Chapter 6

# Regulations And Interpretations of Regulations That Interfere With The Design And Operation of Special Care Units

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## *Tables*

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## INTRODUCTION

In the course of this study, OTA heard numerous complaints from special care unit operators and others about instances in which Federal, State, and local government regulations or interpretations of regulations interfered with the use of particular physical design features, patient care practices, and staffing arrangements they believed would be appropriate for individuals with dementia. Instances of several different types have been described to OTA:

- instances in which nursing homes could not get approval for particular physical design features, patient care practices, or staffing arrangements for a special care unit;
- instances in which approval for particular physical design features, patient care practices, or staffing arrangements was given by one government agency and later denied by another government agency;
- instances in which approval for particular physical design features was held up for years, thus adding enormously to the cost of building or remodeling the unit; and
- instances in which government officials disallowed particular physical design or other features of special care units on the basis of regulations that were later found not to exist.

From a societal perspective, one objective-and perhaps the most important objective of special care units-is to develop better approaches to caring for nursing home residents with dementia. Instances of the types described above discourage innovation. They interfere with the implementation and evaluation of particular physical design or other features. More importantly, repeated instances of these types create an atmosphere in which nursing home operators are reluctant to attempt innovations.

The problem of regulations and interpretations of regulations that interfere with the use of innovative physical design and other features is not limited to special care units. In 1991, the Task Force on Aging of the American Institute of Architects sponsored an invitational conference on the design of facilities for older people (11). Conference participants included architects, gerontologists, health care and social service providers, regulators, and representatives of aging advocacy groups. The conference planners anticipated that a wide range of issues and concerns would arise. To the contrary, the issues and concerns raised by the participants were "remarkably common...and surprisingly concentrated' (1 1). According to the conference report:

> Top on the list of major issues identified by the group was the plethora of regulations which has enveloped the long-term care industry. Even with the admission and recognition of the problem by most Federal, State, and code bodies, the regulatory and code environment continues to become increasingly convoluted instead of coalescing into simpler bases of information. These problems afford little opportunity for design or construction efficiencies to develop. The lack of regulatory consistency drives up the cost of professional services, each project's development timeline, and, in turn, each project's cost. This unnecessary increase in project cost is then passed onto the resident (11).

In 1987, members of the American Association of Homes for the Aging formed a subgroup, the Environmental Code Work Group, to identify, call attention to, and eventually change regulations that interfere with innovative design in all kinds of residential facilities for older people (380). In 1990, the Association received a grant from the Retirement Research Foundation to establish a national clearinghouse on aging and environmental design codes (379). The clearinghouse is a central source of information about research and trends in environmental design for older people and about Federal and State regulations and codes that affect the design of facilities for older people. The primary purpose of the clearinghouse is to assist facilities whose design plans are challenged by government officials or surveyors.

The extent to which regulations and interpretations of regulations interfere with the design and operation of special care units is unclear. Many of the respondents to a 1987 survey of a nonrandom sample of 99 special care units in 34 States reported that regulations had made the creation of their special care unit "difficult, expensive, or impossi-

ble:" 17 percent of the respondents cited local building code regulations; 18 percent cited State nursing home licensing regulations: 26 percent cited local fire code regulations; and 37 percent cited State fire code regulations (494). OTA is not aware of any other data on the proportion of special care units affected by this problem.

To learn more about the problem, OTA contracted for an exploratory study of regulations that might interfere with the design and operation of special care units (201). The study focused on regulations in two States, Massachusetts and New York. OTA's contractor and OTA staff also interviewed Federal and State officials, consumer groups, architects, staff members of two national nursing home associations, and others in the nursing home industry to obtain their opinions about the problem. The results of the study and these interviews are summarized in this chapter. Examples of instances in which regulations or interpretations of regulations have interfered with the design or operation of special care units are described. The last section of the chapter discusses the need for a waiver process that would allow special care units to implement a wide variety of innovative physical design features, patient care practices, and staffing arrangements. Such a process would have to include mechanisms to evaluate the innovations, The process would also have to include mechanisms to protect residents' rights in units in which innovative approaches to care were being tested.

## THE IMPACT OF REGULATIONS ON THE DESIGN AND OPERATION OF SPECIAL CARE UNITS

To understand the impact of regulations on the design of special care units, it is useful to understand the way design decisions are made (201). Architects usually **create a list** of all the requirements a building must meet to serve its designated purpose. Each requirement defines a range of possible design solutions. Regulations are among the requirements an architect must include.

As described in chapter 5, nursing home regulations include:

- . Federal regulations for Medicare and Medicaid certification of nursing homes,
- State licensing regulations,
- State **certificate** of need regulations, and
- . other State and local government regulations that apply to nursing homes, such as zoning, building, fire safety, and sanitation code regulations.

In addition, Federal, State, and local government nursing home regulations incorporate standards developed by various nongovernmental organizations. Federal regulations for Medicare and Medicaid certification of nursing homes require nursing homes to comply with the Life Safety Code of the National Fire Protection Association (NPFA) or an equivalent State fire and safety code (463). Other standards incorporated into some nursing home regulations are the "Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People" developed by the American National Standards Institute (ANSI), the "Guidelines for Construction and Equipment of Hospital and Medical Facilities" developed by the American Institute of Architects, and building codes developed by the Building Officials and Code Administrators International, Inc. (BOCA).

All these regulations and standards create requirements that restrict design options. Because of the large number and specificity of the regulations and standards, there may be few design solutions left (201). As a result, nursing homes are sometimes said to have been designed "with a cookie cutter. "

OTA's contractor analyzed Federal regulations, State regulations in Massachusetts and New York, and incorporated standards to identify regulations and standards that might preclude use of particular physical design features in special care units. Table 6-1 shows the results of the analysis. Federal and State regulations and standards were identified that might preclude the use of nine design features intended to serve three purposes: 1) coping with resident wandering, 2) reducing agitation and catastrophic reactions, and 3) making the unit more home-like in appearance (201). Some of the design features, e.g., placement of resident rooms off sitting rooms, are specifically prohibited by the regulations and standards. Other design features, e.g., secure exits and use of familiar furniture, are not specifically prohibited in these States, but the regulations and standards limit the ways in which these design features can be implemented.

Another analysis of Federal regulations, Wisconsin State regulations, and incorporated standards had

**Table 6-l—Regulations and Standards That Interfere With the Use of Physical Design Features in Special Care Units**

| Design Features | Federal Regulations | State Regulations | Incorporated Standards |
|---|---|---|---|
| ***To Cope With Wandering*** | | | |
| 1. Create walking loops by building around interior courtyard, atrium, or activity area | Public law 100-203 Section 4201 (181 9)(6)(D)(d) (2)(B) "A Skilled facility must meet such provisions of. . the Life Safety Code of the NFPA as are applicable to nursing homes." | MA105CMR150.017(B) (5) "Activity Areas: All facilities shall provide on every floor and for every unit a comfortable, convenient, well-lighted and ventilated sitting room, day room, or solarium with a direct outside exposure that is separate from patient or resident rooms." | NFPA: 12-2.4.2 "Egress shall not require return through the *zone* of fire origin." |
| 2. Secure exits | | | NFPA: 12-2.5.5 "Every corridor shall provide access to at least two approved exits." 12-2.2.2.4 "Doors within a required means of egress shall not be equipped with a latch or lock that requires the use of a tool or key from the egress side." |
| ***To Reduce Agitation, Control Catastrophic Reactions*** | | | |
| 1. Use of interior finishes that reduce noise and glare | | MA105CMR1 50.017B (12)(b) "Walls shall have a water-proof, glazed, painted, or similar surface that will withstand washing; floors shall be water-proof, grease-proof and resistant to heavy wear." | NFPA: 12-3.3.1 "Interior finish on walls and ceilings shall be Class A or Class B." 12-3.3.2 "Newly installed interior floor finish in corridors and exits shall be Class L" |
| 2. Use of clutch doors | | Massachusetts Department of Public Health, Division of Health Care Quality: "We have strong objections to the use of clutch doors." New York Bureau of Long Term Services: "Dutch doors are frowned on. They can be used as a way of locking people into their rooms. Our fire safety people are not thrilled about them." | NFPA: 12-3.6.3.6 "Dutch doors may be used. . . Both upper and lower leaf shall be equipped with a latching device, and the meeting edges of the upper and lower leaves shall be equipped with an astragal, rabbet, or bevel." |
| ***Residential Ambiance*** | | | |
| 1. Bedrooms off sitting rooms or residential scale hallways | Reg. 405-1134 "The skilled nursing facility must meet the applicable provisions of the 1985 edition of the Life Safety Code" and "Each room has direct access to a corridor." | New York Public Health Law Sec. 414.4(b) "The facility shall comply with the pertinent provisions of NFPA 101, Life Safety Codes." | NFPA Life Safety Code: 12-2.3.3 "Aisles, corridors, and ramps required for exit access in a hospital or nursing home shall be at least 8 ft (244 cm) in clear and unobstructed width." 12-2.5.1 "Every habitable room shall have an exit access door leading directly to an exit access corridor." |
| 2. Private rooms | Medicaid will reimburse at semi-private rate only. | Rumor among providers in New York that the State will not allow over 1/3 private rooms. State agency denies this, says there are several Medicaid facilities with all single rooms. | |
| 3. Allow residents to control furniture arrangements, Allow residents in semi-private rooms equal access to windows and doors | Uniform Federal Accessibility Standards: 6.3(2) and (3): "Each bed shall have a minimum clear floor space of 42 in (1065 mm), preferably 48 in (1220 mm), between the foot of the bed and the wall; 36 in (91 5 mm). . .on each side of the bed." | | ANSI Standards |
| 4. Eliminate formal nurses' station | Reg. 405.1 134(d) "Each nursing unit has at least the following:. . nurses' station. . equipped to register patient calls." | | |
| 5. Allow residents to use familiar furniture | | | NFPA 31-4.5.2 Bedding, furnishings, decorations in health care occupancies. . shall be flame resistant. |

SOURCE: J. Hyde, "Federal Policy in the Regulation and Funding of Special Care Alzheimer's Units; The Role of Federal, State, and Municipal Regulation," contract report prepared for the Office of Technology-Assessment, August 1990.

similar findings (94). That analysis also idenitfied regulations and standards that might preclude the use of design features intended to cope with resident wandering, to reduce agitation and catastrophic reactions, and to make the unit more home-like in appearance. In addition to the regulations and standards identified by OTA's contractor, the Wisconsin analysis identified a Wisconsin regulation and a Life Safety Code standard that require frequent testing of alarms on the unit, which the analysts believe might increase resident agitation. They also identified a Wisconsin regulation for resident room size which allows little flexibility in arranging the room for other than sleep purposes.

Although both of these analyses identified regulations and standards that might preclude use of certain design features in special care units, the number of such regulations and standards and the number of design features affected are much smaller than one would expect, given the complaints cited earlier. Moreover, many of the design features are not specifically prohibited. Instead, as noted above, the regulations and standards limit the ways in which the design features can be implemented.

For several reasons, the impact of regulations and standards on the design of special care units is greater than is indicated by the results of the two analyses. First, the analyses do not include local government regulations which may interfere with use of certain design features. Second, the analyses do not address combinations of regulations which together preclude use of design features that are not specifically prohibited by any one regulation. Third, the analyses generally do not address interpretations of regulations that may preclude the use of physical design features not explicitly prohibited by regulations or standards. The case examples later in this chapter illustrate each of these situations.

In addition, cost constraints often increase the impact of regulations and standards on the design of special care units. Due to cost constraints, special care units frequently are designed to meet the minimum allowable standards. Design options may exist that would meet the standards and fulfill other objectives of the special care unit planners, but these options are ruled out because they cost too much (41,201). In such instances, it is the combination of cost constraints and regulations, not the regulations alone, that precludes use of particular design features.

One example of a combination of cost constraints and regulations that interferes with innovative design in special care units pertains to regulations in some States that require a nurses' station on each nursing home unit. The Wisconsin nursing home regulations state, for example:

> A centrally located nursing station having visual access to all resident room corridors must be provided. The station should consist of a desk or work counter, operational telephone, and a nurse call system and should be situated next to a medicine preparation room (351).

Because of the cost of constructing and staffing a nurses' station, regulations that require a nurses' station on each unit, and particularly regulations that require a nurses' station with visual access to all resident room corridors, encourage construction of large units with long, institution-like corridors (94). In contrast, if cost were not a factor, a variety of innovative designs could be used to create small, home-like units with a nurses' station that meets the regulations.

Financing considerations also increase the impact of regulations and standards on the design of special care units. Agencies that provide financing for nursing home construction, such as banks and State bond agencies, are often wary of special use buildings, since the buildings have limited reuse potential (201). The agencies are more likely to provide financing for facilities that meet generic, albeit minimum, standards. Therefore, even if a facility receives approval for a design innovation, the facility may not be able to find financing to build or remodel the unit.

State certificate of need programs may also increase the impact of regulations and standards on the design of special care units. Certificate of need programs sometimes disapprove plans that include features which exceed minimum requirements, e.g., resident room size that exceeds the required minimum square footage. These plans are disapproved because it is assumed that the features will increase the cost of the facility and that these increased costs will eventually be passed on to Medicaid (202,378).

A final factor that increases the impact of regulations and standards and discourages innovation in special care units is the large number of agencies involved in regulating nursing homes in many States. Tables 6-2 and 6-3 show the agencies involved in regulating nursing homes in Massachu-

setts and New York. The agencies listed in these tables are responsible for site control, certificate of need evaluations, licensure, financing, Medicare and Medicaid certification, and/or final inspections (201). The large number of agencies involved in each of these regulatory functions is daunting. It increases the difficulty special care unit operators and others have in obtaining approval for innovative physical design features or even understanding how to seek such approval. The large number of agencies probably also increases the likelihood that even if approval for the use of the innovative features is granted by one agency, it will later be denied by another.

Like physical design features, some patient care practices, staffing arrangements, and other operational aspects of special care units are precluded by regulations and standards. These operational aspects of the units are probably more likely than the physical design features to be affected by interpretations of regulations, as discussed in the following section. Operational aspects of special care units are also affected by cost constraints which require the unit to operate as close to the minimum allowable standards as possible. Although patient care and staffing options exist that would meet the requirements and fulfill other objectives of the unit operators and staff, these options frequently are not implemented because they cost too much.

## THE IMPACT OF INTERPRETATIONS OF REGULATIONS ON THE DESIGN AND OPERATION OF SPECIAL CARE UNITS

Interpretations of regulations are unavoidable. When nursing home surveyors, building inspectors, and fire marshals inspect a special care unit, they have to apply their understanding of existing regulations to the particular characteristics of the unit. Likewise, when government officials review design plans for a new special care unit, they have to apply their understanding of the regulations to the particular features of the plan. Unless there is a compelling reason for allowing innovations, these individuals are likely to be conservative in their interpretations.

The format of most regulations is conducive to conservative interpretations (233,378). Existing regulations usually consist of a series of requirements without accompanying statements about the purpose or desired outcomes for the requirements. An explicit statement about the purpose or desired outcome of a requirement would give government officials, surveyors, and others justification for at least considering an innovation that might fulfill the purpose of the requirement, if not its precise stipulation. In the absence of such a statement, government officials, surveyors, and others are unlikely to take the risk of allowing the innovation.

Individual surveyors differ in their interpretations of the same regulations. OTA has heard about instances in which surveyors interpreted regulations that could have been obstacles for a special care unit in a way that made them not obstacles and other instances in which surveyors interpreted regulations that need not have been obstacles in a way that made them obstacles.

Surveyors' attitudes about nursing homes are likely to influence their interpretations of the regulations. A study of nursing home regulation in New York, Virginia, and England identified two different regulatory models (117). In one model, surveyors regard the nursing home operator as an ''amoral calculator who will risk breaking the rules for a profit. " In this model, the surveyor functions as a policeman, and the inspection process is formal, legalistic, and adversarial. In the other model, surveyors regard the nursing home operator as fallible but well-intentioned. The surveyor functions as a consultant, and the inspection process is informal and cooperative. In the United States, most surveyors probably function more in the first model than the second; thus, they are less likely to trust nursing home operators or to be supportive of facility-initiated innovations.

As noted earlier, OTA has been told about instances in which surveyors and other government officials have disallowed the use of innovative physical design or other features of special care units on the basis of regulations that were later found not to exist. In these instances, the officials probably assumed the regulations existed because "that's the way it's always been done. ' Thus, tradition and precedent can preclude innovation in special care units (201,378).

Given the large number and complexity of existing regulations and standards, it can be difficult to determine whether a given regulation exists. For special care unit operators and others who are told

**Table 6-2—Massachusetts Agencies Regulating Nursing Homes**

| Agency | Function | Codes/regulations/standards |
|---|---|---|
| **1. Site Control** | | |
| Local Planning Department | Certifies that the site is zoned for nursing home use or is eligible for zoning variance | Local zoning ordinances |
| State Executive Office of Environmental Affairs | Reviews environmental impact | Massachusetts Environmental Policy Act, National Environmental Policy Act (especially when the project will receive Federal funding), and other laws, as applicable |
| **II. Determination of Need** | | |
| Determination of Need Office, State Department of Public Health | 1. Determines that applicant has control of a site which can reasonably be expected to be appropriately zoned and have environmental impact approved | |
| | 2, Determines bed need | Uses a rate of 35 beds per 1000 population over age 65 based on a State census broken down by 6 regions |
| | 3 Determines "reasonableness of capital costs" | Square footage must meet the Federal and State minimum of 318 sq ft per bed but be no more than 400 sq ft per bed; uses Marshall's Evaluation Service to determine allowed construction costs, including architecture, site evaluation, and construction costs; currently about$100 per sq ft |
| | 4. Follows approved projects through licensure to assure compliance | |
| Rate Setting Commission | Determines if projected operating costs are reasonable | Projected operating costs must be within one standard deviation of the median costs of other facilities in the area |
| Medicaid Division, State Public Welfare Department | Reviews application to ensure need | |
| Executive Office of Elder Affairs | Reviews for appropriate affiliation agreements and the management history of proposed operators | |
| **III. Licensure** | | |
| Division of Health Care Quality, State Department of Public Health and Architecture Department and Patient Care Surveyors | License the facility, assuring compliance with State and Federal laws concerning the physical plant and patient care | Massachusetts: 105CMI 50-1 59 Federal: Medicare and Medicaid law, HCFA rulings, and related standards (e.g., Life Safety Code and ANSI) |
| Fire department for the municipality in which the facility is located | Assures fire safety and compliance with codes | Life Safety Code and local ordinances |
| Building inspector for the municipality in which the facility is located | Ensures compliance with State building codes; decisions maybe appealed to the State inspection Division, Building Section | State Building Code |
| **IV. Obtaining Construction Financing** | | |
| State Health Care Finance Agency, HUD, or financial institutions | Ensure financial viability of the project | Review all other approvals, apply own criteria which may include requirements that the facility could be used for other purposes |
| **V. Certification for Medicare and Medicaid** | | |
| State Rate Setting Commission | Sets allowed reimbursement rates for Medicare and Medicaid | State policies |
| Medicaid Division, State Public Welfare Department | Enrolls provider in Medicaid | Must have a Determination of Need certificate, be licensed, have rate set, and be in compliance with Federal Medicaid laws and regulations |
| **VI. Final Inspections** | | |
| All agencies | Any agency which has had prior authority may review for compliance before occupancy | |
| Local Health Departments | Inspect for health code compliance | State and local health codes |

SOURCE: J. Hyde, "Federal Policy in the Regulation and Funding of Special Care Alzheimer's Units: The Role of Federal, State, and Municipal Regulation," contract report prepared for the Office of Technology Assessment, August 1990.

**Table 6-3-New York Agencies Regulating Nursing Homes**

| Agency | Function | Codes/regulations/standards |
|---|---|---|
| **I. Site Control** | | |
| Local Planning Department | Site control, zoning requirements, availability of utilities, historical, land, environmental and building issues, soil testing, and financing vehicle | Local and State zoning and land-use codes |
| **II. Certificate of Need** | | |
| State Department of Health, Office of Health Systems Management (OHSM), Bureau of Project Management. Copies then submitted to local Health Systems Agency (HSA), internal review bureaus, and OHSM Area Office | Reviews for need, financial feasibility, character and competence | 10NYGRR 410-416; 420-422; 730-734 |
| Bureau of Facility Planning | Ensures that the application is in accordance with the current State Medical Facilities Plan (as devised by HSA and OHSM) | Medical Facilities Plan |
| Bureau of Facility and Service Review | Ensures there is a public need for the facility | State Need Methodology Regulations |
| Bureau of Long Term Care Services | Ensures that the proposed operator meets the character and competence requirements and that the proposed programs meet regulatory requirements and address the needs of the population to be served | 10NYCRR: NY State Public Health Law |
| Bureau of Architectural and Engineering Facility Planning | Ensures that the proposed facility meets State construction standards, Federal requirements, and ANSI standards | 10 NYCRR 710, ANSI |
| Bureau of Financial Analysis Review | Ensures that the application is financially feasible, i.e., the applicant has sufficient financial resources to build the facility, and when the facility is in operation, sufficient income to remain financially sound | Depending on the financing vehicle, both Federal and State regulations come into play |
| **III. Licensure** | | |
| Division of Health Facility Planning, State Department of Health | Reviews and approves construction plans and specifications | 10NYCRR 710-711; 713-714 |
| Division of Health Care Standards & Surveillance, State Department of Health | Assures compliance with State operational and patient care requirements | 10NYCRR 410-416; 420-422; 730-734 |
| Division of Health Facility Planning, State Department of Health | Issues Operating Certificate, attesting to compliance with State Hospital Code requirements | 10 NYCRR 401 |
| **IV. Obtaining Construction Financing** | | |
| New York Finance Agencies, HUD, or financial institutions | Ensure financial viability of project | Review prior approvals, apply own criteria which may include requirements that facility be used for other purposes |
| **V. Certification for Medicare and Medicaid** | | |
| Division of Health Care Standards & Surveillance, State Department of Health | Assures compliance with Medicare/Medicaid operational and patient care standards | 42 CRF 442; 483 |
| **VI. Final Inspections** | | |
| Division of Health Facility Planning and Division of Health Care Standards & Surveillance, State Department of Health | Inspect building for compliance with approved plans | 10 NYCRR 710 |

SOURCE: J. Hyde, "FederalPolicy in the Regulation and Funding of Special Care Units: The Role of Federal, State, and Municipal Regulation, ''contract report prepared for the Office of Technology Assessment, August 1990.

that regulations prohibit a particular physical design or other feature, the prospect of searching the numerous applicable regulations and codes for a given regulation is formidable. Sometimes it is almost impossible to prove a given regulation does not exist (201,378).

Architects, special care unit operators, and others often fear that disputing government officials' or surveyors' interpretations of regulations will have negative consequences beyond the particular design or other feature in question. They fear the officials will delay or deny final approval for the unit. Likewise, they fear that if they annoy the surveyors, the nursing home or special care unit will be cited later for violations of other regulations. Because of the large number and complexity of nursing home regulations, virtually all nursing homes-even very good facilities-are out of compliance with one regulation or another at any one time. Given these fears, some architects, special care unit operators, and others choose not to dispute officials' or surveyors' interpretations of the regulations and to "keep a low profile" instead.

Fire safety regulations and interpretations of these regulations are often cited as limiting the use of innovative physical design features in special care units. Requirements of NFPA's Life Safety Code, which is primarily a fire safety code, are identified as regulatory barriers with respect to six of the nine design features listed in table 6-1. As noted earlier, State and local fire code requirements were the regulations cited most frequently in the 1987 survey of 99 special care units as making the creation of the special care unit "difficult, expensive, or impossible" (494).

Fire safety inspection procedures for nursing homes vary in different States, but most of the inspections are conducted by local fire marshals (522). These local fire marshals have considerable independence in interpreting and enforcing fire safety regulations. It is OTA's impression from discussions with Federal and State officials and nursing home operators that within their own jurisdictions, local fire marshals' interpretations of the regulations carry great weight and are generally accepted as final.

As noted earlier, the Federal Medicare and Medicaid regulations incorporate the NFPA Life Safety Code, but the Federal regulations also allow States to use their own fire and safety codes. Many localities also have fire safety codes. The Health Care Financing Administration, NFPA, and State fire marshals' offices **offer training** for local fire marshals about fire safety regulations and inspection procedures, but fire marshals generally are not required to take the training (217,298,522).

The objectives of fire safety regulations for nursing homes are to minimize the possibility of frees and to limit their effects (217,522). Although there have been few deaths from nursing home frees in the United States in past 15 years (probably less than 30), the prospect of a nursing home fire is horrifying to many people, and the objectives of preventing such a fire or limiting its effects take precedence in their view over other possible objectives. Fire marshals and fire safety inspectors probably are more likely than other people to hold this view. As a result, they are unlikely to approve innovations they believe might increase the risk of a fire, regardless of the potential benefits of the innovations.

## CASE EXAMPLES

The following case examples illustrate the impact of regulations and interpretations of regulations on the design and operation of special care units. Some of the examples show how a combination of regulations or a combination of cost constraints and regulations preclude the use of physical design or other features that are not specifically prohibited by any one regulation. Some of the examples also show how regulations that are probably appropriate for nondemented residents interfere with the use of design and other features that may benefit residents with dementia.

### *Case Examples: Unit Design*

*One* nursing home received a State demonstration grant for a special care unit. An innovative plan was drawn up for a unit composed of several discrete modules in which six to eight residents would share a single sleeping area, living room, and activity areas. The sleeping room would have fewer square feet per resident than the traditional nursing home unit, but that space would be made up in the living room and activity areas. This unit design was considered more appropriate than the traditional design for residents with dementia because the residents would interact with a smaller number of other residents and staff members every day and thus would be less agitated. The unit could not be built

because of regulations that require: 1) no more than four residents per room, 2) a minimum of 110 square feet of space per resident in the sleeping room (as opposed to the 40 square feet per resident in the proposed design), and 3) bedroom doors that open onto a main corridor (202).

A hospital that received a State demonstration grant for a special care unit wanted to build a unit with the residents' rooms arranged in a large loop around a central dining/activity room. This central room would not have windows. The committee of experts assembled to advise the hospital thought the lack of windows in the central room would benefit the residents because it would allow the facility to maintain even light levels and reduce environmental stimulation, thus minimizing sundowning behavior and other manifestations of resident agitation. The lack of windows in the central room violated State regulations, however. After months of meetings and hundreds of hours of architect and staff time, the State granted a waiver for the innovation. The waiver was temporary, however, and the facility had to demonstrate that the dining/activity room could be moved to an outside wall at a later date if the State required such a change (201).

### *Case Example: Room Arrangement*

A nursing home with a special care unit wanted to place the beds in 2-bed resident rooms along opposite walls to increase residents' privacy and allow them equal access to the windows and door. State regulations require that each bed must have 3 feet of space on either side and 4 feet of space at the foot. (The reasons for this requirement are: 1) to assure that beds are accessible to residents in wheelchairs; and 2) to assure that beds are accessible to staff and equipment on all three sides.) Because of these State regulations, the beds could not be placed along the walls and instead had to jut out into the room. To allow for two beds, each jutting out from opposite walls with a 4-foot space between their feet, the rooms would have to be wider and shallower than the typical nursing home room. This was not a problem in itself, but wider rooms, one after another, require longer corridors. The NFPA Life Safety Code requires that nursing home corridors be 8 feet wide. (The reason for this requirement is to assure that in the event of a fire when, it is assumed, residents will be evacuated on stretchers, the corridors will be wide enough to accommodate two stretchers side by side.) Even though the rooms would have the same square footage, each extra foot of room width would require 8 additional square feet of corridor space. Because of the cost of the extra corridor space, the facility had to abandon this innovation (201).

### *Case Examples: Keypad-Operated Locking Systems*

*One* nursing home remodeled a 41-bed unit to create a special care unit. After considerable research, the staff decided the best locking system would be one with a keypad and a 4-number code which staff members could use to open the exit doors but which the residents probably would not be able to use. The doors would automatically unlock in case of fire. The facility received approval for use of the keypad-operated locking system from the local building inspector, the local fire marshal, and the State official responsible for approving physical plans for all nursing homes. The system had been in place for several months when the unit had its first survey. The survey went well, but the next day, a senior official from the State survey agency arrived to examine the keypad-operated locking system. His assessment, expressed in no uncertain terms, was that the keypad locking system constituted a locked unit and was not allowable. Only when the local Alzheimer's Association chapter intervened did the survey agency agree to allow this locking system (201).

In 1991, the Texas Department of Health began disallowing keypad-operated locking systems in Texas nursing homes and other residential care facilities (78). This decision was based on an interpretation of the Life Safety Code which was apparently endorsed by the Dallas regional office of the Health Care Financing Administration, even though keypad-operated locking systems are approved for use in other parts of the country and were allowed previously in Texas.

### *Case Example: Dutch Doors*

A nursing home decided to install clutch doors in its new special care unit. The certificate of need application for the unit included a description of the clutch doors, and the additional cost of the doors was approved as part of the facility's Medicaid rate. The State project engineer approved the clutch doors after lengthy negotiations, meetings, and correspondence but required additional latches which could be used to attach the top and bottom doors. Nevertheless,

when the State surveyors came for the final inspection before the unit opened, they disallowed the doors on the basis that they constituted 'restraints. ' The doors continued to be disallowed despite facility guidelines that described the rationale for the doors, how they would be used to protect resident privacy, and how they fit with the facility's restraint policy (201).

### *Case Example: Dietary Practices*

***The*** staff of one special care unit wanted to seat small groups of special care unit residents together at meal **times** and feed them family style. The staff also wanted to serve some meals that consisted of only two foods because they believed this approach would reduce resident confusion. They planned to meet the residents' additional nutritional requirements with snacks. These plans were questioned by surveyors who cited State regulations that require "at least three meals a day that are nutritious and suited to special needs of patients and residents' and "trays...large enough to accommodate all of the dishes necessary for a complete meal, arranged and served attractively" (201).

### *Case Example: Staffing*

Several special unit operators interviewed by OTA's contractor complained about State regulations that require specific types and numbers of staff members. One unit operator said, "I am not convinced you need separate people to do recreation and nursing. Each person has a piece of the patient. It is not as holistic as it could be. ' Other unit operators pointed out the value of occupational therapy, recreational therapy, and other therapies in the care of residents with dementia. If cost were not a determining factor, a special care unit could employ the number and types of staff required by the regulations plus additional staff members of these other types. Given cost constraints, this is usually not possible (201).

## METHODS TO ALLOW INNOVATION IN THE DESIGN AND OPERATION OF SPECIAL CARE UNITS

As discussed in the preceding sections, some Federal, State, and local government regulations and standards interfere with the use of physical design features, patient care practices, and staffing arrangements that special care unit operators and others consider appropriate for the care of residents with dementia. Interpretations of regulations and combinations of regulations, cost constraints, and other factors also interfere with the use of these features. As a result, potentially effective design features, care practices, and staffing arrangements cannot be implemented and evaluated. Several commentators have pointed out that despite the diversity of existing special care units, all the variation is within the limited framework of existing regulations (200,273).

One possible approach to allow innovation in the design and operation of special care units is to eliminate regulations and standards that are found to restrict innovative physical design and other features. Although this approach may eventually be appropriate, lack of agreement about the particular features that are necessary in a special care unit and lack of research-based evidence for the effectiveness of particular features make decisions to eliminate existing regulations and standards premature at present.

It is possible some existing regulations and standards should be eliminated because they are inappropriate for all nursing homes—for example, regulations that were adopted directly from hospital regulations without regard for the different purposes and clients of hospitals and nursing homes. Some of the regulations and standards discussed in the preceding sections may be in that category, but most probably are not.

As noted earlier, fire safety regulations and interpretations of these regulations are often cited as limiting the use of innovative physical design features in special care units. The preceding sections have noted several innovative design ideas that could not be implemented because of fire safety requirements of the Life Safety Code. Special care unit operators and others whose ideas could not be implemented because of these requirements might argue that the requirements should be eliminated. On the other hand, it is OTA's impression based on informal discussions with many special care unit operators and experts in specialized dementia care that there are few, if any, Life Safety Code requirements that all these individuals would agree to eliminate. In fact, at a recent meeting of the patient care and public policy committees of the National Alzheimer's Association, some Alzheimer's advocates argued that fire safety precautions should be

increased rather than decreased for special care units (21).

Rather than attempting to eliminate regulations and standards that interfere with the design and operation of special care units, an alternate approach to allow innovation is to create a process by which individual special care units could obtain waivers to implement physical design features, patient care practices, and staffing arrangements they believe will benefit residents with dementia. Such a process would have to include mechanisms for protecting residents' rights in units in which innovative features were being implemented. The process should also include mechanisms for evaluating the innovations.

Most existing regulatory codes, including the Life Safety Code, have provisions for granting waivers. In at least some States, however, the waivers that are granted are for relatively trivial changes. A study of waivers granted by the Massachusetts Department of Public Health between 1985 and 1987 found that 98 waivers were granted for physical characteristics of the facilities (200). Almost half of these waivers (43 percent) were to allow the use of mobile medicine carts. The remaining waivers were for exemptions from the paper towel requirement (16 percent), changes in tub design (9 percent), number of baths per resident (9 percent), minor variations in the dimensions of various spaces (7 percent), changes in the number of residents on a unit (6 percent), furniture specifications (4 percent), and other minor modifications (5 percent). No waivers were granted for innovative design features.

The purpose of creating a waiver process for special care units would be to allow the implementation and evaluation of nontrivial innovations. Since such innovations would change the care of individuals with dementia in significant ways, the waivers should only be granted on a facility-by-facility basis after careful prior review by a panel of health care professionals, Alzheimer's advocates, industry representatives, architects, designers, lawyers, surveyors, fire marshals, and building inspectors. The panel would have to determine whether a proposed innovation was worth evaluating and whether sufficient safeguards had been built into the proposal to protect residents of the unit. The panel would also have to monitor the waivered innovations on an ongoing basis to assure the safety and well-being of the residents. Although such panels could be established at any level of government, they probably would be most appropriately set up at the State level since States have the dominant role in regulating nursing homes.

In addition to creating a waiver process for special care units, several other approaches could be used to allow innovation in special care units. One approach would be to encourage government officials, surveyors, fire marshals, and building inspectors to be supportive of innovations. As noted earlier, these individuals tend to be conservative in their interpretations of regulations and standards. Training materials and programs could be created to inform them about nursing home residents with dementia, the need to develop more appropriate methods of care for them, and the role of special care units in developing those methods of care. A training effort of this kind would be essential for the success of a waiver process for special care units because government officials, surveyors, fire marshals, and building inspectors would have to approve the waivered innovations and cooperate with their implementation.

The following approaches could be used to allow and encourage innovation in special care units, as well as other residential facilities for older people:

- The process for obtaining approval for new design or other features could be simplified and streamlined at the State level.
- Relevant regulations and standards could be compiled in a clear and easy to use format.
- Any new regulations could be written in a format that includes an explicit statement of the purpose or desired outcome of each requirement, thus providing government officials, surveyors, and others with a basis for allowing innovations that meet the purpose if not the precise stipulations of the requirement.
- Inconsistencies in the requirements of different agencies, regulations, and codes could be identified and eliminated.

In 1990, the National Institute of Building Sciences initiated a project to compare the NFPA Life Safety Code and the life safety standards in various model building codes in order to identify inconsistencies and conflicts. The objective of the project is to provide recommendations to HCFA about the life safety requirements for nursing homes that participate in the Medicare and Medicaid programs.

## CONCLUSION

Probably the most important objective of special care units from a societal perspective is to develop better approaches to care for nursing home residents with dementia. Some Federal, State, and local government regulations and interpretations of regulations interfere with this objective by discouraging innovation. Although special care units are diverse, all the variation is within the limits of existing regulations.

This chapter has discussed the need for a process by which individual special care units could obtain waivers to implement innovations they believe will benefit individuals with dementia. Such a process would have to involve prior review of waiver requests by a panel of health care professionals, consumer advocates, surveyors, architects, designers, and others. It should also involve mechanisms for evaluating the innovations and mechanisms for protecting the rights of residents of units in which new approaches to care are being tested. The panels probably would function most effectively at the State level, but the Federal Government could encourage their development through demonstration grants.

In addition to the creation of a waiver process for special care units, the chapter has discussed several other methods that could be used to allow and encourage innovation in special care units. Some of the methods pertain primarily to special care units, e.g., providing training materials and programs to inform surveyors, fire marshals, and others about problems in the care of nursing home residents with dementia and the importance of developing alternate approaches to their care. Other methods pertain to all residential facilities for older people, e.g., simplifying and streamlining the process for obtaining approval of new design or other features and eliminating conflicts and inconsistencies in the requirements of different agencies, regulations, and codes.

As described in chapter 5, the current focus of State efforts with respect to special care units is developing regulations to assure that nursing homes that claim to provide special care actually provide something special for their residents. To OTA's knowledge, no State has created a process for waiving regulations that interfere with the design or operation of special care units. A few States have provided grants to nursing homes and other facilities to create model special care units. In at least one of these States, the State's own regulations made it difficult or impossible for some of the facilities that received the grants to implement the design or other features they considered appropriate for individuals with dementia, thus defeating the purpose of the grants. If special care units are to fulfill the societal objective of developing better methods of care for nursing home residents with dementia, policies to allow and encourage innovation must receive at least as much attention as policies to regulate and control the units.