

Chapter 3

**Special Care Units For
People With Dementia:
Findings From Descriptive Studies**

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Special Care Units For People With Dementia: Findings From Descriptive Studies

INTRODUCTION

Much of the existing literature on special care units consists of reports about an individual unit. These reports usually describe the physical design features, patient care philosophy, activity programs, and other characteristics of the unit that make it special in the view of the report authors. The reports often present anecdotal evidence of the positive outcomes of the unit and advocate the development of more special care units like the one being described.

Descriptive reports on individual special care units are interesting in that they convey the authors' commitment to providing better care for individuals with dementia and the authors' perceptions about what constitutes appropriate nursing home care for these individuals. On the other hand, the anecdotal evidence presented in these reports about the positive outcomes of individual special care units is not adequate to evaluate their effectiveness. Moreover, many of the descriptive reports on individual special care units do not provide enough detailed information about the characteristics of the units to allow a meaningful comparison of different units.

Research on special care units is in an early stage, but in the past few years, a number of studies of special care units have been conducted. Some of the studies are descriptive, and others are evaluative. The descriptive studies provide information about the number and characteristics of special care units nationally and in certain geographic areas and about the similarities and differences among special care units and between special care units and nonspecialized nursing home units. The evaluative studies attempt to measure the effectiveness of one or more special care units in terms of changes in aspects of their residents' condition and functioning over time.

This chapter discusses what is known about special care units from the available descriptive studies. Chapter 4 discusses the findings of the available evaluative studies. The findings of these studies are discussed in some detail because they provide a basis for informed policy decisions about the development of special regulations and reim-

bursement for special care units, about the need for and content of consumer education materials on special care units, and about the future direction and level of government support for research on special care units.

Table 3-6 at the end of this chapter lists OTA's conclusions from the descriptive studies discussed in the chapter. (An identical list appears in table 1-2 inch. 1). Probably the most important conclusion for policy purposes is the diversity of existing units. It is also clear from available studies that although most special care units have a method of locking or otherwise securing the unit, many units do not incorporate the other physical design features recommended in the special care unit literature. Moreover, at least one-quarter of existing units report they do not provide special training for their staff members. On the positive side, physical restraints are used far less in special care units than in other nursing home units. On average, special care units also have fewer residents and more staff members per resident than other nursing home units, and special care unit residents are probably more likely than individuals with dementia in nonspecialized units to participate in activity programs.

TYPES OF DESCRIPTIVE STUDIES OF SPECIAL CARE UNITS

Descriptive studies of special care units include studies of three types:

- . studies of nursing homes that include questions about special care units,
- . studies that compare selected special care units, and
- . studies that compare selected special care units and selected nonspecialized nursing home units.

Tables 3-1a, 3-1b, and 3-1c list the descriptive studies of each type for which conclusions are currently available at least in draft form. To OTA's knowledge, these tables include all such studies. For each study, the tables identify the citation, the year the study was conducted, the source of funding for the study if given in the study report, and the general method of the study. The following sections review

Table 3-I—Descriptive Studies of Special Care Units

a. Descriptive Studies of Nursing Homes That Include Questions About Special Care Units			
Citation	Year of the study	Funding source	Method of the study
Hepburn et. al., 1988	1986	No funding source reported	Mail survey of all 438 licensed nursing homes in Minnesota, with a 76 percent response rate.
Holmes et al., 1992	1990	See note below	Mail and telephone survey of all nursing homes in 5 northeastern States (Connecticut, Massachusetts, New Jersey, New York, and Pennsylvania), with an 81 percent response rate.
Leon et. al., 1990	1987	Agency for Health Care Policy and Research	On-site survey of a nationally representative sample of 759 nursing homes, using questionnaires and face-to-face interviews with facility administrators and staff.
Mayers and Block, 1990	1989	No funding source reported	Mail survey of all 305 nursing homes in Washington State, with a 50 percent response rate.
b. Descriptive Studies That Compare Selected Special Care Units			
Cairl et. al., 1991	1990	Administration on Aging	Study comparing 13 nursing home special care units in 10 counties in west central Florida, using an interview schedule for face-to-face interviews with facility staff.
Hyde, 1989	not reported	University of Massachusetts, Gerontology Institute	Study of 7 nursing home special care units in eastern Massachusetts, using a semi-structured interview schedule.
Knoefel, unpublished manuscript	1989	Department of Veterans Affairs	Study of 5 special care units in VA and nonVA facilities, using chart reviews and an interview schedule.
Mace, 1991	1988-1989	No funding source reported	Mail survey of 12 nursing home special care units.
Ohta and Ohta, 1988	not reported	No funding source reported	Study of 16 nursing home special care units, using published and unpublished reports, facility manuals, and site visits.
Weiner and Reingold, 1989	1985-1986	Partial funding from the Brookdale Foundation	Mail survey of 22 nursing home special care units and several specialized programs in other settings.
White and Kwon, 1991	1987	Oregon State University	Mail survey of 99 nursing home special care units in 34 States.
c. Descriptive Studies That Compare Selected Special Care Units and Selected Nonspecialized Nursing Home Units			
Lindman et al., 1991	1990	California Department of Health Services	Study comparing 11 individuals with dementia in 2 nursing home special care units, 11 individuals with dementia in nonspecialized units in 2 nursing homes, and 8 individuals with dementia in 2 residential care facilities, using chart reviews, questionnaires, and patient observation.
Mathew et. al., 1988	Not reported	No funding source reported	Study comparing 13 individuals with dementia in one nursing home special care unit and 34 individuals with dementia in nonspecialized units in 2 nursing homes, using chart reviews and patient observation and examination.
Rovner et. al., no date	Not reported	No funding source reported	Study comparing 19 individuals with dementia in one nursing home special care unit and 20 individuals with dementia in nonspecialized units of the same nursing home, using chart reviews and patient observation and examination.
Sloane et. al., 1990	1987-1989	Alzheimer's Association	Study comparing 10 individuals with dementia in each of 31 nursing home special care units and 32 nonspecialized nursing home units in 5 States, using chart reviews, questionnaires, and patient observation.
Riter and Fries, 1992	1990	Health Care Financing Administration	Study comparing 127 individuals with dementia in 10 nursing home special care units and 103 individuals with dementia in nonspecialized units in the same nursing homes, using chart reviews, questionnaires, and patient observation.

NOTE: This study was conducted by researchers at the Hebrew Home for the Aged to obtain information about special care units in five States that would allow them to identify a sample of units for their study of the impact of special care units; the latter study is funded by the National Institute on Aging, but no findings are yet available from it.

SOURCE: Office of Technology Assessment, 1992.

the findings of these studies with respect to the number of nursing homes with a special care unit, the characteristics of these nursing homes, the characteristics of the special care units, and the characteristics of their residents.

In 1991, researchers at George Washington University in Washington, DC, mailed a questionnaire about special care units to more than 17,000 nursing homes nationwide (246). Results of this survey with respect to the number of nursing homes that have a special care unit are noted in the following section. As of May 1992, the other findings of the survey were still being analyzed. Once available, these findings will greatly expand existing information about special care units. OTA is aware of two other sources of forthcoming descriptive information about special care units which are described in the last section of the chapter.

NUMBER OF NURSING HOMES THAT HAVE A SPECIAL CARE UNIT

Five studies conducted between 1987 and 1991 provide information about the number and proportion of nursing homes that have a special care unit. The five studies are discussed in this section. Because of differences among the studies and definitional questions, no firm conclusion can be drawn at this time about the number or proportion of nursing homes that have a special care unit. Based on the results of the two most recent studies, OTA estimates that in 1991, 10 percent of all nursing homes in the United States had a special care unit. This proportion varies among States, and at least in some States, it includes nursing homes that group some of their residents with dementia in *clusters in units that also serve* nondemented residents, rather than placing the residents in an entirely separate special care unit.

The 1987 National Medical Expenditure Survey conducted by the Agency for Health Care Policy and Research is, thus far, the only study of a nationally representative sample of nursing homes that has included questions about special care units. The sampling frame for the study was 22,064 nursing homes and personal care homes, including all Medicare and Medicaid-certified nursing homes and all State-licensed and otherwise officially recognized nursing and personal care homes that: 1) have three or more beds, 2) provide personal care, and 3)

are not primarily facilities for the mentally ill or mentally retarded. Eight percent of the 759 facilities in the survey sample reported having a special care unit (249). Extrapolated to the 22,064 facilities in the sampling frame, this finding indicates that 1668 nursing and personal care homes in the U.S. had a special care unit in 1987. These units were estimated to contain more than 53,000 beds.

The 1987 National Medical Expenditure Survey also found that many nursing and personal care homes had plans to establish a special care unit. The survey data indicate that in 1987, 1444 facilities that did not have a special care unit intended to establish one by 1991. Moreover, 535 of the facilities that already had a special care unit planned to expand their unit by 1991. If all these plans had materialized, more than 3100 nursing and personal care homes (14 percent of the facilities in the survey sampling frame) would have had a special care unit by 1991, and these units would have contained almost 100,000 beds.

When published in 1990, the figures from the 1987 National Medical Expenditure Survey were much higher than any previous estimates, but they were generally accepted as accurate. A few public officials and other individuals in some States told OTA informally that they did not believe as many as 8 percent of the nursing homes in their State had a special care unit in 1987 or that 14 percent would in 1991. Data from the 1987 National Medical Expenditure Survey cannot be broken down by State (246), so the survey data cannot be used to determine the number or proportion of nursing homes in particular States that have a special care unit. The data do show that the proportion of nursing homes with a special care unit varies in different regions of the country, and findings of several studies discussed below indicate the proportion varies by State.

To OTA's knowledge, four studies have attempted to survey all nursing homes in a given geographic area and thus to determine the total number of nursing homes that have a special care unit in that area. One of the four studies, a mail survey conducted from 1989 to 1990 of all 305 nursing homes in Washington State found that only 3 percent of the 154 facilities that responded to the survey (or about 1.5 percent of all nursing homes in the State) reported having a special care unit (294).

A 1986 mail survey of all 438 nursing homes in Minnesota found that 7 percent of the 332 facilities

that responded to the survey reported having a special care unit (18%). An additional 7 percent of the responding facilities reported they planned to establish a special care unit in the next 2 to 3 years. If these plans had materialized, 14 percent of the responding facilities (or 11 percent of all nursing homes in Minnesota) would have had a special care unit by 1988 or 1989.

In 1990, researchers at the Hebrew Home for the Aged in Riverdale, NY, mailed a questionnaire about special care units to all nursing homes in five northeastern States (194). Seven percent of the 2370 nursing homes in the 5 States reported having at least one special care unit. An additional 5 percent of the nursing homes reported that although they did not have a special care unit, they did place some of their residents with dementia in clusters in units that also served nondemented residents. Thus, a total of 12 percent of the facilities reported using some method to physically group residents with dementia—either in a special care unit or in a cluster in units that also serve nondemented residents. A telephone followup to a random sample of 150 of the nursing homes found that in 15 of the facilities (10 percent), the nursing home administrator and the director of nursing disagreed about whether their facility had a special care unit. The researchers reduced their previous estimate to eliminate these questionable units. Their conservative conclusion is that in 1990, 11 percent of all nursing homes in the 5 States had at least one special care unit or cluster unit.

As noted earlier, in 1991, researchers at George Washington University mailed a questionnaire about special care units to about 17,000 nursing homes nationwide, including all nursing homes thought to have 30 or more beds and to serve primarily elderly people. After the elimination of facilities that had closed or did not meet these criteria, there were 15,490 potential respondents (246). Four thousand questionnaires were completed and returned. The researchers telephoned most of the nursing homes that did not return the questionnaire. As of May 1992, information was available on more than 14,000 nursing homes (90 percent of all nursing homes in the sampling frame). Based on this information, the researchers concluded that in 1991, 1463 nursing homes had a special care unit or a special program for residents with dementia. Ninety percent of the 1463 nursing homes with a special care unit or special program reported the unit or program was in a physically distinct part of the

facility. If only these nursing homes are counted as having a special care unit, 1318 nursing homes (9 percent of all nursing homes in the sampling frame) had a special care unit in 1991.

The George Washington University survey found great differences among States in the proportion of nursing homes in the State that had a special care unit or special program for residents with dementia (247). Preliminary analysis of the data shows that in some States a surprisingly high proportion of nursing homes reported having a special care unit or special program for residents with dementia: 36 percent of the nursing homes in Arizona and 27 percent of the nursing homes in Utah reported having such a unit or program.

The George Washington University survey also found that many of the nursing homes that did not have a special care unit in 1991 planned to establish one, and some of the nursing homes that did have a special care unit planned to expand it (247). Preliminary analysis of the survey data shows that 1000 to 1600 of the nursing homes (6 to 10 percent of all nursing homes in the sampling frame) planned to establish a new special care unit or expand their existing unit.

For several reasons, the results of the five studies described in this section are not precisely comparable. First, the studies sampled different types of facilities (i.e., nursing homes and personal care homes, all nursing homes, or nursing homes with more than 30 beds). Second, the studies identified different types of units (i.e., special care units and cluster units), and some of the studies also included special programs. Third, the studies covered different geographic areas. Lastly, the studies were conducted over a 4-year period during which the number and proportion of nursing homes with a special care unit undoubtedly increased.

The preliminary estimate from the 1991 George Washington University survey and the conclusion of the 1990 survey of all nursing homes in 5 northeastern States show that 9 to 11 percent of the nursing homes had a special care unit, a cluster unit, or a special program for residents with dementia. Almost half the units identified in the 1990 survey of all nursing homes in five northeastern States were cluster units (194). It is unclear whether the 1463 special care units and special programs identified in the George Washington University survey include cluster units, and if so, how many.

The biggest discrepancy in the findings of the five studies is between the total number of special care units and special programs identified by the 1987 National Medical Expenditure Survey (1668 units and programs) and the total number identified in the 1991 George Washington University survey (1463 units and programs). These figures suggest there was a decrease in the number of special care units and programs between 1987 and 1991, a highly unlikely conclusion. The figures lend themselves to two other explanations:

1. the 1987 National Medical Expenditure Survey overestimated the number of special care units, and
2. the 1991 George Washington University study underestimated the number of special care units.

One or both of these explanations could be correct.¹

The 1987 National Medical Expenditure Survey and the 1991 George Washington University survey asked about special care units *and* special programs. The researchers who worked on the special care unit portion of the 1987 National Medical Expenditure Survey concluded on the basis of the survey findings and the results of other studies that virtually all the facilities that reported having a special care unit or a special program in 1987 had at least one special care unit (246). As noted earlier, 90 percent of the 1463 nursing homes identified in the 1991 George Washington University survey as having a special care unit or program reported their unit or program was in a physically distinct part of the facility. If only these nursing homes are counted as having a special care unit, the discrepancy between the findings of the 1987 and 1991 surveys is bigger and more difficult to explain.

An obvious obstacle to developing accurate figures on the number of nursing homes with a special care unit is the lack of a standard definition of the term *special care unit*. All the figures cited in this section are based on self-report, and most reflect the opinions of the nursing home administrators and other survey respondents about what a special care unit is. The 1990 survey of all nursing homes in 5 northeastern States found that only 49 percent of the nursing homes that placed their residents with

dementia in a separate unit and only 12 percent of the nursing homes that placed their residents with dementia in clusters in nonspecialized units used the term "special care" for these arrangements (194). Moreover, as noted earlier, in 10 percent of the 150 facilities contacted by telephone, the nursing home administrator and the director of nursing disagreed about whether their facility had a special care unit.

Having a standard definition of the term *special care unit* would facilitate the development of accurate figures on the number of nursing homes with a unit that met that definition. On the other hand, units that did not meet the definition would not be counted. Since research on special care units is in an early stage, it is important not to define away care arrangements that may turn out to be variants of special care units. In this context, it should be noted that the first information about the large number of cluster units in some States was derived from a study that deliberately did not define the term *special care unit* and instead asked a very broad question about the "types of living arrangements available for cognitively impaired (demented) residents' in the facility (177). Although cluster units do not meet some definitions of the term *special care unit*, information on cluster units presented later in this chapter shows that significant proportions of these units incorporate features said to be important in special care units (e.g., physical design features, special staff training, staff support groups, family support groups, and formal admission and discharge criteria).

In summary, findings of the 1987 National Medical Expenditure Survey indicated that 8 percent of all nursing homes had a special care unit in 1987 and that if plans reported in 1987 materialized, 14 percent of all nursing homes would have a special care unit in 1991. Results of several studies conducted since 1987 suggest the figures from the 1987 National Medical Expenditure Survey overestimate the number and proportion of nursing homes that had a special care unit in 1987 and the number and proportion that would have a special care unit by 1991. Based on available data, OTA estimates that in 1991, 10 percent of nursing homes in the United States had a special care unit. This proportion varies in different States, and in at least some States, it

¹ Another theoretically possible but unlikely explanation is that many of the special care units included in the 1987 figure are in personal care homes or nursing homes with fewer than 30 beds which were included in the 1987 National Medical Expenditure Survey but not in the 1991 George Washington University survey.

includes nursing homes that group some of their residents with dementia in clusters in units that also serve nondemented residents.

CHARACTERISTICS OF NURSING HOMES THAT HAVE A SPECIAL CARE UNIT

Nursing homes that have a special care unit differ from other nursing homes in their ownership, certification status, size, and geographic location. Table 3-2 presents information from the 1987 National Medical Expenditure Survey on each of these characteristics for all nursing homes and personal care homes in the survey sample, for the nursing and personal care homes that reported having a special care unit in 1987, and for the nursing and personal care homes that reported they would have a special care unit by 1991 (248). Other sources of information about the characteristics of nursing homes with a special care unit are the 1986 survey of nursing homes in Minnesota (181), the 1990 survey of all nursing homes in 5 northeastern

States (194), and a University of North Carolina study conducted from 1987 to 1989 that compared 31 randomly selected special care units and 32 matched nonspecialized units in 5 States (413).

Ownership

As shown in table 3-2, the National Medical Expenditure Survey found that 60 percent of the nursing and personal care homes that reported having a special care unit in 1987 were privately owned, for-profit facilities; 21 percent were privately owned, nonprofit facilities, and 19 percent were publicly owned (249). The proportion of for-profit facilities that reported having a special care unit in 1987 (60 percent) was smaller than might be expected, given that 73 percent of all facilities in the survey sample were for-profit facilities. In contrast, the proportion of publicly owned nursing homes that reported having a special care unit (19 percent) was greater than might be expected, given that only 5 percent of all facilities in the survey sample were publicly owned.

Table 3-2-Characteristics of Nursing Homes That Had a Special Care Unit in 1987 or Planned To Have a Special Care Unit by 1991, United States, 1987

Characteristic of facilities	Number of nursing homes			Number of nursing home beds		
	Total	with a special care unit in 1987	with a special care unit by 1991	Total	In special care units in 1987	In special care units by 1991
Totals	22,064	1,668	3,112	1,645,861	53,798	99,698
	Percent of total			Percent of total		
Ownership						
For profit,	73%	60%	57% ^a	67%	69%	51%
Independent	35	27	28	24	31	21
Multi-facility	38	33	29	44	38	29
Nonprofit	23	2 ¹	28	24	18	38
Public	5	19 ^b	15	9	13 ^b	1 ²
SNF Certification						
Yes	40	75 ^a	70 ^a	64	76	81
No	60	25 ^a	30 ^a	36	24	19 ^a
Facility size (number of beds)						
<100	69	45	47 ^a	36	34	41
100-149	20	28	26	32	32	24
150+	11	26 ^a	27 ^a	32	34	36
Region						
Northeast	19	27	30	22	22	20
Mideast	29	16 ^a	22	31	18 ^a	29 ^a
South	30	22	23	30	23	21
West	22	37	26	17	37 ^a	29

^aStatistically significant in comparison to the total column.

^bRelative standard error X30 percent.

SOURCE: J. Leon, D. Potter, and P. Cunningham, "Availability of Special Nursing Home Programs for Alzheimer's Disease Patients," *American Journal of Alzheimer's Care and Related Disorders and Research* 6(1):2-11, 1991.

In terms of bed capacity, 69 percent of the special care unit beds were in for-profit facilities in 1987; 18 percent were in nonprofit facilities, and 13 percent were in publicly owned facilities (see table 3-2). Thus, the proportion of special care unit bed capacity in for-profit facilities (69 percent) was about the same as would be expected, given that 67 percent of all bed capacity was in for-profit facilities. Special care unit bed capacity in publicly owned facilities (13 percent) was slightly greater than would be expected, given that only 9 percent of all bed capacity was in publicly owned facilities.

The greatest growth in special care units and special care unit bed capacity from 1987 to 1991 was projected to occur in nonprofit facilities. Whereas in 1987, 21 percent of special care units and 18 percent of special care unit beds were in nonprofit facilities, by 1991, 28 percent of special care units and 38 percent of special care unit beds were projected to be in nonprofit facilities (see table 3-2).

In 1987, about one-third of all special care units and 38 percent of all special care unit beds were in nursing homes owned by multi-facility corporations (see table 3-2). These proportions were projected to decrease slightly by 1991. The Hillhaven Corp. of Tacoma, WA, the Nation's second largest multi-facility nursing home corporation, was probably the first such corporation to establish special care units for persons with dementia. As of late 1990, 56 Hillhaven-owned nursing homes had a special care unit, and these special care units contained 1283 beds (337).

OTA contacted a few other multi-facility nursing home corporations to find out how many of the nursing homes they own have a special care unit. Manor Care Corp. of Silver Spring, MD, reported that as of late 1990, 51 of its nursing homes had a special care unit (157). ARA Living Centers of Houston, TX, reported 35 of its nursing homes had a special care unit (3). Unicare Health Facilities of Milwaukee, WI, reported 15 of its nursing homes had a special care unit (374).

Data from the 1987 National Medical Expenditure Survey indicate that by 1991, multi-facility nursing home corporations planned to have more than 900 nursing homes with a special care unit. If these plans

had materialized, the four corporations just mentioned would account for only 17 percent (157 out of 900) of all such nursing homes. These figures indicate that ownership of special care units is not dominated by a small number of multi-facility nursing home corporations.

A 1989 survey by the U.S. Department of Veterans Affairs (VA) found that 31 of the 172 VA medical centers nationwide had one or more special care units (159). The VA has issued no formal department-wide policies on special care units. Thus, the special care units identified in the survey were established entirely on the initiative of the individual VA medical centers. The 31 units identified by the 1989 survey were in acute care hospital units, intermediate care units, and long-term care units (103).

Certification Status

According to the 1987 National Medical Expenditure Survey, nursing homes that were certified by Medicare or Medicaid as skilled nursing facilities (SNFs) were far more likely than other nursing homes to have a special care unit (248). As shown in table 3-2, this pattern was projected to continue to 1991. A telephone survey of all nursing homes in five States conducted in 1987 and 1988 also found SNFs were more likely than other nursing homes to have a special care unit (413).²

Nursing Home Size

As shown in table 3-2, larger nursing and personal care homes are far more likely than smaller facilities to have a special care unit. This finding from the 1987 National Medical Expenditure Survey agrees with the results of the 1986 survey of nursing homes in Minnesota which found that 18 percent of nursing homes with more than 100 beds had a special care unit, compared with only 2 percent of nursing homes with less than 100 beds (181). The University of North Carolina study of 31 randomly selected special care units in 5 States found the nursing homes with a special care unit had an average of 192 beds, compared with an average of 92 beds for all U.S. nursing homes (413). The 1990 study of all nursing homes in 5 northeastern States found that nursing homes with a special care unit had an

² The SNF category for Medicaid certification of nursing homes was eliminated in 1990 due to the implementation of certain provisions of the Omnibus Budget Reconciliation Act of 1987 (OBRA-87). As a result, the distinction between SNFs and other nursing homes will not be important in future special care unit research.

average of 251 beds, compared with an average of 166 beds for nursing homes with a cluster unit, and 130 beds for nursing homes without either a special care unit or a cluster unit (194).

Nursing Home Location

According to the 1987 National Medical Expenditure Survey, nursing and personal care homes in the West were more likely than nursing and personal care homes in other regions of the country to have a special care unit (248). As shown in table 3-2, 22 percent of all the facilities and 37 percent of the facilities with a special care unit were in the West. In contrast, 29 percent of all the facilities but only 16 percent of the facilities with a special care unit were in the Midwest. Projections for 1991 suggested special care units would be more evenly distributed across the regions.

CHARACTERISTICS OF SPECIAL CARE UNITS

Existing special care units are extremely diverse. Descriptive studies show that special care units vary in the number of residents they serve, their patient care philosophies and goals, physical design and other environmental features, staff composition and training, staff-to-resident ratios, provision of staff support groups, activity programs, programs for families, use of psychotropic and other medications, use of physical restraints, admission and discharge policies and practices, and cost. Findings in each of these areas are discussed in the following sections.

Each of the descriptive studies listed in tables 3-1a, 3-1b, and 3-1c provides some information about the characteristics of existing special care units. The four nursing home surveys that have included questions about special care units (see table 3-1a) provide information about certain characteristics of the units. With the exception of the 1990 survey of all nursing homes in five northeastern States (194), however, these nursing home surveys have included very few questions about special care units, beyond asking whether the facility has such a unit.

The seven studies that compare selected special care units (see table 3-1b) provide much more comprehensive information about the units. The findings of these studies are particularly useful in pointing out the diversity of existing units. On the other hand, none of the studies used a random

sample of special care units, so their findings with respect to the proportion of units with certain characteristics are less useful. Even the findings of studies with large sample sizes, e.g., White and Kwon's findings based on a sample of 99 special care units (492), cannot be generalized to all special care units since they are based on nonrandom samples.

The five studies that compare selected special care units and selected nonspecialized nursing home units (see table 3-1c) are useful in identifying characteristics that distinguish the two types of units. Three of these studies have very small samples (1 to 2 special care units and 1 to 4 nonspecialized units) (256,292,391). The other two studies have much larger samples (382,413). The study done by researchers at the University of North Carolina is especially valuable because the special care units were randomly selected from all special care units in the five States studied (413).

Number of Residents

It is often said that nursing home residents with dementia can be better cared for in small rather than large groups, and some commentators have suggested 8 to 20 residents may be ideal (63,93,109). Studies of nonrandom samples of special care units show the number of residents in individual units varies greatly. The 16 special care units studied by Ohta and Ohta had from 10 to 49 residents (332). The 7 special care units studied by Hyde had from 12 to 41 residents (199), and the 12 special care units studied by Mace and Coons had from 8 to 47 residents (275). Although these ranges are wide, some of the units clearly had a very small number of residents (8 to 12 individuals). The 1990 survey of all nursing homes in 5 northeastern States found that special care units had an average of 37 beds (194).

Data from the University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized nursing home units show that on average the special care units had fewer residents than the nonspecialized units (36 vs. 59 residents, respectively) (413). The special care units also had fewer rooms and a larger proportion of private rooms—i.e. rooms for only one resident.

Age of the Units

Available data indicate most special care units have been established since 1983, although a few

units have been in operation much longer. The Minnesota nursing homes with a special care unit in 1986 reported that the units had been in operation for an average of 2 years (181). Likewise, the 31 special care units included in the University of North Carolina study conducted from 1987 to 1989 had been in operation an average of 4.6 years: the special care units in nonprofit facilities had been in operation twice as long as the special care units in for-profit facilities (6 years vs. 3 years, respectively) (413). On the other hand, one of the 31 special care units in the University of North Carolina study had been in operation for 25 years. Likewise, the samples of special care units studied by Weiner and Reingold and White and Kwon each included one unit that had been in operation for 20 years (485,494).

Patient Care Philosophies and Goals

None of the descriptive studies that have used a random sample of special care units or attempted to survey all nursing homes in a given geographic area has addressed the question of the units' patient care philosophies or goals.³ Four studies that used nonrandom samples have addressed this question (64,199,332,485). Based on a nonrandom sample of 22 special care units, Weiner and Reingold identified nine goals of the units (485). The nine goals are:

1. to provide a safe, secure, and supportive environment for residents with dementia;
2. to reduce feelings of anxiety and confusion through environmental and communication support;
3. to help residents reach or maintain optimal levels of physical and cognitive functioning;
4. to provide holistic patient care;
5. to offer staff members understanding, training, education, and freedom from excessive stress;
6. to recognize that individuals with dementia are entitled to experiences and activities that will enhance the quality of their lives;
7. to recognize that individuals with dementia are autonomous and can expect that their special needs and those of their families will be met with sensitivity and appropriateness;
8. to provide patients with opportunities to succeed, which will build their sense of self-esteem, dignity, and hope, and

9. to improve the environment and community of nondemented residents of the facility (485).

The number of units that professed each of these goals and the mix of goals for individual units was not noted in the study report.

Several topologies of special care units have been proposed based on the units' philosophy and goals. These topologies point out one facet of the diversity of existing units. From their study of a nonrandom sample of 16 special care units, Ohta and Ohta identified three types of special care units based on the units' goals: 1) units that have as their primary goal to meet residents' physical care needs; 2) units that have as their primary goals to maintain residents' ability to perform activities of daily living to the greatest extent possible and to minimize memory impairments and behavioral symptoms; and 3) units that have as their primary goal to maintain residents' quality of life, while also maintaining their ability to perform activities of daily living and minimizing their memory impairments and behavioral symptoms (332).

Another typology based on the philosophy and goals of a nonrandom sample of seven special care units posited two types of units: 1) units that adopt a medical model of care and focus primarily on hygiene and physical aspects of care; and 2) units that focus more on psychosocial aspects of care, including continuity with a resident's family and previous life (199). The author of this study also distinguished between special care units that have as a goal to maintain their residents' functioning to the greatest extent possible, with the expectation that some residents' functioning might improve and, in contrast, special care units that emphasize the progressive nature of most diseases that cause dementia and have as a goal to allow the residents to decline over time with as much comfort and dignity as possible.

Lastly, from their study of a nonrandom sample of 13 special care units in Florida, Cairl et al. identified two types of units: 1) units in which the primary goal was behavior management—that is, to reduce resident anxiety, wandering, and behavioral symptoms, and 2) units in which the primary goal was to maximize residents' functioning while preserving their individual dignity (64).

³The 1991 George Washington University survey, asked whether the special care units or special programs it identified operated under a different philosophy of care from the rest of the facility. The survey responses with respect to this question have not yet been analyzed (246).

These topologies are useful in thinking about the differences among special care units. It is unclear, however, which of the topologies best represents the differences among existing special care units in their patient care philosophies and goals. It is also unclear whether the topologies encompass the full variation in philosophies and goals among existing special care units since the studies on which the topologies are based used nonrandom samples of special care units.

Physical Design and Other Environmental Features

As discussed in chapter 1, the literature on specialized nursing home care for individuals with dementia emphasizes the importance of physical environment in the care of these individuals. Design features and other physical characteristics of a nursing home are believed to be important for all residents, but especially important for residents with dementia. It is said that the more severe an individual's impairment, the greater the negative effects of an inappropriate environment and, conversely, the greater the positive effects of an appropriate environment (241).

A variety of physical design and other environmental features have been proposed for special care units. Most of these features are intended to compensate directly for residents' cognitive impairments, but some are intended to compensate for physical impairments that may exacerbate an individual's fictional deficits, e.g., reduced visual acuity that can interfere with the individual's perceptions of the environment and thus add to his or her confusion.

Some of the design and other environmental features that have been proposed for special care units are structural, such as arrangement of residents' bedrooms around a common, central area and location of the nurses' station to facilitate resident supervision and staff/resident interaction. Unless a unit is originally constructed with these features, extensive remodeling is required to incorporate them. Other physical design features, e.g., a safe space for wandering, are more easily added to an existing facility, but still require some remodeling. A third type of physical design features can be incorporated in an existing facility without any remodeling. These features include: an alarm or locking system; environmental cues, such as color coding of rooms and corridors to help residents find

their way around the unit; and personal markers, such as a picture of the resident placed near the door to his or her room.

Available data indicate that most existing special care units were not originally constructed as special care units and that at least one-fifth were not even remodeled for this purpose. Of the 31 randomly selected special care units in the University of North Carolina study, 21 percent were originally constructed as special care units; 59 percent were remodeled for this purpose; and 21 percent were created without either original construction or remodeling (415). One-fifth of the 99 nonrandomly selected special care units studied by White and Kwon were created without either original construction or remodeling (494). Of the special care units identified by the 1991 George Washington University survey, more than half were created without either original construction or remodeling (247). Clearly, these types of units cannot incorporate physical design features that require either original construction or remodeling.

The most frequently used physical design features in special care units are alarm systems to alert staff when residents try to leave a unit and locking systems to stop residents from leaving the unit. The 1990 survey of all nursing homes in 5 northeastern States found 86 percent of special care units and 78 percent of cluster units had an alarm system or another method for securing exits (194). Likewise, among Minnesota nursing homes that had a special care unit in 1986, 73 percent reported the unit had an alarm system, and 41 percent reported the unit was locked (181).

The 1990 survey of all nursing homes in five northeastern States included questions about two other physical design features: environmental cues, such as color coding of rooms and corridors, and modifications to the nurses' station. The survey found that 44 percent of the facilities with a special care unit were using environmental cues, and 35 percent had modified their nurses' station (194). Of the facilities with a cluster unit, 34 percent were using environmental cues, and 13 percent had modified their nurses' stations. Thus, although some facilities had incorporated each of these physical design features, the majority had not.

Findings of descriptive studies based on nonrandom samples of special care units illustrate the diversity of the units in their physical design features

(64,199,332,275,485,494). In their 1985-86 study of a nonrandom sample of 22 special care units, Weiner and Reingold found, for example, that 40 percent of the units were using orientation aids, such as large calendars and daily schedules; by implication, 60 percent were not (485). Twenty-seven percent of the units had increased the communal space on the unit; 23 percent had color-coded corridors and furniture; 15 percent had an outside garden or walkway; and 4 percent had small areas for group activities. By implication, the other units had not incorporated these design features. Only two of the units had eliminated their public address system (485).

White and Kwon found similar diversity in their survey of a nonrandom sample of 99 special care units in 34 States (494). Installation of a security system and creation of a safe outdoor area were the physical changes reported by the largest proportion of the survey respondents. These two changes were also reported to be the most successful of the environmental changes made in creating the units. Still, these changes were made by less than half the units (44 percent and 32 percent, respectively) (493). Likewise, although 70 percent of the units reported using personal markers, such as a resident's picture near the resident's room, smaller proportions of the units (12 to 41 percent, depending on the method) reported using any of the environmental cueing methods listed in the survey questionnaire (492).

White and Kwon included in their survey questionnaire a list of 13 environmental features considered by the researchers to be important for the safety of special care unit residents (494):

1. housekeeping chemicals are secured,
2. breakable items are kept from residents,
3. clutter is minimized,
4. housekeeping carts are secured,
5. patients smoke only with supervision,
6. outdoor exits can be opened but have alarms,
7. patients smoke only in designated areas,
8. exits have automatic fire unlocks,
9. stairs and elevators have alarms or are otherwise secured,
10. wide-angle mirrors or video cameras are used to monitor residents,
11. interior exits are disguised,
12. patients wear sensors that activate an alarm, and
13. half doors or clutch doors are used (493).

The proportion of special care units that reported having these features ranged from 96 percent for *housekeeping chemicals are secured* to 18 percent for *half doors or clutch doors are used* (493).

For their study of 31 randomly selected special care units and 32 matched nonspecialized units, Sloane et al. used a list of 12 environmental features they considered important in the care of nursing home residents with dementia:

1. absence of shiny or slippery floors,
2. absence of loud, distracting noise,
3. absence of odors coming from cleaning solutions,
4. absence of odors coming from bodily excretions,
5. absence of glare from the floors,
6. presence of personal items in residents' rooms,
7. presence of home-like furnishings in public areas,
8. presence of an outdoor area or courtyard accessible to residents,
9. availability of separate rooms or alcoves for small group and family interactions,
10. availability of a kitchen for resident use,
11. absence of routine television use in the main public area, and
12. overall adequacy of the lighting level (413).

The study findings show there were no significant differences between special care units and nonspecialized nursing home units for seven of these environmental features, but five of the features were statistically more likely to be found in special care units than in nonspecialized units (413). These five features are the amount of personal items seen in residents' rooms, the amount of home-like furnishings in public areas, the existence of areas suitable for small group interaction, the availability of a kitchen for residents' use, and the probability of having a television off in public areas. New special care units and units originally constructed as special care units were more likely than other special care units to incorporate the 12 features.

Some people who are knowledgeable about the care of nursing home residents with dementia might question the specific environmental features selected for analysis in these two studies and argue that other environmental features are more important for residents' safety and care. Other people might argue many of the environmental features on the two lists

are important for the safety and care of both demented and nondemented nursing home residents and thus are not specific for special care units. In fact, researchers who have conducted descriptive studies of special care units have commented on the differences of opinion among special care unit operators about which environmental features are important for the safety and care of individuals with dementia (199,275,332).

It is clear from the preceding discussion that use of specific physical design and other environmental features varies in existing special care units. It is also clear that despite the emphasis on environmental features in the special care unit literature, even the most widely used of the features—alarm and locking systems—are present in only three-quarters of all units, and many of the environmental features said to be important in the special care unit literature are being used in only a small proportion of existing special care units. According to the researchers who studied Minnesota nursing homes with a special care unit in 1986, the nursing homes seemed to have paid very little attention to environmental or design considerations for the units (181).

Staff Composition and Training

The literature on specialized nursing home care for people with dementia emphasizes the need for staff members who are knowledgeable about dementia and skilled in caring for individuals with dementia. In fact, one of the frequently cited arguments in favor of establishing special care units is that staff members with the necessary knowledge and skills can be more easily assembled and trained on a special care unit than on a nonspecialized nursing home unit (263,270,354). In theory at least, staff members for a special care unit can be selected specifically to meet the needs of residents with dementia; formal and informal training can be focused on these residents' needs, rather than the more heterogeneous needs of residents of nonspecialized units; and training about the care of residents with dementia can be targeted to the special care unit staff members.

Little information is available about the types of staff on existing special care units. Some nursing homes with a special care unit report having added staff, changed the composition of the staff, and/or changed staffing patterns when the unit was created. The 1990 survey of all nursing homes in 5 northeast-

ern States found 69 percent of the facilities with a special care unit reported providing extra nursing staff for the unit, and 45 percent reported providing additional staff of other, unspecified types (194). Of the facilities with a cluster unit, 40 percent reported providing extra nursing staff for the unit, and 30 percent reported providing additional staff of other, unspecified types. Among the Minnesota nursing homes with a special care unit in 1986, 59 percent reported the staffing pattern on the unit was different than the staffing patterns on their nonspecialized units (181), but the differences were not described in the study report.

Several descriptive studies of nonrandom samples of special care units have noted the following staffing changes that have been implemented in one or more of the units studied:

- nurses and aides are not rotated to other units;
- aides are assigned fewer patients but have responsibility for more aspects of their patients' care;
- aides conduct activity programs;
- social workers' and recreation workers' offices are located on the unit;
- part-time assistants are hired for the evening shift to feed patients and help out at bedtime;
- a "clinical coordinator" is designated to develop new programs, educate staff, and market the units (64,275,332,485).

OTA is not aware of any information about the proportion of existing special care units that have implemented any of these staffing changes.

Most—but not all—nursing homes with a special care unit provide some type of specialized training for the unit staff. According to the National Medical Expenditure Survey, 74 percent of nursing homes that reported having a special care unit in 1987 also reported providing special training for the unit staff (248). Nonprofit and public nursing homes and larger nursing homes were more likely than for-profit nursing homes and smaller nursing homes to report providing such training. The 1990 survey of all nursing homes in 5 northeastern States found 70 percent of the facilities with a special care unit and 53 percent of the facilities with a cluster unit reported providing special training for the unit staff (194).

Given the emphasis on the need for staff members who are knowledgeable about dementia and skilled

in caring for individuals with dementia, the proportions of nursing homes in these two studies that reported they do not provide any special training for the staff of their special care units are surprising. Data from the National Medical Expenditure Survey—a survey of a nationally representative sample of nursing homes—indicate 26 percent of the nursing homes that reported having a special care unit in 1987 did not provide any special training for the unit staff (248). Likewise, the 1990 survey of all nursing homes in 5 northeastern States found that 30 percent of the nursing homes with a special care unit and 47 percent of the nursing homes with a cluster unit reported they did not provide special training for the unit staff (194). These figures are particularly surprising since they are based on self-report, and it is unlikely nursing homes would underreport the provision of training for their staff.

Staff-to-Resident Ratios

As noted earlier, the 1990 survey of all nursing homes in 5 northeastern States found that 69 percent of the facilities with a special care unit and 40 percent of the facilities with a cluster unit reported providing extra nursing staff for the unit (194). Likewise, 45 percent of the facilities with a special care unit and 30 percent of the facilities with a cluster unit reported providing additional staff of other, unspecified types. Descriptive studies of nonrandom samples of special care units have also found that some of the units added staff (275,332); nevertheless, staff-to-resident ratios varied greatly from one unit to another.

The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized units found the special care units were staffed at a higher level than the nonspecialized units (291). This difference was statistically significant for nurses, social workers, and activities staff and approached statistical significance for nurse aides. After adjusting for the relative severity of illness of residents of the two types of units, the researchers concluded that the special care units provided about one-third more hours of nursing care per resident than the nonspecialized units (415).

Staff Support Groups

Working with nursing home residents with dementia is often said to be very stressful for the staff (48,107,167,191,263,346,352). To address the perceived problem of staff stress, some special care

units provide a support group for the unit staff members. The 1990 survey of all nursing homes in 5 northeastern States found that 44 percent of the nursing homes with a special care unit and 18 percent of the nursing homes with a cluster unit reported having such a support group (194). In contrast, only one of the Minnesota nursing homes with a special care unit in 1986 reported having a support group for the unit staff; two additional facilities reported having stress reduction programs for the special care unit staff (181).

Activity Programs

One of the frequently cited complaints about the care provided for individuals with dementia in most nursing homes is the lack of appropriate activities, including adequate physical exercise. Descriptive studies of nonrandom samples of special care units indicate the units provide a great variety of activity programs intended to increase stimulation, reduce idleness and stress, and respond to and maintain residents' interests. These programs include singing, dancing, exercises, painting, crafts, games, parties, pet therapy, field trips, reality orientation, sensory and cognitive stimulation, reminiscence therapy, religious services, housekeeping, cooking, gardening, and sheltered workshop activities (64,275,485, 494). Weiner and Reingold found physical exercise (including walks, dance exercise, and wheelchair exercise) and music therapy were the activity programs provided by the largest proportions of the special care units they studied (84 percent and 58 percent, respectively); 42 percent of the units they studied provided reality orientation, and the same proportion said they provided sensory stimulation. Other types of activity programs were provided by smaller proportions of the special care units (485).

The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized units found virtually no difference in the proportion of units that reported providing activity programs for their residents: 90 percent of the special care units and 91 percent of the nonspecialized units reported providing such programs (290). Information about the particular types of activity programs they provided was not collected, except for reality orientation, which was provided by all the special care units and 97 percent of the nonspecialized units, and reminiscence therapy, which was provided by 90 percent of the special care units and 87 percent of the nonspecialized units. The

1990 survey of all nursing homes in 5 northeastern States found 79 percent of the special care units and 74 percent of the cluster units reported providing reality orientation or cognitive stimulation (194). OTA is not aware of other available data on the proportion of special care units that provide particular types of activity programs. The 1991 George Washington University survey included questions about reality orientation and recreational therapy, but the survey responses for these questions have not yet been analyzed (246).

Programs for Families

Another frequently cited complaint about the care provided for individuals with dementia in most nursing homes is that the needs of the residents' families are not met. Descriptive studies of nonrandom samples of special care units indicate many units have special programs to involve, inform, and support residents' families (64,485,494). Weiner and Reingold found, for example, that 82 percent of the 22 special care units they studied had a family support group (485). Figures from these studies cannot be generalized to all special care units because they are based on nonrandom samples.

The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized units found the special care units were somewhat more likely than the nonspecialized units to provide special programs for families, but this difference was not statistically significant (413). The 1990 survey of all nursing homes in 5 northeastern States found 59 percent of the facilities with a special care unit and 35 percent of the facilities with a cluster unit had a support group for residents' families (194).

Use of Psychotropic Drugs and Other Medications

As discussed in chapter 2, nursing home residents with dementia are very likely to receive psychotropic medications, sometimes to control behavioral symptoms which might be more appropriately managed in other ways. One frequently stated objective of special care units is to reduce use of psychotropic medications and substitute other methods for managing residents' behavioral symptoms.

Descriptive studies indicate special care unit residents are as likely or more likely than individuals with dementia in nonspecialized nursing home units

to receive psychotropic medications. Two small studies that each compared one or two special care units and two nonspecialized nursing home units found that a larger proportion of the special care unit residents than the demented residents in nonspecialized units received psychotropic medications (256, 298). The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized nursing home units found no significant difference between the 2 types of units in their use of psychotropic medications (413).

In contrast to the use of psychotropic medications, the use of medications of all types appears to be lower in special care units than in nonspecialized nursing home units. The University of North Carolina study of 31 randomly selected special care units and 32 matched, nonspecialized nursing home units found the special care unit residents received significantly fewer medications of all types than residents with dementia in the nonspecialized units (413). Likewise, a pilot study that compared 19 residents with dementia in one special care unit and 20 residents with dementia in nonspecialized units of the same nursing home found the special care unit residents were receiving fewer medications of all types (391).

The lower use of medications of all types on special care units may reflect differences in the characteristics of the residents. As discussed later in this chapter, the findings of several descriptive studies suggest that residents of special care units may have fewer medical conditions than other nursing home residents with dementia (292,382,413); as a result, they may have less need for medications of all types. In addition or instead, the lower use of medications of all types on special care units may reflect deliberate efforts by physicians who treat special care unit residents to reduce medication use, perhaps in recognition of the deleterious effects on cognition of many types of medications. The available data do not allow one to choose between these two explanations or other possible explanations.

Use of Physical Restraints

As discussed in chapter 2, nursing home residents with dementia are often physically restrained, and reduced use of physical restraints is a frequently stated objective of special care units. Descriptive studies show use of physical restraints is much lower in special care units than in nonspecialized nursing

home units (256,292,391,413). The University of North Carolina study found that only 16 percent of the special care unit residents were restrained, compared with 36 percent of the residents with dementia on the nonspecialized units (413).

In theory, lower use of physical restraints in special care units could reflect differences in the characteristics of the residents; that is, if special care unit residents exhibit fewer behavioral symptoms than other nursing home residents with dementia, special care unit residents may be less likely to be physically restrained. This explanation is probably not true, since, as discussed later in this chapter, special care unit residents generally exhibit as many or more behavioral symptoms than other nursing home residents with dementia. A more likely explanation for the lower use of physical restraints in special care units is a deliberate effort by unit operators and staff members to substitute other methods of managing residents' behavioral symptoms. Another possible explanation is that special care unit residents are perceived by staff members as less physically frail and therefore less likely to fall than other nursing home residents with dementia, and as a result, special care unit residents are less likely to be restrained. Available data do not allow one to choose between the latter two explanations or other possible explanations.

Admission and Discharge Policies and Practices

Some existing special care units have formal admission and discharge policies, and others do not. The 1990 survey of all nursing homes in 5 northeastern States found that 43 percent of the facilities with a special care unit and 19 percent of the facilities with a cluster unit reported having formal, written admission criteria for the unit (194). Twenty-eight percent of the facilities with a special care unit and 20 percent of the facilities with a cluster unit reported having formal, written discharge criteria (194). Eight of the 13 special care units in the nonrandom sample of units studied by Cairl et al. reported having formal admission policies, and 3 of the 13 units reported having formal discharge policies (64).

Regardless of whether they have formal admission and discharge policies, special care units vary greatly in their admission and discharge practices. The University of North Carolina study of 31

randomly selected special care units found 40 percent of the units primarily admitted individuals who had been living in other parts of the nursing home; the remaining 60 percent primarily admitted individuals who had been living outside the facility (413). Weiner and Reingold found that two-thirds of the 22 nonrandomly selected special care units they studied admitted primarily individuals who had been living in other parts of the facility (485).

In response to the 1990 study of all nursing homes in five northeastern States, facilities with a special care unit reported using several criteria to select unit residents. The criteria and the proportion of facilities that reported using them areas follows: 1) the degree of an individual's dementia (85 percent); 2) the individual's need for supervision (73 percent); 3) the individual's behavioral symptoms (79 percent); 4) the individual's limitations in activities of daily living (51 percent); and 5) the individual's ability to ambulate independently (38 percent) (194). For nursing homes with a cluster unit, the corresponding figures are: 1) the degree of an individual's dementia (81 percent); 2) the individual's need for supervision (78 percent); 3) the individual's behavioral symptoms (64 percent); 4) the individual's limitations in activities of daily living (57 percent); and 5) the individual's ability to ambulate independently (44 percent). Most of the nursing homes reported they generally seek individuals with more, rather than less, severe dementia (194). Only 12 percent reported they generally seek individuals with less severe dementia. Likewise, about 40 percent of the nursing homes reported they generally seek individuals with more severe behavioral symptoms, and only 15 to 18 percent reported they generally seek individuals with less severe behavioral symptoms.

Table 3-3 presents data from the University of North Carolina study with respect to the proportion of special care units that encourage or discourage admission of individuals with eight types of symptoms. Most of the units reported that they encourage admission of individuals with confusion, wandering, and agitation (413). Most reported that they discourage admission of individuals who are physically abusive or unable to walk independently.

Reported admission practices may or may not reflect actual admission practices in special care units. Data from the Multi-State Nursing Home Case Mix and Quality Demonstration, a 5-year congressionally mandated study, suggest the major factor

Table 3-3—Proportion of Special Care Units That Encouraged or Discouraged Admission of Residents With Certain Problems

Problem		
Confusion	encouraged	93%
	neither	7
	discouraged	0
Wandering	encouraged	87
	neither	13
	discouraged	0
Agitation	encouraged	53
	neither	40
	discouraged	7
Verbal abusiveness	encouraged	27
	neither	57
	discouraged	17
Physical abusiveness	encouraged	7
	neither	35
	discouraged	59
Urinary incontinence	encouraged	30
	neither	63
	discouraged	7
Unable to walk	encouraged	10
	neither	27
	discouraged	63
Feeding problems	encouraged	17
	neither	67
	discouraged	17

SOURCE: P.D. Sloane, L.J. Mathew, J.R. Desai, et al., "Specialized Dementia Units in Nursing Homes: A Study of Settings in Five States," University of North Carolina, Chapel Hill, NC, March 1990.

distinguishing special care unit residents and residents with dementia in nonspecialized nursing home units is the severity of their physical impairments (382). Among a subsample of 127 residents of 10 special care units and 103 residents with dementia in 10 nonspecialized units in the same nursing homes, the special care unit residents were significantly less likely to have severe limitations in activities of daily living or severe physical impairments. Once other study variables were controlled, the two groups did not differ significantly with respect to behavioral symptoms, including wandering and verbal and physical abusiveness.

Some special care units admit individuals with the expectation that the individuals will remain on the unit until they die, whereas other units admit individuals with the expectation that they will be discharged from the unit at some time prior to death. All but one of the 22 Minnesota nursing homes that had a special care unit in 1986 reported they admitted individuals with the expectation that the individuals would remain on the unit until they died (181). According to the 1990 study of all nursing

homes in 5 northeastern States, about half the nursing homes with a special care unit and 60 percent of the nursing homes with a cluster unit reported they seldom discharge residents of the unit or cluster prior to their death (194).

Among special care units that do discharge residents prior to their death, the reasons for discharge vary. In their study of 99 nonrandomly selected special care units, White and Kwon found the two most frequently cited reasons for discharging residents from the units were: 1) that the residents had become nonresponsive (cited by 70 percent of the survey respondents), and 2) that the residents were combative, violent, or harmful to self or others (cited by 63 percent of the units). One-third of the units reported discharging residents who became unable to ambulate, and 14 percent reported discharging residents when the residents' private funds were exhausted (492). Weiner and Reingold cite similar reasons for discharge (485).

The 1990 study of all nursing homes in 5 northeastern States indicate 45 percent of the nursing homes with a special care unit or a cluster unit reported they discharge residents who need intensive medical care (194). Twenty-one percent reported they discharge residents who need tube feeding, and a few of the nursing homes (10 percent or less) reported they discharge residents who have severe decubitus ulcers, contractures, or recurring urinary tract infections.

Costs, Charges, and Payment Methods

Very little information is available about the cost of special care units. The cost obviously varies among units, depending on the cost of any new construction, renovation, or other physical changes to a unit and ongoing operating costs. Respondents to one survey of a nonrandom sample of 12 special care units reported new construction and renovation costs ranging from \$4100 to \$150,000 (275). Cameron et al. reported initial costs of only \$1300, which covered the cost of an alarm system, color coding, and other physical changes made to create a special care unit (70).

Some special care unit operators and others say ongoing operating costs are higher for special care units than for nonspecialized nursing home units. One-third of the respondents in Weiner and Reingold's study of a nonrandom sample of 22 special care units cited higher costs associated with opera-

tion of the unit, whereas the other two-thirds did not (485). Of the 13 special care units in Florida studied by Cairl et al., 7 reported higher operating costs for the special care unit than for nonspecialized units in the same facility; 5 reported no difference in operating costs, and 1 reported lower operating costs (64). Two studies of individual special care units found no difference in operating costs between the special care units they studied and nonspecialized units in the same facilities (70,265).

The Multi-State Nursing Home Case Mix and Quality Demonstration, a 5-year congressionally mandated study that included 20 special care units, found that on average the amount of staff time spent caring for residents with dementia was greater in the special care units than in the nonspecialized units in the study sample (143). As noted earlier, the University of North Carolina study of 31 randomly selected special care units and 32 nonspecialized nursing home units in 5 States had similar findings (413). The greater amount of staff time spent caring for special care unit residents translates into higher average operating costs in the special care units.

Citing higher operating costs, some nursing homes charge more for care in their special care unit than in their nonspecialized units. To OTA's knowledge, no public program currently pays more for care of an individual in a special care unit than in a nonspecialized nursing home unit. Thus, it is only private-pay residents who may be charged more for care in a special care unit than they would be charged in a nonspecialized unit in the same facility.

Compared with nonspecialized units, special care units generally have a higher proportion of private-pay residents (292,413,477). The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized units found, for example, that 60 percent of the special care unit residents were private-pay, compared with 30 percent of the residents of the nonspecialized units (413). Six of the 31 special care units did not accept Medicaid payment at all.

The University of North Carolina study found that 79 percent of the special care units in the study sample charged private-pay residents more for care in the special care unit than the residents would have been charged in a nonspecialized unit in the same facility (415). The excess charge varied from one unit to another and from State to State. The mean excess charge ranged from \$3.17 a day in intermedi-

ate care facilities (ICFs) in Ohio to \$19.75 a day in skilled nursing facilities (SNFs) in California.

Preliminary data from the 1991 George Washington University survey of all special care units nationwide indicate about half of the units charged private-pay residents more in the special care unit than the residents would have been charged in a nonspecialized unit in the same facility (246). The excess charge averaged \$9.24 a day and ranged from \$1 to \$83 a day.

Lastly, a small pilot study that compared monthly charges for care in two nursing home special care units and two nonspecialized nursing home units in California found the special care units charged their residents an average of \$3196 per month, whereas the nonspecialized units charged their residents an average of \$2803 per month (256).

DESCRIPTIVE TOPOLOGIES OF SPECIAL CARE UNITS

Several topologies of special care units have been developed based on information from descriptive studies. Three topologies based on information about unit goals were discussed earlier in this chapter. OTA is aware of three other descriptive topologies based on information about a variety of unit characteristics. One of the topologies is based on information about 13 of the 31 VA special care units identified by the 1989 VA survey discussed earlier in this chapter. This typology reflects differences among the units in their goals and the typical length of stay in the unit (103). On the basis of these differences, three types of units were identified. One type of unit has a relatively short length of stay and focuses primarily on diagnosis, short-term behavioral stabilization, and discharge placement. A second type of unit has an intermediate length of stay and focuses on behavioral management and discharge placement. The third type of unit has a more extended length of stay and focuses primarily on long-term supportive care.

A second typology is based on information about a nonrandom sample of 13 special care units in a 10-county area of west central Florida (64). This typology reflects differences among the units in 13 characteristics: their origin and philosophy, motives for development, level of commitment, target population, policies and procedures, admission and discharge criteria, assessment and followup, physi-

Table 3-4-Ratings on Some Variables for Eight Types of Special Care Units

Type	Cleanliness of public areas	Odors	Staff with specialized training in dementia	Staff/patient interaction	Staff attitudes toward patients	Staff stress level	Administrative philosophy	Administrative attitudes toward patients
Ideal	High	No	Yes	High	Caring	Low	Therapeutic	Caring
Uncultivated	High	No	Yes	High	Caring	High	Maintenance	Apathetic
Heart of gold	Low	No	Yes	High	Caring	High	Therapeutic	Caring
Rotten at the core	High	No	No	Low	Apathetic	Low	Maintenance	Apathetic
Institutional	High	Yes	No	High	Caring	Low	Maintenance	Caring
Limited	Low	Yes	No	Low	Apathetic	Low	Therapeutic	Caring
Conventional	Low	Yes	No	Low	Caring	High	Maintenance	Apathetic
Execrable	Low	Yes	No	Low	Apathetic	Low	Maintenance	Apathetic

SOURCE: D.T. Gold, P.D. Sloane, L.J. Mathew, et al., "Special Care Units: A Typology of Care Settings for Memory-Impaired Older Adults," *Gerontologist* 31(4):470, 1991,

cal environment, activity programs, staffing patterns, staff training, family involvement, and efforts to evaluate the impact of the unit. Based on differences among the units in these 13 characteristics, the researchers identified three types of units that, in their view, reflect the extent to which the units were tailored for individuals with dementia: "highly specific" units, "moderately specific" units, and "minimally specific" units.

A third descriptive typology is based on the findings of the University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized nursing home units in 5 States. This typology was derived from an analysis of narrative accounts dictated by an investigator who visited each of the units (154). These narrative accounts were available for 28 of the 31 special care units and 27 of the 32 nonspecialized units. The unit characteristics used in the development of the typology include: appearance of the units' public area, general maintenance, cleanliness, unit layout, presence of an activity room, decoration of the public areas (institutional or home-like), noise level, odor, ambiance (depressing or cheerful), size of the facility for the population (crowded or uncrowded), resident living arrangements (shared or private), resident appearance (ill-groomed or well-groomed), resident location during the day (in their rooms or in the public areas), resident activity level, resident wandering, use of physical restraints, use of psychotropic medications, presence of an activity director, staff relations with the administration, staff stress level, staff training in dementia, staff attitude toward residents (apathetic or caring), staff/resident interaction (high or low), administrative philosophy (maintenance or therapeutic), admission criteria (lax or strict), the administration's attitude toward the residents (apathetic or caring), and involvement of

the administration in resident care. Based on differences among the units in these characteristics, the researchers identified eight types of units: "ideal, uncultivated, heart of gold, rotten at the core, institutional, limited, conventional, and execrable." Table 3-4 shows the ratings of each of the types for eight of the characteristics.

The typology based on information from the University of North Carolina study reflects the characteristics of the special care units and the nonspecialized units in the study sample (154). The researchers found a larger proportion of the special care units in the study sample were in the positive types: 43 percent of the special care units were in the "ideal" type; 11 percent were in the "uncultivated" type, and 4 percent were in the "heart of gold" type. In contrast, none of the nonspecialized units were in the "ideal" or "uncultivated" types, and 15 percent were in the "heart of gold" type. None of the special care units were in two of the negative types, "conventional" and "execrable," and only 7 percent of the special care units were in the "rotten at the core" type. Of the nonspecialized units, 7 percent were in the "conventional" type; 11 percent were in the "execrable" type, and 15 percent were in the "rotten at the core" type. Thus the special care units seem, in general, to be providing better care than the nonspecialized units for their residents with dementia.

As noted earlier, topologies are useful in thinking about differences among special care units, although it is unclear whether topologies based on nonrandom samples, such as the typology based on information about the 13 special care units in Florida, encompass the full variation among existing special care units. The typology based on information from the University of North Carolina study does not suffer from this potential drawback because that study included a

random sample of special care units. On the other hand, the latter typology is based on an analysis of nonquantitative observations by three individuals, one of whom visited each of the units once. The validity of these individuals' observations cannot be determined. The process by which their observations were combined to create the typology also raises methodological questions.

Both topologies imply that certain types of special care units are more appropriate than other types of special care units for nursing home residents with dementia. Some of the unit characteristics on which the topologies are based are not specific for individuals with dementia, however. With respect to the "execrable" units, for example, the researchers say:

The administrators of execrable units are apathetic, have weak authority over staff, and are unresponsive either to patient complaints or staff difficulties. Their lax admissions criteria result in the units being filled with patients who are inappropriate for an intermediate care facility. Rather than screen out behavior problems or serious physical comorbidity, directors of execrable units encourage recruitment of any potential patient. Each bed occupied means reimbursement (154).

Clearly, the care provided by these "execrable" units would be inappropriate for nondemented as well as demented nursing home residents.

Although it is obvious poor-quality care is not appropriate for any nursing home resident, there is very little evidence that any specific characteristic of nursing home units is associated with better resident outcomes. The available studies with respect to this issue are discussed in chapter 4. Without some evidence of improved outcomes, it cannot be said with certainty that any particular type of nursing home unit is more appropriate for individuals with dementia, except in the sense that units that provide poor-quality care which would be inappropriate for any resident are, by definition, providing inappropriate care for residents with dementia.

CHARACTERISTICS OF SPECIAL CARE UNIT RESIDENTS

Many reports on individual special care units describe residents of a particular unit, but little research-based information is available about characteristics of special care unit residents or about the ways, if any, in which these residents differ from other nursing home residents. A few descriptive

studies provide information about residents of the special care units they studied, and five studies compare the characteristics of special care unit residents and residents with dementia in nonspecialized nursing home units (see table 3-1c). The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized units compared some characteristics of special care unit residents with the characteristics of nursing home residents in general (413). Several of the evaluative studies discussed in chapter 4 also provide comparative information about the baseline characteristics of their subjects (special care unit residents and residents with dementia in the nonspecialized nursing home units). This section summarizes the findings of all of these studies.

Descriptive studies show that on average special care unit residents are younger than other demented and nondemented nursing home residents (256,292, 391,413). Special care units residents are also more likely than other demented and nondemented nursing home residents to be white and male (256,292, 413,492).

Special care units admit individuals with a variety of dementia-related diagnoses, the most common being Alzheimer's disease (275,292,391,413). Residents of special care units are much more likely than residents with dementia in nonspecialized units to have a specific diagnosis, such as Alzheimer's disease, rather than a more general diagnosis, such as senility or organic brain syndrome (99,292,391, 413). Not all special care unit residents have a dementia diagnosis, however. Some special care units admit individuals who have behavioral symptoms but no diagnosis of a dementing illness (64).

The University of North Carolina study of 31 randomly selected special care units and 32 matched nonspecialized nursing home units found that on average the special care unit residents were more severely cognitively impaired than residents of the nonspecialized units, even though all the individuals in the study sample had a dementia diagnosis (413). This difference in the average severity of residents' cognitive impairment was due to the presence on the nonspecialized units of some residents with little or no cognitive impairment despite their dementia diagnosis. Two evaluative studies discussed in chapter 4 also found the special care unit residents in their study samples were significantly more cognitively impaired than residents with dementia in the

Table 3-5—Impairments in Activities of Daily Living Among Special Care Unit Residents, Residents With Dementia in Nonspecialized Nursing Home Units, and All Nursing Home Residents

Functional impairment	Residents with		
	Special care unit residents	dementia in nonspecialized nursing home units	All nursing home residents
Needs help with dressing	81%	93%	89%
Needs help with getting out of bed . .	45	78	71
Needs help with ambulating	30	60	54
Incontinent	69	84	71

SOURCE: P.D. Sloane, L.J. Mathew, M. Scarborough, et al., "Physical and Pharmacologic Restraint of Nursing Home Patients With Dementia: Impact of Specialized Units," *Journal of the American Medical Association* 265(10):1280, 1991.

nonspecialized units studied (99,195). On the other hand, two descriptive studies with small samples found no significant difference in the severity of cognitive impairment between individuals with dementia on special care units and on nonspecialized units (256,292).

With respect to coexisting medical conditions, the University of North Carolina study found the special care unit residents were less likely than residents of the nonspecialized nursing home units to have a history of stroke, hip fracture, or other fractures (413). The special care unit residents were significantly more likely to be ambulatory and to be taking fewer medications of all types, thus suggesting they may have fewer medical conditions than the residents with dementia on the nonspecialized units. An earlier study that compared one special care unit with two nonspecialized nursing home units found the special care unit residents had significantly fewer medical diagnoses than the residents of the nonspecialized units (292). Data from the Multi-State Nursing Home Case Mix and Quality Demonstration show that the residents of 10 special care units in the study sample were significantly less likely than the residents with dementia in nonspecialized units in the same nursing homes to have a diagnosis of stroke or diabetes (382). The special care unit residents were somewhat less likely to have a diagnosis of congestive heart failure or chronic obstructive pulmonary disease, but these differences were not statistically significant, and the difference with respect to diabetes was no longer significant when other study variables were controlled. Two other studies found no difference in the presence of specific medical conditions, the average number of medical conditions per resident, or the average number of medications per resident (99,391).

Several studies indicate special care unit residents are less likely than other nursing home residents

with dementia to have impairments in activities of daily living (99,256,413). Table 3-5 shows the findings of the University of North Carolina study with respect to the proportion of special care unit residents and individuals with dementia in nonspecialized units who were impaired in dressing, getting out of bed, and continence. These differences were statistically significant. In contrast, two studies with small samples found no significant difference in impairments in activities of daily living between special care unit residents and residents with dementia in nonspecialized nursing home units (292,391). Data from the Multi-State Nursing Home Case Mix and Quality Demonstration show the residents of 10 special care units in the study sample were significantly more likely than the residents with dementia in nonspecialized units in the same nursing homes to have impairments on an index of two activities of daily living described by the researchers as "early loss" activities (grooming and dressing). In contrast, the special care unit residents were significantly less likely to have impairments on an index of four other activities of daily living described by the researchers as "late loss" activities (eating, using the toilet, transferring, and bed mobility) (382).

Special care unit residents may be more likely to exhibit behavioral symptoms than individuals with dementia in nonspecialized nursing home units (256,413). The University of North Carolina study found a trend for a greater prevalence of behavioral symptoms among special care unit residents, but the differences were not statistically significant (413). An earlier study found no difference in the prevalence of behavioral symptoms among the residents of one special care unit and two nonspecialized nursing home units (292). Data from the Multi-State Nursing Home Case Mix and Quality Demonstration show that the residents of 10 special care units in the study sample were significantly more likely

than the residents of nonspecialized units in the same nursing homes to wander and to be verbally and physically abusive (382). These differences were no longer significant, however, when other study variables were controlled. Interestingly, the study data show that the greater likelihood of wandering on the special care unit was due to the greater proportion of residents in the special care units who were physically capable of wandering.

The University of North Carolina study found the special care unit residents were more likely than the individuals with dementia in nonspecialized nursing home units to be out of their rooms and to be participating in activity programs (413). Three studies with small sample sizes also found special care unit residents were more likely than residents of nonspecialized units to participate in activity programs (256,292,391).

Lastly, one study that compared 13 residents of one special care unit and 34 individuals with dementia in 2 nonspecialized nursing home units found the special care unit residents were more likely to fall (292). This difference was not statistically significant. Several studies discussed in chapter 4 also found a higher incidence of falls among special care unit residents than other nursing home residents (99,265,497,521). One of these studies found special care units residents were more likely than the residents of nonspecialized units to be hospitalized for a hip fracture (99).

Since the studies discussed in this chapter are cross-sectional, it is unclear whether some of the findings reflect pre-existing characteristics of the residents and the admission and discharge criteria of the units, or on the other hand, the effect of the unit on residents. With respect to participation in activities, for example it is unclear whether special care units admit individuals who are more likely to participate in activities or whether one effect of the units is to cause greater resident participation in activities.

CONCLUSION

The preceding review of findings from the available descriptive studies of special care units allows some conclusions to be drawn about the number and characteristics of nursing homes with a special care unit, the characteristics of the special care units, and the characteristics of their residents. Table 3-6 lists OTA's conclusions in these four areas. Each conclu-

sion is supported by the findings of at least one study that used a representative sample of nursing homes or surveyed all nursing homes in a given geographic area. None of the conclusions is contradicted by the findings of any descriptive study OTA is aware of, including studies with small, nonrandom samples.

The diversity of existing special care units is a common finding in all special care unit research. Because of this diversity, no single descriptive statement is true of all special care units for individuals with dementia, including the statement that they only serve individuals with dementia. With respect to existing units' philosophies and goals, staffing patterns, physical design features, and activity programs, diversity is probably the primary finding from the available studies.

As noted earlier, one of the difficulties in special care unit research is the lack of an accepted definition of the term *special care unit*. Thus far, most descriptive studies of special care units have used self-report—i.e., the statement of a special care unit operator or another nursing home staff member—to determine which nursing home units are special care units. The University of North Carolina study added several additional conditions. For that study, a special care unit was defined as follows:

a distinct functional area of a nursing home, or the entire home, which identified itself as a dementia unit, served primarily dementia residents, and satisfied at least three of the following conditions: 1) separation from the remainder of the facility by closed doors; 2) over 50 percent of the staff having at least a year's experience with geriatric residents; 3) specific staff training in dementia care; and 4) unit activities being designed with the dementia resident in mind (413).

By defining the term *special care unit* in a particular way, researchers necessarily focus on a subset of all facilities that might be considered or might self-identify as special care units. By doing so, they eliminate some of the diversity that characterizes the full universe of existing special care units. If, for example, the term *special care unit* is defined for a particular study as a physically separate part of the nursing home that has certain physical design features, such as a safe area for wandering, then all special care units in the study sample will, by definition, have a safe area for wandering. As discussed in chapter 4, it is unclear what particular physical design features, if any, are related to

Table 3-6-Conclusions From Descriptive Studies of Special Care Units**Number of Nursing Homes That Have a Special Care Unit**

- OTA estimates that in 1991, 10 percent of all nursing homes in the United States had a special care unit. In at least some States, this figure includes nursing homes that place some of their residents with dementia in "clusters" in units that also serve nondemented residents.
- . The proportion of nursing homes that have a special care unit varies in different parts of the country and in different States.
- . Many nursing homes that do not have a special care unit are planning to establish one, and some nursing homes that have a special care unit are planning to expand the unit.

Characteristics of Nursing Homes That Have a Special Care Unit

- Larger nursing homes are more likely than smaller nursing homes to have a special care unit.
- As of late 1987, most nursing homes that had a special care unit were private, for-profit facilities. At that time, multi-facility nursing home corporations owned about one-third of all the facilities that had a special care unit. There is no evidence, however, that ownership of special care units is dominated by a small number of multi-facility nursing home corporations.

Characteristics of Special Care Units

- . Special care units are extremely diverse.
- Most special care units have been established since 1983, although a few have been in operation for 20 to 25 years.
- The goals of special care units differ. For some units, the primary goal is to maintain residents' ability to perform activities of daily living. Other units focus on maintaining residents' quality of life, eliminating behavioral symptoms, or meeting residents' physical needs.
- Most existing special care units were not originally constructed as special care units, and at least one-fifth were neither originally constructed nor remodeled for this purpose.
- The use of specific physical design and other environmental features varies in existing special care units. Many of the physical design and other environmental features cited as important in the special care unit literature are used in only a small proportion of special care units.
- The most extensively used environmental feature in special care units is an alarm or locking system, found in more than three-fourths of existing units.
- On average, special care units probably have fewer residents than nonspecialized nursing home units.
- On average, special care units probably have more staff per resident than nonspecialized nursing home units.
- Although the majority of existing special care units provide special training for the unit staff, at least one-fourth of existing units do not.

(Continued on next page)

positive outcomes for nursing home residents with dementia. Given that uncertainty, it is probably premature to exclude for research purposes special care units that do not have a particular physical design or other feature.

In this context, it is important to note one of the findings of the 1990 study of all nursing homes in five northeastern States, i.e., that 5 percent of the nursing homes reported that although they did not have a special care unit, they did place some

residents with dementia in clusters in units that also served nondemented residents (194). The study found that a significant proportion of these cluster units incorporated features said to be important in special care units, although the cluster units were less likely than the special care units in the study States to incorporate the features. It will be important to determine in future special care unit studies whether cluster units are more like special care units than they are like nonspecialized nursing home units

Table 3-6-Conclusions From Descriptive Studies of Special Care Units-(Continued)

- **Less than half** of existing special care units provide a support group for unit staff members.
- The types of activity programs provided by special care units vary greatly, but existing special care units are probably no more likely than nonspecialized units to provide activity programs for their residents.
- About half of existing special care units provide a support group for residents' families.
- Special care unit residents are as likely or more likely than other nursing home residents with dementia to receive psychotropic medications.
- Special care unit residents are probably less likely than other nursing home residents with dementia in nonspecialized nursing home units to receive medications of all types.
- * Special care unit residents are less likely than other nursing home residents with dementia to be physically restrained.
- Special care units vary greatly in their admission and discharge policies and practices. About half of all special care units admit residents with the intention that the residents will remain on the unit until they die.
- * The cost of special care units varies depending on the cost of new construction or remodeling, if any, and ongoing operating costs. On average, existing special care units probably cost more to operate than nonspecialized nursing home units, primarily because of the higher average staffing levels on special care units.
- * Special care units generally have a higher proportion of private-pay residents than nonspecialized nursing home units, and the private-pay residents are often charged more for their care in the special care unit than they would be in a nonspecialized unit.

Characteristics of Special Care Unit Residents

- * Special care unit residents are younger than other nursing home residents, and they are more likely than other nursing home residents to be male and white.
- Special care unit residents are more likely than other nursing home residents to have a specific diagnosis for their dementing illness.
- * Special care unit residents are probably somewhat more cognitively impaired and somewhat less physically and functionally impaired than other nursing home residents with dementia
- Special care unit residents are probably somewhat more likely than other nursing home residents with dementia to participate in activity programs.
- Special care unit residents are more likely than other nursing home residents with dementia to fall.

SOURCE: Office of Technology Assessment, 1992.

and to compare the outcomes for residents with dementia of the three types of units.

Four of the conclusions listed in table 3-6 would be regarded by many people as indicators that in general special care units are providing more appropriate care than nonspecialized units for individuals with dementia. These conclusions are that *on average*:

1. special care units probably have fewer residents than nonspecialized nursing home units;
2. special care units probably have more staff per resident than nonspecialized nursing home units;
3. special care unit residents are less likely than individuals with dementia in nonspecialized nursing home units to be physically restrained; and
4. special care unit residents are probably more likely than other nursing home residents with dementia to participate in activity programs.

In contrast, the finding that special care unit residents are as likely or more likely than other nursing home residents with dementia to receive psychotropic medications would be regarded by many people as an indicator that special care units are not providing more appropriate care for individuals with dementia. The issue of criteria for evaluating the quality of special care units is discussed in chapter 1. One question with respect to that issue is whether criteria such as number of residents, staff-to-resident ratios, and use of physical restraints and psychotropic medications are valid criteria for evaluating quality in themselves or whether their validity remains to be demonstrated in terms of their relationship to other resident outcomes.

Lastly, despite these tentative conclusions and observations, the overriding conclusion to be drawn from this review of findings from the available descriptive studies is the need for more research that builds on, clarifies, and expands upon current findings. As noted throughout the preceding discussion, many of the available studies have used very small samples and nonrandom samples. Moreover, since the studies did not use common definitions for the unit and resident characteristics they observed, their findings are not necessarily comparable. These problems are minimized in several sources of forthcoming descriptive information about special care units and special care unit residents which are described in the next section.

FORTHCOMING DESCRIPTIVE INFORMATION ABOUT SPECIAL CARE UNITS AND SPECIAL CARE UNIT RESIDENTS

OTA is aware of several sources of descriptive information about special care units and special care unit residents that will be available in the near future. As noted in the beginning of this chapter, researchers at George Washington University are currently analyzing responses to a questionnaire and telephone interviews with more than 14,000 nursing homes (247). The questionnaire asked for respondents' opinions about the minimum characteristics a nursing home unit should have to be designated as a special care unit. The questionnaire also asked about each of the topics discussed in the preceding sections, including the size and ownership of the nursing home, the size of the special care unit, its physical characteristics, philosophy of care,

admission and discharge criteria, staff selection criteria, staff training, staff-to-resident ratio, staff support groups, activity programs, programs for residents' families, use of physical and pharmacological restraints, and reimbursement. Once analyzed, the results of this study will provide valuable information that is not currently available about all of these topics.

Another source of forthcoming information about special care units and special care unit residents is data currently being collected by all nursing homes as a result of the implementation in 1990 of mandatory assessment of nursing home residents in accordance with the nursing home reform provisions of the Omnibus Budget Reconciliation Act of 1987 (OBRA-87). As discussed in chapter 1, all nursing homes are now required to assess each of their residents at the time of the resident's admission to the nursing home and annually thereafter using the Minimum Data Set or a State-designated assessment instrument that includes the same core items. The Minimum Data Set contains questions about each of the resident characteristics discussed in this chapter. Although there will undoubtedly be variation in the way these questions are answered by different nursing home staff members, in different facilities, and in different States, use of the same or similar assessment instruments should increase the availability of comparable information about all nursing home residents, including residents of special care units. Since all nursing home residents must be reassessed annually using the Minimum Data Set, longitudinal data on individual special care unit residents will also become available. Variation in the way the information is collected from one staff member to another and one nursing home to another may, however, compromise its value for research purposes (437).

An early version of the Minimum Data Set has already been used to collect information on about 300 residents of 20 special care units in six States as part of the Multi-State Nursing Home Case Mix and Quality Demonstration—a 5-year study mandated by Congress as part of OBRA-87. The special care units included in the demonstration were designated by the Health Care Financing Administration based on recommendations from the Alzheimer's Association and State officials in the four States in which the demonstration is being conducted (Kansas, Maine, Mississippi, and South Dakota) and in two additional States that are participating in some aspects of

the demonstration (Nebraska and Texas) (137). Information on residents of these special care units was collected in 1990. Data comparing 127 residents of 10 of the special care units and 103 residents with dementia in nonspecialized units in the same nursing homes were reported earlier in this chapter (382). Other findings from the demonstration have not yet been published. Individuals familiar with the demonstration's findings say they show lower use of physical restraints, the same or higher use of psychotropic medications, and a higher incidence of falls in the special care units than in the nonspecialized nursing home units included in the demonstration (15,521). As discussed in chapter 1, the demonstration data also show greater resource use for equally impaired residents with dementia in the

special care units than in the nonspecialized units (143).

Because of the current lack of agreed upon criteria for evaluating special care units, there is no way to determine the quality of the care provided by the special care units included in the Multi-State Nursing Home Case Mix and Quality Demonstration. Nor is it possible to determine at this point whether these units are typical of special care units nationally and whether the residents of the units are typical of special care unit residents nationally. Nevertheless, the findings provide valuable information about a relatively large number of special care unit residents and comparable information about residents with dementia in nonspecialized nursing home units.