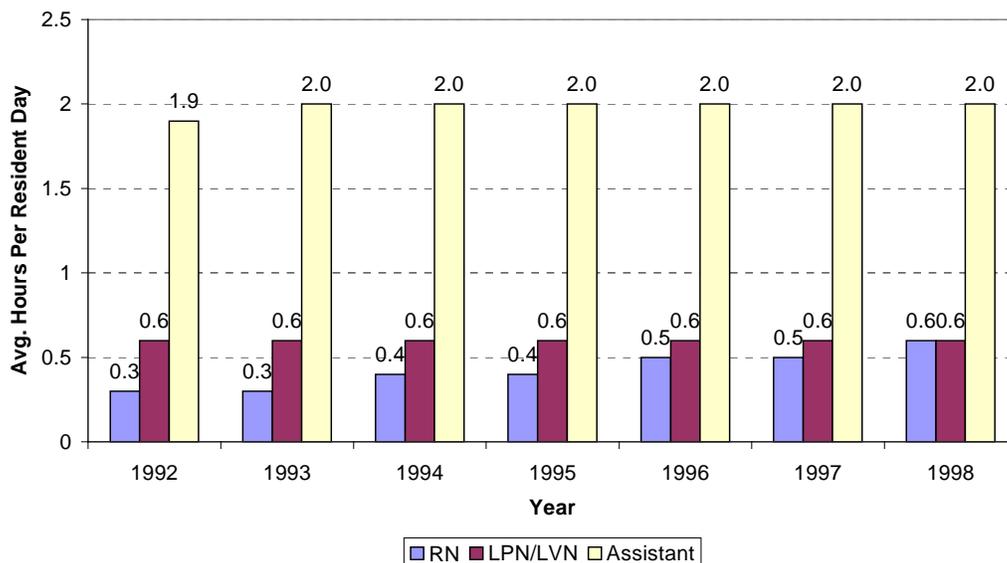


TABLE 25
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICAID AND WITH MEDICARE/MEDICAID BEDS (TITLE 19 AND TITLE 18/19)

| State | RN Hours | | | | | | | LPN/LVN Hours | | | | | | | Assistant Hours | | | | | | |
|-----------|------------|------------|------------|------------|------------|------------|------------|---------------|------------|------------|------------|------------|------------|------------|-----------------|------------|------------|------------|------------|------------|------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 0.6 | 0.7 | 0.9 | 0.9 | 1.1 | 1.1 | 1.2 | 0.9 | 0.7 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 2.8 | 2.8 |
| AL | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 2.5 | 2.5 | 2.4 | 2.4 | 2.5 | 2.4 | 2.5 |
| AR | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 1.7 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| AZ | 0.3 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 0.8 | 0.7 | 0.6 | 0.7 | 0.7 | 0.7 | 1.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| CA | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.0 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 |
| CO | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 |
| CT | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 1.9 | 1.8 | 1.9 | 1.8 | 2.0 | 2.0 | 2.1 |
| DC | 0.7 | 0.5 | 0.6 | 0.5 | 0.8 | 0.8 | 0.6 | 0.6 | 0.7 | 0.8 | 0.7 | 0.7 | 0.8 | 0.9 | 2.4 | 2.1 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 |
| DE | 0.4 | 0.5 | 0.7 | 0.8 | 0.8 | 0.9 | 0.8 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 2.0 | 2.2 | 2.1 | 2.2 | 2.2 | 2.0 | 2.3 |
| FL | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 | 2.0 | 1.9 |
| GA | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| HI | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.9 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 2.1 | 2.2 | 2.5 | 2.4 | 2.2 | 2.4 | 2.2 |
| IA | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 1.6 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 |
| ID | 0.3 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 1.8 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.3 |
| IL | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 |
| IN | 0.3 | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 1.9 | 1.9 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 |
| KS | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.9 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 |
| KY | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 2.2 | 2.3 | 2.2 | 2.1 | 2.2 | 2.2 | 2.3 |
| LA | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 1.9 | 1.9 | 1.5 | 1.4 | 1.9 | 1.9 | 1.9 |
| MA | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 |
| MD | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 2.1 | 2.0 | 2.1 | 2.0 | 2.1 | 2.0 | 2.2 |
| ME | 0.4 | 0.4 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 0.5 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 2.4 | 2.5 | 2.5 | 2.7 | 2.6 | 2.7 | 2.7 |
| MI | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| MN | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 |
| MO | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 |
| MS | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| MT | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 |
| NC | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| ND | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.1 | 2.0 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 |
| NE | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.7 | 1.9 | 1.8 | 1.9 | 1.8 | 1.9 | 1.9 |
| NH | 0.6 | 0.5 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.2 | 2.1 | 2.3 | 2.3 | 2.1 | 2.2 | 2.1 |
| NJ | 0.5 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.0 | 2.0 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 |
| NM | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 1.9 | 2.1 |
| NV | 0.6 | 0.8 | 1.0 | 0.8 | 0.9 | 0.9 | 1.0 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 | 0.6 | 0.6 | 1.8 | 2.3 | 2.0 | 2.1 | 2.2 | 2.4 | 2.2 |
| NY | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| OH | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 2.1 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 |
| OK | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.7 | 1.8 | 1.8 | 1.9 | 2.0 | 2.0 | 2.0 |
| OR | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2.0 | 2.2 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 |
| PA | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 1.7 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 |
| RI | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 |
| SC | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.7 | 0.7 | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 |
| SD | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 |
| TN | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 | 1.8 |
| TX | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.6 | 0.7 | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| UT | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.4 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 1.8 | 1.8 | 1.8 | 1.7 | 1.8 | 1.6 | 2.0 |
| VA | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 1.6 | 1.9 | 2.0 | 1.9 | 1.9 | 2.0 | 1.9 |
| VT | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 1.8 | 2.1 | 1.9 | 1.9 | 2.1 | 2.1 | 2.3 |
| WA | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 2.1 | 2.2 | 2.2 | 2.2 | 2.3 | 2.4 | 2.4 |
| WI | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 |
| WV | 0.3 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 2.2 | 2.0 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 |
| WY | 0.4 | 0.4 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 2.0 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 |
| US | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Facilitie | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### | #### |

Licensed Nursing Hours

Table 26 shows the average licensed nursing hours (RNs and LPN/LVNs) per resident day was 0.9 to 1.2 hours in 1992-1998. This was about 72 minutes per resident day or 24 minutes per 8 hour shift in 1998.

Total Nursing Hours

The total nursing hours (RNs, LPN/LVNs, and NAs) per resident day was 2.8 to 3.2 in 1992-1998 (See Table 26). The total nursing hours varied across states from 2.6 in Illinois to 4.6 in Alaska in 1998.

**Total Nursing Hours Per Resident Day
in Facilities with Medicaid and Medicare/Medicaid
Beds**

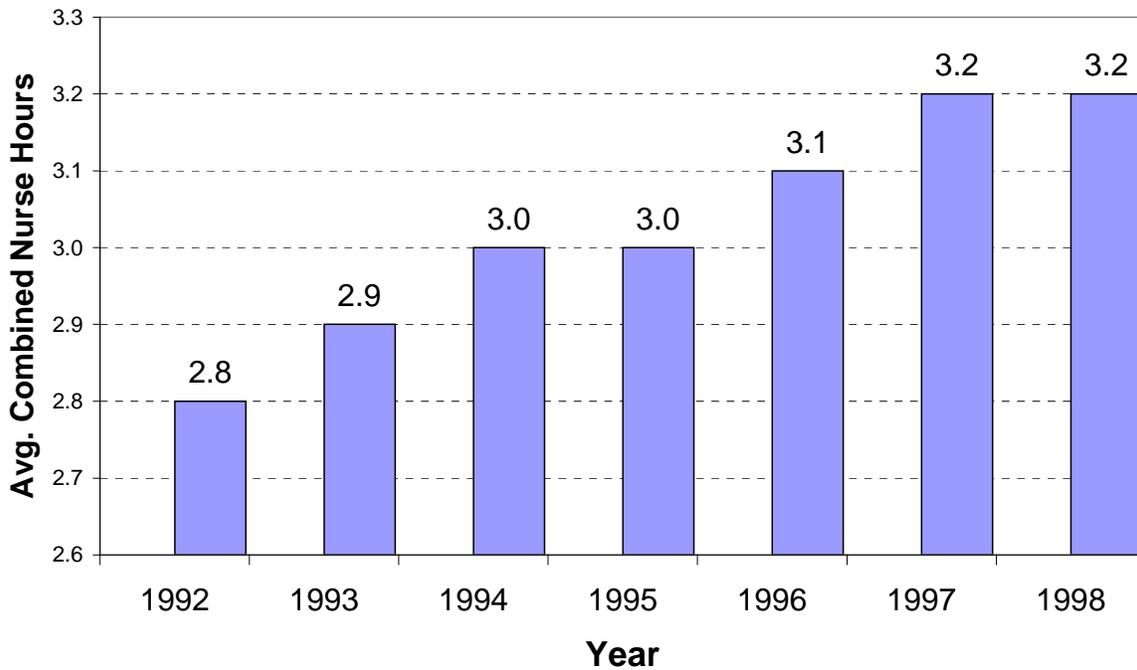


TABLE 26
AVERAGE LICENSED AND COMBINED NURSE HOURS PER RESIDENT DAY
FACILITIES WITH MEDICAID AND MEDICARE/MEDICAID BEDS (TITLE 19 AND TITLE 18/1)

| State | Licensed Nurses | | | | | | | Total Nursing Staff | | | | | | |
|-------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 1.4 | 1.6 | 1.7 | 1.7 | 1.8 | 1.7 | 1.9 | 3.8 | 4.5 | 4.6 | 4.7 | 4.6 | 4.5 | 4.6 |
| AL | 1.0 | 1.0 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 3.5 | 3.5 | 3.7 | 3.5 | 3.7 | 3.8 | 3.9 |
| AR | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 2.3 | 2.6 | 2.7 | 2.7 | 2.7 | 2.8 | 2.9 |
| AZ | 0.8 | 1.4 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.5 | 3.4 | 3.4 | 3.3 | 3.3 | 3.3 | 3.4 |
| CA | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 2.9 | 3.0 | 3.1 | 3.1 | 3.2 | 3.3 | 3.3 |
| CO | 1.0 | 1.0 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 2.8 | 2.9 | 3.1 | 3.1 | 3.1 | 3.2 | 3.3 |
| CT | 1.0 | 1.0 | 1.1 | 1.0 | 1.1 | 1.2 | 1.2 | 2.9 | 2.8 | 3.0 | 2.9 | 3.1 | 3.3 | 3.3 |
| DC | 1.3 | 1.2 | 1.4 | 1.2 | 1.5 | 1.6 | 1.5 | 3.7 | 3.5 | 3.9 | 3.5 | 3.9 | 3.8 | 3.8 |
| DE | 0.9 | 1.1 | 1.3 | 1.4 | 1.3 | 1.5 | 1.4 | 2.9 | 3.3 | 3.4 | 3.5 | 3.4 | 3.4 | 3.7 |
| FL | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 | 3.2 |
| GA | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 2.9 | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 |
| HI | 1.1 | 1.1 | 1.2 | 1.1 | 1.2 | 1.3 | 1.4 | 3.4 | 3.3 | 3.6 | 3.5 | 3.6 | 3.7 | 3.8 |
| IA | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 2.4 | 2.5 | 2.6 | 2.6 | 2.7 | 2.7 | 2.8 |
| ID | 0.8 | 1.1 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 2.7 | 3.6 | 3.7 | 3.7 | 3.8 | 3.8 | 3.9 |
| IL | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 2.4 | 2.5 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 |
| IN | 0.9 | 0.9 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 2.8 | 2.8 | 2.7 | 2.8 | 2.8 | 2.9 | 2.9 |
| KS | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 2.5 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 | 2.9 |
| KY | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 3.0 | 3.2 | 3.2 | 3.1 | 3.2 | 3.4 | 3.4 |
| LA | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 2.6 | 2.6 | 2.5 | 2.4 | 2.7 | 2.8 | 2.8 |
| MA | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 | 3.0 | 3.0 | 3.2 | 3.2 | 3.4 | 3.4 | 3.5 |
| MD | 0.9 | 0.8 | 1.0 | 1.0 | 1.1 | 1.1 | 1.3 | 3.0 | 2.9 | 3.1 | 3.1 | 3.3 | 3.2 | 3.4 |
| ME | 0.9 | 0.9 | 1.0 | 1.2 | 1.1 | 1.2 | 1.3 | 3.3 | 3.5 | 3.6 | 3.9 | 3.7 | 3.9 | 4.0 |
| MI | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 3.2 | 3.1 | 3.3 | 3.3 | 3.4 | 3.4 | 3.4 |
| MN | 0.8 | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 2.6 | 2.9 | 3.0 | 3.0 | 3.1 | 3.2 | 3.1 |
| MO | 0.7 | 0.7 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 2.8 | 2.8 | 2.9 | 2.9 | 3.0 | 3.1 | 3.1 |
| MS | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 2.8 | 2.8 | 3.0 | 2.9 | 3.0 | 3.2 | 3.3 |
| MT | 0.9 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.3 | 3.1 | 3.2 | 3.4 | 3.3 | 3.4 | 3.5 | 3.6 |
| NC | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 3.3 | 3.3 | 3.5 | 3.4 | 3.4 | 3.5 | 3.6 |
| ND | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 2.9 | 3.0 | 3.2 | 3.2 | 3.3 | 3.4 | 3.4 |
| NE | 0.8 | 0.8 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 2.4 | 2.7 | 2.8 | 2.9 | 2.9 | 3.0 | 3.1 |
| NH | 1.1 | 1.0 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 3.3 | 3.1 | 3.5 | 3.4 | 3.2 | 3.5 | 3.4 |
| NJ | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 3.3 | 3.3 |
| NM | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 1.1 | 2.8 | 2.9 | 2.9 | 2.8 | 3.0 | 3.0 | 3.2 |
| NV | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 3.6 | 3.9 | 3.5 | 3.6 | 3.8 | 4.1 | 3.8 |
| NY | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 3.2 | 3.1 | 3.1 | 3.0 | 3.1 | 3.2 | 3.3 |
| OH | 1.0 | 1.0 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 3.1 | 3.1 | 3.2 | 3.2 | 3.4 | 3.4 | 3.4 |
| OK | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 2.3 | 2.5 | 2.5 | 2.6 | 2.8 | 2.8 | 2.8 |
| OR | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 2.7 | 3.1 | 3.3 | 3.2 | 3.4 | 3.4 | 3.4 |
| PA | 0.9 | 1.0 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 2.6 | 3.1 | 3.2 | 3.2 | 3.3 | 3.4 | 3.4 |
| RI | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 2.8 | 2.9 | 2.9 | 2.9 | 3.0 | 3.1 | 3.0 |
| SC | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 3.1 | 3.1 | 3.3 | 3.2 | 3.2 | 3.3 | 3.3 |
| SD | 0.8 | 0.7 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 2.7 | 2.6 | 2.8 | 2.8 | 3.0 | 3.1 | 3.1 |
| TN | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 2.5 | 2.6 | 2.8 | 2.8 | 2.9 | 2.9 | 2.9 |
| TX | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 2.6 | 2.6 | 2.7 | 2.8 | 2.8 | 2.9 | 3.0 |
| UT | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.0 | 1.0 | 2.6 | 2.7 | 2.7 | 2.7 | 2.9 | 2.7 | 3.1 |
| VA | 0.8 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 2.5 | 3.0 | 3.1 | 3.0 | 3.1 | 3.2 | 3.2 |
| VT | 1.0 | 1.0 | 1.3 | 1.1 | 1.2 | 1.2 | 1.4 | 2.8 | 3.1 | 3.4 | 3.2 | 3.3 | 3.4 | 3.7 |
| WA | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | 1.5 | 3.1 | 3.3 | 3.5 | 3.6 | 3.7 | 3.9 | 3.9 |
| WI | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 2.9 | 3.0 | 3.1 | 3.1 | 3.2 | 3.2 | 3.2 |
| WV | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 3.1 | 2.9 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 |
| WY | 0.9 | 0.9 | 1.1 | 1.2 | 1.1 | 1.2 | 1.2 | 2.9 | 3.0 | 3.2 | 3.3 | 3.2 | 3.5 | 3.4 |
| US | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 2.8 | 2.9 | 3.0 | 3.0 | 3.1 | 3.2 | 3.2 |
| Facilities | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### | ##### |

Facilities With Medicare Only Certified Beds (Title 18)

Tables 27 and 28 show the certified facilities with Medicare only beds. In 1998 there were a total of 1,757 such facilities which had RN staffing data available. Medicare only certified facilities represented only about 3 percent of the total nursing homes.

Registered Nursing Hours

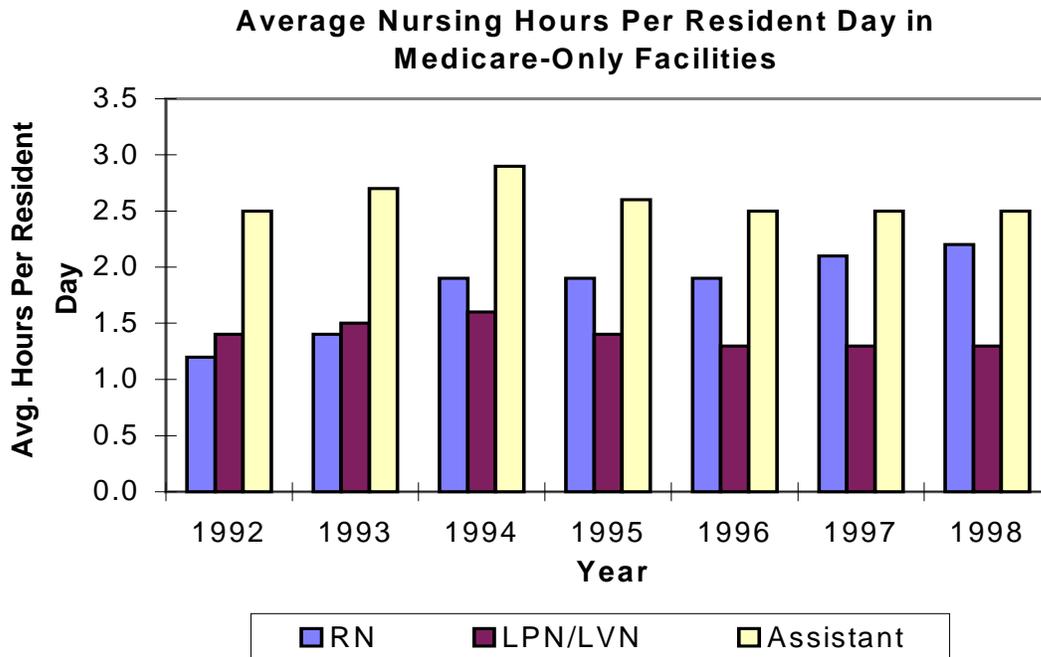
The average RN hours per resident day are shown in Table 27. The average RN hours was 1.2 in 1992. The ratio increased up to 2.2 hours per resident (or 132 minutes) in 1998. The ratio of RNs hours varied across states.

LPN/LVN Nursing Hours

The average LPN/LVN hours per resident day are shown in Table 27. There was an average of 1.4 hours per resident day in 1992 and this decreased to 1.3 in 1998. This was about 78 minutes per resident day or 26 minutes per shift in 1998.

Nursing Aide/Assistant Hours

The average NA hours per resident day are shown in Table 27. The average was 2.5 hours in 1992 and in 1998.



**TABLE 27
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICARE ONLY BEDS (TITLE 18)**

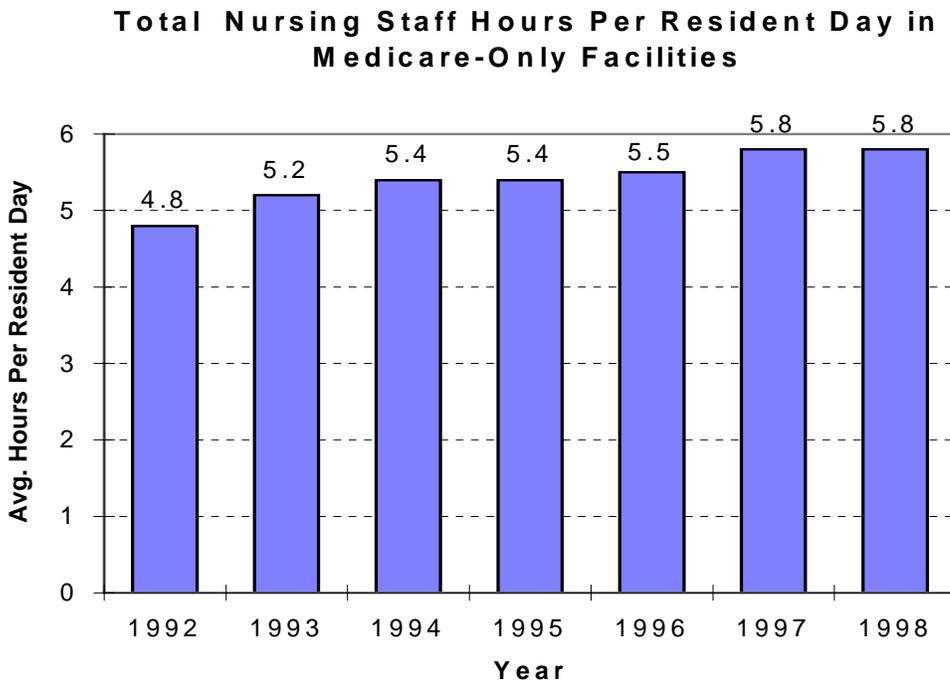
| State | RN Hours | | | | | | | LPN/LVN Hours | | | | | | | Assistant Hours | | | | | | |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 |
| AL | 1.3 | 0.7 | 2.2 | 1.5 | 1.3 | 1.8 | 1.6 | 2.3 | 1.5 | 1.8 | 1.8 | 1.3 | 1.2 | 1.8 | 3.2 | 2.9 | 3.2 | 3.0 | 2.4 | 2.7 | 3.1 |
| AR | 2.5 | 2.0 | 2.4 | 2.3 | 1.7 | 2.0 | 1.8 | 3.0 | 2.5 | 2.1 | 1.8 | 1.5 | 1.9 | 1.5 | 2.3 | 2.6 | 2.4 | 2.0 | 2.2 | 2.2 | 2.5 |
| AZ | 0.5 | 0.8 | 2.4 | 1.1 | 2.1 | 2.8 | 2.4 | 0.6 | 0.8 | 2.1 | 1.1 | 0.9 | 1.0 | 0.8 | 2.0 | 2.4 | 3.8 | 2.6 | 1.7 | 2.6 | 3.3 |
| CA | 0.8 | 1.1 | 1.8 | 2.0 | 1.7 | 2.1 | 2.1 | 0.9 | 0.9 | 1.0 | 1.1 | 0.9 | 1.0 | 1.0 | 2.4 | 2.6 | 3.1 | 2.9 | 2.6 | 2.7 | 2.8 |
| CO | 1.3 | 1.8 | 3.3 | 1.9 | 1.9 | 2.9 | 2.2 | 0.8 | 2.1 | 2.2 | 1.1 | 1.1 | 1.1 | 1.0 | 2.8 | 2.8 | 3.6 | 2.2 | 2.2 | 2.2 | 2.2 |
| CT | 1.1 | 0.9 | 1.0 | 1.2 | 1.4 | 1.1 | 1.1 | 0.2 | 0.5 | 0.5 | 0.5 | 1.1 | 0.4 | 0.4 | 2.6 | 2.4 | 2.6 | 2.5 | 2.2 | 2.3 | 2.5 |
| DC | 0.0 | 0.0 | 0.6 | 0.0 | 0.4 | 0.6 | 0.5 | 0.0 | 0.0 | 0.6 | 0.0 | 0.7 | 0.8 | 0.9 | 0.0 | 0.0 | 2.8 | 0.0 | 2.1 | 2.2 | 2.4 |
| DE | 0.8 | 0.8 | 0.7 | 0.8 | 1.3 | 1.6 | 1.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 2.3 | 2.3 | 2.1 | 2.4 | 2.1 | 1.9 | 2.7 |
| FL | 0.7 | 0.8 | 1.1 | 1.4 | 1.6 | 1.6 | 1.7 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.0 | 1.1 | 2.3 | 2.2 | 2.3 | 2.4 | 2.3 | 2.2 | 2.2 |
| GA | 1.9 | 2.1 | 2.7 | 2.6 | 2.3 | 2.2 | 3.8 | 1.3 | 1.2 | 0.8 | 2.6 | 1.0 | 1.4 | 1.5 | 3.4 | 3.0 | 2.9 | 2.1 | 3.0 | 2.2 | 2.4 |
| HI | 6.0 | 0.7 | 0.5 | 0.8 | 0.4 | 0.9 | 0.8 | 2.3 | 0.6 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 3.1 | 2.5 | 1.0 | 2.1 | 2.0 | 2.1 | 2.1 |
| IA | 2.3 | 1.4 | 2.6 | 1.8 | 3.0 | 3.7 | 3.5 | 2.0 | 1.9 | 1.4 | 1.1 | 1.0 | 1.3 | 1.4 | 1.8 | 1.7 | 2.4 | 1.9 | 1.8 | 2.5 | 2.0 |
| ID | 0.0 | 1.4 | 1.8 | 1.6 | 1.9 | 2.4 | 1.6 | 0.0 | 0.5 | 3.8 | 1.2 | 1.4 | 1.7 | 0.9 | 0.0 | 1.9 | 3.7 | 2.9 | 3.3 | 3.1 | 2.5 |
| IL | 1.5 | 1.7 | 2.5 | 2.2 | 2.4 | 2.6 | 2.5 | 1.1 | 1.0 | 1.1 | 0.8 | 1.0 | 1.0 | 0.9 | 2.7 | 2.8 | 2.9 | 2.6 | 2.7 | 2.6 | 2.6 |
| IN | 1.5 | 1.7 | 1.4 | 1.7 | 1.5 | 1.7 | 2.0 | 1.6 | 1.4 | 1.6 | 1.2 | 1.2 | 1.3 | 1.2 | 3.7 | 3.6 | 2.8 | 2.7 | 2.2 | 2.4 | 2.3 |
| KS | 1.8 | 3.3 | 2.9 | 2.4 | 3.2 | 3.5 | 3.9 | 1.8 | 2.5 | 2.1 | 1.6 | 1.7 | 1.8 | 1.4 | 2.6 | 3.0 | 3.5 | 2.7 | 3.9 | 3.1 | 2.8 |
| KY | 1.2 | 1.3 | 1.6 | 1.8 | 1.8 | 2.0 | 2.0 | 1.2 | 2.4 | 1.6 | 2.0 | 1.6 | 1.5 | 1.4 | 3.2 | 4.0 | 2.8 | 2.8 | 2.5 | 2.7 | 2.4 |
| LA | 2.5 | 1.9 | 3.2 | 2.6 | 2.1 | 2.3 | 2.4 | 3.2 | 3.3 | 3.5 | 2.7 | 2.2 | 2.0 | 2.0 | 2.5 | 3.0 | 3.4 | 2.8 | 2.6 | 2.3 | 2.4 |
| MA | 0.8 | 0.8 | 1.0 | 2.1 | 1.1 | 2.9 | 2.5 | 1.1 | 1.2 | 1.1 | 0.7 | 1.2 | 1.2 | 0.9 | 2.0 | 2.3 | 2.1 | 3.4 | 2.5 | 3.1 | 2.3 |
| MD | 1.1 | 1.0 | 0.7 | 1.2 | 0.9 | 0.9 | 1.0 | 0.5 | 0.6 | 0.5 | 0.4 | 0.5 | 0.7 | 0.8 | 2.1 | 2.4 | 2.5 | 2.7 | 2.5 | 2.5 | 2.9 |
| ME | 0.5 | 0.4 | 0.6 | 0.6 | 0.8 | 1.0 | 1.3 | 0.5 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 2.7 | 2.6 | 2.6 | 2.7 | 3.0 | 2.9 | 3.4 |
| MI | 0.3 | 0.3 | 0.4 | 0.5 | 0.7 | 1.3 | 1.2 | 0.7 | 0.9 | 1.0 | 0.9 | 0.8 | 0.8 | 0.9 | 2.4 | 2.4 | 2.7 | 2.5 | 2.4 | 3.1 | 2.6 |
| MN | 0.7 | 0.6 | 1.1 | 0.8 | 1.1 | 1.1 | 1.1 | 0.7 | 0.7 | 0.7 | 0.7 | 1.0 | 0.9 | 0.9 | 1.8 | 2.3 | 1.7 | 1.9 | 1.9 | 2.3 | 2.4 |
| MO | 2.4 | 2.2 | 2.7 | 2.6 | 2.3 | 2.6 | 2.7 | 2.8 | 2.3 | 2.2 | 2.0 | 1.7 | 1.7 | 1.6 | 3.7 | 3.5 | 3.3 | 3.0 | 2.8 | 2.9 | 2.7 |
| MS | 1.5 | 1.7 | 4.7 | 4.4 | 2.8 | 3.1 | 4.0 | 5.2 | 4.2 | 6.0 | 3.7 | 1.7 | 1.8 | 2.2 | 3.1 | 3.2 | 5.2 | 3.5 | 2.8 | 2.6 | 2.9 |
| MT | 1.1 | 1.2 | 1.1 | 1.5 | 3.0 | 3.7 | 2.0 | 1.3 | 1.8 | 1.4 | 2.3 | 1.1 | 1.4 | 1.8 | 2.2 | 2.6 | 2.3 | 3.6 | 2.5 | 2.1 | 2.3 |
| NC | 0.7 | 1.4 | 0.8 | 0.8 | 1.0 | 0.9 | 1.2 | 0.8 | 1.4 | 0.9 | 0.9 | 0.9 | 0.8 | 1.0 | 2.7 | 3.9 | 2.9 | 2.8 | 3.0 | 2.7 | 2.4 |
| ND | 0.0 | 3.8 | 3.5 | 4.0 | 2.3 | 2.3 | 3.9 | 0.0 | 7.4 | 3.1 | 2.5 | 1.7 | 1.8 | 2.7 | 0.0 | 3.8 | 4.4 | 2.2 | 2.4 | 1.9 | 1.9 |
| NE | 2.1 | 1.3 | 1.0 | 1.4 | 1.5 | 2.0 | 2.0 | 1.1 | 1.0 | 1.0 | 1.0 | 0.9 | 1.1 | 0.7 | 2.0 | 2.2 | 2.1 | 1.9 | 2.3 | 2.2 | 2.3 |
| NH | 0.0 | 1.1 | 2.5 | 1.5 | 1.9 | 1.8 | 1.6 | 12.7 | 0.6 | 0.7 | 0.6 | 0.5 | 0.6 | 0.7 | 0.0 | 2.6 | 2.6 | 2.5 | 2.2 | 2.8 | 4.0 |
| NJ | 1.6 | 0.8 | 1.0 | 0.7 | 0.9 | 1.6 | 3.2 | 1.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.6 | 1.3 | 2.4 | 2.1 | 2.7 | 2.3 | 2.5 | 2.3 | 3.2 |
| NM | 4.0 | 0.0 | 3.8 | 1.6 | 1.7 | 2.1 | 1.5 | 2.6 | 0.0 | 3.2 | 1.1 | 0.3 | 0.6 | 0.6 | 3.0 | 0.0 | 3.7 | 2.2 | 2.6 | 2.7 | 2.7 |
| NV | 0.6 | 0.5 | 1.4 | 0.9 | 1.2 | 1.9 | 1.4 | 0.8 | 0.9 | 1.3 | 0.9 | 0.8 | 1.1 | 0.6 | 1.6 | 2.1 | 2.3 | 1.8 | 2.1 | 2.1 | 1.8 |
| NY | 0.2 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 |
| OH | 1.3 | 2.8 | 2.6 | 2.5 | 2.5 | 2.8 | 2.6 | 1.1 | 1.5 | 2.0 | 1.8 | 1.3 | 1.4 | 1.2 | 2.4 | 2.9 | 2.9 | 2.7 | 2.3 | 2.3 | 2.1 |
| OK | 1.9 | 1.6 | 2.7 | 2.3 | 2.0 | 2.7 | 2.6 | 2.6 | 2.0 | 2.4 | 2.7 | 1.8 | 2.4 | 2.2 | 2.7 | 2.7 | 2.5 | 2.7 | 2.3 | 2.4 | 2.7 |
| OR | 0.7 | 0.5 | 0.7 | 0.7 | 0.6 | 1.5 | 0.9 | 0.5 | 0.4 | 0.3 | 0.4 | 0.4 | 0.6 | 0.5 | 2.2 | 2.6 | 2.2 | 2.3 | 2.5 | 2.9 | 2.4 |
| PA | 1.1 | 1.5 | 2.8 | 2.4 | 2.4 | 2.6 | 2.8 | 0.8 | 1.1 | 1.7 | 1.6 | 1.1 | 1.2 | 1.3 | 1.9 | 2.3 | 3.1 | 2.4 | 2.7 | 2.5 | 2.4 |
| RI | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 1.5 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 |
| SC | 0.6 | 1.0 | 1.1 | 1.2 | 1.7 | 1.8 | 1.6 | 1.1 | 1.5 | 1.5 | 1.6 | 1.3 | 1.1 | 1.0 | 2.7 | 3.2 | 3.2 | 2.8 | 2.8 | 2.8 | 2.3 |
| SD | 0.7 | 0.6 | 0.8 | 0.8 | 0.8 | 1.0 | 1.0 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 1.8 | 1.9 | 2.2 | 2.2 | 2.2 | 2.5 | 2.1 |
| TN | 0.9 | 0.9 | 3.6 | 2.8 | 2.6 | 2.3 | 2.2 | 1.3 | 1.9 | 2.4 | 2.3 | 1.9 | 1.7 | 1.6 | 2.4 | 1.9 | 2.9 | 2.8 | 2.4 | 2.6 | 2.2 |
| TX | 1.9 | 2.2 | 2.6 | 2.6 | 2.5 | 2.4 | 2.2 | 2.7 | 3.0 | 2.5 | 2.0 | 1.8 | 1.6 | 1.6 | 3.2 | 3.2 | 3.2 | 2.7 | 2.6 | 2.6 | 2.5 |
| UT | 1.3 | 1.0 | 1.0 | 1.0 | 0.8 | 1.1 | 1.2 | 0.8 | 0.8 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 2.4 | 2.6 | 2.4 | 2.2 | 2.1 | 2.3 | 2.5 |
| VA | 1.2 | 0.6 | 0.9 | 0.9 | 1.3 | 1.1 | 1.0 | 1.4 | 1.1 | 0.9 | 0.9 | 1.0 | 1.1 | 1.3 | 3.1 | 2.5 | 2.3 | 2.2 | 2.4 | 2.4 | 2.3 |
| VT | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 |
| WA | 0.8 | 1.0 | 1.4 | 1.7 | 1.6 | 2.3 | 2.6 | 0.6 | 0.7 | 0.6 | 0.7 | 0.7 | 0.8 | 0.7 | 1.8 | 2.6 | 2.6 | 2.9 | 2.7 | 2.7 | 3.2 |
| WI | 2.1 | 0.9 | 1.5 | 2.4 | 2.1 | 2.5 | 2.4 | 1.3 | 0.5 | 0.9 | 1.5 | 0.6 | 0.7 | 0.6 | 3.7 | 2.7 | 2.3 | 4.2 | 2.9 | 2.2 | 2.1 |
| WV | 3.1 | 1.3 | 2.0 | 3.4 | 1.9 | 1.7 | 3.0 | 3.7 | 1.7 | 2.1 | 2.9 | 1.6 | 1.7 | 1.2 | 2.3 | 2.7 | 4.1 | 3.6 | 2.1 | 2.5 | 2.6 |
| WY | 4.7 | 3.2 | 3.1 | 3.1 | 4.9 | 4.7 | 4.4 | 1.6 | 2.8 | 2.8 | 2.8 | 2.6 | 2.7 | 1.8 | 3.1 | 2.0 | 2.1 | 2.1 | 1.2 | 0.9 | 1.5 |
| US | 1.2 | 1.4 | 1.9 | 1.9 | 1.9 | 2.1 | 2.2 | 1.4 | 1.5 | 1.6 | 1.4 | 1.3 | 1.3 | 1.3 | 2.5 | 2.7 | 2.9 | 2.6 | 2.5 | 2.5 | 2.5 |
| Facilities | 1,110 | 1,234 | 1,384 | 1,470 | 1,594 | 1,761 | 1,757 | 1,108 | 1,240 | 1,406 | 1,487 | 1,612 | 1,772 | 1,773 | 1,106 | 1,230 | 1,392 | 1,475 | 1,609 | 1,769 | 1,760 |

Licensed Nursing Hours

Table 28 shows that the average licensed nursing hours (RNs and LPN/LVNs) per resident day was 2.5 in 1992 and 3.3 in 1998. The ratio varied across states.

Total Nursing Hours

Table 28 shows that the total nursing hours (RNs, LPN/LVNs, and NAs) per resident day was 4.8 in 1992 and 5.8 in 1998. The total hours varied across states.



**TABLE 28
AVERAGE LICENSED AND COMBINED NURSE HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICARE ONLY BEDS (TITLE 18)**

| State | Licensed Nurse Hours | | | | | | | Total Nursing Staff | | | | | | |
|-------------------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| AL | 3.7 | 2.2 | 2.8 | 3.3 | 2.5 | 2.7 | 3.4 | 5.9 | 5.1 | 4.4 | 6.3 | 4.9 | 5.3 | 6.5 |
| AR | 4.5 | 3.9 | 3.6 | 3.5 | 3.1 | 3.6 | 3.3 | 6.3 | 7.1 | 5.3 | 5.7 | 5.1 | 5.8 | 5.8 |
| AZ | 1.2 | 1.6 | 2.0 | 2.2 | 3.5 | 3.8 | 3.3 | 3.2 | 3.8 | 4.4 | 4.8 | 5.5 | 6.5 | 6.1 |
| CA | 1.5 | 1.9 | 2.5 | 3.1 | 2.7 | 3.1 | 3.1 | 3.9 | 4.4 | 5.2 | 5.4 | 5.3 | 5.7 | 5.5 |
| CO | 2.0 | 3.9 | 3.3 | 3.1 | 3.0 | 3.8 | 3.2 | 3.9 | 5.1 | 5.9 | 5.3 | 5.5 | 5.8 | 5.4 |
| CT | 1.3 | 1.4 | 1.6 | 1.7 | 2.5 | 1.4 | 1.4 | 3.9 | 3.8 | 4.1 | 4.2 | 3.5 | 3.7 | 4.0 |
| DC | 0.0 | 0.0 | 1.2 | 0.0 | 1.1 | 1.3 | 1.4 | 0.0 | 0.0 | 3.9 | 0.0 | 3.2 | 3.5 | 3.8 |
| DE | 1.3 | 1.4 | 1.4 | 1.5 | 1.9 | 1.6 | 2.2 | 3.6 | 3.7 | 3.5 | 4.2 | 4.0 | 3.7 | 5.3 |
| FL | 1.7 | 1.9 | 2.0 | 2.4 | 2.6 | 2.5 | 2.8 | 3.8 | 4.1 | 4.1 | 4.6 | 4.9 | 4.7 | 5.0 |
| GA | 3.2 | 3.3 | 4.6 | 6.0 | 2.8 | 3.0 | 4.1 | 6.7 | 6.3 | 8.5 | 8.5 | 4.8 | 5.2 | 6.4 |
| HI | 8.3 | 1.3 | 1.4 | 1.1 | 0.8 | 1.2 | 1.1 | 2.9 | 3.8 | 3.4 | 3.2 | 2.8 | 3.3 | 3.1 |
| IA | 4.4 | 3.4 | 4.4 | 3.1 | 4.0 | 5.0 | 4.9 | 6.1 | 5.1 | 7.0 | 5.1 | 5.9 | 7.6 | 6.9 |
| ID | 0.0 | 1.8 | 3.3 | 3.2 | 3.3 | 4.0 | 2.7 | 0.0 | 3.7 | 4.6 | 6.4 | 6.6 | 6.4 | 5.4 |
| IL | 2.6 | 2.7 | 3.1 | 3.0 | 3.5 | 3.6 | 3.5 | 5.1 | 5.6 | 5.8 | 5.4 | 6.0 | 6.1 | 6.1 |
| IN | 2.4 | 2.6 | 2.2 | 2.9 | 2.5 | 2.7 | 3.1 | 5.7 | 5.7 | 4.8 | 4.7 | 4.7 | 5.0 | 5.6 |
| KS | 3.7 | 5.2 | 5.2 | 3.9 | 4.7 | 4.9 | 5.3 | 6.4 | 7.9 | 9.0 | 6.7 | 7.8 | 7.8 | 8.0 |
| KY | 2.6 | 3.7 | 2.8 | 3.6 | 3.4 | 3.4 | 3.2 | 5.3 | 6.7 | 5.4 | 5.7 | 5.7 | 6.2 | 5.6 |
| LA | 5.2 | 5.4 | 5.4 | 5.0 | 4.2 | 4.5 | 4.4 | 7.4 | 7.6 | 8.5 | 7.6 | 6.5 | 7.1 | 6.7 |
| MA | 1.9 | 2.0 | 2.1 | 2.9 | 2.2 | 4.1 | 3.5 | 3.8 | 4.3 | 4.3 | 6.2 | 4.7 | 7.2 | 5.8 |
| MD | 1.6 | 1.6 | 1.2 | 1.6 | 1.4 | 1.6 | 1.8 | 3.7 | 4.0 | 3.7 | 4.3 | 4.2 | 4.0 | 4.6 |
| ME | 1.0 | 1.0 | 1.0 | 1.1 | 1.3 | 1.6 | 1.9 | 3.7 | 3.7 | 3.6 | 3.8 | 4.3 | 4.5 | 5.3 |
| MI | 1.1 | 1.2 | 1.4 | 1.4 | 1.4 | 2.1 | 2.2 | 3.4 | 3.6 | 4.1 | 3.8 | 3.9 | 5.1 | 4.4 |
| MN | 1.4 | 1.3 | 1.8 | 1.7 | 2.3 | 2.0 | 2.0 | 3.2 | 3.6 | 3.5 | 4.2 | 4.4 | 4.3 | 4.3 |
| MO | 4.7 | 3.9 | 4.4 | 4.4 | 4.0 | 4.3 | 4.2 | 7.5 | 6.8 | 6.9 | 6.9 | 6.7 | 6.8 | 6.7 |
| MS | 6.7 | 5.9 | 5.6 | 5.5 | 4.2 | 4.9 | 5.8 | 9.8 | 9.9 | 8.2 | 6.5 | 7.0 | 7.8 | 8.4 |
| MT | 2.5 | 3.0 | 2.5 | 3.7 | 4.1 | 5.1 | 3.7 | 4.7 | 5.6 | 4.8 | 7.3 | 6.6 | 6.4 | 6.1 |
| NC | 1.5 | 2.1 | 1.7 | 1.7 | 1.9 | 1.7 | 2.1 | 4.2 | 5.6 | 4.5 | 4.5 | 4.4 | 4.3 | 4.5 |
| ND | 0.0 | 11.3 | 6.6 | 6.5 | 4.0 | 4.1 | 6.6 | 0.0 | 15.1 | 5.3 | 8.7 | 6.4 | 6.0 | 8.5 |
| NE | 3.2 | 2.2 | 2.0 | 2.4 | 2.3 | 3.1 | 2.7 | 5.1 | 4.4 | 4.1 | 4.3 | 4.9 | 5.3 | 5.0 |
| NH | 0.0 | 1.8 | 3.3 | 2.1 | 2.4 | 2.4 | 2.4 | 0.0 | 4.4 | 5.9 | 4.7 | 4.6 | 5.2 | 6.4 |
| NJ | 1.2 | 1.5 | 1.6 | 1.3 | 1.5 | 1.5 | 3.9 | 3.2 | 3.6 | 4.3 | 3.6 | 4.0 | 3.7 | 6.8 |
| NM | 6.6 | 0.0 | 2.8 | 2.7 | 1.9 | 2.7 | 2.1 | 4.8 | 0.0 | 5.3 | 4.9 | 4.6 | 5.4 | 3.9 |
| NV | 1.5 | 1.1 | 1.7 | 1.8 | 2.1 | 3.1 | 2.0 | 3.3 | 3.0 | 3.9 | 3.7 | 4.2 | 4.1 | 3.8 |
| NY | 0.8 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 |
| OH | 2.5 | 3.7 | 3.8 | 4.0 | 3.4 | 4.1 | 3.6 | 4.9 | 6.7 | 6.7 | 6.6 | 6.0 | 6.3 | 5.9 |
| OK | 4.0 | 3.4 | 3.8 | 4.4 | 3.5 | 4.8 | 4.6 | 6.3 | 5.3 | 5.9 | 5.9 | 5.8 | 7.2 | 6.6 |
| OR | 1.2 | 0.9 | 1.0 | 1.0 | 1.0 | 2.1 | 1.4 | 3.4 | 3.5 | 3.3 | 3.4 | 3.5 | 5.0 | 3.8 |
| PA | 1.8 | 2.6 | 3.2 | 3.4 | 3.6 | 3.8 | 4.0 | 3.9 | 5.0 | 5.7 | 5.5 | 5.7 | 6.1 | 6.3 |
| RI | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 4.2 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| SC | 1.7 | 2.5 | 2.0 | 2.6 | 3.0 | 2.9 | 2.9 | 4.4 | 4.9 | 4.8 | 5.4 | 5.6 | 5.6 | 5.5 |
| SD | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 2.9 | 2.8 | 3.3 | 3.4 | 3.3 | 3.7 | 3.3 |
| TN | 2.3 | 3.3 | 4.6 | 5.3 | 4.2 | 3.9 | 4.0 | 4.7 | 5.4 | 6.0 | 6.6 | 6.7 | 6.5 | 6.3 |
| TX | 4.4 | 5.0 | 4.1 | 4.3 | 4.2 | 3.9 | 3.7 | 7.2 | 7.5 | 7.0 | 6.6 | 6.5 | 6.4 | 6.1 |
| UT | 1.8 | 1.4 | 1.6 | 1.5 | 1.4 | 1.8 | 1.9 | 4.3 | 3.9 | 3.7 | 3.7 | 3.4 | 4.0 | 4.3 |
| VA | 2.8 | 1.7 | 1.9 | 1.9 | 2.3 | 2.2 | 2.3 | 4.3 | 4.2 | 4.2 | 4.0 | 4.7 | 4.6 | 4.6 |
| VT | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 |
| WA | 1.6 | 1.8 | 2.0 | 2.5 | 2.2 | 3.1 | 3.3 | 3.6 | 4.3 | 4.6 | 5.3 | 4.9 | 5.8 | 6.5 |
| WI | 3.4 | 1.3 | 2.4 | 4.3 | 2.7 | 3.2 | 3.5 | 3.8 | 4.0 | 4.7 | 8.5 | 5.6 | 5.6 | 6.0 |
| WV | 4.4 | 3.0 | 4.1 | 6.3 | 3.5 | 3.4 | 4.0 | 7.1 | 6.1 | 7.1 | 9.8 | 5.6 | 5.9 | 6.7 |
| WY | 6.3 | 6.0 | 5.9 | 5.9 | 8.5 | 7.4 | 6.2 | 9.4 | 8.0 | 8.0 | 8.0 | 10.9 | 8.4 | 7.7 |
| US | 2.5 | 2.7 | 2.9 | 3.1 | 3.1 | 3.3 | 3.3 | 4.8 | 5.2 | 5.4 | 5.4 | 5.5 | 5.8 | 5.8 |
| Facilities | 1,070 | 1,194 | 1,304 | 1,427 | 1,550 | 1,718 | 1,714 | 1,056 | 1,173 | 1,301 | 1,402 | 1,535 | 1,700 | 1,697 |

Total Certified Facilities (Title 19, Title 18/19, and Title 18)

Table 29 and 30 shows a combined total of about 14,000 facilities (with Title 19, Title 18/19, and Title 18 only beds) which had useable staffing data for the staffing analysis in 1997.

Registered Nursing Hours

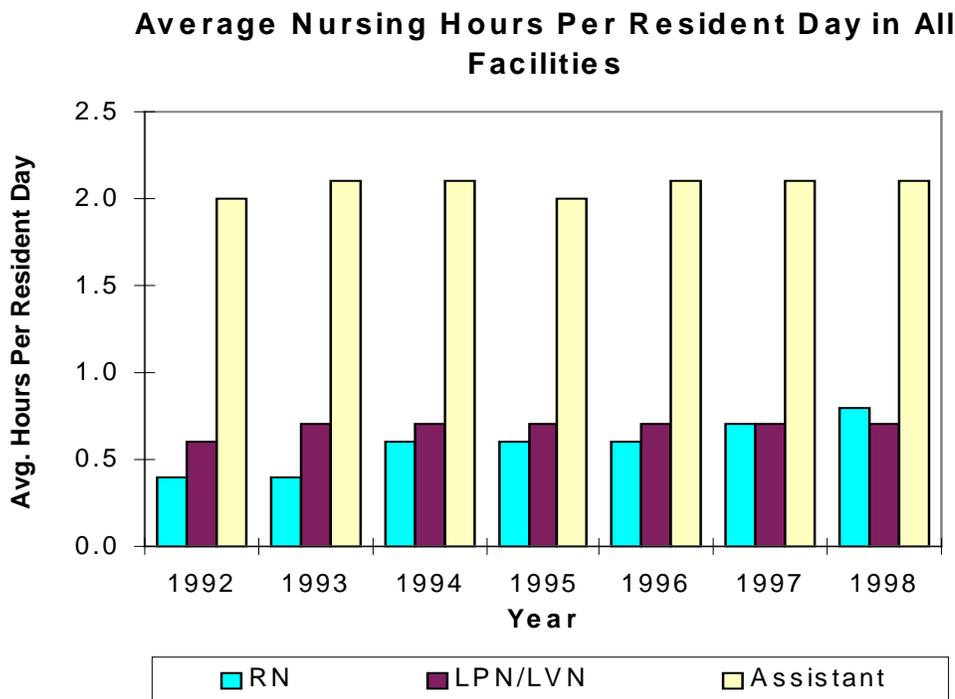
The average RN hours per resident day are shown in Table 29. The average hours was 0.4 in 1992. The ratio of RNs hours increased to 0.8 in 1998. This was 48 minutes per resident day or 16 minutes per 8 hour shift.

LPN/LVN Nursing Hours

The average LPN/LVN hours per resident day are shown in Table 29. There was an average of 0.6 hours per resident day in 1992 and this increased to 0.7 in 1993-1998. This was 42 minutes per resident day or 14 minutes per 8 hour shift.

Nursing Aide/Assistant Hours

The average NA hours per resident day are shown in Table 29. The average was 2.0 hours in 1992 and 2.1 hours in 1998. This was 126 minutes per resident day or 42 minutes per 8 hour shift.



**TABLE 29
AVERAGE RN, LPN/LVN, & ASSISTANT HOURS PER RESIDENT DAY
IN ALL CERTIFIED NURSING FACILITIES IN THE U.S.**

| State | RN Hours | | | | | | | | LPN/LVN Hours | | | | | | | | Assistant Hours | | | | | | | |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--|--|--|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | | | |
| AK | 0.6 | 0.7 | 0.9 | 0.9 | 1.1 | 1.1 | 1.2 | 0.9 | 0.7 | 0.8 | 0.7 | 0.6 | 0.8 | 0.6 | 2.6 | 2.6 | 2.9 | 3.0 | 3.0 | 2.9 | 2.8 | | | |
| AL | 0.3 | 0.2 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 2.5 | 2.5 | 2.5 | 2.4 | 2.5 | 2.4 | 2.5 | | | |
| AR | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 1.7 | 1.9 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | | | |
| AZ | 0.5 | 0.8 | 0.8 | 0.6 | 0.7 | 0.9 | 0.9 | 0.6 | 0.8 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 1.9 | 2.3 | 2.4 | 2.1 | 2.0 | 2.1 | 2.1 | | | |
| CA | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.1 | | | |
| CO | 0.5 | 0.6 | 1.0 | 0.8 | 0.8 | 1.0 | 1.0 | 0.6 | 0.7 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 1.8 | 2.0 | 2.2 | 1.9 | 1.9 | 2.0 | 2.0 | | | |
| CT | 0.6 | 0.6 | 0.7 | 0.6 | 0.7 | 0.7 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | | | |
| DC | 0.7 | 0.5 | 0.6 | 0.5 | 0.8 | 0.8 | 0.6 | 0.6 | 0.7 | 0.8 | 0.7 | 0.7 | 0.8 | 0.9 | 2.4 | 2.1 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | | | |
| DE | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.2 | 1.1 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 2.1 | 2.3 | 2.1 | 2.3 | 2.1 | 2.0 | 2.4 | | | |
| FL | 0.4 | 0.4 | 0.5 | 0.6 | 0.8 | 0.8 | 0.9 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | | | |
| GA | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | | | |
| HI | 1.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.2 | 2.2 | 2.3 | 2.4 | 2.2 | 2.3 | 2.2 | | | |
| IA | 0.3 | 0.3 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.6 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | | | |
| ID | 0.3 | 0.4 | 0.7 | 0.7 | 0.8 | 1.1 | 0.9 | 0.5 | 0.7 | 1.0 | 0.7 | 0.8 | 0.9 | 0.7 | 1.8 | 2.4 | 2.6 | 2.5 | 2.6 | 2.6 | 2.4 | | | |
| IL | 0.4 | 0.4 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | 1.8 | 1.7 | | | |
| IN | 0.3 | 0.3 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | | | |
| KS | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | | | |
| KY | 0.4 | 0.4 | 0.6 | 0.6 | 0.7 | 0.8 | 0.9 | 0.6 | 0.8 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 2.3 | 2.5 | 2.3 | 2.3 | 2.3 | 2.4 | 2.3 | | | |
| LA | 0.4 | 0.3 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.9 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 2.0 | 2.1 | 1.7 | 1.6 | 2.0 | 1.9 | 2.0 | | | |
| MA | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.8 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | | | |
| MD | 0.4 | 0.3 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | | | |
| ME | 0.4 | 0.4 | 0.6 | 0.6 | 0.8 | 0.9 | 1.0 | 0.5 | 0.6 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 2.8 | 2.9 | | | |
| MI | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | | | |
| MN | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | | | |
| MO | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.8 | 2.3 | 2.3 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | | |
| MS | 0.2 | 0.2 | 0.4 | 0.6 | 0.7 | 0.9 | 1.0 | 0.7 | 0.8 | 0.9 | 1.0 | 0.9 | 0.9 | 1.0 | 1.9 | 1.9 | 2.1 | 2.1 | 2.1 | 2.2 | 2.2 | | | |
| MT | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 1.0 | 0.8 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 2.2 | 2.2 | 2.2 | 2.2 | 2.3 | 2.2 | 2.3 | | | |
| NC | 0.4 | 0.4 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 2.3 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | | | |
| ND | 0.3 | 0.4 | 0.5 | 0.7 | 0.6 | 0.7 | 0.7 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.0 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 | | | |
| NE | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.7 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | | | |
| NH | 0.6 | 0.5 | 0.8 | 0.7 | 0.8 | 0.8 | 0.9 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 2.2 | 2.1 | 2.3 | 2.3 | 2.1 | 2.3 | 2.2 | | | |
| NJ | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.9 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | | | |
| NM | 0.4 | 0.3 | 0.7 | 0.5 | 0.6 | 0.9 | 0.8 | 0.7 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 2.1 | 2.0 | 2.1 | 2.1 | 2.2 | 2.1 | 2.2 | | | |
| NV | 0.6 | 0.6 | 1.3 | 0.9 | 1.2 | 1.7 | 1.3 | 0.8 | 0.9 | 1.2 | 0.9 | 0.8 | 1.1 | 0.6 | 1.7 | 2.1 | 2.3 | 1.9 | 2.1 | 2.2 | 1.9 | | | |
| NY | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | | | |
| OH | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | | | |
| OK | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.8 | 0.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.1 | 2.1 | 2.0 | | | |
| OR | 0.4 | 0.5 | 0.7 | 0.6 | 0.7 | 0.8 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2.0 | 2.3 | 2.3 | 2.2 | 2.3 | 2.3 | 2.3 | | | |
| PA | 0.4 | 0.5 | 0.8 | 0.8 | 0.8 | 1.0 | 1.1 | 0.5 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 1.7 | 2.1 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | | | |
| RI | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | | | |
| SC | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 2.2 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.1 | | | |
| SD | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | | | |
| TN | 0.2 | 0.2 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.8 | 1.8 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | | | |
| TX | 0.3 | 0.4 | 0.6 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | | | |
| UT | 0.7 | 0.8 | 0.9 | 0.8 | 0.7 | 1.0 | 1.0 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.1 | 2.3 | 2.2 | 2.1 | 2.0 | 2.1 | 2.3 | | | |
| VA | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 1.7 | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 | 1.9 | | | |
| VT | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 | 1.8 | 2.1 | 1.9 | 1.9 | 2.1 | 2.1 | 2.3 | | | |
| WA | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 2.1 | 2.3 | 2.2 | 2.3 | 2.3 | 2.4 | 2.4 | | | |
| WI | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | | | |
| WV | 0.5 | 0.3 | 0.4 | 0.6 | 0.6 | 0.6 | 1.0 | 0.9 | 0.7 | 0.8 | 0.9 | 0.8 | 0.9 | 0.8 | 2.2 | 2.0 | 2.3 | 2.3 | 2.1 | 2.1 | 2.2 | | | |
| WY | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 1.0 | 1.0 | 0.6 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | | | |
| US | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 2.0 | 2.1 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | | | |
| Facilities | 13573 | 13366 | 14108 | 14093 | 14446 | 14462 | 14202 | 13526 | 13345 | 14136 | 14118 | 14487 | 14507 | 14237 | 13526 | 13313 | 14100 | 14087 | 14462 | 14477 | 14208 | | | |

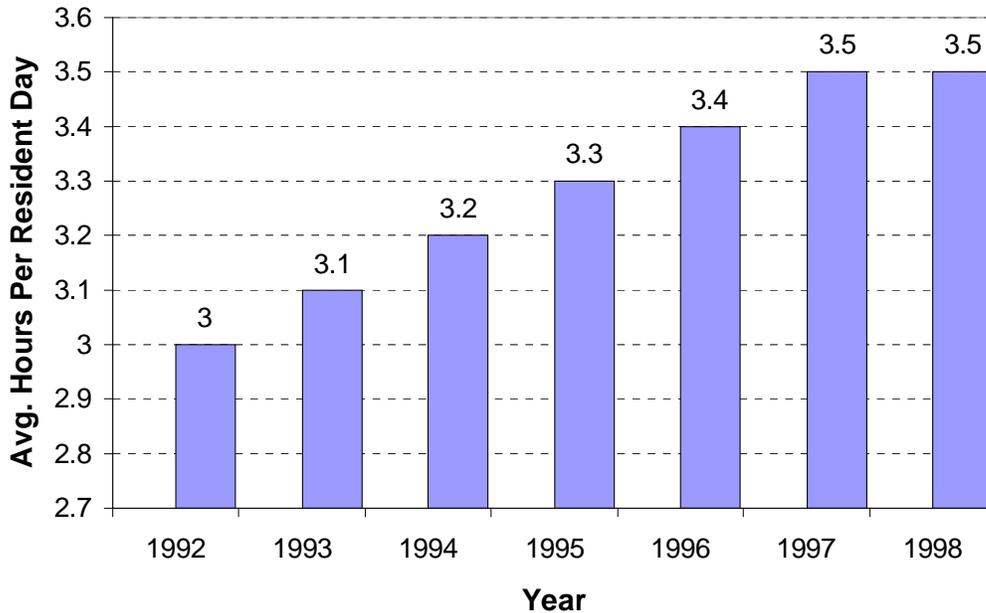
Licensed Nursing Hours

Table 30 shows the average licensed nursing hours (RNs and LPN/LVNs) per resident day was 1.0 in 1992 and 1.4 in 1998.

Total Nursing Hours

Table 30 shows the total nursing hours (RNs, LPN/LVNs, and NAs) per resident day was 3.0 to 3.5 hours per resident day over the 1991-98 period. In 1998, this was about 210 minutes per resident day or 70 minutes per 8 hour shift.

Total Nursing Hours Per Resident Day in All Facilities



**TABLE 30
AVERAGE LICENSED AND COMBINED NURSE HOURS PER RESIDENT DAY
IN ALL CERTIFIED NURSING FACILITIES COMBINED**

| State | Licensed Nurse Hours | | | | | | | Total Nursing Staff Hours | | | | | | |
|-------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 1.4 | 1.6 | 1.7 | 1.7 | 1.8 | 1.7 | 1.9 | 3.8 | 4.5 | 4.6 | 4.7 | 4.6 | 4.5 | 4.6 |
| AL | 1.1 | 1.1 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 3.6 | 3.6 | 3.7 | 3.7 | 3.8 | 3.8 | 4.0 |
| AR | 0.9 | 1.0 | 1.2 | 1.1 | 1.2 | 1.3 | 1.4 | 2.6 | 3.0 | 3.0 | 3.1 | 3.1 | 3.3 | 3.4 |
| AZ | 1.2 | 1.6 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 3.0 | 3.7 | 3.6 | 3.5 | 3.5 | 3.7 | 3.7 |
| CA | 1.0 | 1.1 | 1.2 | 1.2 | 1.2 | 1.4 | 1.4 | 3.1 | 3.1 | 3.3 | 3.3 | 3.4 | 3.5 | 3.5 |
| CO | 1.0 | 1.3 | 1.4 | 1.5 | 1.4 | 1.7 | 1.7 | 2.8 | 3.1 | 3.5 | 3.4 | 3.4 | 3.7 | 3.7 |
| CT | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 2.9 | 2.8 | 3.0 | 3.0 | 3.1 | 3.3 | 3.3 |
| DC | 1.3 | 1.2 | 1.4 | 1.2 | 1.5 | 1.6 | 1.5 | 3.7 | 3.5 | 3.9 | 3.5 | 3.8 | 3.8 | 3.8 |
| DE | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 3.1 | 3.4 | 3.4 | 3.7 | 3.6 | 3.5 | 4.2 |
| FL | 1.1 | 1.2 | 1.3 | 1.4 | 1.6 | 1.6 | 1.7 | 3.1 | 3.3 | 3.3 | 3.4 | 3.6 | 3.6 | 3.7 |
| GA | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.2 |
| HI | 1.7 | 1.1 | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 3.3 | 3.4 | 3.6 | 3.5 | 3.5 | 3.7 | 3.7 |
| IA | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.2 | 2.5 | 2.6 | 2.7 | 2.7 | 2.8 | 2.9 | 2.9 |
| ID | 0.8 | 1.1 | 1.4 | 1.4 | 1.5 | 1.9 | 1.6 | 2.7 | 3.6 | 3.8 | 4.0 | 4.1 | 4.3 | 4.2 |
| IL | 0.9 | 0.9 | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 2.6 | 2.8 | 2.9 | 2.9 | 3.0 | 3.1 | 3.1 |
| IN | 1.0 | 1.0 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.2 | 3.3 | 3.3 |
| KS | 0.8 | 0.9 | 1.1 | 1.0 | 1.1 | 1.2 | 1.3 | 2.7 | 2.8 | 3.0 | 2.9 | 3.1 | 3.2 | 3.2 |
| KY | 1.0 | 1.2 | 1.3 | 1.5 | 1.5 | 1.6 | 1.6 | 3.2 | 3.6 | 3.6 | 3.6 | 3.8 | 4.0 | 3.9 |
| LA | 1.2 | 1.3 | 1.5 | 1.4 | 1.3 | 1.5 | 1.6 | 3.2 | 3.2 | 3.4 | 3.2 | 3.3 | 3.5 | 3.5 |
| MA | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.4 | 1.4 | 3.0 | 3.0 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 |
| MD | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.3 | 3.1 | 3.0 | 3.1 | 3.1 | 3.3 | 3.3 | 3.5 |
| ME | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 1.4 | 1.5 | 3.3 | 3.6 | 3.6 | 3.8 | 4.0 | 4.1 | 4.4 |
| MI | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.5 | 3.4 |
| MN | 0.8 | 0.9 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 2.6 | 2.9 | 3.0 | 3.0 | 3.1 | 3.2 | 3.2 |
| MO | 1.1 | 1.2 | 1.4 | 1.3 | 1.4 | 1.4 | 1.5 | 3.3 | 3.3 | 3.4 | 3.4 | 3.6 | 3.6 | 3.7 |
| MS | 1.0 | 1.0 | 1.1 | 1.4 | 1.5 | 1.8 | 1.9 | 2.9 | 2.9 | 3.1 | 3.2 | 3.6 | 4.0 | 4.0 |
| MT | 1.0 | 1.1 | 1.1 | 1.2 | 1.4 | 1.6 | 1.4 | 3.1 | 3.2 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 |
| NC | 1.1 | 1.1 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 3.4 | 3.4 | 3.6 | 3.5 | 3.6 | 3.6 | 3.7 |
| ND | 0.8 | 1.0 | 1.2 | 1.3 | 1.2 | 1.3 | 1.3 | 2.9 | 3.1 | 3.2 | 3.6 | 3.5 | 3.6 | 3.7 |
| NE | 0.8 | 0.8 | 1.0 | 1.1 | 1.2 | 1.2 | 1.2 | 2.5 | 2.7 | 2.9 | 2.9 | 3.0 | 3.2 | 3.2 |
| NH | 1.1 | 1.1 | 1.3 | 1.2 | 1.2 | 1.4 | 1.3 | 3.3 | 3.2 | 3.5 | 3.5 | 3.3 | 3.6 | 3.5 |
| NJ | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.4 | 3.0 | 3.0 | 3.2 | 3.2 | 3.2 | 3.3 | 3.6 |
| NM | 1.0 | 0.8 | 1.0 | 1.1 | 1.1 | 1.3 | 1.3 | 2.9 | 2.9 | 3.1 | 3.1 | 3.2 | 3.4 | 3.3 |
| NV | 1.5 | 1.3 | 1.7 | 1.8 | 2.0 | 2.8 | 1.9 | 3.4 | 3.2 | 3.8 | 3.7 | 4.1 | 4.1 | 3.8 |
| NY | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 3.2 | 3.1 | 3.1 | 3.0 | 3.1 | 3.2 | 3.3 |
| OH | 1.1 | 1.2 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 3.2 | 3.4 | 3.5 | 3.5 | 3.6 | 3.6 | 3.6 |
| OK | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 2.7 | 2.7 | 2.8 | 2.8 | 3.1 | 3.4 | 3.3 |
| OR | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.2 | 1.1 | 2.8 | 3.1 | 3.3 | 3.2 | 3.4 | 3.5 | 3.4 |
| PA | 1.0 | 1.2 | 1.4 | 1.4 | 1.5 | 1.7 | 1.8 | 2.7 | 3.3 | 3.5 | 3.5 | 3.6 | 3.8 | 4.0 |
| RI | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 2.8 | 2.9 | 2.9 | 2.9 | 3.0 | 3.1 | 3.0 |
| SC | 1.1 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 3.3 | 3.4 | 3.5 | 3.7 | 3.7 | 3.8 | 3.8 |
| SD | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 2.7 | 2.6 | 2.8 | 2.8 | 3.0 | 3.1 | 3.1 |
| TN | 0.8 | 0.9 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 2.6 | 2.8 | 3.0 | 3.0 | 3.2 | 3.3 | 3.4 |
| TX | 1.2 | 1.4 | 1.4 | 1.6 | 1.6 | 1.6 | 1.7 | 3.1 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 |
| UT | 1.3 | 1.3 | 1.5 | 1.4 | 1.3 | 1.6 | 1.6 | 3.4 | 3.5 | 3.5 | 3.5 | 3.3 | 3.8 | 3.9 |
| VA | 0.9 | 1.0 | 1.2 | 1.1 | 1.2 | 1.3 | 1.4 | 2.6 | 3.0 | 3.2 | 3.1 | 3.2 | 3.3 | 3.4 |
| VT | 0.9 | 1.0 | 1.3 | 1.1 | 1.2 | 1.2 | 1.4 | 2.8 | 3.1 | 3.4 | 3.2 | 3.3 | 3.4 | 3.6 |
| WA | 1.0 | 1.1 | 1.3 | 1.3 | 1.3 | 1.5 | 1.5 | 3.1 | 3.4 | 3.5 | 3.6 | 3.7 | 3.9 | 4.0 |
| WI | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 2.9 | 3.0 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 |
| WV | 1.2 | 1.0 | 1.3 | 1.4 | 1.4 | 1.5 | 1.7 | 3.3 | 3.1 | 3.5 | 3.6 | 3.5 | 3.7 | 3.9 |
| WY | 1.1 | 1.3 | 1.3 | 1.3 | 1.3 | 1.6 | 1.6 | 3.2 | 3.5 | 3.4 | 3.4 | 3.5 | 3.8 | 3.7 |
| US | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 | 1.4 | 1.4 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.5 |
| Facilities | 13,296 | 13,059 | 13,768 | 13,744 | 14,089 | 14,121 | 13,856 | 13,133 | 12,913 | 13,600 | 13,574 | 13,930 | 13,943 | 13,693 |

FACILITY DEFICIENCIES FROM STATE SURVEY EVALUATIONS

Background

Nursing facilities provide care to prevent problems or to address resident problems with cognition, communication/hearing, vision, physical functioning, continence, psychosocial functioning, mood and behavior, oral/ nutritional and dental care, skin condition, and medications (Morris et al., 1990; Gustafson et al., 1990). These care processes can include urinary training programs, assistance with feeding and mobility, and other activities. A number of clinical process measures have been associated with poor patient outcomes. Urethral catheterization may place residents at greater risk for urinary infection and hospitalization or other complications such as bladder and renal stones, abscesses, and renal failure (Ouslander, Kane and Abrass, 1982; Ouslander and Kane, 1984; Ribeiro and Smith, 1985). Restraints have been under criticism because their use may cause decreased muscle tone and increased likelihood of falls, incontinence, pressure ulcers, depression, confusion and mental deterioration (Evans and Strumpf, 1989; Libow and Starer, 1989; Burton et al., 1992; Phillips et al., 1993). Tube feedings also increase the risk of complications including lung infections, aspiration, misplacement of the tube and pain (Libow and Starer, 1989). Another common problem in nursing homes is the improper use of psychotropic drugs identified in a number of studies (Harrington et al., 1992). An outcome is an evaluation of the impact of facility

care on a resident, whereas a process indicator is services or activities which a facility does or does not provide. A number of quality outcomes have been identified, such as: urinary incontinence, falls, weight loss, and infectious disease (Libow and Starer, 1989). Other negative outcomes are behavioral/ emotional problems, cognitive problems, decubitus ulcers, and deterioration in physical functioning (Zimmerman et al., 1995).

State surveyors assess both the process and the outcomes of nursing home care in 15 major areas. Each of these areas has specific regulations which state surveyors review to determine whether or not facilities have met the standards. In July 1995, HCFA consolidated the 325 measures of quality to a total of 185 measures. This report shows data for 1992 through 1998 using the 185 consolidated measures.

Of the total survey requirements, most are considered process indicators and some are outcome measures. The process measures include whether proper procedures are used in providing each of the major nursing home services. The outcome measures include ensuring that negative problems do not occur such as: residents without an indwelling catheter are not catheterized; residents do not experience a reduction in range of motion; residents able to eat alone/with assistance are not fed by naso-gastric

tube; and residents maintain acceptable parameters of nutritional status.

Where a facility fails to meet a standard, a deficiency or citation is given to the facility for that individual standard. Beginning in July 1995, HCFA surveyors also rate each deficiencies based on severity for purposes of enforcement (not shown in this report). The deficiencies are given for problems which can result in a negative impact on the health and safety of residents.

The overall deficiency data on process and outcome measures from OSCAR are limited to whether or not the facility

meets each of the minimum standards. Since there are many survey measures (or items), only a selected list of these are presented in the report. The measures with the highest percent of facilities with deficiencies were examined.

Each table shows an identifying number (F-tag) and a short description of each standard or item. A detailed list of all the F-tags and longer descriptions are shown in the last table. Definitions of deficiencies are given in the State Operations Manual which was published in June 1995 by the Health Care Financing Administration.

FINDINGS

DEFICIENCIES FROM QUALITY OF CARE EVALUATION

Average Number of Deficiencies Per Certified Nursing Facility

Table 31 shows the U.S. average number of deficiencies per facility decreased from 8.2 deficiencies per facility in 1992 to 5.2 per facility in 1998. Although the numbers are small, this represented a 37 percent reduction in the average number of deficiencies given over the period. The average number varied substantially across states from 1.9 percent in New Jersey to 14.2 percent in Nevada in 1998.

Percent of Facilities with No Deficiencies

The percent of facilities reporting no deficiencies in the U.S. increased from 12.4 percent in 1992 to 18.9 percent in 1998 (See Table 31). This was a 52 percent increase during the period. The percent of facilities with no deficiencies varied by state from none in the District of Columbia to 47.7 percent in New Jersey in 1998.

Avg. Number of Deficiencies and Percent Without Deficiencies

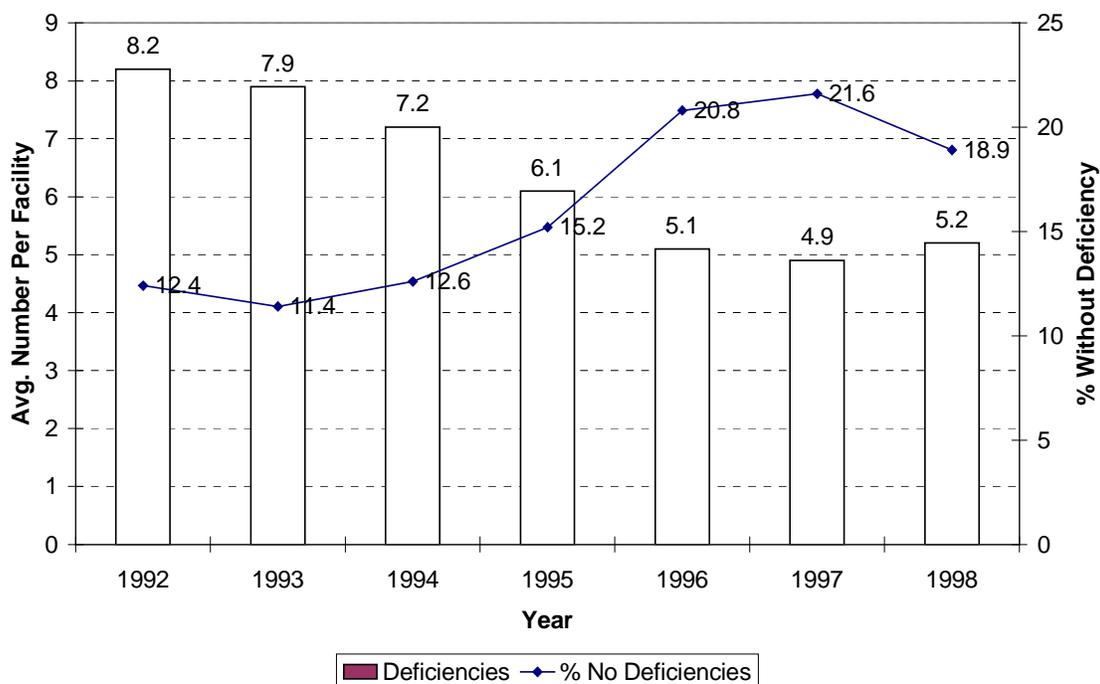


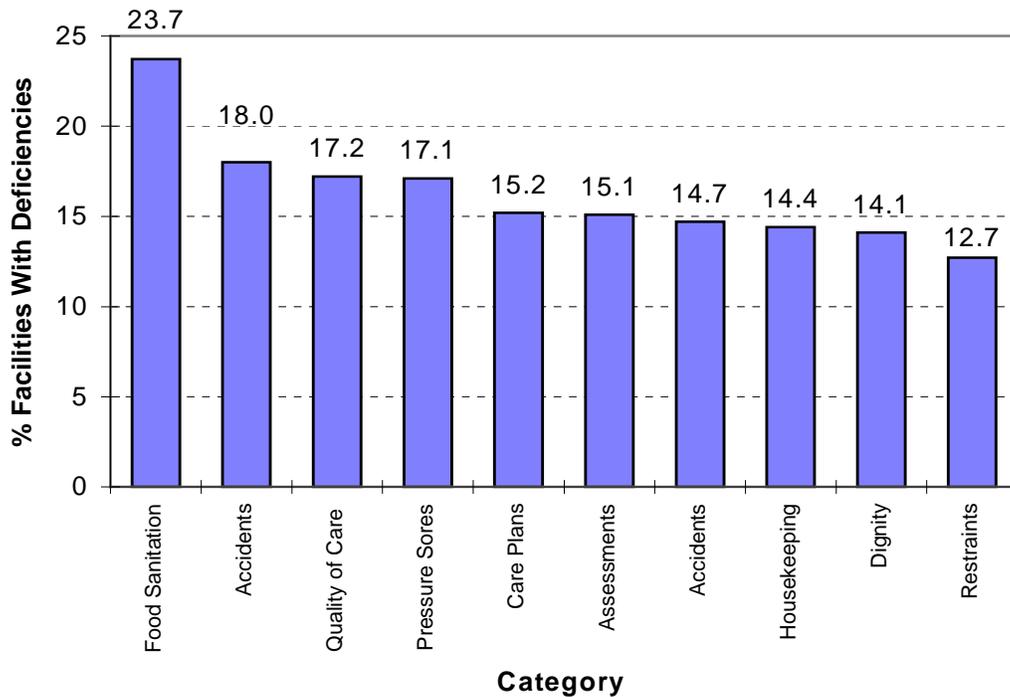
TABLE 31
AVERAGE NUMBER OF DEFICIENCIES PER CERTIFIED NURSING FACILITY
AND PERCENT OF FACILITIES WITH NO DEFICIENCIES

| State | Average Number Of Deficiencies Per Facility | | | | | | | Percent of Facilities With No Deficiencies | | | | | | |
|-----------|---|------------|------------|------------|------------|------------|------------|--|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.1 | 10.8 | 4.3 | 3.2 | 2.2 | 3.6 | 3.2 | 6.7 | 0.0 | 21.4 | 15.4 | 31.3 | 21.4 | 21.4 |
| AL | 6.8 | 5.4 | 7.4 | 6.7 | 6.4 | 6.1 | 5.9 | 5.3 | 6.7 | 7.9 | 7.1 | 12.0 | 7.1 | 7.4 |
| AR | 10.5 | 7.6 | 7.5 | 8.1 | 8.2 | 7.5 | 7.3 | 2.6 | 4.6 | 4.1 | 5.8 | 6.6 | 3.9 | 4.7 |
| AZ | 5.5 | 3.6 | 7.1 | 7.1 | 5.7 | 5.1 | 6.0 | 22.8 | 23.7 | 11.9 | 2.7 | 4.9 | 5.9 | 6.2 |
| CA | 16.2 | 17.8 | 16.2 | 11.7 | 10.7 | 10.7 | 10.4 | 2.8 | 2.4 | 1.2 | 3.3 | 4.0 | 3.0 | 1.8 |
| CO | 11.7 | 6.9 | 2.5 | 2.4 | 2.6 | 2.3 | 2.2 | 2.1 | 5.0 | 28.4 | 31.0 | 33.7 | 42.8 | 34.9 |
| CT | 4.8 | 5.6 | 3.7 | 2.3 | 1.5 | 2.1 | 2.7 | 13.6 | 13.6 | 18.0 | 37.1 | 46.5 | 33.6 | 23.6 |
| DC | 6.4 | 10.8 | 9.4 | 6.1 | 6.1 | 4.6 | 4.7 | 13.3 | 0.0 | 5.6 | 0.0 | 11.1 | 9.1 | 0.0 |
| DE | 5.8 | 6.3 | 7.2 | 6.6 | 9.5 | 7.3 | 10.1 | 12.1 | 21.6 | 7.0 | 12.1 | 2.7 | 11.9 | 7.4 |
| FL | 6.3 | 5.7 | 6.8 | 7.0 | 6.1 | 6.4 | 7.2 | 16.2 | 16.4 | 10.9 | 10.5 | 15.2 | 11.0 | 10.5 |
| GA | 7.5 | 5.7 | 6.1 | 5.0 | 3.3 | 2.6 | 3.6 | 12.0 | 15.6 | 14.8 | 17.3 | 34.3 | 32.1 | 23.4 |
| HI | 15.3 | 18.1 | 18.4 | 9.7 | 4.8 | 6.6 | 7.8 | 0.0 | 0.0 | 0.0 | 4.8 | 2.5 | 9.5 | 2.3 |
| IA | 5.4 | 4.8 | 4.0 | 3.8 | 4.0 | 4.8 | 4.6 | 17.7 | 17.9 | 23.9 | 25.7 | 24.9 | 17.9 | 15.8 |
| ID | 12.1 | 10.9 | 8.5 | 6.1 | 6.3 | 7.1 | 7.1 | 4.8 | 3.1 | 7.7 | 7.5 | 10.8 | 7.8 | 6.3 |
| IL | 8.1 | 8.2 | 8.5 | 7.9 | 6.2 | 6.0 | 5.8 | 3.9 | 5.1 | 4.0 | 5.5 | 9.0 | 6.9 | 7.9 |
| IN | 5.8 | 7.3 | 7.7 | 7.4 | 6.5 | 6.8 | 7.8 | 12.3 | 11.3 | 8.2 | 7.5 | 11.9 | 9.5 | 7.4 |
| KS | 13.0 | 8.9 | 6.8 | 6.5 | 6.2 | 5.5 | 5.1 | 1.0 | 4.6 | 8.6 | 5.4 | 11.3 | 11.4 | 19.5 |
| KY | 5.3 | 4.2 | 3.1 | 4.1 | 2.3 | 3.2 | 6.0 | 33.9 | 39.0 | 37.8 | 44.9 | 56.4 | 49.2 | 13.8 |
| LA | 11.8 | 11.7 | 7.8 | 6.3 | 4.7 | 4.2 | 3.7 | 6.3 | 8.8 | 14.1 | 15.6 | 20.3 | 23.2 | 30.4 |
| MA | 3.2 | 5.7 | 4.7 | 4.6 | 3.2 | 2.6 | 2.8 | 22.8 | 13.5 | 16.7 | 22.9 | 36.0 | 47.8 | 41.3 |
| MD | 3.7 | 2.7 | 4.0 | 4.1 | 2.6 | 2.2 | 2.4 | 29.2 | 31.8 | 21.5 | 30.1 | 34.8 | 36.7 | 37.4 |
| ME | 2.9 | 3.6 | 4.5 | 4.0 | 2.4 | 2.7 | 3.3 | 37.6 | 35.2 | 13.0 | 10.4 | 32.0 | 32.8 | 13.6 |
| MI | 16.8 | 16.1 | 13.3 | 13.6 | 9.8 | 8.6 | 9.3 | 1.2 | 1.0 | 0.7 | 1.4 | 3.7 | 2.7 | 3.1 |
| MN | 5.3 | 7.4 | 6.8 | 5.3 | 2.9 | 2.7 | 3.6 | 16.4 | 8.4 | 7.6 | 9.7 | 27.4 | 28.6 | 25.2 |
| MO | 9.0 | 7.9 | 4.8 | 4.1 | 4.2 | 3.6 | 4.1 | 12.0 | 14.2 | 27.4 | 25.8 | 28.2 | 29.6 | 23.0 |
| MS | 11.6 | 10.6 | 10.8 | 8.0 | 4.8 | 3.9 | 4.6 | 3.1 | 7.9 | 11.1 | 12.6 | 24.7 | 27.9 | 16.0 |
| MT | 10.5 | 10.3 | 9.6 | 7.2 | 5.7 | 3.5 | 5.6 | 5.2 | 4.2 | 3.1 | 0.0 | 14.0 | 22.1 | 10.9 |
| NC | 6.5 | 5.9 | 5.8 | 4.8 | 4.0 | 3.4 | 4.6 | 11.8 | 9.5 | 10.6 | 17.9 | 22.7 | 34.8 | 25.7 |
| ND | 5.7 | 6.5 | 6.2 | 4.8 | 6.6 | 7.9 | 7.4 | 10.7 | 2.5 | 3.7 | 16.9 | 8.1 | 4.0 | 6.8 |
| NE | 8.7 | 6.0 | 4.7 | 3.5 | 3.6 | 2.6 | 3.0 | 4.6 | 7.3 | 13.1 | 24.8 | 29.7 | 42.9 | 34.4 |
| NH | 2.5 | 2.2 | 2.7 | 2.0 | 4.4 | 3.3 | 2.7 | 43.9 | 36.4 | 43.3 | 38.9 | 22.9 | 29.3 | 38.7 |
| NJ | 6.7 | 4.4 | 3.8 | 4.0 | 2.6 | 2.4 | 1.9 | 14.6 | 19.0 | 28.9 | 27.7 | 36.9 | 42.5 | 47.7 |
| NM | 9.0 | 6.2 | 4.7 | 3.7 | 1.7 | 1.8 | 4.5 | 7.0 | 8.7 | 15.6 | 29.9 | 48.1 | 57.1 | 22.7 |
| NV | 18.8 | 19.2 | 17.2 | 15.0 | 12.7 | 14.3 | 14.2 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 7.3 |
| NY | 3.1 | 2.4 | 2.5 | 3.1 | 2.7 | 2.2 | 2.0 | 36.4 | 31.9 | 31.5 | 27.6 | 31.4 | 35.3 | 39.6 |
| OH | 3.8 | 7.4 | 7.3 | 6.6 | 4.8 | 4.0 | 4.6 | 22.6 | 8.4 | 7.1 | 10.6 | 17.2 | 22.2 | 22.9 |
| OK | 5.1 | 4.9 | 4.6 | 4.7 | 4.0 | 4.2 | 3.7 | 10.6 | 15.1 | 19.1 | 20.4 | 24.8 | 25.3 | 28.3 |
| OR | 13.1 | 7.6 | 5.9 | 5.6 | 5.2 | 4.7 | 4.6 | 3.2 | 8.3 | 15.3 | 16.0 | 24.0 | 26.3 | 21.9 |
| PA | 6.3 | 6.1 | 5.4 | 3.8 | 3.1 | 3.2 | 3.8 | 14.0 | 12.9 | 11.6 | 21.4 | 27.8 | 25.0 | 19.5 |
| RI | 4.6 | 5.5 | 4.4 | 3.6 | 2.9 | 3.4 | 3.6 | 25.8 | 15.6 | 15.2 | 19.5 | 26.7 | 22.8 | 21.4 |
| SC | 8.8 | 9.5 | 6.4 | 5.2 | 7.3 | 7.9 | 7.9 | 3.4 | 2.2 | 6.0 | 7.1 | 6.7 | 6.3 | 4.9 |
| SD | 5.5 | 5.4 | 4.4 | 4.5 | 4.3 | 3.3 | 3.7 | 14.3 | 8.3 | 8.5 | 19.8 | 19.0 | 21.8 | 11.6 |
| TN | 9.8 | 8.6 | 7.6 | 7.2 | 5.9 | 2.6 | 3.7 | 4.8 | 4.2 | 8.1 | 7.3 | 9.9 | 29.9 | 21.8 |
| TX | 10.5 | 8.6 | 7.9 | 5.9 | 4.1 | 4.2 | 4.2 | 3.3 | 4.9 | 9.5 | 14.2 | 23.2 | 23.2 | 20.1 |
| UT | 12.3 | 8.9 | 5.2 | 5.0 | 4.4 | 3.2 | 4.0 | 1.2 | 4.6 | 6.7 | 9.2 | 13.9 | 24.2 | 23.6 |
| VA | 2.2 | 4.2 | 3.6 | 3.4 | 3.8 | 3.1 | 3.5 | 40.8 | 21.7 | 24.7 | 27.3 | 35.7 | 36.3 | 32.0 |
| VT | 5.5 | 7.9 | 7.1 | 7.2 | 2.1 | 1.8 | 2.0 | 4.6 | 2.4 | 5.6 | 5.0 | 21.6 | 37.8 | 32.4 |
| WA | 9.7 | 9.5 | 8.1 | 7.3 | 7.5 | 8.4 | 8.6 | 6.0 | 6.8 | 7.4 | 8.9 | 9.4 | 4.7 | 4.4 |
| WI | 4.0 | 4.5 | 3.6 | 3.4 | 3.0 | 3.5 | 3.9 | 19.1 | 19.8 | 18.6 | 22.0 | 27.5 | 20.8 | 20.5 |
| WV | 17.1 | 15.4 | 8.3 | 6.5 | 4.6 | 5.7 | 5.7 | 0.0 | 0.0 | 3.1 | 9.0 | 14.6 | 10.3 | 7.3 |
| WY | 10.8 | 15.6 | 14.4 | 7.2 | 3.1 | 6.3 | 4.6 | 2.9 | 3.6 | 0.0 | 5.3 | 29.7 | 2.8 | 12.5 |
| US | 8.2 | 7.9 | 7.2 | 6.1 | 5.1 | 4.9 | 5.2 | 12.4 | 11.4 | 12.6 | 15.2 | 20.8 | 21.6 | 18.9 |

Top Ten Deficiencies For Certified Facilities in 1998

The top ten most frequently cited deficiencies in the U.S. are shown by state in 1998 on Table 32. The five largest number of deficiencies were given for failure to ensure sanitary food (23.7 percent); to remove accident hazards (18.0 percent); to ensure quality of care (17.2 percent); to prevent pressure sores (17.1 percent); and to prepare comprehensive resident care plans (15.2 percent).

Top 10 Deficiencies in 1998



Top Ten States Citing the Top Deficiencies in 1998

Table 32 also shows the top ten states in terms of the number of deficiencies which were issued to nursing facilities for each of the top 10 deficiencies (See states with asterisks). In 1998, California, Michigan, Nevada and Washington had the most deficiencies (with 7 deficiencies each) of the top 10 deficiency categories.

TABLE 32
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1998

Percent of Facilities with Deficiencies

| | Food Sanitation (F371) | Accidents (F323) | Quality of Care (F309) | Pressure Sores (F314) | Comprehensive Care Plans (F279) |
|-----------|------------------------------|---------------------|------------------------------|--------------------------|---------------------------------------|
| US | 23.7 | 18.0 | 17.2 | 17.1 | 15.2 |
| AK | 21.4 | 7.1 | 0.0 | 0.0 | 7.1 |
| AL | 32.9 | 11.6 | 9.7 | 23.1 * | 38.0 * |
| AR | 41.1 * | 23.3 | 25.8 | 22.0 | 25.0 * |
| AZ | 38.0 * | 36.4 * | 5.4 | 13.2 | 9.3 |
| CA | 39.9 * | 31.7 * | 28.8 | 24.4 * | 20.9 |
| CO | 11.3 | 17.0 | 6.1 | 10.4 | 4.2 |
| CT | 3.6 | 4.4 | 36.4 * | 23.1 * | 16.0 |
| DC | 78.6 * | 14.3 | 21.4 | 7.1 | 14.3 |
| DE | 22.2 | 22.2 | 40.7 * | 18.5 | 33.3 * |
| FL | 30.5 | 10.8 | 20.3 | 20.5 | 24.8 * |
| GA | 30.3 | 17.4 | 20.9 | 9.7 | 1.1 |
| HI | 18.2 | 9.1 | 11.4 | 25.0 * | 54.5 * |
| IA | 17.7 | 20.8 | 18.6 | 13.6 | 22.0 |
| ID | 48.1 * | 24.1 | 31.6 * | 25.3 * | 10.1 |
| IL | 33.9 | 30.2 * | 12.7 | 25.1 * | 14.3 |
| IN | 34.1 | 35.6 * | 20.4 | 18.7 | 15.6 |
| KS | 23.3 | 24.3 | 31.5 * | 28.8 * | 17.8 |
| KY | 28.3 | 16.4 | 12.2 | 13.8 | 33.6 * |
| LA | 22.4 | 6.5 | 3.5 | 10.9 | 13.6 |
| MA | 5.2 | 2.3 | 2.7 | 10.3 | 2.9 |
| MD | 5.8 | 8.8 | 25.7 | 9.9 | 5.8 |
| ME | 9.3 | 15.3 | 18.6 | 4.2 | 44.9 * |
| MI | 46.7 * | 35.8 * | 29.4 * | 30.7 * | 6.6 |
| MN | 6.7 | 12.7 | 15.7 | 14.2 | 1.2 |
| MO | 28.2 | 8.4 | 6.4 | 15.0 | 17.2 |
| MS | 18.5 | 32.5 * | 11.0 | 16.5 | 14.0 |
| MT | 8.7 | 8.7 | 19.6 | 16.3 | 12.0 |
| NC | 23.4 | 9.9 | 23.9 | 12.7 | 6.0 |
| ND | 22.7 | 6.8 | 13.6 | 21.6 | 4.5 |
| NE | 13.5 | 10.4 | 16.1 | 17.8 | 12.2 |
| NH | 8.0 | 5.3 | 13.3 | 16.0 | 28.0 * |
| NJ | 7.2 | 4.2 | 7.2 | 5.9 | 8.2 |
| NM | 21.2 | 13.6 | 12.1 | 10.6 | 21.2 |
| NV | 65.9 * | 22.0 | 34.1 * | 26.8 * | 24.4 |
| NY | 8.1 | 5.9 | 10.2 | 12.2 | 2.0 |
| OH | 19.0 | 21.5 | 6.5 | 20.9 | 14.8 |
| OK | 15.2 | 6.4 | 2.4 | 10.8 | 11.4 |
| OR | 7.1 | 8.4 | 40.0 * | 15.5 | 12.3 |
| PA | 13.5 | 14.4 | 14.9 | 16.1 | 22.9 |
| RI | 29.2 | 15.7 | 9.0 | 12.4 | 1.1 |
| SC | 38.0 * | 23.9 | 31.3 * | 29.4 * | 46.0 * |
| SD | 34.9 * | 34.9 * | 2.3 | 16.3 | 10.5 |
| TN | 31.8 | 17.5 | 9.5 | 11.5 | 13.5 |
| TX | 24.2 | 14.0 | 16.4 | 12.0 | 9.8 |
| UT | 25.8 | 28.1 * | 10.1 | 12.4 | 9.0 |
| VA | 6.5 | 2.2 | 26.0 | 14.7 | 40.3 * |
| VT | 5.9 | 2.9 | 2.9 | 11.8 | 5.9 |
| WA | 40.2 * | 33.6 * | 46.1 * | 30.3 * | 8.5 |
| WI | 12.1 | 21.5 | 19.2 | 8.5 | 15.9 |
| WV | 21.7 | 2.9 | 37.7 * | 2.9 | 4.3 |
| WY | 30.0 | 37.5 * | 0.0 | 7.5 | 10.0 |

* The ten states in which the highest percentage of facilities had deficiencies.

TABLE 32 (Continued)
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1998

Percent of Facilities with Deficiencies

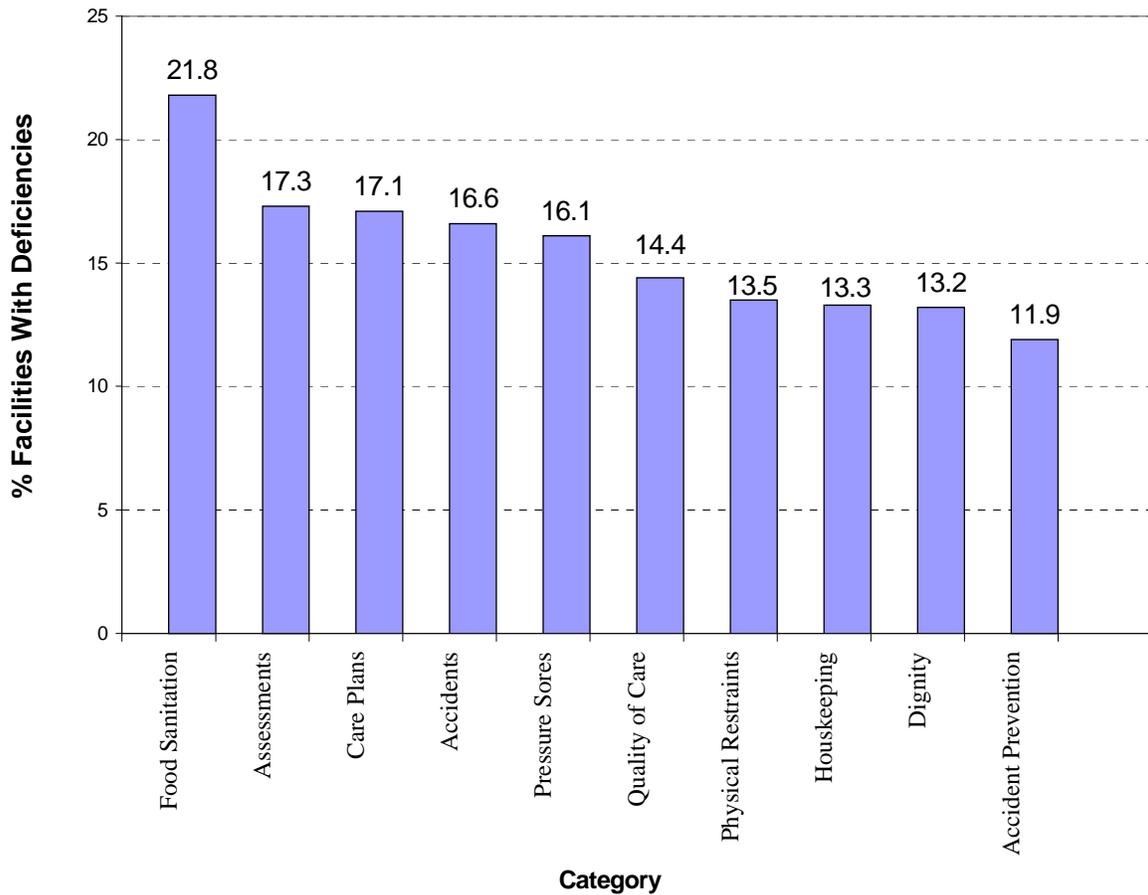
| | Comprehensive Assessments (F272) | Accident Prevention (F324) | Housekeeping (F253) | Dignity (F241) | Physical Restraints (F221) |
|-----------|---|---|--------------------------------|---------------------------|---|
| US | 15.1 | 14.7 | 14.4 | 14.1 | 12.7 |
| AK | 7.1 | 7.1 | 7.1 | 7.1 | 42.9 * |
| AL | 29.6 * | 19.9 | 3.7 | 9.7 | 11.6 |
| AR | 18.2 | 6.4 | 36.4 * | 12.7 | 16.9 |
| AZ | 24.0 | 6.2 | 27.9 * | 13.2 | 15.5 |
| CA | 20.8 | 24.3 * | 28.8 * | 36.7 * | 21.4 * |
| CO | 9.0 | 3.3 | 16.5 | 6.1 | 7.5 |
| CT | 9.3 | 32.9 * | 4.0 | 4.0 | 3.1 |
| DC | 7.1 | 7.1 | 64.3 * | 0.0 | 7.1 |
| DE | 7.4 | 44.4 * | 0.0 | 25.9 * | 29.6 * |
| FL | 17.7 | 10.0 | 13.3 | 24.7 * | 15.5 |
| GA | 5.1 | 11.1 | 24.3 * | 6.9 | 3.1 |
| HI | 63.6 * | 2.3 | 9.1 | 43.2 * | 13.6 |
| IA | 19.3 | 16.7 | 8.1 | 4.3 | 7.9 |
| ID | 20.3 | 30.4 * | 30.4 * | 19.0 | 13.9 |
| IL | 18.6 | 15.0 | 23.7 | 21.0 | 12.7 |
| IN | 25.7 | 17.0 | 5.6 | 18.3 | 26.5 * |
| KS | 6.8 | 25.3 * | 13.5 | 9.0 | 14.3 |
| KY | 28.0 * | 9.9 | 25.7 * | 14.1 | 16.4 |
| LA | 6.2 | 2.1 | 7.4 | 9.1 | 3.2 |
| MA | 15.3 | 19.3 | 0.2 | 4.0 | 12.6 |
| MD | 2.3 | 11.1 | 3.5 | 7.0 | 1.2 |
| ME | 22.9 | 1.7 | 7.6 | 12.7 | 15.3 |
| MI | 5.6 | 32.5 * | 33.5 * | 20.8 | 25.6 * |
| MN | 23.2 | 13.0 | 4.7 | 14.5 | 17.0 |
| MO | 12.2 | 13.4 | 5.4 | 10.6 | 5.8 |
| MS | 28.0 * | 7.5 | 29.0 * | 6.0 | 5.0 |
| MT | 29.3 * | 17.4 | 4.3 | 5.4 | 22.8 * |
| NC | 9.1 | 13.8 | 9.9 | 29.9 * | 10.9 |
| ND | 12.5 | 25.0 * | 14.8 | 22.7 | 15.9 |
| NE | 6.5 | 7.0 | 3.0 | 5.2 | 6.5 |
| NH | 13.3 | 6.7 | 6.7 | 1.3 | 2.7 |
| NJ | 9.8 | 4.9 | 2.9 | 6.9 | 4.6 |
| NM | 6.1 | 4.5 | 10.6 | 24.2 * | 7.6 |
| NV | 41.5 * | 31.7 * | 19.5 | 26.8 * | 24.4 * |
| NY | 1.3 | 6.3 | 5.9 | 7.0 | 8.0 |
| OH | 17.8 | 23.0 | 10.2 | 10.8 | 11.1 |
| OK | 13.8 | 2.4 | 10.4 | 7.4 | 21.2 * |
| OR | 29.0 * | 32.9 * | 3.2 | 14.8 | 14.8 |
| PA | 4.3 | 20.3 | 7.1 | 7.2 | 11.6 |
| RI | 20.2 | 4.5 | 21.3 | 4.5 | 10.1 |
| SC | 25.8 * | 8.6 | 17.2 | 23.3 | 9.8 |
| SD | 25.6 | 10.5 | 15.1 | 7.0 | 23.3 * |
| TN | 14.3 | 3.7 | 20.1 | 8.3 | 4.0 |
| TX | 3.9 | 7.0 | 22.4 | 7.5 | 8.3 |
| UT | 2.2 | 1.1 | 2.2 | 29.2 * | 3.4 |
| VA | 17.3 | 11.3 | 0.9 | 5.6 | 12.6 |
| VT | 8.8 | 11.8 | 2.9 | 11.8 | 11.8 |
| WA | 17.7 | 28.8 * | 33.2 * | 26.2 * | 19.6 |
| WI | 35.9 * | 12.6 | 6.2 | 6.4 | 13.1 |
| WV | 17.4 | 8.7 | 2.9 | 11.6 | 14.5 |
| WY | 27.5 * | 5.0 | 5.0 | 32.5 * | 22.5 * |

* The ten states in which the highest percentage of facilities had deficiencies.

Top Ten Deficiencies For Certified Facilities in 1997

The top ten most frequently cited deficiencies in the U.S. are shown by state in 1997 on Table 33. The five largest number of deficiencies was given for failure to ensure sanitary food (21.8 percent); to conduct comprehensive resident assessment (17.3 percent); to prepare comprehensive resident care plans (17.1 percent); to remove accident hazards (16.6 percent); and to prevent pressure sores (16.1 percent).

Top 10 Deficiencies in 1997



Top Ten States Citing the Top Deficiencies in 1997

Table 33 also shows the top ten states in terms of the number of deficiencies which were issued to nursing facilities for each of the top 10 deficiencies (See states with asterisks). In 1997, California and Nevada had the most deficiencies (with 8 and 9 deficiencies respectively) of the top 10 deficiency categories.

TABLE 33
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1997

| Percent of Facilities with Deficiencies | | | | | |
|--|---------------------------------------|---|--|-----------------------------|----------------------------------|
| | Food Sanitation (F371) | Comprehensive Assessments (F272) | Comprehensive Care Plans (F279) | Accidents (F323) | Pressure Sores (F314) |
| US | 21.8 | 17.3 | 17.1 | 16.6 | 16.1 |
| AK | 14.3 | 28.6 * | 28.6 | 14.3 | 0.0 |
| AL | 31.6 | 21.4 | 39.8 * | 13.8 | 52.0 * |
| AR | 46.3 * | 18.0 | 29.8 * | 24.7 * | 28.6 * |
| AZ | 53.4 * | 10.2 | 12.7 | 43.2 * | 3.4 |
| CA | 41.1 * | 27.7 | 41.1 * | 28.8 * | 22.6 * |
| CO | 15.4 | 13.0 | 5.8 | 18.8 | 11.1 |
| CT | 2.4 | 11.5 | 19.0 | 1.2 | 19.4 |
| DC | 54.5 * | 13.6 | 9.1 | 4.5 | 13.6 |
| DE | 21.4 | 4.8 | 33.3 * | 31.0 * | 45.2 * |
| FL | 28.5 | 20.0 | 24.7 | 9.5 | 15.6 |
| GA | 21.7 | 5.7 | 1.0 | 10.4 | 8.7 |
| HI | 23.8 | 59.5 * | 57.1 * | 7.1 | 16.7 |
| IA | 18.7 | 22.4 | 16.5 | 17.4 | 17.0 |
| ID | 36.4 * | 32.5 * | 27.3 | 16.9 | 19.5 |
| IL | 32.0 | 31.9 * | 24.4 | 33.9 * | 21.5 |
| IN | 30.7 | 25.0 | 18.8 | 37.6 * | 12.8 |
| KS | 25.3 | 19.0 | 27.2 | 23.9 | 23.4 * |
| KY | 10.4 | 23.5 | 22.3 | 7.7 | 7.7 |
| LA | 21.7 | 8.0 | 18.4 | 5.9 | 8.9 |
| MA | 3.4 | 20.0 | 6.6 | 2.5 | 7.6 |
| MD | 13.0 | 1.4 | 5.6 | 5.1 | 10.7 |
| ME | 18.4 | 28.0 | 28.8 * | 17.6 | 5.6 |
| MI | 40.9 * | 4.2 | 4.2 | 33.7 * | 35.5 * |
| MN | 3.1 | 29.1 * | 0.8 | 3.9 | 7.2 |
| MO | 16.1 | 14.8 | 15.0 | 7.3 | 12.8 |
| MS | 17.4 | 28.4 * | 14.4 | 24.4 | 18.9 |
| MT | 6.3 | 13.7 | 2.1 | 5.3 | 18.9 |
| NC | 17.4 | 11.3 | 4.2 | 8.7 | 5.8 |
| ND | 26.7 | 14.7 | 17.3 | 2.7 | 30.7 * |
| NE | 8.6 | 3.4 | 7.3 | 8.2 | 11.2 |
| NH | 8.0 | 32.0 * | 45.3 * | 2.7 | 17.3 |
| NJ | 5.5 | 14.0 | 9.9 | 2.1 | 5.1 |
| NM | 4.8 | 6.3 | 9.5 | 1.6 | 4.8 |
| NV | 55.3 * | 60.5 * | 55.3 * | 7.9 | 23.7 * |
| NY | 6.8 | 2.4 | 5.6 | 6.6 | 12.6 |
| OH | 16.4 | 21.6 | 13.2 | 22.7 | 22.2 |
| OK | 20.4 | 18.3 | 15.7 | 6.5 | 12.0 |
| OR | 11.8 | 30.3 * | 11.2 | 14.5 | 19.1 |
| PA | 11.2 | 2.3 | 18.3 | 12.3 | 10.7 |
| RI | 16.3 | 20.7 | 3.3 | 12.0 | 9.8 |
| SC | 44.6 * | 20.0 | 36.6 * | 23.4 | 23.4 * |
| SD | 24.8 | 18.8 | 8.9 | 30.7 * | 6.9 |
| TN | 20.2 | 13.2 | 11.7 | 11.1 | 14.4 |
| TX | 23.9 | 4.6 | 9.4 | 13.3 | 12.9 |
| UT | 26.4 | 1.1 | 1.1 | 30.8 * | 6.6 |
| VA | 9.3 | 0.8 | 18.6 | 8.0 | 15.6 |
| VT | 5.4 | 5.4 | 2.7 | 2.7 | 13.5 |
| WA | 38.4 * | 21.7 | 12.7 | 27.9 * | 31.9 * |
| WI | 7.5 | 42.1 * | 13.0 | 16.3 | 8.8 |
| WV | 28.2 | 16.7 | 14.1 | 9.0 | 7.7 |
| WY | 47.2 * | 19.4 | 33.3 * | 22.2 | 13.9 |

* The ten states in which the highest percentage of facilities had deficiencies.

TABLE 33 (Continued)
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1997

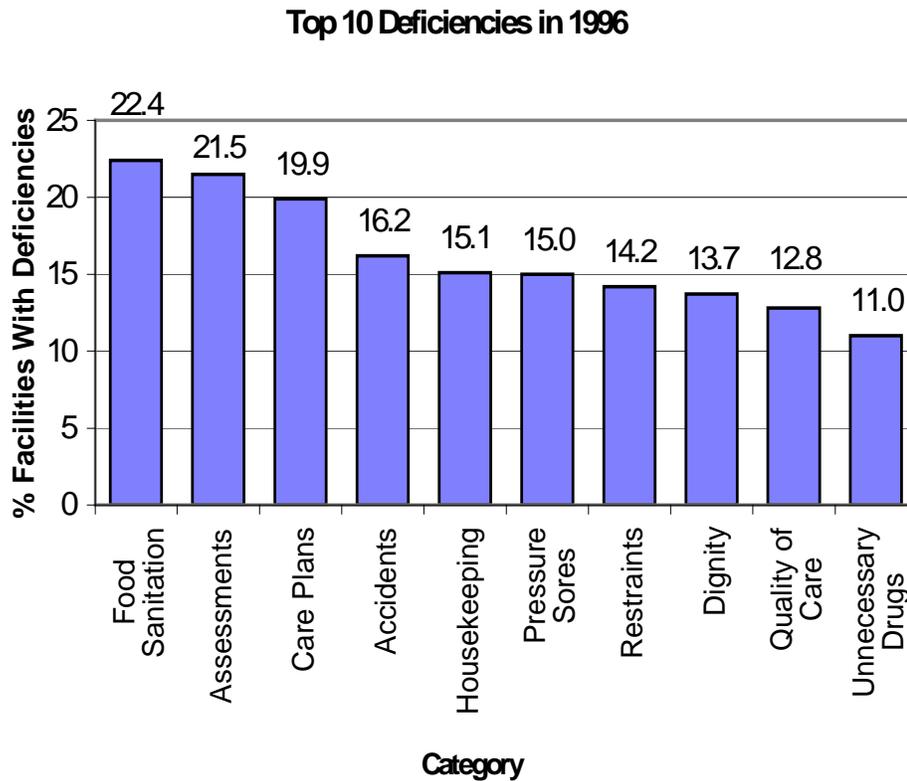
Percent of Facilities with Deficiencies

| | Quality of Care (F309) | Physical Restraints (F221) | Housekeeping (F253) | Dignity (F241) | Accident Prevention (F324) |
|-----------|------------------------------|----------------------------------|------------------------|-------------------|----------------------------------|
| US | 14.4 | 13.5 | 13.3 | 13.2 | 11.9 |
| AK | 28.6 * | 21.4 * | 7.1 | 7.1 | 21.4 * |
| AL | 7.1 | 16.3 | 0.5 | 12.8 | 11.7 |
| AR | 23.5 | 14.1 | 40.0 * | 12.9 | 5.1 |
| AZ | 5.9 | 19.5 * | 34.7 * | 16.1 | 1.7 |
| CA | 24.3 | 25.3 * | 25.1 * | 38.9 * | 19.3 * |
| CO | 9.6 | 10.6 | 15.4 | 6.3 | 2.9 |
| CT | 22.5 | 4.3 | 2.4 | 4.0 | 25.7 * |
| DC | 22.7 | 4.5 | 50.0 * | 9.1 | 4.5 |
| DE | 21.4 | 11.9 | 0.0 | 14.3 | 26.2 * |
| FL | 11.6 | 12.7 | 13.9 | 22.7 * | 10.3 |
| GA | 16.7 | 2.7 | 16.1 | 7.7 | 7.0 |
| HI | 7.1 | 11.9 | 2.4 | 26.2 * | 0.0 |
| IA | 19.2 | 9.1 | 9.8 | 6.4 | 18.7 * |
| ID | 31.2 * | 27.3 * | 23.4 * | 11.7 | 23.4 * |
| IL | 12.2 | 16.5 | 25.7 * | 16.0 | 13.7 |
| IN | 11.1 | 25.2 * | 10.6 | 16.4 | 12.2 |
| KS | 33.2 * | 15.5 | 16.8 | 9.2 | 18.2 |
| KY | 4.6 | 11.9 | 6.9 | 6.2 | 6.5 |
| LA | 4.7 | 3.0 | 7.4 | 9.2 | 3.0 |
| MA | 1.1 | 13.2 | 1.7 | 2.6 | 14.4 |
| MD | 26.5 | 2.3 | 6.0 | 4.2 | 6.5 |
| ME | 16.0 | 7.2 | 9.6 | 4.8 | 4.0 |
| MI | 26.4 * | 19.0 | 30.3 * | 18.5 * | 22.4 * |
| MN | 10.1 | 24.5 * | 2.6 | 9.5 | 2.8 |
| MO | 7.1 * | 7.5 | 10.4 | 8.8 | 7.8 |
| MS | 7.0 | 5.0 | 13.9 | 5.5 | 4.0 |
| MT | 17.9 | 6.3 | 3.2 | 7.4 | 9.5 |
| NC | 17.4 | 6.9 | 10.8 | 24.5 * | 14.2 |
| ND | 12.0 | 16.0 | 16.0 | 26.7 * | 12.0 |
| NE | 11.6 | 6.4 | 1.3 | 4.3 | 5.6 |
| NH | 12.0 | 4.0 | 5.3 | 5.3 | 13.3 |
| NJ | 6.5 | 7.5 | 3.8 | 8.6 | 7.2 |
| NM | 0.0 | 14.3 | 3.2 | 9.5 | 3.2 |
| NV | 28.9 * | 50.0 * | 31.6 * | 34.2 * | 28.9 * |
| NY | 7.7 | 9.4 | 8.1 | 10.0 | 9.0 |
| OH | 7.3 | 12.5 | 6.2 | 9.3 | 15.8 |
| OK | 0.8 | 20.4 * | 11.0 | 4.7 | 0.3 |
| OR | 38.2 * | 12.5 | 8.6 | 16.4 | 23.0 * |
| PA | 13.2 | 14.5 | 4.3 | 7.0 | 17.3 |
| RI | 5.4 | 15.2 | 12.0 | 2.2 | 12.0 |
| SC | 28.0 * | 17.7 | 11.4 | 32.0 * | 9.1 |
| SD | 5.0 | 20.8 * | 5.9 | 3.0 | 7.9 |
| TN | 7.3 | 5.0 | 12.6 | 5.3 | 1.8 |
| TX | 14.7 | 8.4 | 22.8 * | 6.8 | 8.8 |
| UT | 17.6 | 1.1 | 7.7 | 14.3 | 0.0 |
| VA | 24.1 | 5.5 | 2.1 | 6.8 | 11.8 |
| VT | 8.1 | 18.9 | 0.0 | 5.4 | 8.1 |
| WA | 37.0 * | 14.1 | 25.7 * | 29.0 * | 23.2 * |
| WI | 13.8 | 16.5 | 7.5 | 6.5 | 13.5 |
| WV | 25.6 * | 20.5 * | 2.6 | 11.5 | 5.1 |
| WY | 8.3 | 16.7 | 8.3 | 41.7 * | 2.8 |

* The ten states in which the highest percentage of facilities had deficiencies.

Top Ten Deficiencies For Certified Facilities in 1996

The top ten most frequently cited deficiencies in the U.S. are shown by state in 1996 on Table 34. The five largest number of deficiencies was given for failure to ensure sanitary food (22.4 percent); to conduct comprehensive resident assessment (21.5 percent); to prepare comprehensive resident care plans (19.9 percent); to remove accident hazards (16.2 percent); to provide adequate housekeeping (15.1 percent).



Top Ten States Citing the Top Deficiencies in 1996

Table 34 also shows the top ten states in terms of the number of deficiencies which were issued to nursing facilities for each of the top 10 deficiencies (See states with asterisks). In 1996, California and Nevada had the most deficiencies (with 8 deficiencies each) of the top 10 deficiency categories.

**TABLE 34
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1996**

Percent of Facilities with Deficiencies

| | Food Sanitation (F371) | Comprehensive Assessments (F272) | Comprehensive Care Plans (F279) | Accidents (F323) | Housekeeping (F253) |
|-----------|---------------------------------------|---|--|-----------------------------|--------------------------------|
| US | 22.4 | 21.5 | 19.9 | 16.2 | 15.1 |
| AK | 0.0 | 50.0 * | 18.8 | 0.0 | 0.0 |
| AL | 24.5 | 39.4 * | 45.2 * | 15.9 | 5.3 |
| AR | 39.5 * | 28.9 | 32.8 * | 35.9 * | 39.5 * |
| AZ | 51.4 * | 28.2 | 18.3 | 44.4 * | 33.1 * |
| CA | 41.9 * | 32.5 | 47.3 * | 27.8 * | 26.0 * |
| CO | 15.8 | 24.2 | 8.9 | 17.9 | 4.7 |
| CT | 3.5 | 9.6 | 6.1 | 2.6 | 2.6 |
| DC | 66.7 * | 11.1 | 27.8 | 11.1 | 61.1 * |
| DE | 43.2 * | 13.5 | 45.9 * | 45.9 * | 0.0 |
| FL | 21.7 | 29.4 | 28.8 | 8.4 | 8.0 |
| GA | 24.4 | 7.9 | 0.6 | 13.0 | 17.6 |
| HI | 32.5 * | 57.5 * | 37.5 * | 0.0 | 2.5 |
| IA | 18.6 | 19.1 | 9.1 | 11.0 | 7.7 |
| ID | 33.8 * | 23.0 | 18.9 | 25.7 | 24.3 |
| IL | 34.8 * | 37.8 * | 25.8 | 30.1 * | 26.1 * |
| IN | 28.6 | 38.3 * | 26.6 | 29.6 * | 25.3 * |
| KS | 29.7 | 28.5 | 28.0 | 27.7 * | 30.2 * |
| KY | 7.5 | 12.1 | 12.5 | 2.5 | 3.2 |
| LA | 26.1 | 9.1 | 17.9 | 4.8 | 6.7 |
| MA | 3.5 | 28.4 | 6.4 | 2.9 | 2.7 |
| MD | 10.1 | 2.9 | 5.3 | 4.8 | 5.8 |
| ME | 20.0 | 20.8 | 28.0 | 8.8 | 6.4 |
| MI | 42.3 * | 15.6 | 13.4 | 30.9 * | 30.2 * |
| MN | 8.1 | 25.4 | 2.5 | 5.3 | 1.4 |
| MO | 20.1 | 20.5 | 21.5 | 8.7 | 10.7 |
| MS | 21.1 | 36.3 * | 22.1 | 26.3 | 23.7 |
| MT | 7.5 | 19.4 | 15.1 | 18.3 | 4.3 |
| NC | 18.6 | 15.3 | 10.7 | 8.5 | 14.8 |
| ND | 23.0 | 24.1 | 13.8 | 1.1 | 23.0 |
| NE | 6.6 | 6.1 | 15.7 | 7.0 | 3.9 |
| NH | 8.6 | 31.4 | 41.4 * | 8.6 | 10.0 |
| NJ | 7.0 | 10.3 | 14.0 | 3.0 | 6.3 |
| NM | 5.1 | 3.8 | 6.3 | 6.3 | 1.3 |
| NV | 59.0 * | 35.9 * | 41.0 * | 25.6 | 25.6 * |
| NY | 10.0 | 4.1 | 12.2 | 10.0 | 8.4 |
| OH | 24.5 | 24.6 | 20.0 | 25.8 | 14.1 |
| OK | 20.3 | 10.6 | 10.3 | 5.8 | 11.6 |
| OR | 10.4 | 37.7 * | 11.7 | 8.4 | 5.2 |
| PA | 9.6 | 5.0 | 16.8 | 12.3 | 5.4 |
| RI | 16.3 | 27.9 | 5.8 | 9.3 | 5.8 |
| SC | 31.5 | 28.5 | 32.7 * | 21.2 | 7.3 |
| SD | 13.0 | 54.0 * | 35.0 * | 15.0 | 4.0 |
| TN | 28.7 | 44.1 * | 29.6 * | 12.0 | 18.5 |
| TX | 23.9 | 6.3 | 9.8 | 13.3 | 24.0 |
| UT | 25.3 | 5.1 | 6.3 | 30.4 * | 10.1 |
| VA | 11.9 | 5.2 | 22.6 | 10.7 | 7.9 |
| VT | 0.0 | 18.9 | 2.7 | 5.4 | 0.0 |
| WA | 31.5 | 30.0 | 21.0 | 27.0 * | 25.8 * |
| WI | 5.1 | 28.3 | 14.1 | 9.8 | 12.6 |
| WV | 20.9 | 8.2 | 11.8 | 4.5 | 0.9 |
| WY | 24.3 | 16.2 | 16.2 | 13.5 | 5.4 |

* The ten states in which the highest percentage of facilities had deficiencies.

TABLE 34 (Continued)
TOP TEN U.S. DEFICIENCIES BY STATE FOR FACILITIES CERTIFIED
CALENDAR YEAR 1996

Percent of Facilities with Deficiencies

| | Pressure Sores (F314) | Physical Restraints (F221) | Dignity (F241) | Quality of Care (F309) | Unnecessary Drugs (F329) |
|-----------|-----------------------------|----------------------------------|-------------------|------------------------------|--------------------------------|
| US | 15.0 | 14.2 | 13.7 | 12.8 | 11.0 |
| AK | 0.0 | 0.0 | 0.0 | 12.5 | 0.0 |
| AL | 22.6 * | 22.1 * | 13.9 | 4.3 | 16.8 * |
| AR | 29.3 * | 11.7 | 9.4 | 28.5 * | 20.3 * |
| AZ | 4.2 | 16.9 | 19.7 * | 6.3 | 13.4 |
| CA | 20.5 | 25.9 * | 40.9 * | 22.0 * | 26.6 * |
| CO | 18.9 | 6.8 | 7.4 | 18.4 | 10.0 |
| CT | 12.3 | 1.8 | 6.1 | 15.4 | 0.9 |
| DC | 22.2 * | 0.0 | 16.7 | 5.6 | 5.6 |
| DE | 13.5 | 21.6 * | 24.3 * | 32.4 * | 10.8 |
| FL | 14.5 | 17.1 | 19.8 * | 8.0 | 12.1 |
| GA | 9.6 | 2.5 | 9.3 | 18.1 | 1.7 |
| HI | 7.5 | 10.0 | 25.0 * | 0.0 | 7.5 |
| IA | 21.2 * | 8.6 | 7.0 | 9.1 | 13.5 |
| ID | 5.4 | 14.9 | 9.5 | 32.4 * | 21.6 * |
| IL | 14.0 | 15.3 | 18.6 | 10.6 | 6.8 |
| IN | 18.0 | 11.7 | 13.0 | 3.7 | 12.6 |
| KS | 30.5 * | 14.1 | 9.9 | 21.2 * | 15.3 |
| KY | 3.9 | 10.0 | 5.0 | 3.2 | 5.0 |
| LA | 8.2 | 4.8 | 9.7 | 10.9 | 10.6 |
| MA | 6.6 | 22.6 * | 4.6 | 2.7 | 5.6 |
| MD | 8.2 | 6.3 | 7.2 | 27.5 * | 1.9 |
| ME | 5.6 | 9.6 | 7.2 | 2.4 | 7.2 |
| MI | 35.8 * | 23.8 * | 14.4 | 21.2 * | 32.6 * |
| MN | 11.5 | 13.7 | 14.2 | 8.9 | 4.7 |
| MO | 13.2 | 10.7 | 13.2 | 5.1 | 6.7 |
| MS | 14.2 | 10.0 | 8.9 | 7.9 | 11.6 |
| MT | 17.2 | 19.4 * | 6.5 | 18.3 | 11.8 |
| NC | 9.0 | 9.6 | 20.8 * | 13.4 | 15.8 |
| ND | 24.1 * | 23.0 * | 24.1 * | 8.0 | 11.5 |
| NE | 19.7 | 9.6 | 8.7 | 17.5 | 7.4 |
| NH | 20.0 | 4.3 | 1.4 | 10.0 | 18.6 * |
| NJ | 4.7 | 5.6 | 12.0 | 8.6 | 7.3 |
| NM | 6.3 | 8.9 | 8.9 | 2.5 | 1.3 |
| NV | 17.9 | 59.0 * | 38.5 * | 43.6 * | 23.1 * |
| NY | 12.2 | 9.7 | 12.2 | 7.7 | 4.1 |
| OH | 18.0 | 16.1 | 12.1 | 10.0 | 6.4 |
| OK | 11.9 | 17.9 | 6.3 | 0.0 | 2.1 |
| OR | 22.1 * | 13.0 | 14.9 | 36.4 * | 7.1 |
| PA | 11.5 | 18.6 | 7.5 | 11.4 | 9.3 |
| RI | 7.0 | 8.1 | 1.2 | 2.3 | 8.1 |
| SC | 26.1 * | 25.5 * | 24.8 * | 21.8 * | 27.3 * |
| SD | 21.0 | 22.0 * | 7.0 | 3.0 | 36.0 * |
| TN | 13.9 | 16.4 | 14.8 | 12.3 | 21.6 * |
| TX | 10.3 | 6.9 | 4.1 | 14.6 | 4.7 |
| UT | 8.9 | 7.6 | 17.7 | 12.7 | 5.1 |
| VA | 13.5 | 16.7 | 10.3 | 11.5 | 2.8 |
| VT | 10.8 | 18.9 | 5.4 | 8.1 | 10.8 |
| WA | 28.8 * | 19.1 | 19.5 * | 32.6 * | 9.7 |
| WI | 7.7 | 13.4 | 5.1 | 13.1 | 6.9 |
| WV | 4.5 | 10.9 | 9.1 | 18.2 | 5.5 |
| WY | 8.1 | 0.0 | 8.1 | 8.1 | 0.0 |

* The ten states in which the highest percentage of facilities had deficiencies.

Selected Deficiencies By State

The following is a presentation of selected deficiencies by state by year. These are presented in the order of the deficiency groups on the survey forms and not based on the number of deficiencies cited. These data show trends over time by state.

Physical Restraints (F221)

Residents have the right to be free of physical restraints imposed for purposes of discipline or convenience and not required to treat the resident's medical symptoms. Restraints are defined as mechanical devices, materials, or equipment that restricts freedom of movement or normal access to one's body. In 1992, 17.7 percent of facilities received deficiencies for this category. In 1998 the number of deficient facilities declined to 12.7 percent (See Table 35).

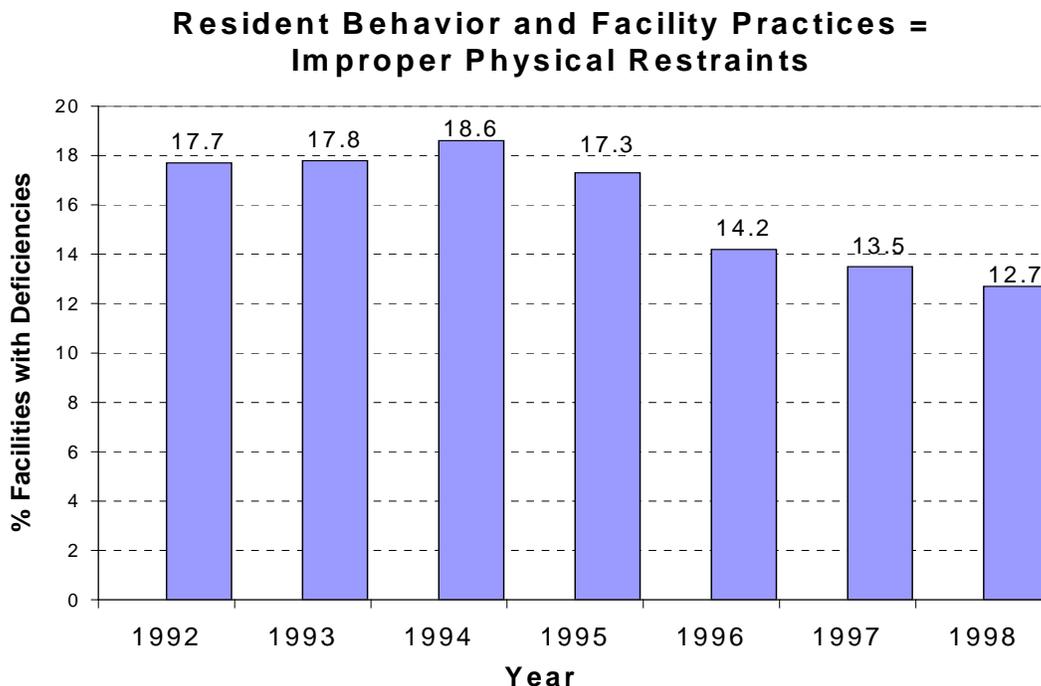


TABLE 35
DEFICIENCY GROUP=RESIDENT BEHAVIOR & FACILITY PRACTICES
PHYSICAL RESTRAINTS (F221)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 13.3 | 0.0 | 7.1 | 7.7 | 0.0 | 21.4 | 42.9 |
| AL | 21.7 | 13.9 | 41.9 | 32.8 | 22.1 | 16.3 | 11.6 |
| AR | 27.9 | 8.4 | 14.0 | 19.6 | 11.7 | 14.1 | 16.9 |
| AZ | 13.4 | 9.3 | 20.7 | 20.5 | 16.9 | 19.5 | 15.5 |
| CA | 29.4 | 30.1 | 33.3 | 24.8 | 25.9 | 25.3 | 21.4 |
| CO | 34.4 | 10.5 | 3.0 | 3.0 | 6.8 | 10.6 | 7.5 |
| CT | 24.1 | 26.7 | 10.2 | 6.0 | 1.8 | 4.3 | 3.1 |
| DC | 6.7 | 0.0 | 11.1 | 0.0 | 0.0 | 4.5 | 7.1 |
| DE | 6.1 | 2.7 | 39.5 | 24.2 | 21.6 | 11.9 | 29.6 |
| FL | 14.4 | 11.2 | 16.2 | 21.3 | 17.1 | 12.7 | 15.5 |
| GA | 8.3 | 9.1 | 20.7 | 8.8 | 2.5 | 2.7 | 3.1 |
| HI | 57.1 | 48.0 | 46.2 | 38.1 | 10.0 | 11.9 | 13.6 |
| IA | 27.7 | 9.6 | 16.9 | 12.4 | 8.6 | 9.1 | 7.9 |
| ID | 14.3 | 18.5 | 19.2 | 18.8 | 14.9 | 27.3 | 13.9 |
| IL | 11.6 | 14.1 | 17.1 | 17.2 | 15.3 | 16.5 | 12.7 |
| IN | 7.8 | 13.3 | 23.8 | 14.1 | 11.7 | 25.2 | 26.5 |
| KS | 22.8 | 17.0 | 29.1 | 23.6 | 14.1 | 15.5 | 14.3 |
| KY | 23.3 | 4.2 | 12.0 | 12.8 | 10.0 | 11.9 | 16.4 |
| LA | 29.0 | 18.6 | 19.7 | 13.1 | 4.8 | 3.0 | 3.2 |
| MA | 7.9 | 21.0 | 19.6 | 17.1 | 22.6 | 13.2 | 12.6 |
| MD | 0.0 | 1.1 | 5.0 | 9.7 | 6.3 | 2.3 | 1.2 |
| ME | 2.1 | 9.6 | 10.7 | 9.6 | 9.6 | 7.2 | 15.3 |
| MI | 11.6 | 13.7 | 17.5 | 27.3 | 23.8 | 19.0 | 25.6 |
| MN | 8.6 | 22.0 | 22.6 | 17.9 | 13.7 | 24.5 | 17.0 |
| MO | 32.3 | 31.5 | 26.8 | 13.1 | 10.7 | 7.5 | 5.8 |
| MS | 36.3 | 31.1 | 21.6 | 13.6 | 10.0 | 5.0 | 5.0 |
| MT | 19.8 | 26.3 | 25.0 | 25.0 | 19.4 | 6.3 | 22.8 |
| NC | 21.8 | 12.1 | 14.9 | 17.1 | 9.6 | 6.9 | 10.9 |
| ND | 26.7 | 21.3 | 7.4 | 10.8 | 23.0 | 16.0 | 15.9 |
| NE | 26.8 | 18.3 | 14.0 | 16.8 | 9.6 | 6.4 | 6.5 |
| NH | 6.1 | 3.0 | 4.5 | 8.3 | 4.3 | 4.0 | 2.7 |
| NJ | 17.3 | 9.1 | 7.8 | 8.6 | 5.6 | 7.5 | 4.6 |
| NM | 7.0 | 17.4 | 10.4 | 19.5 | 8.9 | 14.3 | 7.6 |
| NV | 39.4 | 45.2 | 57.5 | 72.2 | 59.0 | 50.0 | 24.4 |
| NY | 11.2 | 12.6 | 14.0 | 17.0 | 9.7 | 9.4 | 8.0 |
| OH | 8.9 | 15.8 | 13.6 | 21.8 | 16.1 | 12.5 | 11.1 |
| OK | 13.6 | 21.5 | 24.3 | 23.0 | 17.9 | 20.4 | 21.2 |
| OR | 40.5 | 26.3 | 7.3 | 12.0 | 13.0 | 12.5 | 14.8 |
| PA | 14.9 | 18.5 | 19.4 | 19.7 | 18.6 | 14.5 | 11.6 |
| RI | 9.3 | 27.3 | 15.2 | 13.4 | 8.1 | 15.2 | 10.1 |
| SC | 32.2 | 31.1 | 39.6 | 35.1 | 25.5 | 17.7 | 9.8 |
| SD | 2.7 | 13.9 | 11.3 | 24.3 | 22.0 | 20.8 | 23.3 |
| TN | 28.6 | 31.8 | 29.2 | 22.7 | 16.4 | 5.0 | 4.0 |
| TX | 13.7 | 9.3 | 9.7 | 10.2 | 6.9 | 8.4 | 8.3 |
| UT | 17.9 | 37.5 | 12.2 | 23.7 | 7.6 | 1.1 | 3.4 |
| VA | 7.9 | 29.1 | 19.0 | 20.6 | 16.7 | 5.5 | 12.6 |
| VT | 6.8 | 26.8 | 38.9 | 17.5 | 18.9 | 18.9 | 11.8 |
| WA | 22.5 | 25.1 | 10.4 | 11.9 | 19.1 | 14.1 | 19.6 |
| WI | 12.7 | 17.0 | 7.2 | 8.8 | 13.4 | 16.5 | 13.1 |
| WV | 29.9 | 18.8 | 17.2 | 13.4 | 10.9 | 20.5 | 14.5 |
| WY | 17.1 | 46.4 | 35.3 | 5.3 | 0.0 | 16.7 | 22.5 |
| US | 17.7 | 17.8 | 18.6 | 17.3 | 14.2 | 13.5 | 12.7 |

Dignity (F241)

Facilities must promote care for residents in a manner and in an environment that maintains or enhances dignity and respect in full recognition of his or her individuality. This involves assisting residents to be well groomed, dress appropriately, promote independent in dining, allowing private space and property, speaking and listening respectfully, and focusing on the individual's communication. In 1992, 18.4 percent of facilities received deficiencies for this but deficiencies declined to 14.1 percent in 1998 (See Table 36).

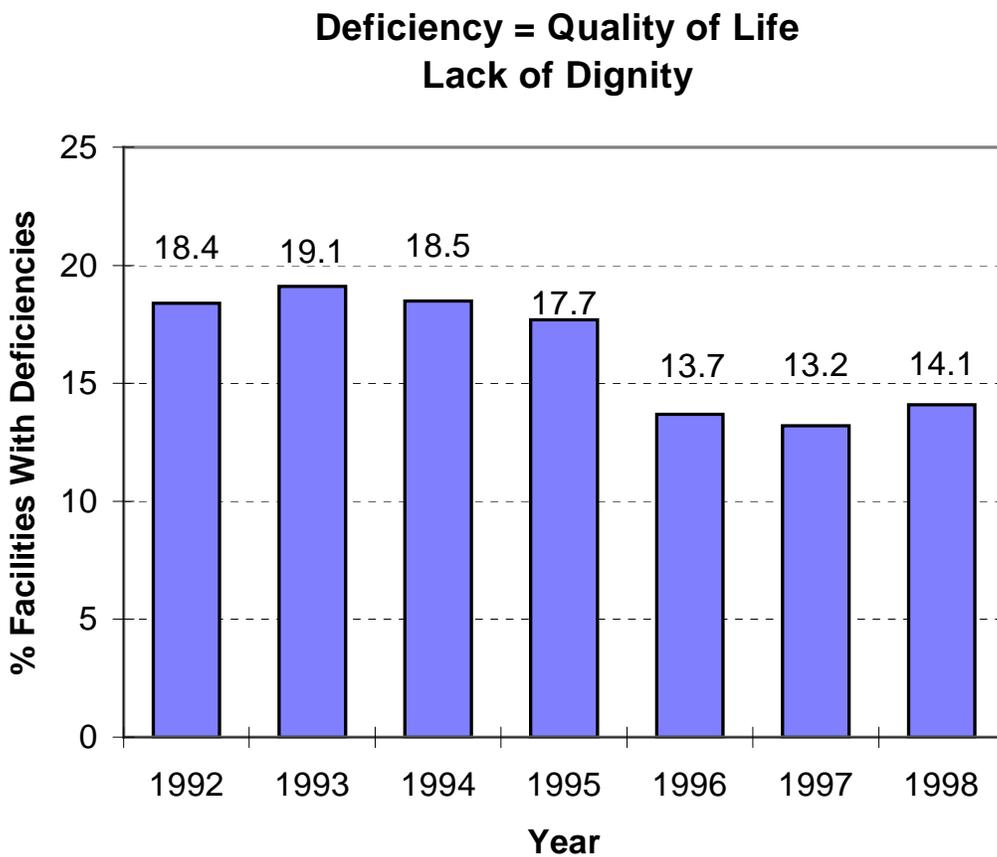


TABLE 36
DEFICIENCY GROUP=QUALITY OF LIFE
DIGNITY (F241)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 33.3 | 8.3 | 14.3 | 7.7 | 0.0 | 7.1 | 7.1 |
| AL | 22.7 | 18.0 | 21.2 | 14.1 | 13.9 | 12.8 | 9.7 |
| AR | 8.6 | 6.3 | 11.2 | 12.7 | 9.4 | 12.9 | 12.7 |
| AZ | 19.7 | 19.5 | 29.6 | 26.8 | 19.7 | 16.1 | 13.2 |
| CA | 42.7 | 52.5 | 52.1 | 44.1 | 40.9 | 38.9 | 36.7 |
| CO | 24.5 | 17.0 | 5.1 | 4.9 | 7.4 | 6.3 | 6.1 |
| CT | 16.4 | 17.7 | 4.7 | 4.0 | 6.1 | 4.0 | 4.0 |
| DC | 13.3 | 66.7 | 33.3 | 46.2 | 16.7 | 9.1 | 0.0 |
| DE | 6.1 | 2.7 | 20.9 | 9.1 | 24.3 | 14.3 | 25.9 |
| FL | 15.8 | 13.6 | 23.5 | 19.7 | 19.8 | 22.7 | 24.7 |
| GA | 18.2 | 15.0 | 16.6 | 18.4 | 9.3 | 7.7 | 6.9 |
| HI | 28.6 | 32.0 | 34.6 | 40.5 | 25.0 | 26.2 | 43.2 |
| IA | 8.7 | 7.8 | 6.3 | 4.9 | 7.0 | 6.4 | 4.3 |
| ID | 27.0 | 27.7 | 12.8 | 18.8 | 9.5 | 11.7 | 19.0 |
| IL | 22.3 | 25.4 | 23.4 | 23.8 | 18.6 | 16.0 | 21.0 |
| IN | 16.2 | 20.7 | 21.8 | 18.0 | 13.0 | 16.4 | 18.3 |
| KS | 30.2 | 20.9 | 19.1 | 16.4 | 9.9 | 9.2 | 9.0 |
| KY | 12.3 | 8.5 | 10.8 | 9.4 | 5.0 | 6.2 | 14.1 |
| LA | 12.2 | 9.8 | 9.2 | 14.1 | 9.7 | 9.2 | 9.1 |
| MA | 5.7 | 10.6 | 5.7 | 8.7 | 4.6 | 2.6 | 4.0 |
| MD | 6.7 | 6.3 | 7.0 | 16.1 | 7.2 | 4.2 | 7.0 |
| ME | 10.6 | 8.8 | 17.6 | 14.8 | 7.2 | 4.8 | 12.7 |
| MI | 17.1 | 23.9 | 18.2 | 24.3 | 14.4 | 18.5 | 20.8 |
| MN | 16.1 | 19.2 | 15.0 | 16.6 | 14.2 | 9.5 | 14.5 |
| MO | 27.2 | 27.0 | 13.4 | 13.1 | 13.2 | 8.8 | 10.6 |
| MS | 24.4 | 39.0 | 27.2 | 20.6 | 8.9 | 5.5 | 6.0 |
| MT | 17.7 | 14.7 | 13.5 | 11.0 | 6.5 | 7.4 | 5.4 |
| NC | 11.5 | 11.8 | 14.1 | 15.3 | 20.8 | 24.5 | 29.9 |
| ND | 9.3 | 7.5 | 18.5 | 14.5 | 24.1 | 26.7 | 22.7 |
| NE | 24.1 | 13.7 | 10.9 | 8.0 | 8.7 | 4.3 | 5.2 |
| NH | 7.6 | 3.0 | 6.0 | 0.0 | 1.4 | 5.3 | 1.3 |
| NJ | 12.9 | 9.9 | 12.2 | 20.8 | 12.0 | 8.6 | 6.9 |
| NM | 21.1 | 13.0 | 15.6 | 10.4 | 8.9 | 9.5 | 24.2 |
| NV | 30.3 | 38.7 | 65.0 | 41.7 | 38.5 | 34.2 | 26.8 |
| NY | 7.2 | 9.2 | 9.4 | 15.9 | 12.2 | 10.0 | 7.0 |
| OH | 14.5 | 23.0 | 21.7 | 19.9 | 12.1 | 9.3 | 10.8 |
| OK | 2.5 | 1.2 | 5.9 | 6.0 | 6.3 | 4.7 | 7.4 |
| OR | 48.7 | 8.3 | 8.7 | 15.3 | 14.9 | 16.4 | 14.8 |
| PA | 16.8 | 22.8 | 19.9 | 13.4 | 7.5 | 7.0 | 7.2 |
| RI | 12.4 | 15.6 | 9.8 | 4.9 | 1.2 | 2.2 | 4.5 |
| SC | 15.8 | 8.1 | 12.7 | 18.2 | 24.8 | 32.0 | 23.3 |
| SD | 14.3 | 12.0 | 12.3 | 11.7 | 7.0 | 3.0 | 7.0 |
| TN | 20.8 | 20.4 | 20.5 | 23.3 | 14.8 | 5.3 | 8.3 |
| TX | 13.9 | 12.1 | 14.8 | 11.4 | 4.1 | 6.8 | 7.5 |
| UT | 26.2 | 17.0 | 12.2 | 27.6 | 17.7 | 14.3 | 29.2 |
| VA | 7.5 | 10.7 | 12.5 | 12.6 | 10.3 | 6.8 | 5.6 |
| VT | 22.7 | 7.3 | 5.6 | 27.5 | 5.4 | 5.4 | 11.8 |
| WA | 26.6 | 23.6 | 19.3 | 24.5 | 19.5 | 29.0 | 26.2 |
| WI | 12.5 | 14.7 | 7.5 | 6.3 | 5.1 | 6.5 | 6.4 |
| WV | 28.0 | 21.3 | 21.9 | 16.4 | 9.1 | 11.5 | 11.6 |
| WY | 31.4 | 39.3 | 29.4 | 42.1 | 8.1 | 41.7 | 32.5 |
| US | 18.4 | 19.1 | 18.5 | 17.7 | 13.7 | 13.2 | 14.1 |

Activities Program (F248)

Facilities must provide residents with ongoing activities that meet the interests and the physical, mental, and psychosocial well-being needs of each resident. In 1992, 12.2 percent of facilities in the U.S. were given deficiencies in this category while 8.1 percent received deficiencies in 1998 (See Table 37).

**Deficiency = Quality Of Life
Inadequate Activities Program**

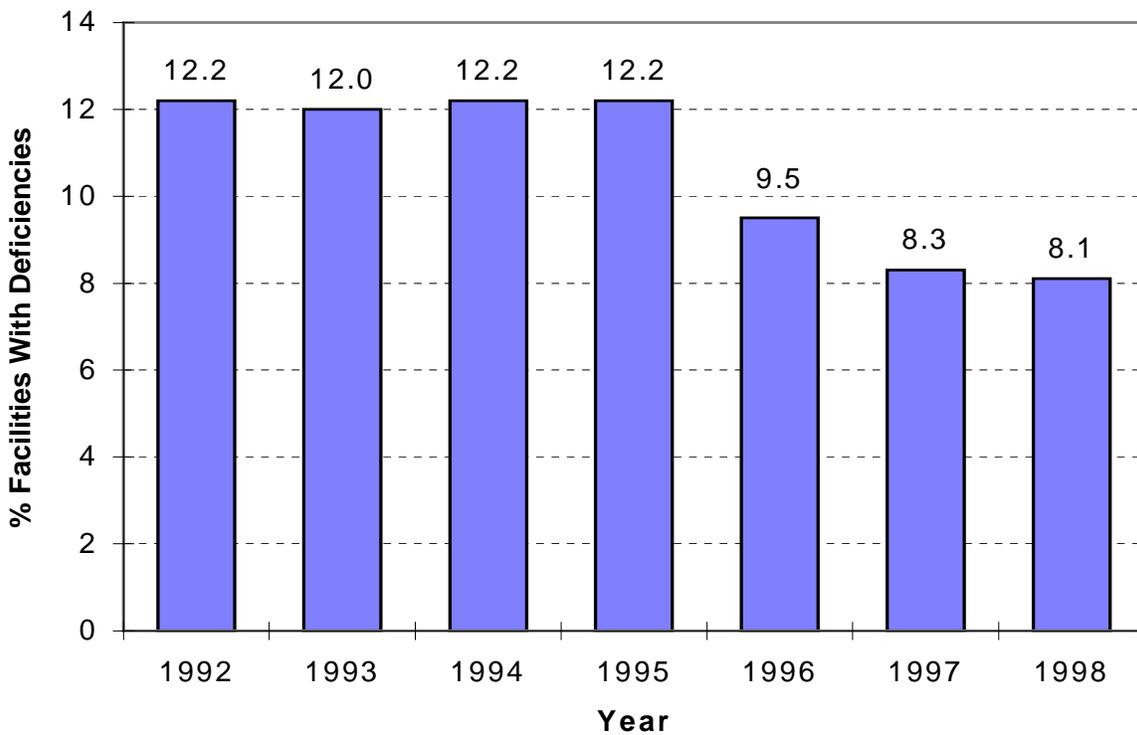


TABLE 37
DEFICIENCY GROUP=QUALITY OF LIFE
ACTIVITIES PROGRAM (F248)

| Percent of Facilities with Deficiencies | | | | | | | |
|---|-------------|-------------|-------------|-------------|------------|------------|------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 26.7 | 8.3 | 0.0 | 0.0 | 6.3 | 14.3 | 7.1 |
| AL | 14.0 | 8.2 | 16.3 | 9.6 | 6.7 | 7.1 | 13.9 |
| AR | 9.9 | 6.7 | 12.8 | 14.2 | 18.8 | 12.5 | 10.2 |
| AZ | 9.4 | 9.3 | 22.2 | 10.7 | 4.9 | 5.9 | 4.7 |
| CA | 27.8 | 28.1 | 27.6 | 20.0 | 20.7 | 18.8 | 17.8 |
| CO | 28.6 | 17.0 | 7.6 | 3.4 | 6.8 | 3.4 | 3.8 |
| CT | 2.3 | 6.2 | 3.9 | 10.4 | 1.8 | 1.2 | 0.4 |
| DC | 6.7 | 6.7 | 5.6 | 7.7 | 0.0 | 0.0 | 0.0 |
| DE | 3.0 | 2.7 | 16.3 | 9.1 | 18.9 | 9.5 | 14.8 |
| FL | 10.1 | 9.1 | 10.2 | 14.1 | 12.3 | 12.7 | 13.6 |
| GA | 7.4 | 3.5 | 7.1 | 7.4 | 4.5 | 1.0 | 1.1 |
| HI | 42.9 | 60.0 | 50.0 | 33.3 | 17.5 | 16.7 | 31.8 |
| IA | 8.5 | 10.3 | 5.6 | 3.9 | 2.1 | 5.4 | 2.6 |
| ID | 22.2 | 20.0 | 30.8 | 15.0 | 14.9 | 20.8 | 13.9 |
| IL | 9.6 | 11.6 | 13.0 | 13.5 | 11.1 | 10.3 | 11.8 |
| IN | 12.7 | 16.9 | 16.6 | 19.7 | 11.7 | 13.5 | 13.1 |
| KS | 23.0 | 16.3 | 13.3 | 15.6 | 16.1 | 9.2 | 7.0 |
| KY | 4.7 | 3.9 | 5.4 | 10.7 | 2.9 | 4.2 | 7.6 |
| LA | 9.2 | 12.2 | 6.2 | 12.2 | 9.1 | 5.9 | 5.6 |
| MA | 7.4 | 9.6 | 8.1 | 7.9 | 4.6 | 2.6 | 2.9 |
| MD | 3.4 | 2.1 | 4.5 | 4.8 | 2.4 | 1.9 | 1.8 |
| ME | 2.8 | 8.0 | 6.9 | 10.4 | 4.0 | 3.2 | 2.5 |
| MI | 25.0 | 28.2 | 24.3 | 24.6 | 19.5 | 14.8 | 12.2 |
| MN | 8.2 | 8.7 | 9.9 | 8.4 | 3.9 | 3.6 | 8.7 |
| MO | 17.7 | 17.8 | 13.4 | 11.9 | 11.0 | 5.5 | 8.6 |
| MS | 5.6 | 6.7 | 9.9 | 9.0 | 4.2 | 3.0 | 2.0 |
| MT | 32.3 | 21.1 | 17.7 | 12.0 | 12.9 | 9.5 | 14.1 |
| NC | 4.4 | 3.2 | 6.2 | 8.8 | 4.6 | 2.1 | 4.4 |
| ND | 0.0 | 5.0 | 11.1 | 13.3 | 8.0 | 13.3 | 10.2 |
| NE | 18.2 | 10.5 | 8.1 | 8.4 | 9.6 | 9.4 | 3.0 |
| NH | 1.5 | 3.0 | 4.5 | 5.6 | 1.4 | 1.3 | 4.0 |
| NJ | 12.2 | 12.2 | 15.0 | 23.1 | 5.6 | 5.5 | 6.2 |
| NM | 7.0 | 5.8 | 13.0 | 9.1 | 8.9 | 6.3 | 13.6 |
| NV | 9.1 | 6.5 | 17.5 | 30.6 | 17.9 | 28.9 | 7.3 |
| NY | 4.5 | 4.6 | 7.6 | 8.4 | 6.8 | 4.7 | 3.1 |
| OH | 4.6 | 10.0 | 9.0 | 11.8 | 8.1 | 6.3 | 8.2 |
| OK | 5.6 | 7.3 | 5.0 | 9.1 | 11.3 | 7.0 | 5.4 |
| OR | 30.4 | 16.7 | 18.0 | 21.3 | 15.6 | 14.5 | 5.8 |
| PA | 9.3 | 9.6 | 10.3 | 10.2 | 7.9 | 5.5 | 7.1 |
| RI | 7.2 | 5.2 | 5.4 | 2.4 | 2.3 | 4.3 | 3.4 |
| SC | 17.1 | 8.1 | 10.4 | 9.7 | 11.5 | 12.0 | 4.9 |
| SD | 6.3 | 13.0 | 8.5 | 11.7 | 16.0 | 6.9 | 5.8 |
| TN | 8.6 | 8.0 | 13.1 | 10.0 | 6.5 | 1.5 | 2.3 |
| TX | 10.2 | 9.4 | 10.5 | 8.4 | 4.9 | 6.1 | 4.1 |
| UT | 23.8 | 12.5 | 5.6 | 13.2 | 6.3 | 5.5 | 5.6 |
| VA | 2.9 | 4.5 | 3.4 | 2.1 | 6.7 | 3.0 | 0.9 |
| VT | 15.9 | 7.3 | 11.1 | 12.5 | 5.4 | 5.4 | 0.0 |
| WA | 22.5 | 24.0 | 21.2 | 19.7 | 16.9 | 20.3 | 19.2 |
| WI | 10.7 | 9.9 | 6.7 | 11.3 | 9.0 | 11.8 | 10.5 |
| WV | 9.3 | 6.3 | 8.6 | 6.0 | 10.9 | 10.3 | 14.5 |
| WY | 40.0 | 39.3 | 38.2 | 31.6 | 13.5 | 30.6 | 12.5 |
| US | 12.2 | 12.0 | 12.2 | 12.2 | 9.5 | 8.3 | 8.1 |

Housekeeping (F253)

Housekeeping and maintenance services must be provided to maintain a sanitary, orderly, and comfortable environment. In 1992, 19.1 percent of facilities received deficiencies for failing to meet this requirement compared to 14.4 percent in 1998 (See Table 38).

Deficiency = Quality Of Life Poor Housekeeping

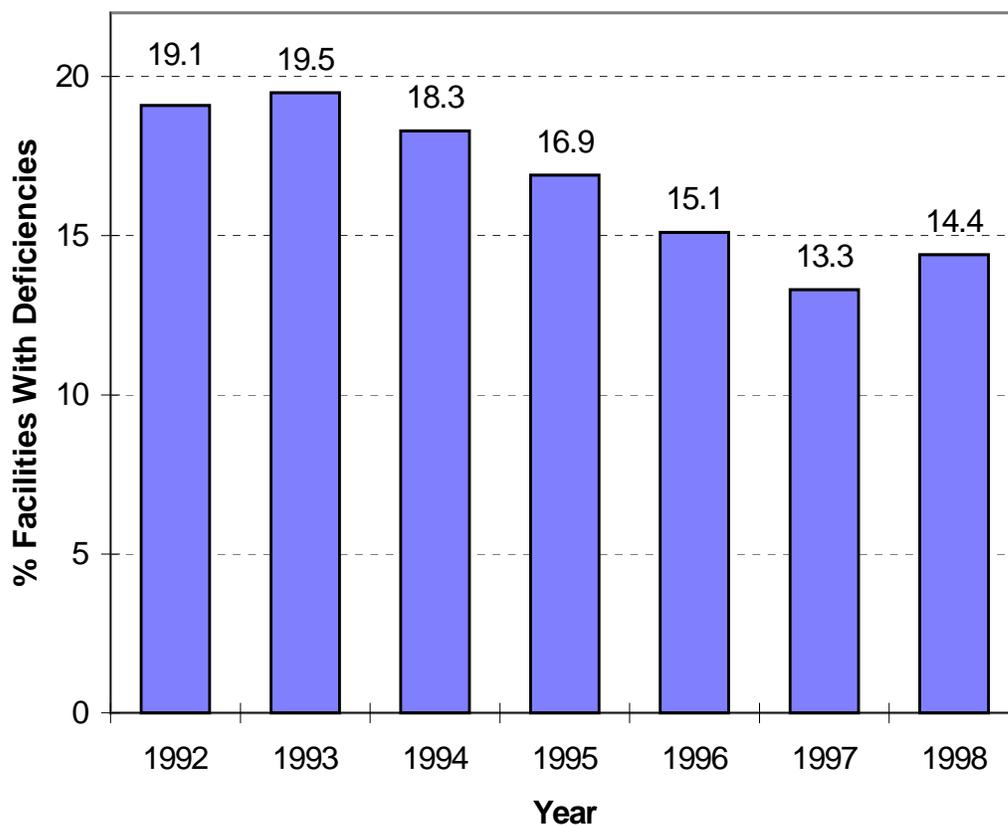


TABLE 38
DEFICIENCY GROUP=QUALITY OF LIFE
HOUSEKEEPING (F253)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 8.3 | 14.3 | 7.7 | 0.0 | 7.1 | 7.1 |
| AL | 8.2 | 8.2 | 6.4 | 5.1 | 5.3 | 0.5 | 3.7 |
| AR | 24.0 | 15.1 | 21.5 | 31.9 | 39.5 | 40.0 | 36.4 |
| AZ | 15.7 | 5.9 | 14.8 | 17.9 | 33.1 | 34.7 | 27.9 |
| CA | 28.2 | 38.0 | 34.9 | 23.6 | 26.0 | 25.1 | 28.8 |
| CO | 31.3 | 24.0 | 7.6 | 4.9 | 4.7 | 15.4 | 16.5 |
| CT | 7.7 | 4.5 | 0.0 | 0.0 | 2.6 | 2.4 | 4.0 |
| DC | 26.7 | 40.0 | 77.8 | 76.9 | 61.1 | 50.0 | 64.3 |
| DE | 6.1 | 8.1 | 4.7 | 6.1 | 0.0 | 0.0 | 0.0 |
| FL | 12.2 | 10.0 | 10.2 | 11.8 | 8.0 | 13.9 | 13.3 |
| GA | 14.8 | 15.9 | 23.1 | 16.7 | 17.6 | 16.1 | 24.3 |
| HI | 17.1 | 16.0 | 7.7 | 0.0 | 2.5 | 2.4 | 9.1 |
| IA | 6.1 | 8.5 | 9.3 | 4.4 | 7.7 | 9.8 | 8.1 |
| ID | 31.7 | 21.5 | 9.0 | 18.8 | 24.3 | 23.4 | 30.4 |
| IL | 17.7 | 23.4 | 24.0 | 27.8 | 26.1 | 25.7 | 23.7 |
| IN | 5.8 | 6.1 | 13.6 | 17.0 | 25.3 | 10.6 | 5.6 |
| KS | 88.0 | 63.1 | 40.7 | 38.2 | 30.2 | 16.8 | 13.5 |
| KY | 9.3 | 3.9 | 6.6 | 10.7 | 3.2 | 6.9 | 25.7 |
| LA | 29.4 | 33.2 | 22.3 | 20.5 | 6.7 | 7.4 | 7.4 |
| MA | 4.0 | 6.0 | 5.1 | 5.2 | 2.7 | 1.7 | 0.2 |
| MD | 2.2 | 2.1 | 4.5 | 5.4 | 5.8 | 6.0 | 3.5 |
| ME | 1.4 | 7.2 | 11.5 | 10.4 | 6.4 | 9.6 | 7.6 |
| MI | 44.1 | 45.3 | 42.0 | 43.2 | 30.2 | 30.3 | 33.5 |
| MN | 11.4 | 16.4 | 15.3 | 8.2 | 1.4 | 2.6 | 4.7 |
| MO | 19.4 | 17.1 | 9.5 | 12.5 | 10.7 | 10.4 | 5.4 |
| MS | 30.0 | 25.0 | 35.8 | 28.1 | 23.7 | 13.9 | 29.0 |
| MT | 10.4 | 13.7 | 18.8 | 11.0 | 4.3 | 3.2 | 4.3 |
| NC | 6.2 | 10.3 | 8.1 | 9.6 | 14.8 | 10.8 | 9.9 |
| ND | 4.0 | 5.0 | 4.9 | 10.8 | 23.0 | 16.0 | 14.8 |
| NE | 18.2 | 7.8 | 5.4 | 5.8 | 3.9 | 1.3 | 3.0 |
| NH | 13.6 | 3.0 | 4.5 | 8.3 | 10.0 | 5.3 | 6.7 |
| NJ | 14.6 | 7.6 | 10.5 | 11.2 | 6.3 | 3.8 | 2.9 |
| NM | 16.9 | 13.0 | 1.3 | 0.0 | 1.3 | 3.2 | 10.6 |
| NV | 24.2 | 25.8 | 30.0 | 33.3 | 25.6 | 31.6 | 19.5 |
| NY | 6.5 | 6.9 | 8.9 | 8.4 | 8.4 | 8.1 | 5.9 |
| OH | 8.7 | 17.8 | 21.9 | 23.0 | 14.1 | 6.2 | 10.2 |
| OK | 3.3 | 2.1 | 7.9 | 9.7 | 11.6 | 11.0 | 10.4 |
| OR | 19.6 | 16.7 | 12.7 | 10.0 | 5.2 | 8.6 | 3.2 |
| PA | 18.0 | 17.5 | 12.5 | 10.2 | 5.4 | 4.3 | 7.1 |
| RI | 14.4 | 3.9 | 16.3 | 8.5 | 5.8 | 12.0 | 21.3 |
| SC | 5.5 | 4.4 | 0.0 | 1.9 | 7.3 | 11.4 | 17.2 |
| SD | 7.1 | 8.3 | 3.8 | 2.7 | 4.0 | 5.9 | 15.1 |
| TN | 19.3 | 22.5 | 19.8 | 18.3 | 18.5 | 12.6 | 20.1 |
| TX | 34.1 | 30.8 | 31.8 | 27.9 | 24.0 | 22.8 | 22.4 |
| UT | 16.7 | 17.0 | 6.7 | 11.8 | 10.1 | 7.7 | 2.2 |
| VA | 7.9 | 16.0 | 12.5 | 7.6 | 7.9 | 2.1 | 0.9 |
| VT | 4.5 | 9.8 | 5.6 | 7.5 | 0.0 | 0.0 | 2.9 |
| WA | 32.2 | 43.0 | 31.2 | 25.3 | 25.8 | 25.7 | 33.2 |
| WI | 10.9 | 14.0 | 14.7 | 13.3 | 12.6 | 7.5 | 6.2 |
| WV | 80.4 | 72.5 | 35.2 | 28.4 | 0.9 | 2.6 | 2.9 |
| WY | 5.7 | 10.7 | 2.9 | 21.1 | 5.4 | 8.3 | 5.0 |
| US | 19.1 | 19.5 | 18.3 | 16.9 | 15.1 | 13.3 | 14.4 |

Activities of Daily Living Services (F312)

Residents who are unable to carry out activities of daily living (ADL) are given the necessary services to maintain nutrition, grooming, and personal and oral hygiene. In 1992, 8.3 percent of facilities were given deficiencies for the violation compared with 12.0 percent of facilities in 1998 (See Table 39).

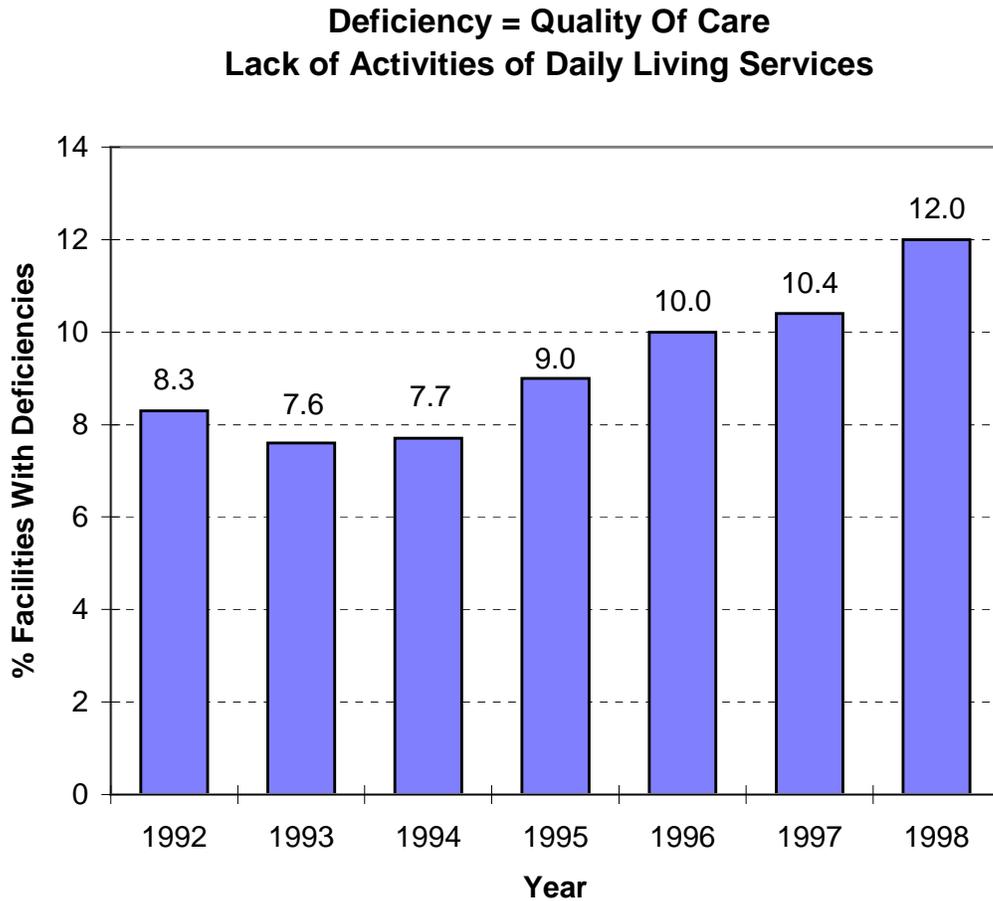


TABLE 39
DEFICIENCY GROUP=QUALITY OF CARE
ACTIVITIES OF DAILY LIVING SERVICES (F312)

| Percent of Facilities with Deficiencies | | | | | | | |
|---|------------|------------|------------|------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 0.0 | 0.0 | 0.0 | 6.3 | 7.1 | 7.1 |
| AL | 1.9 | 3.6 | 11.3 | 8.1 | 12.5 | 12.8 | 7.9 |
| AR | 9.0 | 10.5 | 5.4 | 15.8 | 25.4 | 22.4 | 25.0 |
| AZ | 6.3 | 0.8 | 7.4 | 8.0 | 5.6 | 4.2 | 8.5 |
| CA | 15.2 | 17.0 | 13.4 | 12.4 | 13.9 | 17.7 | 21.5 |
| CO | 10.9 | 8.0 | 2.0 | 5.4 | 8.4 | 7.7 | 7.1 |
| CT | 5.0 | 5.3 | 2.4 | 14.7 | 12.7 | 3.6 | 7.6 |
| DC | 0.0 | 6.7 | 11.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| DE | 0.0 | 0.0 | 9.3 | 15.2 | 5.4 | 2.4 | 14.8 |
| FL | 6.3 | 3.8 | 4.7 | 6.2 | 6.8 | 5.8 | 6.2 |
| GA | 5.5 | 6.2 | 11.5 | 14.4 | 14.7 | 11.7 | 15.4 |
| HI | 2.9 | 0.0 | 0.0 | 0.0 | 2.5 | 0.0 | 2.3 |
| IA | 6.1 | 3.2 | 5.8 | 6.6 | 6.5 | 10.3 | 8.1 |
| ID | 38.1 | 29.2 | 15.4 | 10.0 | 18.9 | 15.6 | 15.2 |
| IL | 12.3 | 8.5 | 8.5 | 11.1 | 8.6 | 9.7 | 13.2 |
| IN | 3.2 | 3.0 | 3.8 | 8.0 | 7.6 | 12.8 | 18.0 |
| KS | 11.5 | 7.0 | 5.8 | 6.2 | 16.1 | 18.5 | 19.8 |
| KY | 3.8 | 6.9 | 3.1 | 6.4 | 3.9 | 5.8 | 9.9 |
| LA | 8.6 | 6.4 | 2.6 | 2.4 | 2.4 | 3.0 | 2.7 |
| MA | 4.2 | 4.2 | 4.1 | 4.5 | 4.1 | 2.6 | 5.5 |
| MD | 3.4 | 0.5 | 0.5 | 6.5 | 1.9 | 0.9 | 1.8 |
| ME | 1.4 | 4.0 | 0.0 | 0.9 | 0.8 | 1.6 | 1.7 |
| MI | 16.6 | 21.8 | 23.5 | 25.4 | 29.4 | 25.9 | 22.6 |
| MN | 4.9 | 3.7 | 5.1 | 4.7 | 12.0 | 7.0 | 10.7 |
| MO | 16.2 | 12.6 | 11.3 | 11.9 | 14.4 | 17.9 | 18.6 |
| MS | 5.6 | 6.1 | 6.2 | 4.5 | 2.1 | 2.5 | 2.5 |
| MT | 19.8 | 20.0 | 22.9 | 19.0 | 17.2 | 15.8 | 31.5 |
| NC | 7.5 | 6.3 | 6.2 | 6.7 | 15.6 | 14.5 | 17.1 |
| ND | 13.3 | 10.0 | 6.2 | 4.8 | 17.2 | 21.3 | 30.7 |
| NE | 9.1 | 6.4 | 1.8 | 4.4 | 9.6 | 6.4 | 10.0 |
| NH | 0.0 | 0.0 | 3.0 | 0.0 | 2.9 | 2.7 | 2.7 |
| NJ | 2.7 | 2.7 | 1.4 | 0.7 | 2.3 | 1.7 | 1.3 |
| NM | 2.8 | 0.0 | 0.0 | 5.2 | 8.9 | 3.2 | 13.6 |
| NV | 6.1 | 0.0 | 17.5 | 16.7 | 23.1 | 18.4 | 24.4 |
| NY | 4.5 | 3.8 | 3.9 | 5.7 | 5.2 | 6.2 | 6.5 |
| OH | 4.9 | 5.6 | 8.7 | 10.5 | 11.2 | 10.7 | 14.9 |
| OK | 9.2 | 6.3 | 8.2 | 12.0 | 13.7 | 16.4 | 13.8 |
| OR | 17.7 | 8.3 | 4.7 | 8.0 | 16.9 | 13.8 | 8.4 |
| PA | 4.3 | 6.5 | 5.9 | 3.3 | 3.0 | 3.1 | 5.6 |
| RI | 13.4 | 2.6 | 3.3 | 1.2 | 0.0 | 10.9 | 4.5 |
| SC | 3.4 | 0.0 | 0.7 | 1.3 | 4.8 | 4.0 | 2.5 |
| SD | 2.7 | 0.9 | 0.9 | 1.8 | 2.0 | 2.0 | 8.1 |
| TN | 4.1 | 5.2 | 5.0 | 3.7 | 4.0 | 3.8 | 7.4 |
| TX | 11.8 | 12.9 | 14.8 | 15.2 | 9.9 | 10.8 | 10.5 |
| UT | 8.3 | 1.1 | 1.1 | 10.5 | 22.8 | 12.1 | 9.0 |
| VA | 0.8 | 0.8 | 1.9 | 3.8 | 7.5 | 8.9 | 9.5 |
| VT | 2.3 | 2.4 | 5.6 | 10.0 | 5.4 | 5.4 | 11.8 |
| WA | 10.5 | 15.2 | 11.2 | 16.0 | 21.7 | 24.3 | 19.2 |
| WI | 5.6 | 5.6 | 2.3 | 5.3 | 3.9 | 4.8 | 8.5 |
| WV | 9.3 | 6.3 | 10.2 | 4.5 | 7.3 | 11.5 | 4.3 |
| WY | 14.3 | 25.0 | 52.9 | 50.0 | 29.7 | 55.6 | 42.5 |
| US | 8.3 | 7.6 | 7.7 | 9.0 | 10.0 | 10.4 | 12.0 |

Pressure Sores (F314)

Facilities must ensure that residents without pressure sores do not develop them if avoidable. In 1992, 18.6 percent of facilities received deficiencies for failing to meet this standard (See Table 40). This decreased to 17.1 percent in 1998.

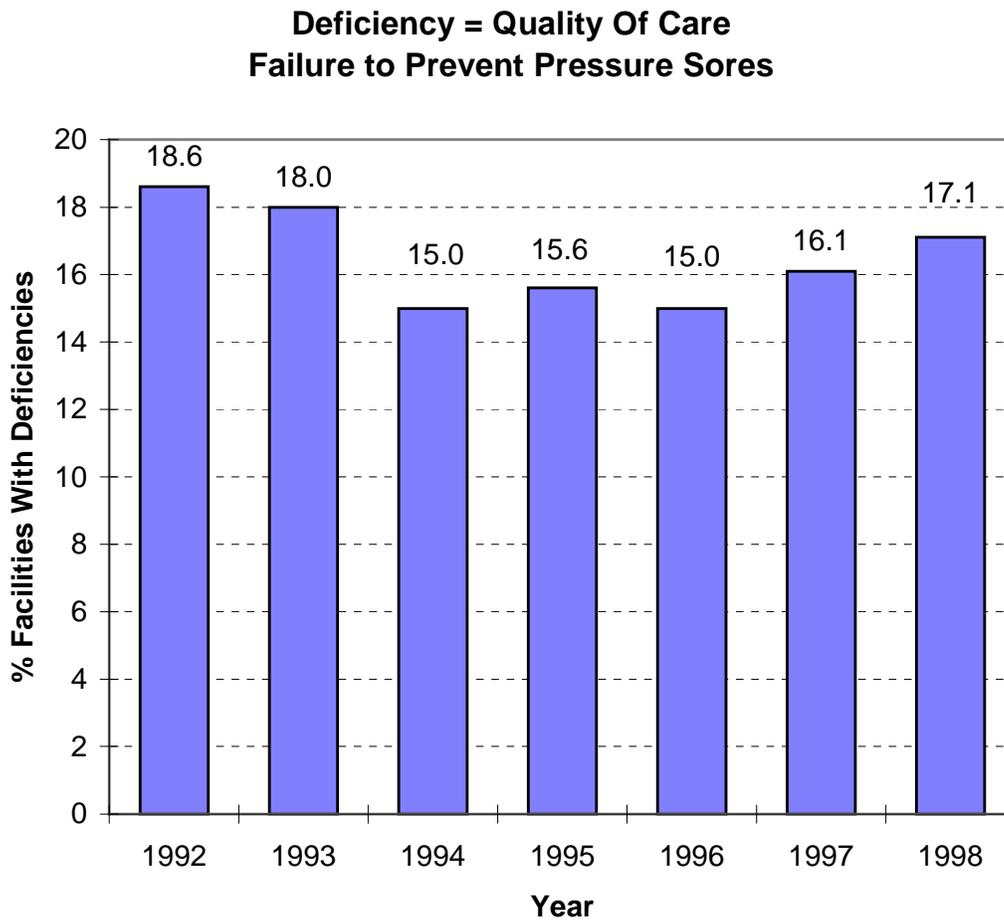


TABLE 40
DEFICIENCY GROUP=QUALITY OF CARE
PRESSURE SORES (F314)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 0.0 | 14.3 | 15.4 | 0.0 | 0.0 | 0.0 |
| AL | 13.0 | 20.6 | 25.1 | 22.7 | 22.6 | 52.0 | 23.1 |
| AR | 34.3 | 18.4 | 15.3 | 25.0 | 29.3 | 28.6 | 22.0 |
| AZ | 7.1 | 2.5 | 5.2 | 2.7 | 4.2 | 3.4 | 13.2 |
| CA | 29.3 | 28.2 | 23.2 | 19.1 | 20.5 | 22.6 | 24.4 |
| CO | 17.2 | 12.0 | 7.6 | 14.3 | 18.9 | 11.1 | 10.4 |
| CT | 8.6 | 15.2 | 16.5 | 21.5 | 12.3 | 19.4 | 23.1 |
| DC | 0.0 | 26.7 | 22.2 | 15.4 | 22.2 | 13.6 | 7.1 |
| DE | 21.2 | 35.1 | 14.0 | 9.1 | 13.5 | 45.2 | 18.5 |
| FL | 13.5 | 11.4 | 10.7 | 10.5 | 14.5 | 15.6 | 20.5 |
| GA | 20.4 | 16.2 | 13.6 | 9.1 | 9.6 | 8.7 | 9.7 |
| HI | 8.6 | 12.0 | 15.4 | 14.3 | 7.5 | 16.7 | 25.0 |
| IA | 26.2 | 22.7 | 20.4 | 25.5 | 21.2 | 17.0 | 13.6 |
| ID | 60.3 | 32.3 | 23.1 | 21.3 | 5.4 | 19.5 | 25.3 |
| IL | 16.5 | 14.5 | 10.9 | 12.7 | 14.0 | 21.5 | 25.1 |
| IN | 14.7 | 13.8 | 14.4 | 11.7 | 18.0 | 12.8 | 18.7 |
| KS | 25.4 | 21.6 | 17.2 | 20.3 | 30.5 | 23.4 | 28.8 |
| KY | 20.0 | 16.3 | 6.2 | 10.3 | 3.9 | 7.7 | 13.8 |
| LA | 18.8 | 21.3 | 14.8 | 14.7 | 8.2 | 8.9 | 10.9 |
| MA | 10.0 | 12.5 | 14.3 | 9.7 | 6.6 | 7.6 | 10.3 |
| MD | 6.8 | 13.3 | 10.5 | 18.8 | 8.2 | 10.7 | 9.9 |
| ME | 2.8 | 5.6 | 7.6 | 9.6 | 5.6 | 5.6 | 4.2 |
| MI | 40.1 | 44.3 | 35.2 | 37.4 | 35.8 | 35.5 | 30.7 |
| MN | 7.0 | 13.3 | 7.9 | 11.8 | 11.5 | 7.2 | 14.2 |
| MO | 27.7 | 28.4 | 17.7 | 18.3 | 13.2 | 12.8 | 15.0 |
| MS | 33.2 | 20.7 | 18.5 | 24.1 | 14.2 | 18.9 | 16.5 |
| MT | 10.4 | 22.1 | 20.8 | 25.0 | 17.2 | 18.9 | 16.3 |
| NC | 21.8 | 14.0 | 9.8 | 9.8 | 9.0 | 5.8 | 12.7 |
| ND | 29.3 | 12.6 | 21.0 | 15.7 | 24.1 | 30.7 | 21.6 |
| NE | 20.9 | 24.2 | 15.4 | 16.8 | 19.7 | 11.2 | 17.8 |
| NH | 3.0 | 1.5 | 1.5 | 6.9 | 20.0 | 17.3 | 16.0 |
| NJ | 16.7 | 12.5 | 5.4 | 10.9 | 4.7 | 5.1 | 5.9 |
| NM | 32.4 | 15.9 | 14.3 | 16.9 | 6.3 | 4.8 | 10.6 |
| NV | 48.4 | 45.2 | 37.5 | 41.7 | 17.9 | 23.7 | 26.8 |
| NY | 15.6 | 12.4 | 5.9 | 13.7 | 12.2 | 12.6 | 12.2 |
| OH | 10.4 | 25.2 | 24.7 | 23.5 | 18.0 | 22.2 | 20.9 |
| OK | 12.8 | 11.8 | 15.0 | 11.2 | 11.9 | 12.0 | 10.8 |
| OR | 17.7 | 21.8 | 10.7 | 15.3 | 22.1 | 19.1 | 15.5 |
| PA | 9.2 | 9.9 | 10.7 | 10.2 | 11.5 | 10.7 | 16.1 |
| RI | 9.2 | 1.3 | 14.1 | 8.5 | 7.0 | 9.8 | 12.4 |
| SC | 14.4 | 8.9 | 14.2 | 14.3 | 26.1 | 23.4 | 29.4 |
| SD | 5.4 | 3.7 | 6.6 | 12.6 | 21.0 | 6.9 | 16.3 |
| TN | 23.1 | 19.3 | 12.8 | 12.3 | 13.9 | 14.4 | 11.5 |
| TX | 26.3 | 19.7 | 15.6 | 14.6 | 10.3 | 12.9 | 12.0 |
| UT | 20.3 | 3.4 | 6.7 | 5.3 | 8.9 | 6.6 | 12.4 |
| VA | 3.4 | 8.6 | 11.0 | 5.5 | 13.5 | 15.6 | 14.7 |
| VT | 9.0 | 14.6 | 11.1 | 15.0 | 10.8 | 13.5 | 11.8 |
| WA | 25.9 | 24.4 | 16.0 | 27.1 | 28.8 | 31.9 | 30.3 |
| WI | 5.6 | 7.4 | 5.4 | 4.3 | 7.7 | 8.8 | 8.5 |
| WV | 11.2 | 13.8 | 5.5 | 6.0 | 4.5 | 7.7 | 2.9 |
| WY | 51.4 | 71.4 | 47.1 | 34.2 | 8.1 | 13.9 | 7.5 |
| US | 18.6 | 18.0 | 15.0 | 15.6 | 15.0 | 16.1 | 17.1 |

Incontinence Care (F316)

Residents who have bladder incontinence must receive appropriate treatment and services to prevent urinary tract infections and to restore as much bladder functioning as possible. In 1992, 12.8 percent of facilities received deficiencies for this standard compared with 10.9 percent in 1998 (See Table 41).

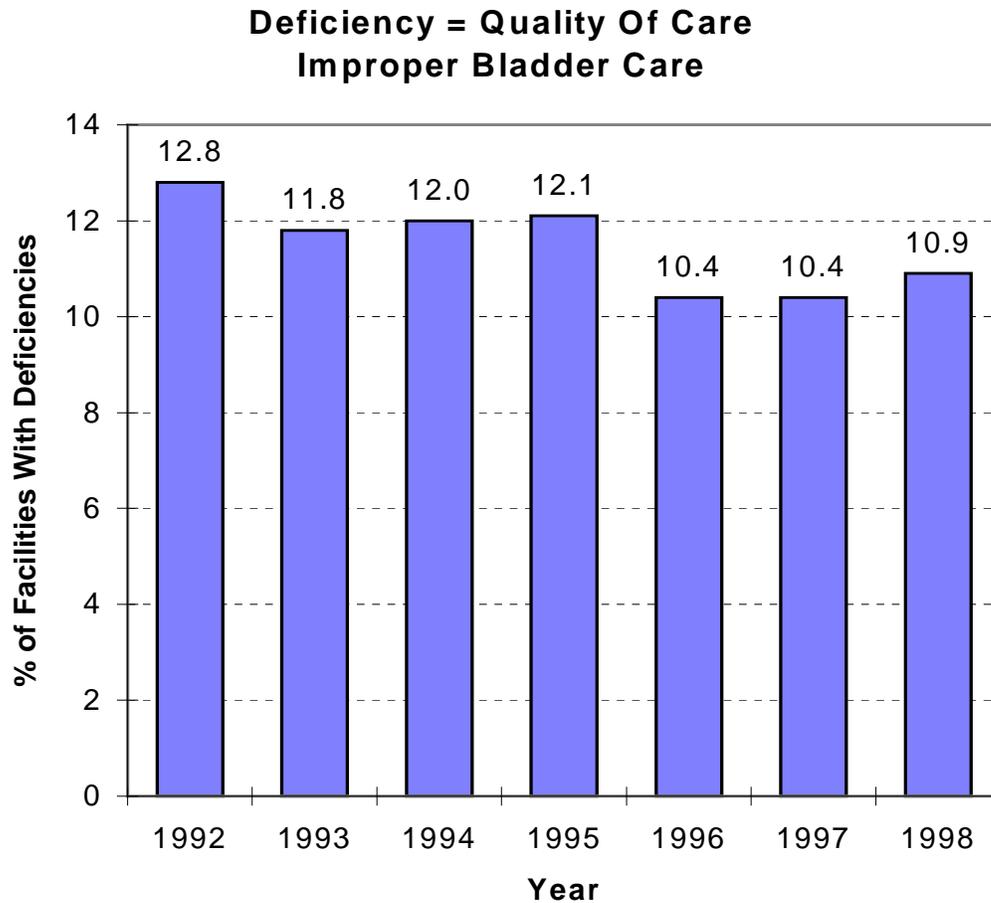


TABLE 41
DEFICIENCY GROUP=QUALITY OF CARE
BLADDER CARE (F316)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 25.0 | 0.0 | 0.0 | 6.3 | 0.0 | 0.0 |
| AL | 33.8 | 30.4 | 47.8 | 35.4 | 21.6 | 29.6 | 16.7 |
| AR | 22.7 | 16.7 | 15.7 | 18.8 | 21.9 | 20.8 | 16.5 |
| AZ | 0.0 | 0.0 | 0.7 | 0.9 | 3.5 | 1.7 | 1.6 |
| CA | 17.9 | 14.4 | 15.5 | 14.5 | 14.1 | 16.9 | 15.2 |
| CO | 35.4 | 11.5 | 3.6 | 4.4 | 4.2 | 6.3 | 4.2 |
| CT | 4.1 | 11.1 | 3.1 | 3.6 | 2.2 | 2.0 | 3.6 |
| DC | 0.0 | 0.0 | 0.0 | 7.7 | 0.0 | 0.0 | 0.0 |
| DE | 3.0 | 0.0 | 20.9 | 12.1 | 21.6 | 33.3 | 51.9 |
| FL | 11.4 | 10.7 | 14.1 | 20.7 | 14.5 | 14.5 | 13.3 |
| GA | 12.0 | 20.6 | 28.4 | 11.0 | 4.0 | 1.7 | 3.1 |
| HI | 2.9 | 4.0 | 0.0 | 7.1 | 0.0 | 2.4 | 4.5 |
| IA | 21.3 | 20.2 | 15.1 | 16.3 | 21.7 | 16.5 | 10.7 |
| ID | 14.3 | 9.2 | 10.3 | 6.3 | 6.8 | 14.3 | 8.9 |
| IL | 8.5 | 6.5 | 12.2 | 16.8 | 14.8 | 18.5 | 19.5 |
| IN | 10.1 | 8.8 | 16.0 | 8.4 | 9.3 | 6.4 | 9.4 |
| KS | 18.4 | 14.1 | 10.0 | 15.1 | 21.8 | 19.3 | 21.0 |
| KY | 18.2 | 12.4 | 9.3 | 13.7 | 4.3 | 7.3 | 16.4 |
| LA | 13.5 | 13.9 | 9.5 | 7.0 | 3.9 | 3.3 | 2.7 |
| MA | 7.7 | 15.8 | 21.2 | 16.3 | 9.1 | 11.0 | 10.7 |
| MD | 1.1 | 1.6 | 3.0 | 4.8 | 8.2 | 4.2 | 5.3 |
| ME | 2.8 | 6.4 | 9.9 | 5.2 | 2.4 | 0.0 | 0.8 |
| MI | 30.0 | 28.4 | 25.5 | 32.0 | 31.9 | 20.4 | 18.3 |
| MN | 8.9 | 14.8 | 16.4 | 16.8 | 12.0 | 12.9 | 23.2 |
| MO | 18.8 | 16.0 | 8.0 | 11.3 | 7.1 | 4.6 | 4.0 |
| MS | 21.9 | 20.7 | 16.7 | 10.6 | 5.8 | 8.5 | 9.5 |
| MT | 24.0 | 24.2 | 18.8 | 18.0 | 16.1 | 9.5 | 10.9 |
| NC | 5.0 | 7.2 | 17.1 | 19.9 | 13.7 | 14.5 | 15.3 |
| ND | 32.0 | 10.0 | 4.9 | 9.6 | 19.5 | 21.3 | 31.8 |
| NE | 21.4 | 13.2 | 12.7 | 6.6 | 9.2 | 5.6 | 7.0 |
| NH | 0.0 | 0.0 | 4.5 | 5.6 | 15.7 | 4.0 | 10.7 |
| NJ | 3.7 | 3.8 | 3.1 | 3.0 | 2.0 | 2.1 | 2.0 |
| NM | 12.7 | 5.8 | 1.3 | 6.5 | 2.5 | 1.6 | 3.0 |
| NV | 15.2 | 16.1 | 17.5 | 27.8 | 28.2 | 23.7 | 34.1 |
| NY | 1.3 | 1.7 | 2.3 | 1.8 | 1.4 | 2.8 | 0.9 |
| OH | 9.5 | 13.1 | 12.0 | 13.9 | 10.6 | 11.1 | 12.4 |
| OK | 4.7 | 3.3 | 2.9 | 3.1 | 3.4 | 4.2 | 4.4 |
| OR | 11.4 | 7.1 | 4.7 | 6.7 | 5.2 | 8.6 | 0.6 |
| PA | 3.7 | 4.8 | 4.2 | 4.8 | 5.5 | 5.9 | 8.4 |
| RI | 0.0 | 10.4 | 3.3 | 3.7 | 5.8 | 0.0 | 3.4 |
| SC | 28.1 | 28.1 | 26.9 | 24.7 | 32.7 | 40.6 | 42.9 |
| SD | 15.2 | 13.0 | 5.7 | 0.9 | 6.0 | 6.9 | 8.1 |
| TN | 16.0 | 13.5 | 14.8 | 14.0 | 10.2 | 3.8 | 8.3 |
| TX | 14.5 | 8.6 | 8.4 | 8.0 | 3.8 | 4.8 | 7.0 |
| UT | 10.7 | 9.1 | 13.3 | 14.5 | 16.5 | 2.2 | 4.5 |
| VA | 0.4 | 0.8 | 2.7 | 1.3 | 5.6 | 3.4 | 3.9 |
| VT | 2.3 | 12.2 | 5.6 | 10.0 | 5.4 | 0.0 | 2.9 |
| WA | 12.4 | 11.4 | 11.2 | 18.6 | 19.1 | 22.8 | 16.6 |
| WI | 8.4 | 9.4 | 6.7 | 8.0 | 5.7 | 5.0 | 4.1 |
| WV | 16.8 | 10.0 | 4.7 | 0.0 | 4.5 | 3.8 | 5.8 |
| WY | 74.3 | 67.9 | 85.3 | 47.4 | 8.1 | 30.6 | 20.0 |
| US | 12.8 | 11.8 | 12.0 | 12.1 | 10.4 | 10.4 | 10.9 |

Limited Range of Motion Services (F318)

Residents with limited range of motion must receive appropriate treatment and services to increase their range and/or to prevent declines in range of motion. In 1992, 8.8 percent of facilities received deficiencies for violating this requirement compared with 9.2 percent in 1998 (See Table 42).

**Deficiency = Quality of Care
Limited Range of Motion Services**

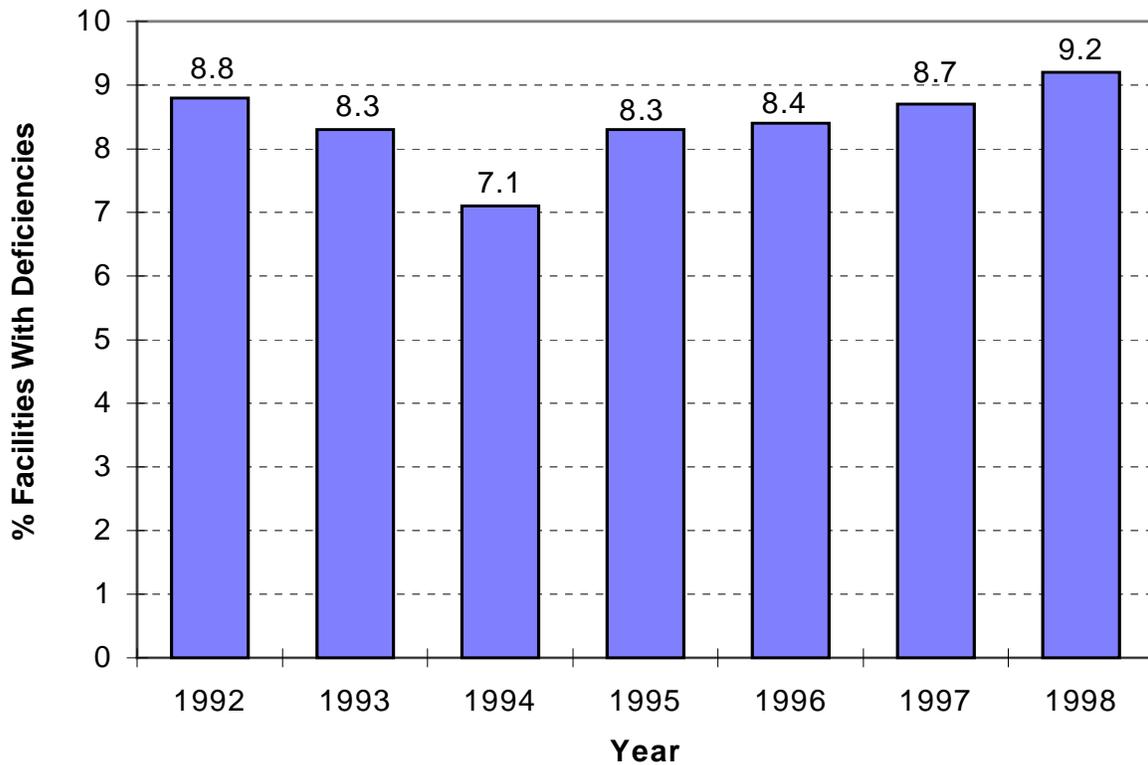


TABLE 42
DEFICIENCY GROUP=QUALITY OF CARE
LIMITED RANGE OF MOTION SERVICES (F318)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 0.0 | 16.7 | 7.1 | 7.7 | 12.5 | 7.1 | 7.1 |
| AL | 3.4 | 3.6 | 3.4 | 7.1 | 7.2 | 8.7 | 3.7 |
| AR | 7.3 | 6.7 | 9.1 | 12.7 | 16.4 | 22.0 | 21.6 |
| AZ | 0.0 | 0.8 | 2.2 | 0.9 | 2.1 | 1.7 | 3.9 |
| CA | 16.1 | 14.2 | 13.0 | 11.8 | 13.0 | 15.2 | 14.7 |
| CO | 17.7 | 15.0 | 8.6 | 4.9 | 3.7 | 5.3 | 6.1 |
| CT | 2.7 | 4.1 | 3.9 | 6.4 | 3.5 | 3.2 | 4.4 |
| DC | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| DE | 6.1 | 13.5 | 2.3 | 12.1 | 0.0 | 4.8 | 18.5 |
| FL | 3.8 | 0.9 | 1.9 | 3.5 | 3.6 | 4.2 | 6.1 |
| GA | 11.7 | 9.1 | 8.0 | 10.2 | 8.2 | 5.4 | 8.3 |
| HI | 37.1 | 32.0 | 7.7 | 9.5 | 2.5 | 2.4 | 0.0 |
| IA | 12.8 | 18.1 | 13.2 | 9.2 | 13.1 | 13.8 | 14.3 |
| ID | 31.7 | 18.5 | 15.4 | 7.5 | 9.5 | 14.3 | 16.5 |
| IL | 5.9 | 5.4 | 9.7 | 11.9 | 12.4 | 12.8 | 11.2 |
| IN | 16.6 | 21.3 | 16.2 | 15.7 | 14.3 | 11.5 | 15.0 |
| KS | 10.0 | 10.8 | 8.0 | 11.0 | 13.6 | 11.1 | 14.3 |
| KY | 5.5 | 3.9 | 1.2 | 7.3 | 1.8 | 5.4 | 13.5 |
| LA | 7.6 | 5.1 | 4.6 | 7.0 | 3.3 | 5.6 | 3.5 |
| MA | 2.0 | 3.7 | 2.9 | 3.1 | 5.6 | 3.4 | 2.1 |
| MD | 1.7 | 1.1 | 0.0 | 3.8 | 1.0 | 1.9 | 4.7 |
| ME | 0.7 | 1.6 | 1.5 | 1.7 | 0.0 | 0.0 | 0.8 |
| MI | 27.5 | 27.9 | 21.6 | 26.2 | 25.1 | 22.4 | 16.0 |
| MN | 6.8 | 8.0 | 8.5 | 9.7 | 7.3 | 10.1 | 13.2 |
| MO | 20.5 | 13.7 | 7.2 | 8.9 | 8.9 | 5.5 | 7.8 |
| MS | 13.1 | 7.9 | 8.0 | 7.0 | 7.4 | 5.0 | 10.5 |
| MT | 5.2 | 17.9 | 16.7 | 11.0 | 11.8 | 11.6 | 8.7 |
| NC | 5.3 | 1.7 | 3.5 | 6.0 | 7.4 | 7.4 | 11.7 |
| ND | 6.7 | 2.5 | 0.0 | 3.6 | 2.3 | 4.0 | 6.8 |
| NE | 15.9 | 15.5 | 9.0 | 8.8 | 7.9 | 8.6 | 3.5 |
| NH | 0.0 | 0.0 | 3.0 | 0.0 | 1.4 | 5.3 | 5.3 |
| NJ | 1.4 | 0.0 | 0.7 | 0.7 | 0.7 | 0.3 | 1.0 |
| NM | 5.6 | 5.8 | 5.2 | 1.3 | 0.0 | 3.2 | 0.0 |
| NV | 30.3 | 12.9 | 17.5 | 11.1 | 5.1 | 18.4 | 4.9 |
| NY | 4.6 | 4.0 | 4.3 | 8.2 | 9.7 | 11.1 | 8.7 |
| OH | 3.0 | 11.6 | 7.7 | 9.5 | 11.1 | 8.4 | 10.3 |
| OK | 9.7 | 11.5 | 7.9 | 11.0 | 10.6 | 14.6 | 12.5 |
| OR | 12.0 | 5.8 | 0.7 | 10.0 | 13.6 | 9.2 | 6.5 |
| PA | 4.8 | 3.7 | 3.0 | 4.2 | 6.1 | 5.7 | 7.6 |
| RI | 3.1 | 1.3 | 2.2 | 3.7 | 1.2 | 10.9 | 10.1 |
| SC | 2.1 | 3.0 | 1.5 | 3.2 | 4.2 | 15.4 | 12.3 |
| SD | 8.0 | 3.7 | 2.8 | 0.9 | 0.0 | 5.0 | 2.3 |
| TN | 3.0 | 3.8 | 6.7 | 5.7 | 5.6 | 5.6 | 6.6 |
| TX | 7.5 | 5.7 | 5.5 | 5.5 | 4.3 | 5.5 | 5.5 |
| UT | 2.4 | 2.3 | 1.1 | 3.9 | 3.8 | 2.2 | 10.1 |
| VA | 0.8 | 0.4 | 1.5 | 1.3 | 2.4 | 3.0 | 4.8 |
| VT | 6.8 | 14.6 | 11.1 | 12.5 | 0.0 | 0.0 | 5.9 |
| WA | 10.1 | 8.0 | 10.4 | 15.2 | 11.6 | 12.0 | 10.0 |
| WI | 12.0 | 7.1 | 3.9 | 5.5 | 7.5 | 6.0 | 8.5 |
| WV | 5.6 | 2.5 | 5.5 | 4.5 | 2.7 | 1.3 | 1.4 |
| WY | 17.1 | 32.1 | 26.5 | 13.2 | 2.7 | 5.6 | 0.0 |
| US | 8.8 | 8.3 | 7.1 | 8.3 | 8.4 | 8.7 | 9.2 |

Accident Environment (F323)

Facilities must ensure that the environment is as free of accident hazards as possible. This is designed to prevent unexpected and unintended injury. In 1992, 18.6 percent of facilities received deficiencies for failing to meet this standard (See Table 43). In 1998, 18.0 percent of facilities also received deficiencies for this requirement.

**Deficiency = Quality of Care
Accident Hazards in the Environment**

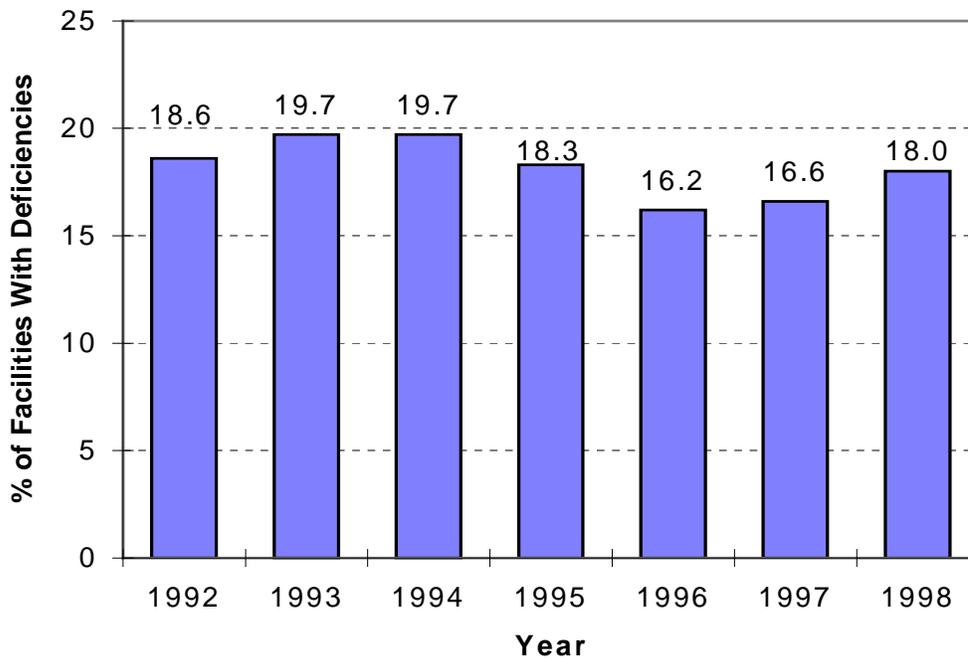


TABLE 43
DEFICIENCY GROUP=QUALITY OF CARE
ACCIDENT ENVIRONMENT (F323)

| Percent of Facilities with Deficiencies | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 0.0 | 0.0 | 23.1 | 0.0 | 14.3 | 7.1 |
| AL | 16.4 | 14.9 | 24.6 | 19.2 | 15.9 | 13.8 | 11.6 |
| AR | 26.6 | 23.8 | 26.0 | 30.0 | 35.9 | 24.7 | 23.3 |
| AZ | 29.1 | 8.5 | 18.5 | 24.1 | 44.4 | 43.2 | 36.4 |
| CA | 24.8 | 32.5 | 35.9 | 26.0 | 27.8 | 28.8 | 31.7 |
| CO | 38.0 | 32.5 | 26.9 | 17.7 | 17.9 | 18.8 | 17.0 |
| CT | 17.7 | 11.5 | 7.1 | 6.0 | 2.6 | 1.2 | 4.4 |
| DC | 6.7 | 13.3 | 0.0 | 23.1 | 11.1 | 4.5 | 14.3 |
| DE | 12.1 | 18.9 | 20.9 | 27.3 | 45.9 | 31.0 | 22.2 |
| FL | 5.7 | 5.8 | 7.1 | 8.8 | 8.4 | 9.5 | 10.8 |
| GA | 30.5 | 18.9 | 18.3 | 19.3 | 13.0 | 10.4 | 17.4 |
| HI | 11.4 | 4.0 | 3.8 | 4.8 | 0.0 | 7.1 | 9.1 |
| IA | 7.3 | 10.6 | 10.9 | 6.8 | 11.0 | 17.4 | 20.8 |
| ID | 11.1 | 16.9 | 9.0 | 6.3 | 25.7 | 16.9 | 24.1 |
| IL | 35.2 | 39.0 | 40.5 | 36.9 | 30.1 | 33.9 | 30.2 |
| IN | 11.4 | 13.5 | 18.8 | 24.1 | 29.6 | 37.6 | 35.6 |
| KS | 33.2 | 29.7 | 17.7 | 21.5 | 27.7 | 23.9 | 24.3 |
| KY | 4.7 | 5.0 | 1.5 | 4.3 | 2.5 | 7.7 | 16.4 |
| LA | 10.9 | 13.9 | 11.5 | 9.5 | 4.8 | 5.9 | 6.5 |
| MA | 10.7 | 13.9 | 9.6 | 8.1 | 2.9 | 2.5 | 2.3 |
| MD | 12.9 | 8.5 | 10.5 | 9.7 | 4.8 | 5.1 | 8.8 |
| ME | 22.7 | 20.0 | 19.8 | 15.7 | 8.8 | 17.6 | 15.3 |
| MI | 13.9 | 17.4 | 20.1 | 34.7 | 30.9 | 33.7 | 35.8 |
| MN | 13.6 | 17.6 | 15.0 | 15.0 | 5.3 | 3.9 | 12.7 |
| MO | 16.9 | 15.5 | 8.2 | 8.3 | 8.7 | 7.3 | 8.4 |
| MS | 36.3 | 31.1 | 34.6 | 34.2 | 26.3 | 24.4 | 32.5 |
| MT | 10.4 | 20.0 | 26.0 | 10.0 | 18.3 | 5.3 | 8.7 |
| NC | 4.4 | 4.6 | 6.2 | 6.0 | 8.5 | 8.7 | 9.9 |
| ND | 5.3 | 6.3 | 0.0 | 2.4 | 1.1 | 2.7 | 6.8 |
| NE | 11.4 | 8.7 | 11.3 | 8.4 | 7.0 | 8.2 | 10.4 |
| NH | 24.2 | 12.1 | 10.4 | 5.6 | 8.6 | 2.7 | 5.3 |
| NJ | 4.4 | 1.9 | 5.8 | 4.0 | 3.0 | 2.1 | 4.2 |
| NM | 35.2 | 27.5 | 31.2 | 11.7 | 6.3 | 1.6 | 13.6 |
| NV | 36.4 | 9.7 | 22.5 | 19.4 | 25.6 | 7.9 | 22.0 |
| NY | 7.1 | 10.3 | 8.7 | 11.9 | 10.0 | 6.6 | 5.9 |
| OH | 19.2 | 30.9 | 31.0 | 32.9 | 25.8 | 22.7 | 21.5 |
| OK | 2.8 | 3.9 | 9.1 | 10.7 | 5.8 | 6.5 | 6.4 |
| OR | 26.6 | 19.9 | 12.0 | 14.0 | 8.4 | 14.5 | 8.4 |
| PA | 13.2 | 15.0 | 18.0 | 12.7 | 12.3 | 12.3 | 14.4 |
| RI | 33.0 | 18.2 | 6.5 | 6.1 | 9.3 | 12.0 | 15.7 |
| SC | 23.3 | 28.1 | 23.1 | 13.6 | 21.2 | 23.4 | 23.9 |
| SD | 33.0 | 25.9 | 29.2 | 26.1 | 15.0 | 30.7 | 34.9 |
| TN | 16.0 | 21.5 | 15.8 | 20.7 | 12.0 | 11.1 | 17.5 |
| TX | 23.4 | 24.5 | 25.4 | 20.4 | 13.3 | 13.3 | 14.0 |
| UT | 28.6 | 35.2 | 36.7 | 26.3 | 30.4 | 30.8 | 28.1 |
| VA | 2.9 | 3.7 | 10.3 | 11.8 | 10.7 | 8.0 | 2.2 |
| VT | 20.5 | 22.0 | 5.6 | 12.5 | 5.4 | 2.7 | 2.9 |
| WA | 46.8 | 41.8 | 32.0 | 27.9 | 27.0 | 27.9 | 33.6 |
| WI | 10.2 | 15.2 | 18.3 | 16.5 | 9.8 | 16.3 | 21.5 |
| WV | 73.8 | 67.5 | 48.4 | 31.3 | 4.5 | 9.0 | 2.9 |
| WY | 31.4 | 32.1 | 26.5 | 15.8 | 13.5 | 22.2 | 37.5 |
| US | 18.6 | 19.7 | 19.7 | 18.3 | 16.2 | 16.6 | 18.0 |

Nutrition (F325)

Facilities must ensure that residents receive acceptable nutrition to maintain body weight unless a resident's condition makes this impossible. In the 1992, 8.3 percent of facilities failed to meet this standard compared with 8.1 in 1998 (See Table 44).

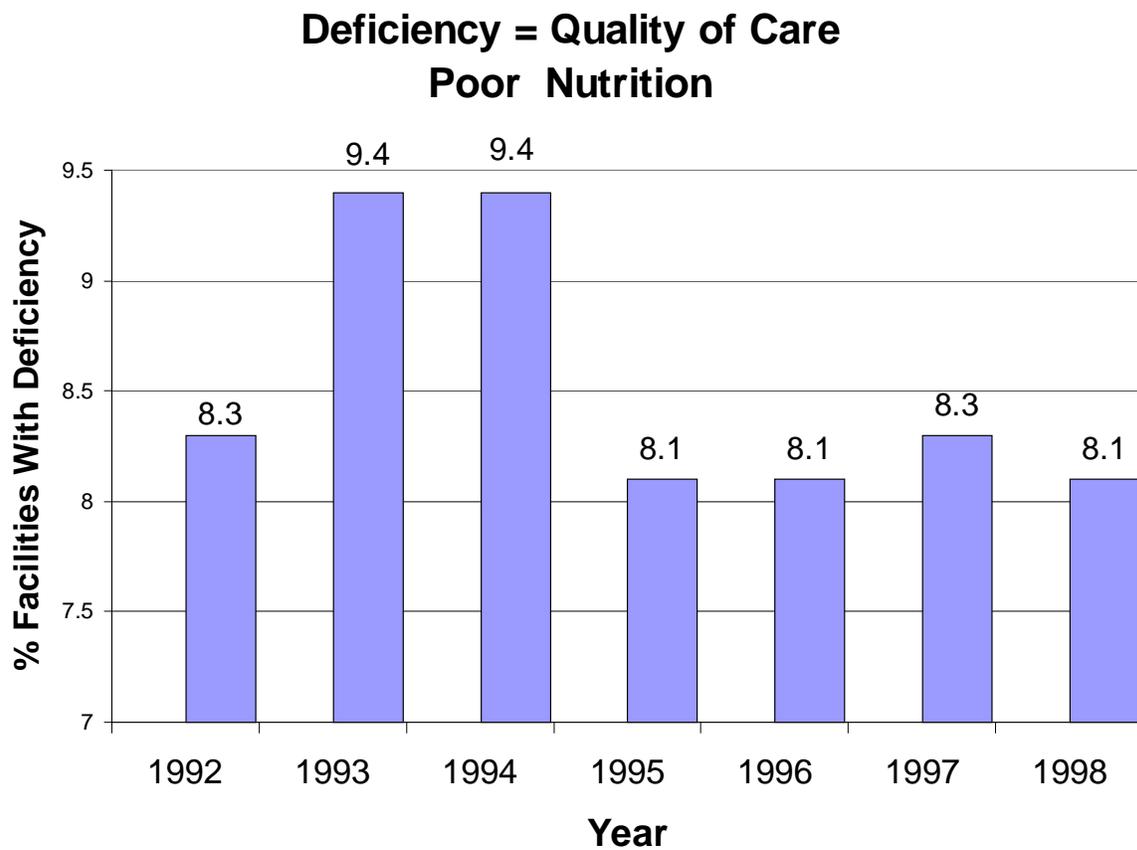


TABLE 44
DEFICIENCY GROUP=QUALITY OF CARE
NUTRITION (F325)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 7.1 |
| AL | 4.8 | 12.9 | 14.8 | 15.2 | 13.9 | 11.7 | 6.0 |
| AR | 9.0 | 15.5 | 26.9 | 10.0 | 15.6 | 16.1 | 15.3 |
| AZ | 0.8 | 0.0 | 2.2 | 2.7 | 2.1 | 0.8 | 3.9 |
| CA | 11.8 | 14.3 | 12.1 | 11.8 | 12.0 | 11.6 | 12.2 |
| CO | 17.2 | 10.0 | 4.6 | 3.9 | 3.7 | 5.3 | 2.4 |
| CT | 0.9 | 3.3 | 2.0 | 4.0 | 1.8 | 1.2 | 1.8 |
| DC | 6.7 | 13.3 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| DE | 12.1 | 24.3 | 16.3 | 9.1 | 8.1 | 19.0 | 22.2 |
| FL | 10.5 | 9.4 | 14.3 | 16.2 | 16.6 | 15.5 | 13.2 |
| GA | 5.2 | 4.4 | 5.9 | 5.7 | 2.8 | 2.7 | 2.6 |
| HI | 37.1 | 24.0 | 19.2 | 16.7 | 10.0 | 23.8 | 15.9 |
| IA | 3.5 | 3.9 | 3.9 | 3.4 | 2.3 | 5.4 | 2.4 |
| ID | 27.0 | 16.9 | 15.4 | 12.5 | 13.5 | 13.0 | 13.9 |
| IL | 5.8 | 5.4 | 6.2 | 4.9 | 5.3 | 7.8 | 10.4 |
| IN | 5.2 | 5.0 | 8.0 | 5.9 | 10.0 | 9.9 | 10.0 |
| KS | 7.9 | 7.4 | 8.3 | 8.5 | 13.6 | 12.8 | 12.3 |
| KY | 5.9 | 3.5 | 4.2 | 3.0 | 4.3 | 8.5 | 15.5 |
| LA | 14.2 | 13.9 | 9.8 | 7.3 | 4.5 | 5.9 | 5.3 |
| MA | 4.5 | 7.5 | 5.9 | 7.4 | 5.6 | 4.2 | 4.6 |
| MD | 4.5 | 11.6 | 12.0 | 15.6 | 8.7 | 11.6 | 6.4 |
| ME | 3.5 | 2.4 | 3.1 | 3.5 | 0.0 | 0.0 | 2.5 |
| MI | 18.3 | 19.2 | 17.7 | 21.9 | 27.3 | 19.0 | 19.0 |
| MN | 3.0 | 7.0 | 2.5 | 1.8 | 1.7 | 1.3 | 1.0 |
| MO | 8.6 | 11.0 | 9.7 | 5.6 | 10.1 | 9.3 | 4.8 |
| MS | 18.1 | 27.4 | 25.9 | 13.6 | 7.9 | 10.4 | 4.5 |
| MT | 26.0 | 20.0 | 12.5 | 13.0 | 10.8 | 13.7 | 13.0 |
| NC | 9.0 | 5.5 | 7.3 | 5.2 | 5.7 | 3.2 | 7.0 |
| ND | 9.3 | 3.8 | 1.2 | 1.2 | 2.3 | 14.7 | 22.7 |
| NE | 12.3 | 10.0 | 11.3 | 6.6 | 8.3 | 5.6 | 10.9 |
| NH | 1.5 | 1.5 | 7.5 | 6.9 | 10.0 | 5.3 | 10.7 |
| NJ | 10.9 | 11.4 | 6.5 | 8.6 | 5.0 | 5.1 | 2.9 |
| NM | 4.2 | 1.4 | 1.3 | 11.7 | 3.8 | 0.0 | 0.0 |
| NV | 18.2 | 38.7 | 27.5 | 30.6 | 10.3 | 21.1 | 22.0 |
| NY | 3.5 | 2.7 | 4.6 | 3.8 | 6.3 | 3.0 | 2.0 |
| OH | 5.4 | 10.4 | 12.7 | 8.8 | 7.0 | 6.2 | 5.1 |
| OK | 14.4 | 20.2 | 22.9 | 19.1 | 10.6 | 15.9 | 13.8 |
| OR | 27.2 | 12.8 | 4.7 | 9.3 | 9.1 | 9.2 | 9.7 |
| PA | 10.4 | 8.3 | 13.9 | 6.1 | 7.8 | 8.1 | 7.5 |
| RI | 6.2 | 3.9 | 1.1 | 1.2 | 0.0 | 1.1 | 3.4 |
| SC | 4.1 | 17.0 | 8.2 | 5.2 | 7.9 | 12.6 | 12.9 |
| SD | 11.6 | 11.1 | 10.4 | 13.5 | 13.0 | 6.9 | 8.1 |
| TN | 14.5 | 9.3 | 8.1 | 6.3 | 7.7 | 4.1 | 7.7 |
| TX | 6.6 | 9.3 | 8.9 | 7.8 | 6.6 | 7.8 | 7.6 |
| UT | 7.1 | 4.5 | 2.2 | 7.9 | 11.4 | 3.3 | 7.9 |
| VA | 0.8 | 5.7 | 4.9 | 5.5 | 5.6 | 5.1 | 4.8 |
| VT | 4.5 | 7.3 | 11.1 | 0.0 | 0.0 | 8.1 | 5.9 |
| WA | 8.6 | 11.8 | 7.1 | 7.1 | 11.2 | 17.4 | 18.5 |
| WI | 0.3 | 1.5 | 0.8 | 0.8 | 3.6 | 2.5 | 3.1 |
| WV | 5.6 | 7.5 | 6.3 | 7.5 | 1.8 | 0.0 | 1.4 |
| WY | 11.4 | 25.0 | 20.6 | 10.5 | 0.0 | 11.1 | 5.0 |
| US | 8.3 | 9.4 | 9.4 | 8.1 | 8.1 | 8.3 | 8.1 |

Sufficient Nursing Staff (F353)

Facilities must have sufficient nursing staff to provide nursing and related services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of residents. In 1992, 6.7 percent of facilities were given deficiencies for failing to meet this requirement compared with 4.6 percent in 1998 (See Table 45).

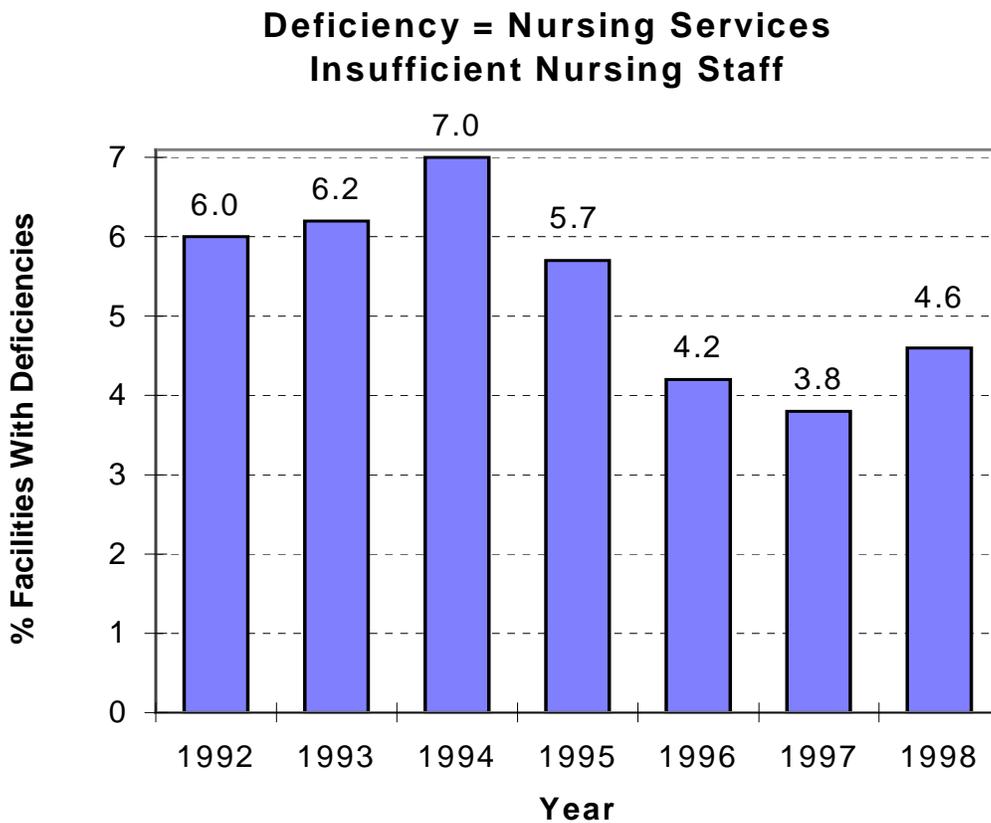


TABLE 45
DEFICIENCY GROUP=NURSING SERVICES
SUFFICIENT NURSING STAFF (F353)

| Percent of Facilities with Deficiencies | | | | | | | |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 |
| AL | 2.0 | 3.6 | 13.3 | 14.6 | 14.4 | 11.2 | 6.9 |
| AR | 9.9 | 5.0 | 10.7 | 9.6 | 2.3 | 5.1 | 3.0 |
| AZ | 3.9 | 1.7 | 3.7 | 7.1 | 1.4 | 0.0 | 3.9 |
| CA | 9.8 | 12.1 | 11.7 | 8.1 | 7.6 | 6.5 | 5.5 |
| CO | 4.7 | 3.5 | 2.5 | 2.0 | 1.1 | 0.0 | 0.5 |
| CT | 0.5 | 1.2 | 0.4 | 0.0 | 0.0 | 0.4 | 0.4 |
| DC | 0.0 | 0.0 | 5.6 | 7.7 | 0.0 | 9.1 | 0.0 |
| DE | 3.0 | 0.0 | 2.3 | 3.0 | 5.4 | 9.5 | 11.1 |
| FL | 4.8 | 5.6 | 7.1 | 9.3 | 10.9 | 10.8 | 13.9 |
| GA | 7.3 | 4.7 | 4.4 | 5.4 | 5.1 | 1.3 | 4.6 |
| HI | 5.7 | 12.0 | 42.3 | 21.4 | 5.0 | 4.8 | 11.4 |
| IA | 4.7 | 5.2 | 6.3 | 4.6 | 3.5 | 7.4 | 4.5 |
| ID | 23.8 | 21.5 | 23.1 | 11.3 | 1.4 | 3.9 | 7.6 |
| IL | 2.9 | 3.2 | 2.8 | 3.0 | 2.3 | 2.5 | 4.9 |
| IN | 8.2 | 11.9 | 13.6 | 11.1 | 10.0 | 6.8 | 8.9 |
| KS | 11.8 | 10.8 | 15.8 | 11.8 | 6.5 | 4.1 | 3.8 |
| KY | 8.5 | 2.7 | 3.1 | 7.3 | 3.6 | 1.9 | 5.6 |
| LA | 9.9 | 7.8 | 5.2 | 4.6 | 3.0 | 2.4 | 0.9 |
| MA | 2.2 | 1.6 | 2.6 | 1.2 | 0.4 | 0.8 | 1.3 |
| MD | 5.6 | 0.0 | 0.5 | 1.1 | 1.0 | 1.9 | 0.0 |
| ME | 2.1 | 3.2 | 1.5 | 2.6 | 0.8 | 3.2 | 3.4 |
| MI | 9.9 | 10.3 | 14.6 | 15.8 | 12.9 | 10.1 | 12.7 |
| MN | 4.0 | 6.4 | 7.3 | 3.2 | 3.4 | 2.1 | 6.5 |
| MO | 11.4 | 11.8 | 9.3 | 6.0 | 3.7 | 2.6 | 6.8 |
| MS | 5.6 | 9.7 | 9.3 | 9.0 | 3.2 | 4.0 | 3.5 |
| MT | 5.2 | 6.3 | 11.5 | 12.0 | 6.5 | 5.3 | 9.8 |
| NC | 9.0 | 7.5 | 8.7 | 7.3 | 5.2 | 4.5 | 4.9 |
| ND | 4.0 | 3.8 | 1.2 | 6.0 | 4.6 | 8.0 | 4.5 |
| NE | 4.6 | 3.6 | 4.5 | 5.3 | 1.3 | 1.3 | 0.4 |
| NH | 1.5 | 3.0 | 7.5 | 2.8 | 4.3 | 0.0 | 6.7 |
| NJ | 1.0 | 0.8 | 1.4 | 2.6 | 1.0 | 0.7 | 0.7 |
| NM | 2.8 | 8.7 | 7.8 | 5.2 | 1.3 | 1.6 | 7.6 |
| NV | 6.1 | 6.4 | 17.5 | 16.7 | 12.8 | 15.8 | 12.2 |
| NY | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.2 |
| OH | 2.7 | 4.8 | 5.3 | 3.8 | 2.0 | 3.2 | 5.9 |
| OK | 2.5 | 3.6 | 4.7 | 3.7 | 2.6 | 1.0 | 1.3 |
| OR | 16.5 | 13.4 | 7.3 | 6.0 | 3.9 | 3.9 | 1.9 |
| PA | 2.5 | 2.8 | 3.5 | 1.9 | 1.2 | 0.9 | 1.3 |
| RI | 1.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 1.1 |
| SC | 1.4 | 4.4 | 9.7 | 5.8 | 9.1 | 8.0 | 3.1 |
| SD | 5.4 | 5.6 | 4.7 | 3.6 | 1.0 | 5.9 | 4.7 |
| TN | 3.4 | 3.4 | 4.4 | 4.3 | 4.3 | 0.9 | 2.6 |
| TX | 11.5 | 11.0 | 11.6 | 7.7 | 4.3 | 4.6 | 3.9 |
| UT | 7.2 | 3.4 | 1.1 | 5.3 | 2.5 | 2.2 | 2.2 |
| VA | 1.3 | 4.5 | 3.0 | 3.8 | 4.4 | 4.2 | 3.0 |
| VT | 0.0 | 4.9 | 0.0 | 7.5 | 5.4 | 0.0 | 2.9 |
| WA | 3.7 | 3.4 | 4.1 | 3.3 | 4.9 | 5.4 | 5.9 |
| WI | 5.6 | 5.4 | 3.1 | 1.8 | 1.3 | 1.3 | 3.3 |
| WV | 1.9 | 7.5 | 5.5 | 0.0 | 3.6 | 1.3 | 0.0 |
| WY | 40.0 | 21.4 | 32.4 | 15.8 | 5.4 | 5.6 | 2.5 |
| US | 6.0 | 6.2 | 7.0 | 5.7 | 4.2 | 3.8 | 4.6 |

Food Sanitation (F371)

Sanitary conditions must be ensured in storing, preparing, distributing, and serving food to prevent food borne illness. In 1992, 27.7 percent of facilities were given deficiencies for failure to meet this regulation compared to 23.7 percent in 1998 (See Table 46). This was a decrease of 14 percent since 1992.

**Deficiency = Dietary Services
Poor Food Sanitation**

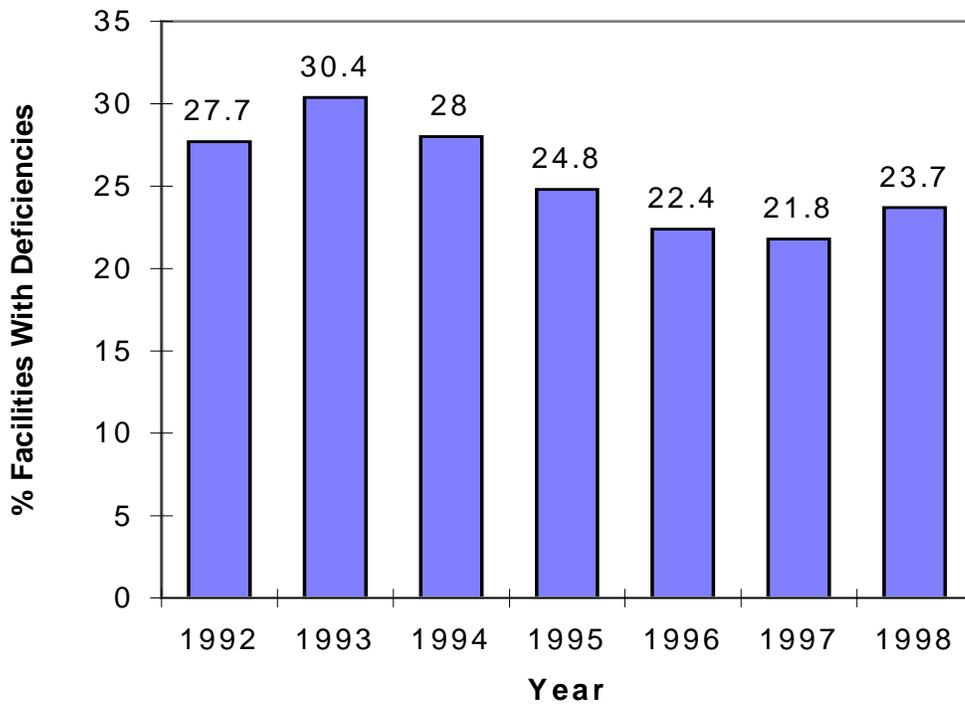


TABLE 46
DEFICIENCY GROUP=DIETARY SERVICES
FOOD SANITATION (F371)

| Percent of Facilities with Deficiencies | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| State | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| AK | 6.7 | 25.0 | 14.3 | 0.0 | 0.0 | 14.3 | 21.4 |
| AL | 20.3 | 25.3 | 20.7 | 13.6 | 24.5 | 31.6 | 32.9 |
| AR | 33.9 | 28.0 | 22.7 | 26.9 | 39.5 | 46.3 | 41.1 |
| AZ | 15.7 | 10.2 | 24.4 | 49.1 | 51.4 | 53.4 | 38.0 |
| CA | 44.7 | 52.2 | 53.9 | 42.0 | 41.9 | 41.1 | 39.9 |
| CO | 42.2 | 35.0 | 10.2 | 9.9 | 15.8 | 15.4 | 11.3 |
| CT | 19.1 | 28.8 | 12.2 | 5.6 | 3.5 | 2.4 | 3.6 |
| DC | 40.0 | 33.3 | 61.1 | 61.5 | 66.7 | 54.5 | 78.6 |
| DE | 27.3 | 16.2 | 37.2 | 27.3 | 43.2 | 21.4 | 22.2 |
| FL | 29.1 | 30.4 | 23.9 | 23.0 | 21.7 | 28.5 | 30.5 |
| GA | 18.8 | 28.3 | 28.1 | 29.5 | 24.4 | 21.7 | 30.3 |
| HI | 11.4 | 20.0 | 26.9 | 28.6 | 32.5 | 23.8 | 18.2 |
| IA | 27.0 | 27.5 | 18.1 | 16.0 | 18.6 | 18.7 | 17.7 |
| ID | 27.0 | 32.3 | 25.6 | 20.0 | 33.8 | 36.4 | 48.1 |
| IL | 37.4 | 42.0 | 39.9 | 38.0 | 34.8 | 32.0 | 33.9 |
| IN | 15.3 | 17.4 | 21.2 | 25.4 | 28.6 | 30.7 | 34.1 |
| KS | 69.1 | 45.1 | 38.0 | 28.7 | 29.7 | 25.3 | 23.3 |
| KY | 11.9 | 15.1 | 11.6 | 14.5 | 7.5 | 10.4 | 28.3 |
| LA | 25.7 | 29.2 | 27.5 | 22.3 | 26.1 | 21.7 | 22.4 |
| MA | 11.4 | 17.0 | 9.0 | 10.1 | 3.5 | 3.4 | 5.2 |
| MD | 7.9 | 11.6 | 20.5 | 10.8 | 10.1 | 13.0 | 5.8 |
| ME | 12.8 | 16.0 | 22.1 | 24.3 | 20.0 | 18.4 | 9.3 |
| MI | 44.1 | 46.3 | 46.8 | 47.8 | 42.3 | 40.9 | 46.7 |
| MN | 19.2 | 29.0 | 32.5 | 17.9 | 8.1 | 3.1 | 6.7 |
| MO | 31.2 | 28.6 | 16.1 | 20.3 | 20.1 | 16.1 | 28.2 |
| MS | 36.9 | 40.2 | 42.0 | 30.2 | 21.1 | 17.4 | 18.5 |
| MT | 19.8 | 29.5 | 29.2 | 15.0 | 7.5 | 6.3 | 8.7 |
| NC | 23.4 | 27.9 | 20.6 | 22.3 | 18.6 | 17.4 | 23.4 |
| ND | 28.0 | 28.8 | 29.6 | 19.3 | 23.0 | 26.7 | 22.7 |
| NE | 36.4 | 24.2 | 16.3 | 12.4 | 6.6 | 8.6 | 13.5 |
| NH | 12.1 | 12.1 | 11.9 | 1.4 | 8.6 | 8.0 | 8.0 |
| NJ | 16.3 | 14.8 | 13.6 | 8.6 | 7.0 | 5.5 | 7.2 |
| NM | 28.2 | 20.3 | 16.9 | 26.0 | 5.1 | 4.8 | 21.2 |
| NV | 39.4 | 45.2 | 65.0 | 61.1 | 59.0 | 55.3 | 65.9 |
| NY | 9.7 | 9.7 | 7.9 | 14.8 | 10.0 | 6.8 | 8.1 |
| OH | 22.4 | 40.9 | 39.2 | 32.6 | 24.5 | 16.4 | 19.0 |
| OK | 19.4 | 14.8 | 21.7 | 17.0 | 20.3 | 20.4 | 15.2 |
| OR | 31.0 | 12.8 | 14.7 | 11.3 | 10.4 | 11.8 | 7.1 |
| PA | 14.1 | 18.9 | 15.4 | 12.3 | 9.6 | 11.2 | 13.5 |
| RI | 30.9 | 32.5 | 39.1 | 28.0 | 16.3 | 16.3 | 29.2 |
| SC | 45.2 | 36.3 | 29.1 | 29.9 | 31.5 | 44.6 | 38.0 |
| SD | 21.4 | 31.5 | 33.0 | 19.8 | 13.0 | 24.8 | 34.9 |
| TN | 33.8 | 38.4 | 39.6 | 41.0 | 28.7 | 20.2 | 31.8 |
| TX | 33.3 | 32.7 | 35.5 | 30.8 | 23.9 | 23.9 | 24.2 |
| UT | 27.4 | 39.8 | 30.0 | 31.6 | 25.3 | 26.4 | 25.8 |
| VA | 7.1 | 16.8 | 20.2 | 17.6 | 11.9 | 9.3 | 6.5 |
| VT | 18.2 | 29.3 | 44.4 | 22.5 | 0.0 | 5.4 | 5.9 |
| WA | 43.4 | 43.3 | 32.0 | 30.5 | 31.5 | 38.4 | 40.2 |
| WI | 12.5 | 17.3 | 14.7 | 8.8 | 5.1 | 7.5 | 12.1 |
| WV | 69.2 | 75.0 | 32.0 | 17.9 | 20.9 | 28.2 | 21.7 |
| WY | 37.1 | 71.4 | 47.1 | 39.5 | 24.3 | 47.2 | 30.0 |
| US | 27.7 | 30.4 | 28.0 | 24.8 | 22.4 | 21.8 | 23.7 |

PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES BY SURVEY CATEGORY

Percent of Deficiencies

This sections presents a listing of 185 survey items for each survey category based on the 1995 federal survey categories (excluding the life safety requirements). The percent of facilities in the U.S. with deficiencies are presented for the 1992-1998 period.

Resident Rights

In this category of survey items, the highest percent of deficiencies were given for failure to provide privacy and confidentiality to residents (See Table 47). Only 7 of the 27 items in this category were cited in 2 percent or more of the facilities in the U.S. in 1998.

TABLE 47
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR RESIDENT RIGHTS

DEFICIENCY GROUP=RESIDENT RIGHTS

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F151 | Exercise of Rights | 1.9 | 1.4 | 1.6 | 1.3 | 1.2 | 0.8 | 1.3 |
| F152 | Free of Reprisal | 1.3 | 1.7 | 1.1 | 0.7 | 0.7 | 0.7 | 0.9 |
| F153 | Access to Records | 0.6 | 0.5 | 0.4 | 0.3 | 0.1 | 0.2 | 0.2 |
| F154 | Informed of Condition | 3.2 | 2.6 | 2.8 | 1.7 | 1.3 | 1.0 | 0.9 |
| F155 | Refuse Treatment | 1.3 | 1.5 | 1.6 | 1.2 | 1.1 | 0.9 | 1.1 |
| F156 | Notice of Rights and Services | 13.0 | 12.5 | 11.0 | 7.0 | 4.1 | 3.4 | 3.1 |
| F157 | Notice of Changes | 5.6 | 6.2 | 6.4 | 5.6 | 5.5 | 5.7 | 6.9 |
| F158 | Resident Manage Financial Affairs | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 |
| F159 | Facility Manage Personal Funds | 8.7 | 8.7 | 5.6 | 3.9 | 2.4 | 2.4 | 2.4 |
| F160 | Convey Funds | 1.5 | 1.5 | 1.5 | 1.2 | 0.5 | 0.6 | 0.8 |
| F161 | Financial Security | 3.1 | 3.1 | 2.4 | 2.3 | 1.2 | 0.9 | 0.9 |
| F162 | Limit on Charges to Funds | 0.6 | 0.7 | 0.7 | 0.5 | 0.6 | 0.5 | 0.4 |
| F163 | Choice of Physician | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| F164 | Privacy and Confidentiality | 8.3 | 7.7 | 7.0 | 7.4 | 7.2 | 6.9 | 7.1 |
| F165 | Voice Grievances | 0.6 | 0.5 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 |
| F166 | Resolve Grievances | 3.6 | 3.6 | 3.7 | 3.8 | 3.1 | 2.9 | 3.1 |
| F167 | Survey Results | 6.7 | 6.8 | 7.1 | 6.1 | 4.0 | 2.7 | 3.4 |
| F168 | Information | 0.5 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| F169 | Work | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| F170 | Mail | 0.3 | 0.4 | 0.4 | 1.0 | 0.9 | 1.1 | 1.4 |
| F171 | Stationary | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| F172 | Visitors | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 |
| F173 | Ombudsman | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| F174 | Telephone | 4.9 | 4.1 | 2.9 | 3.1 | 2.1 | 1.7 | 1.6 |
| F175 | Married Couples | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| F176 | Administer Own Drugs | 2.5 | 3.3 | 3.4 | 3.1 | 2.3 | 2.1 | 2.4 |
| F177 | Refuse Transfers | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 |

Admission, Transfer, and Discharge Rights

In this category of survey items, the most deficiencies were given for failure to provide notice of facility policies and to provide notice before transfer, although few deficiencies were given in this category (See Table 48). In 1998, none of the 8 items in this category were cited in more than 1 percent of the facilities in the U.S.

Resident Behavior and Facility Practices

In this category of survey items, the highest percent of deficiencies were given for improper use of physical restraints (12.7 percent in 1998). 6.9 percent of facilities received deficiencies for hiring unemployable individuals and 2.1 percent were given citations for improper staff treatment of residents and 1.8 percent for abuse of residents in 1998 (See Table 48).

TABLE 48
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR ADMISSION,
TRANSFER & DISCHARGE RIGHTS AND FOR RESIDENT BEHAVIOR & FACILITY PRACTICES

DEFICIENCY GROUP=ADMISSION, TRANSFER AND DISCHARGE RIGHTS

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F201 | Transfer and Discharge | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 |
| F202 | Documentation | 0.8 | 0.4 | 0.4 | 0.2 | 0.2 | 0.1 | 0.2 |
| F203 | Notice Before Transfer | 2.6 | 3.4 | 2.3 | 1.7 | 0.9 | 1.0 | 1.0 |
| F204 | Orientation for Transfer or Discharge | 0.7 | 0.7 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 |
| F205 | Notice of Policies | 2.4 | 5.4 | 3.2 | 2.3 | 1.3 | 0.8 | 0.7 |
| F206 | Permitting Resident to Return to Facility | 0.3 | 0.4 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 |
| F207 | Equal Access to Quality Care | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| F208 | Admission Policy | 1.1 | 0.7 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 |

DEFICIENCY GROUP=RESIDENT BEHAVIOR AND FACILITY PRACTICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F221 | Physical Restraints | 17.7 | 17.8 | 18.6 | 17.3 | 14.2 | 13.5 | 12.7 |
| F222 | Chemical Restraints | 2.3 | 1.8 | 1.3 | 0.9 | 0.8 | 0.8 | 0.7 |
| F223 | Abuse | 2.0 | 2.0 | 2.7 | 2.3 | 1.5 | 1.4 | 1.8 |
| F224 | Staff Treatment of Residents | 1.4 | 1.5 | 2.4 | 2.4 | 1.9 | 1.6 | 2.1 |
| F225 | Unemployable Individuals | 4.9 | 7.6 | 6.2 | 5.6 | 4.5 | 5.4 | 6.9 |

Quality of Life

Most deficiencies were issued to facilities for failure to maintain the dignity of residents (14.1 percent in 1998) and for poor housekeeping (14.4 percent in 1998). Failure to accommodate the needs of residents and inadequate activities program were also frequently cited (See Table 49). Only 7 of the 19 items in this category were cited in 2 percent or more of facilities.

TABLE 49
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR QUALITY OF LIFE

DEFICIENCY GROUP=QUALITY OF LIFE

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F240 | Quality of Life | 1.3 | 1.4 | 1.5 | 0.7 | 0.3 | 0.2 | 0.2 |
| F241 | Dignity | 18.4 | 19.1 | 18.5 | 17.7 | 13.7 | 13.2 | 14.1 |
| F242 | Self-Determination/Participation | 2.7 | 2.6 | 2.6 | 2.5 | 2.3 | 2.2 | 2.5 |
| F243 | Resident and Family Groups | 0.9 | 0.9 | 0.7 | 0.9 | 0.5 | 0.5 | 0.5 |
| F244 | Listen to Group | 1.7 | 1.4 | 1.3 | 0.6 | 0.3 | 0.5 | 0.5 |
| F245 | Participate in Other Activities | 0.3 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| F246 | Accomodate Needs | 17.3 | 17.1 | 15.5 | 14.2 | 10.1 | 8.6 | 9.0 |
| F247 | Notice Before Room Change | 0.7 | 0.6 | 0.6 | 0.4 | 0.2 | 0.2 | 0.2 |
| F248 | Activities Program | 12.2 | 12.0 | 12.2 | 12.2 | 9.5 | 8.3 | 8.1 |
| F249 | Activities Director | 1.4 | 1.1 | 1.2 | 0.9 | 0.5 | 0.6 | 0.5 |
| F250 | Social Services | 8.3 | 8.8 | 9.4 | 8.6 | 8.7 | 7.8 | 7.5 |
| F251 | Social Work Qualification | 1.4 | 0.9 | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 |
| F252 | Environment | 19.1 | 15.5 | 14.1 | 11.5 | 8.0 | 6.7 | 7.2 |
| F253 | Housekeeping | 19.1 | 19.5 | 18.3 | 16.9 | 15.1 | 13.3 | 14.4 |
| F254 | Clean Linens | 4.5 | 3.6 | 3.4 | 2.9 | 2.2 | 1.7 | 1.7 |
| F255 | Private Closet | 1.9 | 1.0 | 0.7 | 0.5 | 0.1 | 0.1 | 0.1 |
| F256 | Adequate Lighting | 3.6 | 2.2 | 1.6 | 1.1 | 0.7 | 0.5 | 0.5 |
| F257 | Comfortable Temperatures | 1.5 | 1.7 | 1.6 | 1.1 | 0.9 | 0.9 | 1.1 |
| F258 | Comfortable Sound | 1.9 | 2.4 | 2.6 | 2.3 | 2.3 | 1.8 | 1.7 |

Resident Assessment

Most deficiencies were issued to facilities for failure to provide comprehensive care plans for residents (15.2 percent in 1998) and for poor comprehensive assessments to residents (15.1 percent in 1998). These were areas emphasized with the adoption of the new federal regulations and new requirements for resident assessments (See Table 50). Eight of 15 items in this category were cited in 2 percent or more of facilities.

TABLE 50
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR RESIDENT
ASSESSMENT

DEFICIENCY GROUP=RESIDENT ASSESSMENT

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F271 | Admission Orders | 0.5 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| F272 | Comprehensive Assessments | 29.9 | 37.3 | 33.7 | 29.0 | 21.5 | 17.3 | 15.1 |
| F273 | Frequency | 2.9 | 2.3 | 2.3 | 1.7 | 1.4 | 1.1 | 1.1 |
| F274 | Change in Condition | 5.7 | 7.6 | 10.1 | 8.3 | 5.9 | 4.6 | 4.2 |
| F275 | Annual Assessment | 2.4 | 1.5 | 1.0 | 0.8 | 0.8 | 0.7 | 0.6 |
| F276 | Review of Assessments | 8.1 | 6.1 | 5.5 | 4.9 | 4.9 | 5.0 | 4.7 |
| F277 | Coordination | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| F278 | Accuracy of Assessments | 14.9 | 15.5 | 9.9 | 6.0 | 4.9 | 4.4 | 4.3 |
| F279 | Comprehensive Care Plans | 30.3 | 30.5 | 29.1 | 24.6 | 19.9 | 17.1 | 15.2 |
| F280 | Plan Requirements | 13.4 | 9.8 | 8.0 | 6.4 | 5.5 | 5.4 | 4.7 |
| F281 | Professional Standards | 8.4 | 6.7 | 6.5 | 6.9 | 8.1 | 8.2 | 10.2 |
| F282 | Qualified Personnel | 3.6 | 2.3 | 3.3 | 4.1 | 5.2 | 4.9 | 5.6 |
| F283 | Discharge Summary | 9.3 | 7.5 | 4.6 | 2.4 | 1.2 | 1.1 | 1.1 |
| F284 | Post Discharge Plan | 4.7 | 3.6 | 2.6 | 1.7 | 0.9 | 0.9 | 0.8 |
| F285 | Preadmission Screening | 0.7 | 0.5 | 0.5 | 0.3 | 0.3 | 0.2 | 0.3 |

Quality of Care

The quality of care category contained a number of important items that were given citations. The failure to keep the environment as free of hazards as possible was cited in 18.0 percent of facilities in 1998 (Table 51). General quality of care was a deficiency in 17.2 percent of facilities. This sub-category increased by 153 percent since 1992. The failure to prevent pressure sores was a deficiency in 17.1 percent of the facilities in 1998. Accident prevention and ADL services were also sub-categories with frequent deficiencies. 18 out of the 25 items in this category were cited in 2 percent or more of the facilities in the U.S.

TABLE 51
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR QUALITY OF CARE

DEFICIENCY GROUP=QUALITY OF CARE

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F309 | Quality of Care | 6.8 | 11.3 | 13.8 | 12.2 | 12.8 | 14.4 | 17.2 |
| F310 | Activities of Daily Living Maintenance | 11.6 | 8.3 | 5.7 | 4.1 | 2.8 | 2.7 | 2.5 |
| F311 | Appropriate ADL Treatment | 5.0 | 5.6 | 5.2 | 5.1 | 5.0 | 5.0 | 5.6 |
| F312 | ADL Services | 8.3 | 7.6 | 7.7 | 9.0 | 10.0 | 10.4 | 12.0 |
| F313 | Vision and Hearing | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.5 | 0.6 |
| F314 | Pressure Sores | 18.6 | 18.0 | 15.0 | 15.6 | 15.0 | 16.1 | 17.1 |
| F315 | Catheter Prevention | 1.2 | 1.1 | 1.3 | 1.1 | 1.2 | 1.3 | 1.4 |
| F316 | Incontinence Care | 12.8 | 11.8 | 12.0 | 12.1 | 10.4 | 10.4 | 10.9 |
| F317 | Range of Motion Maintenance | 1.2 | 0.7 | 0.7 | 1.0 | 1.0 | 0.8 | 0.7 |
| F318 | Limited Range of Motion Services | 8.8 | 8.3 | 7.1 | 8.3 | 8.4 | 8.7 | 9.2 |
| F319 | Mental and Psychosocial Services | 4.2 | 4.5 | 5.1 | 4.6 | 3.3 | 2.8 | 2.4 |
| F320 | Maintenance of Psychosocial Functioning | 0.6 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.1 |
| F321 | Nasogastric Tubes (Tube Feeding) | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| F322 | Nasogastric Care | 5.7 | 5.2 | 5.2 | 4.6 | 4.1 | 4.1 | 4.5 |
| F323 | Accident Environment | 18.6 | 19.7 | 19.7 | 18.3 | 16.2 | 16.6 | 18.0 |
| F324 | Accident Prevention | 6.1 | 6.2 | 7.2 | 8.0 | 9.2 | 11.9 | 14.7 |
| F325 | Nutrition | 8.3 | 9.4 | 9.4 | 8.1 | 8.1 | 8.3 | 8.1 |
| F326 | Therapeutic Diet | 4.4 | 5.6 | 5.0 | 3.7 | 2.2 | 2.3 | 2.0 |
| F327 | Hydration | 3.9 | 3.6 | 3.5 | 3.2 | 3.1 | 2.5 | 3.2 |
| F328 | Special Needs | 5.7 | 5.2 | 4.1 | 3.7 | 3.6 | 3.3 | 3.6 |
| F329 | Unnessary Drugs | 11.2 | 16.1 | 12.7 | 10.8 | 11.0 | 10.6 | 10.7 |
| F330 | Antipsychotic Drugs | 4.1 | 2.4 | 2.1 | 1.5 | 1.3 | 1.1 | 1.2 |
| F331 | Drug Reduction | 4.3 | 2.6 | 2.3 | 1.7 | 1.2 | 1.2 | 1.2 |
| F332 | Medication Errors | 9.2 | 8.3 | 7.4 | 6.4 | 5.2 | 4.9 | 5.7 |
| F333 | Significant Medication Errors | 5.2 | 4.8 | 4.0 | 3.3 | 2.4 | 2.5 | 3.1 |

Nursing Services

Nursing services are key to quality of care in nursing facilities. About 6.0 percent of facilities were given deficiencies for insufficient staff to provide appropriate care in 1992 compared to 4.6 percent in 1998. The number of deficiencies for inadequate registered nurse staffing declined from 10.5 percent in 1992 to 1.0 percent in 1998 (a decrease in deficiencies of 90 percent since 1992) (Table 52).

Dietary Services

In 1998, 23.7 percent of facilities were given deficiencies for inadequate food sanitation. 7.7 percent received citations for inadequate food and 3.8 percent for inadequate menus and nutrition (Table 52).

**TABLE 52
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR NURSING
SERVICES & DIETARY SERVICES**

DEFICIENCY GROUP=NURSING SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F353 | Sufficient Nursing Staff | 6.0 | 6.2 | 7.0 | 5.7 | 4.2 | 3.8 | 4.6 |
| F354 | Registered Nurse Staff | 10.5 | 7.6 | 3.8 | 2.9 | 1.5 | 1.1 | 1.0 |

DEFICIENCY GROUP=DIETARY SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F360 | Well-Balanced Diet | 0.6 | 0.6 | 0.6 | 0.3 | 0.2 | 0.2 | 0.2 |
| F361 | Qualified Staff | 1.7 | 1.5 | 1.1 | 0.7 | 0.4 | 0.4 | 0.4 |
| F362 | Sufficient Staff | 1.8 | 1.6 | 1.3 | 1.0 | 0.7 | 0.6 | 0.6 |
| F363 | Menus and Nutritional Adequacy | 13.7 | 15.0 | 10.1 | 7.1 | 4.3 | 4.3 | 3.8 |
| F364 | Food | 14.1 | 14.0 | 11.5 | 9.9 | 8.2 | 7.3 | 7.7 |
| F365 | Individual Needs | 2.2 | 2.2 | 2.0 | 1.8 | 1.6 | 2.0 | 2.4 |
| F366 | Food Substitutes | 5.4 | 4.7 | 3.9 | 2.5 | 1.4 | 1.1 | 0.9 |
| F367 | Therapeutic Diets | 4.1 | 1.8 | 1.3 | 1.5 | 1.5 | 1.1 | 1.3 |
| F368 | Frequency of Meals | 5.0 | 5.7 | 6.4 | 5.0 | 3.8 | 3.5 | 4.2 |
| F369 | Assistive Devices | 1.3 | 0.9 | 0.7 | 0.6 | 0.4 | 0.4 | 0.5 |
| F370 | Sanitary Conditions | 0.2 | 0.2 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 |
| F371 | Food Sanitation | 27.7 | 30.4 | 28.0 | 24.8 | 22.4 | 21.8 | 23.7 |
| F372 | Garbage Disposal | 3.5 | 3.5 | 3.9 | 2.6 | 2.2 | 2.0 | 2.5 |

Physician Services

Few nursing facilities were given deficiencies for physician services. In 1998, only 1.4 percent received deficiencies for inadequate physicians visits (Table 53). This was a decrease in deficiencies of 70 percent since 1992.

Rehabilitative Services

In 1998, 1.1 percent of facilities were given deficiencies for inadequate rehabilitation services (Table 53).

Dental Services

Even fewer facilities (less than one percent) were given deficiencies for poor dental services than for other types of professional services in the 1992 to 1998 period (Table 53).

TABLE 53
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR PHYSICIAN,
REHABILITATIVE & DENTAL SERVICES

DEFICIENCY GROUP=PHYSICIAN SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F385 | Physician Supervision | 1.2 | 1.0 | 0.6 | 0.5 | 0.5 | 0.3 | 0.3 |
| F386 | Physician Visits | 4.6 | 4.2 | 3.3 | 2.0 | 1.8 | 1.3 | 1.4 |
| F387 | Frequency | 2.2 | 2.1 | 2.1 | 1.6 | 1.5 | 1.5 | 1.8 |
| F388 | Physician Alternates | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| F389 | Availability | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 |
| F390 | Physician Delegation of Tasks | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |

DEFICIENCY GROUP=REHABILITATIVE SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F406 | Services | 1.9 | 1.6 | 1.7 | 1.5 | 1.0 | 0.9 | 1.1 |
| F407 | Qualifications | 0.4 | 0.4 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 |

DEFICIENCY GROUP=DENTAL SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F411 | Routine and Emergency Services (SNF) | 0.5 | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.5 |
| F412 | Routine and Emergency Services (NF) | 0.0 | 0.0 | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 |

Pharmacy Services

In 1998, 4.5 percent of facilities received deficiencies for failure to comply with proper pharmacy procedures and 3.9 percent for improper storage of drugs (Table 54). Only two of the 8 items were cited in more than 2 percent of facilities in 1998.

Infection Control

Infection control is an important category. In 1992, 19.9 percent of facilities received deficiencies for inadequate infection control, compared to 9.6 percent in 1998 (Table 54). This represents a decrease in deficiencies of 52 percent since 1992.

TABLE 54
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR PHARMACY
SERVICE & INFECTION CONTROL

DEFICIENCY GROUP=PHARMACY SERVICES

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F425 | Pharmacy | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 |
| F426 | Procedures | 3.7 | 3.7 | 4.0 | 3.6 | 3.0 | 3.8 | 4.5 |
| F427 | Service Consultation | 2.1 | 1.5 | 1.2 | 0.9 | 0.7 | 0.7 | 0.8 |
| F428 | Drug Regimen | 2.8 | 2.4 | 1.9 | 1.1 | 0.9 | 0.7 | 0.8 |
| F429 | Report Irregularities | 6.6 | 5.7 | 4.7 | 3.1 | 2.1 | 2.1 | 1.9 |
| F430 | Facility Action | 0.0 | 0.0 | 4.7 | 2.7 | 1.3 | 1.2 | 1.5 |
| F431 | Labeling | 2.9 | 2.3 | 2.3 | 1.9 | 1.6 | 1.6 | 1.8 |
| F432 | Storage | 5.0 | 4.3 | 4.1 | 3.6 | 3.3 | 3.1 | 3.9 |

DEFICIENCY GROUP=INFECTION CONTROL

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F441 | Infection Control | 19.9 | 17.7 | 15.9 | 13.7 | 10.5 | 9.3 | 9.6 |
| F442 | Preventing Spread of Infections | 1.0 | 0.8 | 0.5 | 0.8 | 0.7 | 0.7 | 0.9 |
| F443 | Direct Contact | 0.3 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.2 |
| F444 | Handwashing | 5.8 | 5.4 | 5.2 | 4.8 | 4.6 | 5.1 | 5.7 |
| F445 | Linens | 7.0 | 6.0 | 4.6 | 3.8 | 2.8 | 2.6 | 2.8 |

Physical Environment

The category for physical environment includes 16 subcategories. In 1998, 9.1 percent of facilities received deficiencies for other environmental conditions, and 3.9 percent for inadequate room space (Table 55).

TABLE 55
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR PHYSICAL ENVIRONMENT

DEFICIENCY GROUP=PHYSICAL ENVIRONMENT

| FTAG | DESCRIPTION | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| F454 | General Health and Safety | 0.5 | 0.4 | 0.4 | 0.5 | 1.1 | 2.0 | 1.9 |
| F455 | Emergency Power | 2.5 | 1.8 | 1.4 | 0.8 | 0.6 | 0.5 | 0.4 |
| F456 | Space and Equipment | 5.2 | 4.1 | 3.8 | 2.9 | 2.4 | 2.5 | 2.6 |
| F457 | Resident Rooms | 1.5 | 1.3 | 1.2 | 1.0 | 0.5 | 0.4 | 0.3 |
| F458 | Room Space | 5.9 | 6.1 | 5.8 | 5.3 | 4.3 | 4.0 | 3.9 |
| F459 | Exits | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| F460 | Privacy | 6.0 | 4.7 | 3.6 | 2.9 | 1.6 | 1.1 | 0.9 |
| F461 | Windows | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| F462 | Toilets | 0.5 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| F463 | Resident Call System | 9.2 | 8.2 | 6.2 | 4.9 | 3.5 | 2.7 | 3.0 |
| F464 | Dining and Activities | 7.2 | 6.1 | 4.1 | 2.7 | 1.5 | 1.1 | 1.0 |
| F465 | Other Environmental Condition | 6.1 | 10.5 | 10.7 | 6.1 | 6.6 | 7.6 | 9.1 |
| F466 | Emergency Water | 0.9 | 0.9 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 |
| F467 | Ventilation | 2.4 | 1.8 | 1.4 | 1.1 | 0.8 | 0.7 | 0.6 |
| F468 | Equipment in Corridors | 2.4 | 2.4 | 1.9 | 1.7 | 1.4 | 1.1 | 1.0 |
| F469 | Pest Control | 6.6 | 5.6 | 5.9 | 5.0 | 3.9 | 3.4 | 3.4 |

Administration Services

In 1998, 3.0 percent of facilities received deficiencies for failure to provide adequate inservice education and 3.3 percent for failure to demonstrate the proficiency of nurses aides (Table 56). 3 of the 12 administrative subcategories were cited in more than 2 percent of facilities in 1998.

Laboratory Services

In 1998, none of the 7 laboratory services subcategories were cited in more than 2 percent of facilities.

Other Activities

3 of the 8 other activities subcategories were cited in more than 2 percent of facilities in 1998. These deficiencies were issued for inadequate clinical record keeping (9.4 percent in 1998), emergency training (2.2 percent in 1998) and quality assurance activities (2.0 percent in 1998).

TABLE 56
PERCENT OF NURSING FACILITIES IN THE U.S. WITH DEFICIENCIES FOR ADMINISTRATION
AND OTHER SERVICES

DEFICIENCY GROUP=ADMINISTRATION

| FTAG | DESCRIPTION | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|-----------------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| F490 | Administered Effectively | 1.7 | 1.9 | 2.2 | 1.8 | 1.5 | 1.6 | 2.2 |
| F491 | Licensure | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| F492 | Compliance With Laws | 9.4 | 1.3 | 1.1 | 0.9 | 1.0 | 1.0 | 1.8 |
| F493 | Governing Body | 2.0 | 2.1 | 2.2 | 1.6 | 1.0 | 0.8 | 0.9 |
| F494 | Required Training | 3.8 | 3.3 | 2.0 | 1.5 | 0.9 | 0.8 | 0.9 |
| F495 | Employee Competency Program | 1.0 | 1.2 | 1.0 | 0.9 | 0.6 | 0.7 | 0.7 |
| F496 | Registry Verifications | 1.6 | 3.1 | 2.5 | 2.3 | 1.4 | 1.9 | 1.9 |
| F497 | Inservice Education | 1.4 | 2.7 | 2.7 | 2.9 | 2.3 | 2.5 | 3.0 |
| F498 | Proficiency of Nurse Aides | 2.7 | 3.1 | 3.5 | 3.1 | 2.7 | 2.8 | 3.3 |
| F499 | Qualified Professionals | 1.0 | 0.6 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 |
| F500 | Outside Services | 1.1 | 0.7 | 0.6 | 0.7 | 1.1 | 0.8 | 1.4 |
| F501 | Medical Director | 1.0 | 1.2 | 1.0 | 0.9 | 0.6 | 0.5 | 0.7 |

DEFICIENCY GROUP=LABORATORY SERVICES

| FTAG | DESCRIPTION | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|---------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| F502 | High Quality, Timely Services | - | - | 1.1 | 0.9 | 1.0 | 1.3 | 1.9 |
| F503 | Meets Lab Standards | - | - | 2.6 | 1.1 | 0.4 | 0.3 | 0.3 |
| F504 | Services Ordered by a Physician | - | - | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| F505 | Notifys Physicians | - | - | 0.2 | 0.2 | 0.3 | 0.3 | 0.5 |
| F507 | Clinical Records | - | - | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| F508 | Radiology and Other Services | - | - | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| F513 | Records Signed and Dated | - | - | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

DEFICIENCY GROUP=OTHER ACTIVITIES

| FTAG | DESCRIPTION | 1992* | 1993* | 1994 | 1995 | 1996 | 1997 | 1998 |
|-------------|------------------------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|
| F514 | Clinical Records | - | - | 13.5 | 10.7 | 10.0 | 9.1 | 9.4 |
| F516 | Records Safeguarded | - | - | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 |
| F517 | Plans for Emergency | - | - | 0.7 | 0.5 | 0.3 | 0.4 | 0.4 |
| F518 | Emergency Training | - | - | 3.3 | 2.9 | 2.2 | 1.8 | 2.2 |
| F519 | Transfer Agreement | - | - | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| F520 | Quality Assurance Committee | - | - | 0.7 | 0.9 | 0.8 | 0.7 | 0.6 |
| F521 | Quality Assurance Activities | - | - | 3.1 | 2.5 | 2.1 | 1.9 | 2.0 |
| F522 | Disclosure of Ownership | - | - | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |

SUMMARY

In summary, this report has provided information on nursing facilities in the states. The data are from the federal OSCAR system which provides comprehensive information about facility characteristics, resident characteristics and services provided, staffing, and deficiencies from federal surveys. The information provides data for the first six months of 1995 when the federal survey system was modified and also for the second six months after the new federal enforcement guidelines were implemented. The federal survey system

can be expected to change over time as policies are implemented to encourage improvements in the quality of nursing care.

This is one of the few reports which has been able to provide historical data on nursing facilities. Even though data for the early years of the report does not include some of the facilities, the overall trend lines are fairly stable over time for most of the items. Thus, these data provide an opportunity to examine quality issues and deficiency patterns over time.

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TECHNICAL NOTES

Data Sources

The OSCAR system includes data for all certified nursing homes in the U.S. The data are collected in three separate sets of files: (1) provider information, which include facility characteristics and staffing data; (2) health survey file (with facility-level summary information regarding resident characteristics); and the (3) survey deficiencies. OSCAR is an on-line data system from the Health Care Financing Administration (HCFA). The OSCAR data for this report included the most recent surveys for all facilities for the period of 1992-1998. These data were available on several sets of tapes.

All nursing facilities federally certified for Medicare (skilled nursing care) and Medicaid (nursing facilities) were included (about 15,500 facilities) in these data. Intermediate care facilities for the mentally retarded (ICF-MR) were excluded because they use different federal certification forms and have different standards of care. Facilities located in the trust territories and Puerto Rico were excluded.

Data Cleaning and Duplicate Records

In preparing the data for this report, discussions were held with HCFA officials as necessary to discuss data acquisition, formatting, and cleaning issues. Frequency distributions were developed for all the indicators on the data set and a series of cleaning activities undertaken.

The first step in cleaning was to eliminate any duplicate provider records. Duplicate records were considered generally to be the result of changes in certification for Medicare and Medicaid (Title 18/19) facilities or Medicare only (Title 18) facilities. Since 1990, because of OBRA 1987 legislation, Medicaid only (Title 19) SNF and ICF facilities are certified together as nursing facilities (NFs). With this change, some problems with duplicate SNF and ICF reporting were essentially eliminated.

To correct the duplicate problems, we identified all those facilities showing identical values for the following areas: state, city, facility name, and facility address. Where duplicate records were identified, a decision-making procedure was invoked as follows:

- (1) The most recent record within a calendar year was selected over earlier records; and
- (2) A record reporting a category of either: (01) skilled nursing facility (SNF) -- Medicare participation; (02) nursing facility (NF) -- Medicaid participation; or (03) SNF/ICF -- Medicare/Medicaid participation was selected over facilities reporting as (10) hospital based.

For those remaining facilities with the same name and/or address, data on telephone numbers and survey data were then examined. Where there appeared to be two facilities at one site with different data, neither facility was eliminated. This overall process resulted in dropping 79 facilities in 1991, 62 facilities in 1992, 39 facilities in 1993, 30 facilities in 1994, 73 facilities in 1995, and 91 facilities in 1996.

Data Errors

The data were examined for missing values and gross errors. Means and standard deviations of the data were computed and examined. Logic checks confirming the reasonableness of data were conducted. Preliminary work identified some missing data and errors, primarily in reporting the beds, staffing and the number of residents. Each problem area, and the cleaning procedures, are discussed below.

Total Number of Beds

During the preliminary work, the total number of beds in each state reported on OSCAR was compared to the total licensed bed supply for each state from an independent survey of states (DuNah et al. 1994). The total number of beds reported by facilities was significantly higher than the total licensed beds in the U.S. An analysis of this discrepancy found that some hospital-based facilities had reported the total number of acute care beds rather than the total number of skilled nursing beds for their facility. To correct this error, the maximum number of beds for a hospital-based facility was set to equal the maximum number of certified skilled nursing beds in the facility. Thus, this process made the total certified nursing facility beds more comparable to the total state licensed nursing facility beds in each state.

Total Number of Residents

Several problems concerning resident data were detected. First, some facilities had missing data for their total number of residents. These facilities were left in the data set, but where resident data were not available, these facilities were not included in the tables report.

Second, some facilities reported extremely low numbers of residents. In order to identify facilities with possible errors in reporting residents, occupancy rates were computed for all nursing facilities. Free-standing (non-hospital based) facilities reporting 50 or less residents than total beds were considered to have erroneous data and were eliminated from the staffing and resident characteristics' analysis.

Third, some facilities reported more residents than beds, suggesting more than 100 percent occupancy. Hospital-based facilities may have had approval for swing beds which would allow the hospital to use an acute care bed for a nursing home resident. Therefore, hospital-based facilities with more residents than beds were left in the data set, but the maximum occupancy rate for such facilities was reported to be 100 percent. Finally, facilities with numbers of residents reported at greater than 100 percent of total beds, which were not hospital-based, were dropped from the analysis.

Staffing Data

Frequencies for hours of staffing per resident day were examined separately for Medicaid only facilities and for Medicare only and/or dually certified facilities. The total number of hours of staff reported in a two week period was divided by the total number of residents and by the 14 days in the reporting period.

There were a number of problems identified with the facility staffing data. Some facilities reported extremely high staff hours per resident day while others reported no registered nurses or no nursing staff hours. Where a facility reported nurse staffing hours per resident day which did not fall within a reasonable range, the data for that item were be considered invalid. The following uniform decision-making rules were created for eliminating facility staffing data which clearly appeared to be too high or too low:

First, facilities with average nursing hours per resident day that were greater than 24 hours of nursing per resident were considered erroneous and eliminated from the analysis. Distributions of the nursing hours per resident were then examined.

To correct further for staffing levels that were unreasonably high, facilities reporting staffing hours per resident day in the upper 2 percent by type of facility (separately for Medicaid only and for Medicare only/dually certified) and by type of staff (RN, LVN/LPN, and nursing assistants) were eliminated from the staffing analysis.

Facilities reporting extremely low staffing hours per resident day were identified. Since some Title 19 facilities and Title 18/19 facilities were given HCFA waivers from the staffing requirements, these facilities may have few or no RN staff. During our preliminary analysis, OSCAR data showed that there were a total

of 56 facilities in 20 states in the US which did not report RN hours in 1991, 112 in 1992, and 96 in 1993. Texas, Oklahoma, and Louisiana had the highest number without RNs. Although this was unusual, these facilities were not removed from the analysis unless they also met the criteria described below.

Since all facilities are required to have some licensed nurses, nursing facilities with no licensed staff (RNs and/or LVN/LPNs) and/or no nursing staff were eliminated from these analyses. In addition, facilities with computed staffing levels in the lower 1 percent range for licensed or combined nursing personnel for each type of facility (separately for Medicaid only and for Medicare only and/or dually certified) were removed from the staffing report because some of these may have been erroneous.

Other reporting errors in staffing data may occur. For example, facility errors in the reporting of time periods may have occurred or rounding errors may have occurred. These types of errors cannot be detected in the data set. Thus, because further accuracy checks could not be conducted, only the high and low outlier facilities were removed from the tables on staff.

RNs, LPN/LVNs, and Aides are presented separately. Total licensed nurses are also presented; these include RNs and LPN/LVNs added together. Total combined nursing personnel are included as combined RNs, LPN/LVNs, and nursing aide hours.