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Report to Congressional Committees

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VETERANS' AFFAIRS

Establishing Patient Smoking Areas at VA Facilities

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Human Resources Division

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The Honorable John D. Rockefeller IV
Chairman, Committee on
Veterans' Affairs
United States Senate

The Honorable Frank H. Murkowski
Ranking Minority Member
Committee on Veterans' Affairs
United States Senate

The Honorable G.V. Montgomery
Chairman, Committee on
Veterans' Affairs
House of Representatives

The Honorable Bob Stump
Ranking Minority Member
Committee on Veterans' Affairs
House of Representatives

The Department of Veterans Affairs (VA) operates the nation's largest health care system, serving veterans in 158 medical centers. In 1989, VA announced its intent to prohibit smoking inside these medical centers when outside smoking shelters were available. Smoking was previously permitted in designated areas within VA centers. In response to this policy change, most medical centers established outdoor smoking shelters, but their designs varied widely. In November 1992, the Congress enacted the Veterans Health Care Act of 1992 (P.L. 102-585), which included, among other things, requirements for VA to establish smoking areas in its facilities for veterans' use.

The law also required our office to report, within 6 months of the date of the law's enactment, on the feasibility of establishing and maintaining the mandated smoking areas. Our study was to include such information as (1) how the law's requirements might affect VA medical facilities' accreditations, (2) how much the facilities might spend to establish mandated smoking areas, and (3) how long the facilities might take to construct these areas.

To do this work, we discussed accreditation issues with officials of the Joint Commission on Accreditation of Healthcare Organizations and

reviewed a recent Environmental Protection Agency research study on the health effects of environmental tobacco smoke.[1] Using a telephone survey, we obtained information about patient smoking areas from all VA medical facilities (158 medical centers and 1 freestanding domiciliary), including costs and time frames for establishing mandated smoking areas. Due to the time constraints, we were unable to independently verify the information they provided.

During visits to two medical centers (Dallas, Texas, and Hines, Illinois) we examined designs of existing indoor and outdoor patient smoking areas and discussed patient smoking issues with facility officials. We interviewed a wide range of VA officials regarding VA's patient smoking policies, as well as officials of other federal agencies, including the Department of Health and Human Services, the Environmental Protection Agency, and the Department of Labor. We also discussed smoking issues with representatives of five veterans' service organizations. (See app. I for additional information on our scope and methodology.)

On April 22, 1993, we briefed your offices on the results of our work. This report contains more detailed information relevant to the issues discussed in that briefing.

Results in Brief

Most VA medical facilities will need to modify existing smoking areas or construct new ones to comply with the law's requirements. Individual facilities' estimated costs and time frames for establishing mandated smoking areas varied widely. In general, their estimated costs for indoor areas were lower than those for outdoor areas. According to Joint Commission officials, these required changes should not affect medical facilities' accreditations.

Systemwide, estimated costs to establish mandated smoking areas vary widely, depending on VA's implementation strategy. For example, using estimates that VA facilities reported, we determined that total costs could approximate $4 million if the lower cost alternative—one indoor or outdoor area—is constructed at each facility. However, to ensure reasonable access, officials at most facilities would prefer to establish more than one smoking area. They collectively estimated that almost 1,000 rooms or areas might be needed; costs for such areas could approximate $24 million.

[1]U.S. Environmental Protection Agency, Office of Research and Development, Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders. Washington, D.C., December 1992.

Time frames to complete planning, design, and construction efforts could also vary widely systemwide. In general, facilities could need more than 1 year to establish mandated smoking areas. Most facilities estimated that they could construct an area in less than 4 months. However, an additional 12 to 15 months could be required for planning, design, and contracting before construction begins.

Background

The Veterans' Health Administration operates VA's health care system, which consists of 171 hospitals, 362 outpatient clinics, 129 nursing homes, and 35 domiciliaries, of which most are organized into 158 medical centers. VA also operates one freestanding domiciliary. For fiscal year 1992, VA spent about $14 billion on veterans' medical care, including about 1 million inpatient hospital stays and about 24 million outpatient visits.

Smoking Tobacco Products Poses Health Risks

Tobacco smoking, recognized as a major cause of death and disease, is responsible for an estimated 434,000 deaths per year in the United States. Smoking is known to cause lung cancer in humans and is a major risk factor for heart disease. In recent years, several federal agencies have raised concerns that nonsmokers may also face health risks as a result of exposure to environmental smoke—smoke given off by burning tobacco or exhaled by smokers.

In December 1992, an Environmental Protection Agency report concluded that widespread exposure to environmental tobacco smoke presented a serious and substantial public health risk. The report classified environmental tobacco smoke as a class A carcinogen, a classification reserved for those substances that have been shown to cause cancer in humans. The report revealed that, among other things, environmental tobacco smoke causes lung cancer in 3,000 nonsmokers annually.

VA Revises Smoking Policies

VA estimates that about 75 percent of patients using VA facilities are nonsmokers. Concern about the effects of smoking and the impact of environmental tobacco smoke on its patients, led VA to reevaluate its smoking policies. In 1989, VA began implementing smoke-free environments in VA facilities to protect patients, employees, and others against the hazards of environmental tobacco smoke. VA's smoke-free policy recognizes the dangers of environmental tobacco smoke to nonsmoking patients and is consistent with policies recommended for health care organizations by the Joint Commission.

Employee Smoking Policy

VA's smoke-free policy implementation created several labor-management issues. Subsequent negotiations resulted in two key accommodations for employees. First, for employees who smoke, VA is required to provide reasonably accessible outside smoking shelters at each VA facility. Second, for a certain group of employees, VA pays a hazardous duty pay differential to employees exposed to tobacco smoke while performing their assigned duties (such as attending a smoking patient or cleaning a smoking area).

Patient Smoking Policy

VA's 1989 smoke-free policy stated that where outside smoking areas were available, smoking would not be permitted within VA facilities. However, the policy did not apply to patients in long-term care settings, such as nursing homes or domiciliaries. Initially, to accommodate their special needs, these patients could smoke, with a physician's order, in special locations separate from patient treatment areas, patient sleeping rooms, and employee work spaces. These designated smoking areas were to be few in number and designed to minimize the hazardous effects of smoking as well as to discourage the areas' use for purposes other than smoking.

In 1992, VA revised its smoking policy for long-term care patients. All VA facilities serving long-term care patients, including psychiatric, spinal cord injury, and blind rehabilitation units, are to develop plans to remove indoor smoking areas by December 31, 1993.

The Veterans Health Care Act of 1992

The Veterans Health Care Act of 1992 (P.L. 102-585) included provisions requiring the Secretary of Veterans' Affairs to ensure, consistent with medical requirements and limitations, that each VA medical center, nursing home, and domiciliary establishes and maintains smoking areas for those patients who wish to smoke tobacco products. The law instructs VA to provide access to either a room inside or an area outside the medical facility for patients to smoke.

Indoor Smoking Area

According to the 1992 law, a suitable indoor smoking area would be one that is ventilated in a manner that, to the maximum extent feasible, prevents smoke from entering other interior areas of the facility. National Institute for Occupational Safety and Health guidelines indicate that indoor smoking areas can meet the law's requirements if the areas have separate ventilating systems and negative air. Ventilating systems exhaust air directly outside a building, without recirculating or mixing it with the building's general air supply. Negative air creates an air flow system that prevents air inside the smoking area from escaping into other areas of the

building. For example, when a door to a smoking area with negative air opens, smoke should not enter the hallway or the adjoining area.

Outdoor Smoking Area

According to the 1992 law, an area in a building that is detached from a patient care facility, that is accessible to patients and that has appropriate heating and air conditioning will function as an outdoor smoking area. A building generally refers to a fully enclosed, detached shelter with a roof—in this case, one used exclusively for smoking. The General Services Administration defines adequate heating and air conditioning for office buildings using two ranges: 65 to 70 degrees Fahrenheit for winter and 76 to 80 degrees Fahrenheit for summer.

Additional Implementation Requirements

The law requires that VA begin implementing its requirements, to establish and maintain mandated smoking areas, 60 days after the date of this report. To implement the law, VA established a task force, coordinated by the Smoke-Free Program Director. The task force includes representatives of Clinical Services, Engineering, Labor/Management, and Legislative Affairs. The task force is expected to determine the impact of the law on VA and identify implementation alternatives. Not less than 180 days after our report, VA must submit a report to the Congress on the law's implementation—including a description of the actions taken at each facility to ensure compliance with the law.

Smoking Policies Should Not Affect Accreditation

According to the Joint Commission on Accreditation of Healthcare Organizations, a VA medical facility's accreditation status should not change because the facility establishes the mandated smoking areas. The Joint Commission recognizes that laws have precedence over its accreditation standards. As a result, if a standard conflicts with a law, the Joint Commission would not use that standard in determining a health care organization's accreditation.

The Joint Commission has developed two standards relating to health care organizations' smoking policies. One requires the adoption, dissemination, and enforcement of a policy that prohibits the use of smoking materials throughout hospital buildings. The other standard requires that any exceptions to the prohibition be authorized for a patient by a physician's written authorization, based on medical criteria that are defined by the medical staff.

The Joint Commission recognizes that exceptions to the smoking prohibition may be necessary for patients requiring long-term care, such as

nursing home patients and some psychiatric patients. However, the commission also wants to ensure that the facility protects other patients from exposure to smoke. To accomplish this, the commission states that, among other things, facilities must take measures to minimize smoke to the greatest extent possible. Any patient smoking must occur in an area that is environmentally separate from all patient care areas. The National Institute for Occupational Safety and Health determined, as previously discussed, that areas are environmentally separate if their ventilating systems exhaust air directly outside and create negative air flow. The Joint Commission agrees that this approach is consistent with its goal of minimizing exposure to smoke.

VA has directed its facilities to comply with the Joint Commission's smoking standards by December 31, 1993. Facilities that choose to establish outdoor smoking areas should be able to comply with the Joint Commission's smoking standards. However, facilities' efforts to establish indoor areas for general patient use appear inconsistent with the standards, although indoor areas for exception cases would be considered to comply with the standards.

The Joint Commission uses a complex scoring system to evaluate a facility's compliance with hundreds of standards. The system ranks each hospital's compliance with the standards on a scale from 1 to 5: 1 represents substantial compliance, and 5 represents no compliance. While the scoring system ranks each of the standards on the same scale, the standards have different weights in determining an overall accreditation score.

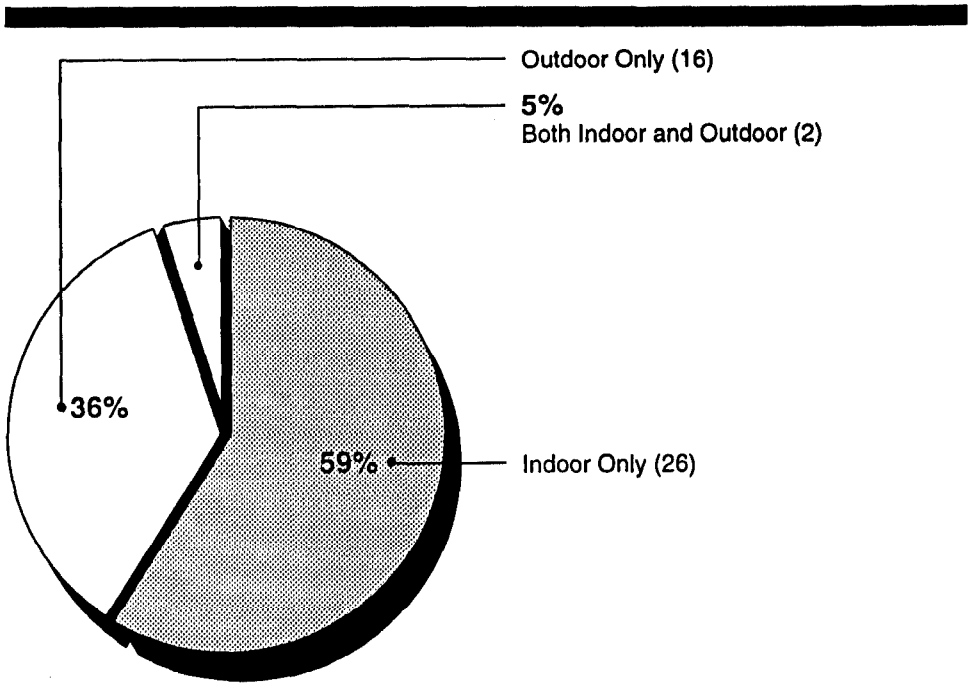
Standards related to public or patient safety are weighted more heavily, and noncompliance with such standards can result in denial of accreditation. Other standards, such as smoking standards, are weighted less heavily, and noncompliance with these standards alone does not affect a facility's accreditation. In this regard, noncompliance may have a minimal affect on a facility's overall score.

Some Facilities' Smoking Areas Will Meet Law's Requirements

Of the 159 medical facilities we contacted, 153 had at least one indoor or outdoor smoking area available to patients. These facilities reported 390 indoor smoking areas and 1,030 outdoor smoking areas—ranging from 1 to 65 at a single facility. Of these facilities, only 44 currently have at least one designated smoking area, either inside a patient care building or outside

the facility, that would meet the law's mandate. (See fig. 1.) Of these 44 facilities, 26 have only inside smoking areas.

Figure 1: VA Medical Facilities Having Indoor or Outdoor Smoking Areas That Will Meet Law's Requirements



Indoor Smoking Areas

Of the 44 facilities, 28 reported having at least one indoor patient smoking area with a ventilating system that will meet the law's mandate. These systems vent air from the smoking area directly to the outside, without recirculating it though the facility. These areas also have negative air flow, keeping the smoke inside the area.

These facilities reported having a total of 138 indoor patient smoking areas with ventilation consistent with the law's mandate. These facilities have from 1 to 31 indoor smoking areas each.

Approximately 62 percent of the indoor smoking areas in these medical facilities are located in areas housing psychiatric and long-term care patients. According to some medical facility officials, indoor smoking areas are necessary for certain patients who have physical or mental limitations that prevent them from going outside the facility or from traveling even minimal distances to an outdoor smoking area. The

remaining 38 percent of indoor patient smoking areas are located in the facilities' nonpsychiatric areas, where they can be used by other patients and domiciliary residents.

Outdoor Smoking Areas

Of the 44 facilities, 18 reported having at least one outdoor smoking area with appropriate heating and air conditioning that might meet the law's mandates. Examples of these outdoor areas include covered, prefabricated, insulated shelters and renovated ambulance garages. In total, these facilities reported having 42 outdoor, detached smoking areas with appropriate heating and air conditioning. These facilities have from one to nine outdoor smoking areas.

Construction Costs of Recently Completed Smoking Areas

The cost for the most recently completed indoor or outdoor patient smoking area at the 44 medical facilities that would meet the law's requirements varied widely, ranging from $800 to $92,853. For example, one facility created a smoking area for about $1,000 by converting an unused ambulance garage, that already had negative air and separate ventilation. As table 1 shows, over 90 percent of these 44 medical facilities established a smoking area in their respective facilities for under $40,000.

Table 1: VA Medical Facilities' Construction Costs for Recently Completed Smoking Areas

	Facilities with costs in this range		Approximate total cost for the number of facilities in this range
Actual cost of smoking area	Percent	Number	
Below $40,000	91	40	$482,164
$40,000-$80,000	7	3	169,725
Above $80,000	2	1	92,853
Total	**100**	**44**	**$744,742**

Note: Of the 44 facilities, 2 provided us with the actual cost of a compliant indoor and outdoor area because the facility had both smoking areas. For these two facilities, the least costly smoking area was included as the actual cost of establishing a smoking area.

Maintenance Costs for Recently Completed Smoking Areas

After establishing smoking areas, facilities incur widely ranging costs to maintain these areas. Of the 44 facilities with recently completed smoking areas, 40 were able to estimate the maintenance costs for fiscal year 1993. The estimates ranged from $200 to $22,863. Maintenance costs for these areas included costs for heating and air conditioning, as well as such routine upkeep activities as repairing ventilation fans, replacing ceiling

tiles, and repainting walls. As table 2 shows, nearly two-thirds of these facilities' maintenance estimates were under $5,000.

Table 2: Estimated Maintenance Costs for Recently Completed Smoking Areas (Fiscal Year 1993)

Maintenance cost of smoking area	Facilities with maintenance costs in this range		Estimated total maintenance cost for the number of facilities in this range
	Percent	Number	
Below $5,000	65.0	26	$55,522
$5,000-$9,999	30.0	12	80,284
$10,000-$14,999	2.5	1	11,383
$15,000-$19,999	0	0	0
Above $20,000	2.5	1	22,683
Total	**100**	**40**	**$169,872**

Note: Of the 44 facilities, 4 provided us with no maintenance estimates and 2 provided us with the maintenance estimates for both an indoor and an outdoor smoking area. For the facilities with two maintenance estimates, we used the higher estimates from the respective facilities.

VA's Implementation Strategy Can Significantly Affect Construction Costs

The total cost for providing VA medical facilities with smoking areas as mandated by the law will vary widely depending on the implementation strategy that VA decides to use. To illustrate potential total cost ranges, we used estimated costs provided by the 159 VA facilities to assess three possible strategies for providing mandated smoking areas.

- First, we determined the total cost of establishing one mandated smoking area at each facility using the facility's lower estimate for either an indoor or an outdoor smoking area.
- Second, we determined the total cost of providing each facility with its preferred type of mandated smoking area.
- Finally, we assessed how the total cost could increase based on the number of smoking areas the facilities reported needing to provide reasonable access by all patient smokers.

Providing a Lower Cost Smoking Area at VA Facilities

We asked each facility to provide a cost estimate for establishing one mandated indoor patient smoking area and one mandated outdoor area. Most facilities provided cost estimates for both, but some provided an estimate for only an indoor or an outdoor area.[2] For those that provided both, we considered the lower estimate to be the facility's lower cost alternative.

[2]Appendix II contains cost estimates that each medical center reported.

Using the estimates provided by the 159 medical facilities, we determined a total additional cost of $3.8 million to establish one mandated smoking area at each facility. The facilities' cost estimates ranged from $1,000 to $225,000 for the lower cost smoking area. As shown in table 3, most of the 159 medical centers estimated that it would cost less than $40,000 to establish one mandated smoking area in these respective facilities. Of the 159 facilities, 44, as mentioned previously, will not incur any additional costs because they already have a smoking area that will meet the law's requirements.

Table 3: VA Medical Facilities' Cost Estimates for One Smoking Area

Estimated cost of lower cost smoking area	Facilities with costs in this range		Approximate total estimated cost for the number of facilities in this range
	Percent	Number	
$0	28	44	0[a]
$1-$39,999	52	82	$1,206,250
$40,000-$80,000	13	21	1,098,750
Above $80,000	7	12	1,492,000
Total	**100**	**159**	**$3,797,000**

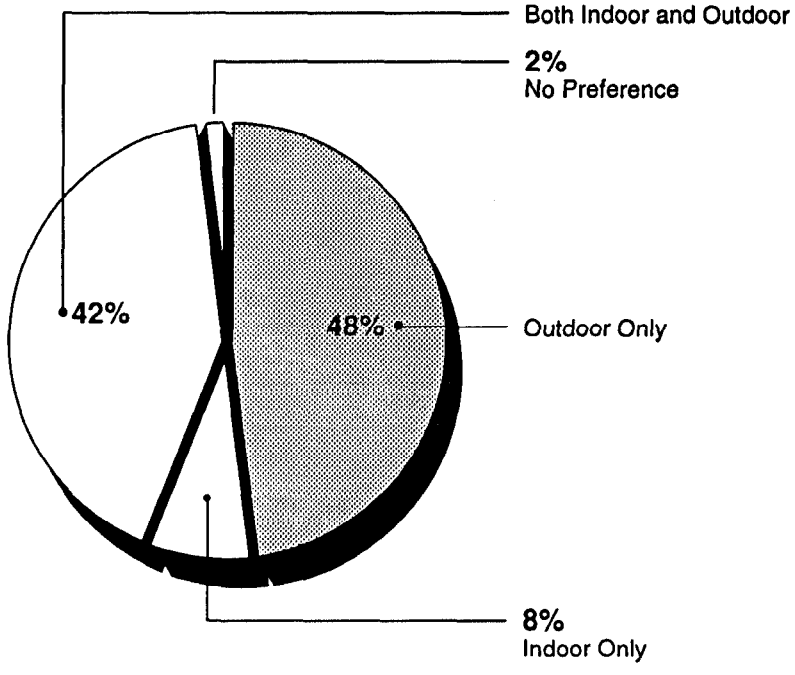
[a]Includes the 44 facilities that already have an indoor or an outdoor smoking area that will meet the law's requirements and that will not incur any additional costs.

The 115 VA facilities needing to incur additional construction costs differed on whether an indoor or an outdoor smoking area was the lower cost alternative. Of the 115, 70 percent provided a lower cost estimate for an indoor area, while 30 percent provided a lower estimate for an outdoor area.

Providing VA Facilities With a Preferred Smoking Area

The law permits VA medical facilities to select the type of smoking area they would prefer: indoor, outdoor, or both. As shown in figure 2, about half of the facilities would prefer to use only outdoor areas, but almost as many facilities would prefer to use both indoor and outdoor areas.

Figure 2: VA Facilities' Preferences for Indoor or Outdoor Smoking Areas



Systemwide, based on facilities' cost estimates, it could cost $6 million to provide each facility's preferred type of smoking area. Of the 159 facilities, 36 would not incur any costs because they already have a smoking area of their preference that will meet the law's requirements.[3] For the remaining 123 facilities, the estimated costs for their preferred smoking areas varied widely from $1,000 to $283,354. As table 4 shows, most of the facilities estimated that one preferred area would cost less than $40,000.

[3]Of the 44 medical facilities that already have a smoking area that will meet the law's requirements, 8 would prefer to establish an area different from the one they now use.

Table 4: Estimated Costs for Preferred Indoor or Outdoor Smoking Areas in Individual VA Medical Facilities

Estimated cost of preferred smoking area	Facilities with costs in this range		Approximate total estimated cost for the number of facilities in this range
	Percent	Number	
$0	23	36	0
$1-$39,999	44	70	$1,225,882
$40,000-$80,000	21	33	1,784,400
Above $80,000	12	20	2,976,354
Total	**100**	**159**	**$5,986,636**

Note: We used the lower cost estimate of an indoor or an outdoor smoking area for 44 facilities that preferred to have both indoor and outdoor areas and for 3 facilities that declined to express a preference.

In total, the 159 facilities' preferred cost estimates exceeded the lower cost estimates by over $2 million because more facilities favored outdoor over indoor smoking areas and because estimated costs for outdoor areas were higher than those for indoor areas. The median estimate for one mandated outdoor area was $35,000 compared with $25,000 for one mandated indoor area.

Providing VA Facilities With Multiple Smoking Areas

Officials at 132 medical facilities believe they need more than one smoking area to accommodate all their smoking patients; officials at 23 facilities prefer a single area and 4 had no preference. Multiple smoking areas at these facilities could increase total construction costs, to as much as $24 million.[4] These 132 facility officials said they would need multiple smoking areas for these reasons:

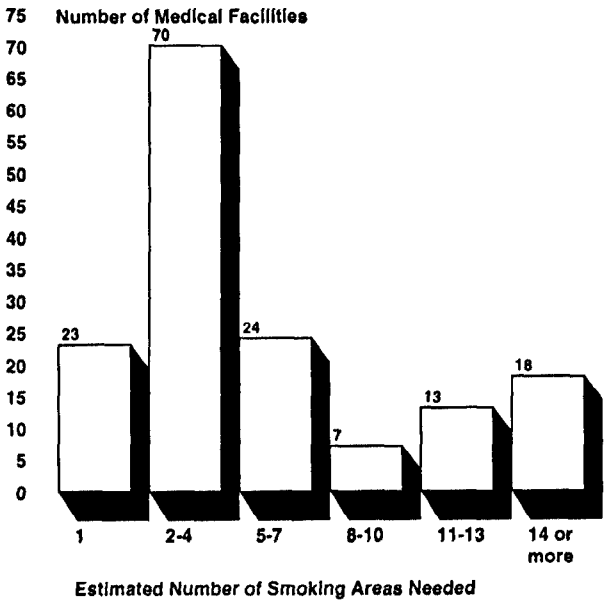
- Outpatient clinics are located several miles from the main facilities, which would require separate smoking areas.
- Facilities' patients can travel only minimal distances from their rooms to reach a smoking area.
- Facilities are frequently located in areas where weather conditions make it difficult for patients to leave a patient care building to smoke.

While the total cost of one mandated smoking area at each facility could range between $3.8 million and $6 million systemwide, the estimated cost

[4]We estimated the total cost for multiple smoking areas by multiplying the number of smoking areas that each facility reported it needed by the estimated cost of the preferred smoking area or the actual cost if the facility already had preferred smoking areas that will meet the law's requirements. For those facilities that indicated a preference for both indoor and outdoor, we multiplied the total number of areas needed by the lower cost estimate.

could increase to as much as $24 million because most facilities reported that they needed more than one such smoking area. These facilities estimated that as many as 998 smoking areas would provide adequate access, with individual estimates ranging from 1 to 47 areas. As shown in figure 3, most facilities estimated a need for less than five smoking areas.

Figure 3: Number of Smoking Areas Needed at Each VA Facility



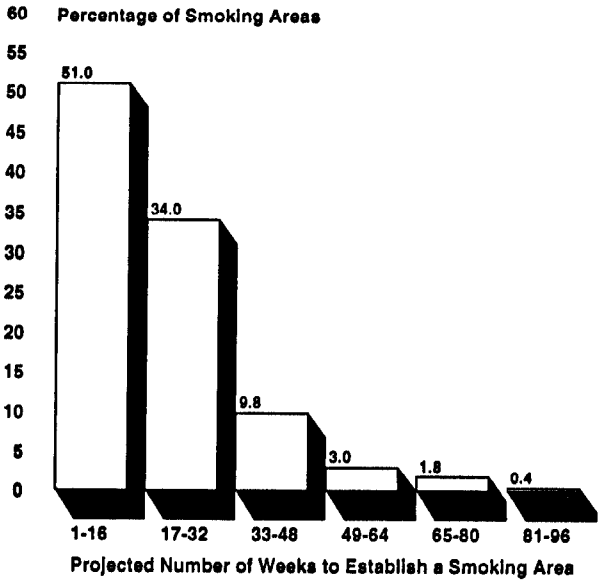
Note: Four medical facilities did not provide the number of indoor or outdoor smoking areas needed.

Facilities Estimated Varying Time Frames to Establish Smoking Areas

We asked 157 medical facilities to estimate the time it would take to construct a patient smoking area if they had sufficient money and could begin construction at once.[5] While their estimates ranged from 1 to 87 weeks, most facilities estimated that they could construct a mandated indoor or outdoor smoking area in less than 17 weeks. (See fig. 4.)

[5]Two medical centers were not asked to provide construction time estimates because they had both indoor and outdoor areas that meet the law's mandate; consequently, they would not have to construct any additional areas.

Figure 4: Estimated VA Medical Facilities' Construction Times for One Indoor or Outdoor Smoking Area



Before beginning construction, facilities will need time to plan and design smoking areas and to enter into construction contracts. Veterans Health Administration officials estimated that these steps could take from 12 to 15 months.

Conclusions

The establishment of smoking areas, as mandated by provisions of Public Law 102-585, appears feasible at VA medical facilities. Facilities have the capability to construct these areas using separate ventilating systems and other environmental safeguards that minimize potential health risks of tobacco smoke, as the law requires. Such smoking areas are consistent with guidelines established by the National Institute for Occupational Safety and Health and the Joint Commission on Accreditation of Healthcare Organizations. Their use should not affect VA facilities' accreditation.

Individual facilities' implementation strategies are an important factor, given that it could cost as much as $24 million to provide patients with reasonable access to smoking areas. Potential economies appear possible if VA uses a central management strategy to implement the law. For example, 44 facilities now have smoking areas that meet the law's

requirements, and their construction costs were significantly lower than those estimated by many of the 115 that do not yet have such smoking areas. As VA designs its implementation strategies, sharing best practices among VA facilities and taking advantage of potential construction economies appear to provide significant opportunities to minimize systemwide costs.

Agency Comments

At an April 20, 1993, exit conference we discussed our findings with, and obtained oral comments from, VA officials. Appropriate changes were made to the report based on comments received from these officials, including the Assistant Chief Medical Director for Environmental Medicine and Public Health and the Smoke-Free Program Director. In general, these officials agreed with the information we obtained from the 159 medical facilities and from the federal and private organizations we contacted. However, they expressed concerns about the feasibility of establishing the mandated smoking areas, given the documented health risks of smoking and the budgetary constraints that VA faces.

Health-Related Concerns

VA officials reaffirmed VA's commitment to a smoke-free environment and expected to implement provisions of Public Law 102-585 in a manner consistent with this commitment. In this regard, they expressed concern that establishing the mandatory smoking areas could endanger the health of nonsmoking patients or employees because some smoke would likely enter other parts of facilities, even though the smoking rooms' ventilating systems might meet current federal guidelines. They considered this to be unacceptable because federal agencies have determined that there is no acceptable level of exposure to carcinogens in tobacco smoke. VA officials believe that a 1992 Environmental Protection Agency report on the health effects of passive smoke, creates an obligation for VA to protect patients and employees.

Cost Concerns

VA officials also said that the 159 facilities' cost estimates indicated that financing the law's implementation would pose a formidable challenge. They said that required resources will have to come from other medical care, research, or education programs. They noted that this will likely postpone other projects addressing medical care, privacy, modernization, or new programs.

While agreeing that the estimated costs appeared reasonable, they cautioned that total implementation costs could be higher, especially considering potential costs of maintaining smoking areas and construction planning and design costs which, VA officials' estimated, could amount to about 10 to 12 percent of the construction contract costs. However, the officials acknowledged that costs could not be estimated with greater certainty until VA's strategy for implementing the law's smoking provisions is developed and until planning and design criteria are specified in greater detail.

Other Concerns

VA officials also pointed out several obstacles to developing and implementing the law's requirements. These included employee health concerns, staff and patient security issues, and patient supervision needs. They stated that the dangers of environmental tobacco smoke could mean patient liability lawsuits, increased workman's compensation claims, as well as increased hazard differential pay for employees exposed to such smoke.

VA officials concluded that establishing mandated smoking areas is incompatible with smoke-free policies or other health care systems. They said it will be viewed as a "giant step backwards" by clinicians, including those VA is trying to recruit, as well as those on affiliated medical school faculties. Further, they said that providing a comfortable setting for smoking provides patients with the wrong message and will make it difficult for patients to accept VA's health education initiatives involving smoking.

Given the size and diversity of its health care system, we agree that VA faces implementation challenges. In our opinion, the potential obstacles do not appear insurmountable.

We are sending copies of this report to the Secretary of Veterans Affairs; the Director, Office of Management and Budget; and interested congressional committees. We will make copies available to others upon request.

If you have any questions regarding this report, please contact me on (202) 512-7101. Major contributors to this report are listed in appendix III.

David P. Baine

David P. Baine
Director, Federal Health
Care Delivery Issues

Contents

Abbreviations

GAO	General Accounting Office
VA	Department of Veterans Affairs

Objectives, Scope, and Methodology

To assess the feasibility of establishing and maintaining smoking areas at the Department of Veterans Affairs facilities, we developed three objectives. Our first objective was to determine how smoking provisions of the law might affect VA medical facilities' accreditation. To do this, we interviewed Joint Commission officials responsible for developing standards and for analyzing results of accreditation surveys in their Chicago headquarters. We also analyzed pertinent commission guidelines, manuals, and other publications.

Our other objectives were to determine (1) how much VA facilities might spend to establish and maintain mandated smoking areas and (2) how long the facilities might take to construct such areas. To accomplish these objectives, we obtained information from various regulatory and advisory agencies, the VA Central Office, and VA medical facilities, in the following manner:

- To determine what features of a smoking area and its ventilating system would prevent smoke from entering nonsmoking areas, we interviewed officials and analyzed documents from the Department of Health and Human Services' Center for Chronic Disease Prevention and Health Promotion, and National Institute for Occupational Safety and Health, as well as the Environmental Protection Agency's Indoor Air Division, and the Department of Labor's Occupational Safety and Health Administration.
- To develop criteria for appropriate heating and air conditioning, we consulted officials of the General Services Administration's Public Buildings Service.
- To determine VA's current policy on smoking areas available to patients and residents at hospitals, nursing homes, and domiciliaries, we reviewed its policies and guidelines for establishing a smoke-free environment and discussed the guidance provided to VA medical facilities with officials of the Veterans' Health Administration.
- To observe accommodations provided for smoking at facilities that differed in geographic location, we visited medical centers located in Dallas, Texas, and Hines, Illinois. At the medical centers we interviewed officials in the Office of the Director, engineers, and members of the centers' smoking committees, and we toured the centers' smoking areas. We discussed the centers' smoking policies, existing and proposed smoking accommodations for patients, and ventilating systems.

To further address our cost and scheduling objectives, we interviewed the Director or a designated spokesperson at each of VA's 158 medical centers and at the one freestanding domiciliary. These interviews were conducted

through a structured telephone survey on patient smoking accommodations currently provided at each VA hospital, nursing home, and domiciliary.

We also used this survey to gather information on the adequacy of each facility's ventilating system and estimated costs and construction times required to establish a single mandated smoking area. Because the law gave VA facilities a choice between establishing indoor or outdoor patient smoking areas, we obtained cost estimates for both options and the facility's preference.

We did our review from December 1992 through April 1993 in accordance with generally accepted government auditing standards.

VA Facilities' Estimated Costs and Times to Create One Mandated Smoking Area

The 159 medical facilities provided the following estimates for the costs and construction times to create one indoor area and one outdoor area that would meet the law's requirements.

	Patient smoking area			
	Indoor		Outdoor	
VA facility (by state)	Estimated cost	Estimated time (weeks)	Estimated cost	Estimated time (weeks)
Birmingham, AL	$175,000	57	$ 38,000	17
Montgomery, AL	25,000	8	[a]	[a]
Tuscaloosa, AL	49,000	36	67,000	36
Tuskegee, AL	50,000	8	15,000	12
Fayetteville, AR	10,000	8	[b]	[b]
Little Rock, AR	[b]	[b]	75,000	12
Phoenix, AZ	5,000	12	22,500	16
Prescott, AZ	7,000	3	80,000	8
Tuscon, AZ	88,000	36	88,000	36
Fresno, CA	[b]	[b]	50,000	8
Livermore, CA	35,000	17	80,000	17
Loma Linda, CA	10,000	8	35,000	20
Long Beach, CA	15,000	13	50,000	21
Los Angeles, CA	2,500	6	5,300	4
Palo Alto, CA	11,500	3	20,000	3
San Diego, CA	225,000	18	[a]	[a]
San Francisco, CA	90,000	8	120,000	12
Sepulveda, CA	16,000	1	22,000	2
Denver, CO	20,000	21	20,000	35
Fort Lyon, CO	[b]	[b]	35,000	13
Grand Junction, CO	47,500	16	40,000	16
Newington, CT	30,000	39	10,500	13
West Haven, CT	150,000	56	200,000	72
Washington, DC	[b]	[b]	25,000	6
Wilmington, DE	46,500	20	[b]	[b]
Bay Pines, FL	15,000	8	22,000	8
Gainesville, FL	3,000	6	13,000	15
Lake City, FL	10,000	8	25,000	10
Miami, FL	71,250	24	95,000	24
Tampa, FL	31,500	24	31,000	24
Augusta, GA	90,000	8	90,000	6

(continued)

	Patient smoking area			
	Indoor		Outdoor	
VA facility (by state)	Estimated cost	Estimated time (weeks)	Estimated cost	Estimated time (weeks)
Decatur, GA	100,000	28	16,000	8
Dublin, GA	3,500	8	15,360	10
Des Moines, IA	35,000	24	45,000	32
Iowa City, IA	[b]	[b]	[b]	[b]
Knoxville, IA	[b]	[b]	13,100	30
Boise, ID	90,000	32	40,000	24
Chicago, IL (Westside)	1,000	4	50,000	18
Chicago, IL (Lakeside)	64,000	40	150,000	72
Danville, IL	6,000	13	[b]	[b]
Hines, IL	50,000	6	100,000	10
Marion, IL	[b]	[b]	23,000	8
North Chicago, IL	[b]	[b]	16,500	26
Fort Wayne, IN	75,000	8	50,000	8
Indianapolis, IN	[b]	[b]	97,000	15
Marion, IN	25,000	24	75,000	36
Leavenworth, KS	160,000	24	11,000	6
Topeka, KS	5,282	16	18,000	28
Wichita, KS	22,000	20	145,000	32
Lexington, KY	[a]	[a]	33,000	15
Louisville, KY	20,000	4	31,000	18
Alexandria, LA	10,000	16	30,000	24
New Orleans, LA	20,000	8	25,000	12
Shreveport, LA	7,500	17	35,600	17
Bedford, MA	[b]	[b]	32,000	26
Boston, MA	30,000	6	[b]	[b]
Brockton, MA	25,000	17	50,000	26
Northhampton, MA	90,000	30	[b]	[b]
Baltimore, MD	50,610	24	12,500	24
Fort Howard, MD	[a]	[a]	55,000	[a]
Perry Point, MD	4,000	12	20,000	17
Togus, ME	[b]	[b]	49,790	8
Allen Park, MI	50,000	12	50,000	12
Ann Arbor, MI	5,000	24	[b]	[b]
Battle Creek, MI	8,300	10	11,300	10
Iron Mountain, MI	11,000	8	19,000	16
Saginaw, MI	200,000	16	[b]	[b]

(continued)

VA facility (by state)	Patient smoking area: Indoor — Estimated cost	Indoor — Estimated time (weeks)	Outdoor — Estimated cost	Outdoor — Estimated time (weeks)
Minneapolis, MN	60,000	12	95,000	16
St. Cloud, MN	15,000	24	150,000	12
Columbia, MO	97,000	87	145,000	78
Kansas City, MO	58,000	12	52,000	10
Poplar Bluff, MO	5,000	12	55,000	17
St. Louis, MO	[b]	[b]	110,000	18
Biloxi, MS	[b]	[b]	30,000	18
Jackson, MS	35,000	16	40,000	16
Fort Harrison, MT	60,000	26	60,000	40
Miles City, MT	4,200	24	36,000	17
Asheville, NC	28,000	24	18,200	24
Durham, NC	5,000	8	[b]	[b]
Fayetteville, NC	1,000	2	[b]	[b]
Salisbury, NC	[b]	[b]	30,000	12
Fargo, ND	14,000	26	26,000	26
Grand Island, NE	5,000	10	15,300	18
Lincoln, NE	[a]	[a]	[a]	[a]
Omaha, NE	[b]	[b]	15,000	18
Manchester, NH	[b]	[b]	18,000	6
East Orange, NJ	28,000	18	25,000	24
Lyons, NJ	10,000	8	30,000	16
Albuquerque, NM	13,000	8	26,000	16
Reno, NV	57,000	36	75,000	38
Albany, NY	[b]	[b]	50,000	24
Batavia, NY	100,000	65	150,000	78
Bath, NY	16,000	9	16,000	9
Bronx, NY	9,000	2	40,000	4
Brooklyn, NY	60,000	30	6,000	3
Buffalo, NY	5,000	2	100,000	12
Canandaigua, NY	10,000	16	25,000	20
Castle Point, NY	14,000	8	30,000	8
Montrose, NY	12,000	16	25,000	24
New York, NY	3,500	3	20,000	6
Northport, NY	[b]	[b]	20,000	16
Syracuse, NY	75,000	16	[b]	[b]
Chillicothe, OH	30,000	24	15,000	6

(continued)

VA facility (by state)	Patient smoking area			
	Indoor		Outdoor	
	Estimated cost	Estimated time (weeks)	Estimated cost	Estimated time (weeks)
Cincinnati, OH	64,800	24	64,000	8
Cleveland, OH	[b]	[b]	75,000	16
Dayton, OH	2,500	8	79,100	8
Muskogee, OK	61,000	36	98,000	40
Oklahoma City, OK	[b]	[b]	7,500	3
Portland, OR	40,000	16	[b]	[b]
Roseburg, OR	20,000	48	17,000	24
White City, OR	[b]	[b]	120,000	52
Altoona, PA	130,000	42	180,000	42
Butler, PA	[b]	[b]	25,000	26
Coatesville, PA	43,700	40	[b]	[b]
Erie, PA	30,000	12	75,000	17
Lebanon, PA	18,000	20	24,000	20
Philadelphia, PA	7,000	10	20,000	24
Pittsburg, PA (Highland)	1,050	13	30,000	16
Pittsburg, PA (University)	5,500	26	200,000	52
Wilkes Barre, PA	20,000	4	[b]	[b]
San Juan, PR	120,000	20	100,000	16
Providence, RI	100,000	8	35,000	4
Charleston, SC	[b]	[b]	35,312	8
Columbia, SC	16,000	8	42,000	16
Fort Meade, SD	15,000	20	20,000	26
Hot Springs, SD	65,000	12	25,000	12
Sioux Falls, SD	20,000	36	30,000	52
Memphis, TN	37,000	12	36,500	20
Mountain Home, TN	45,000	28	24,000	28
Murfreesboro, TN	6,700	12	10,000	12
Nashville, TN	50,000	10	45,000	6
Amarillo, TX	10,000	4	60,000	12
Big Spring, TX	[b]	[b]	35,000	12
Bonham, TX	4,000	6	16,000	6
Dallas, TX	60,000	32	50,000	32
Houston, TX	160,000	34	150,000	34
Kerville, TX	[b]	[b]	283,354	36
Marlin, TX	2,500	8	30,000	16
San Antonio, TX	36,000	28	50,000	28

(continued)

	Patient smoking area			
	Indoor		Outdoor	
VA facility (by state)	Estimated cost	Estimated time (weeks)	Estimated cost	Estimated time (weeks)
Temple, TX	20,500	36	50,000	36
Waco, TX	14,058	16	54,550	20
Salt Lake City, UT	17,000	26	4,000	12
Hampton, VA	25,000	16	75,000	36
Richmond, VA	140,000	26	198,000	26
Salem, VA	[b]	[b]	[b]	[b]
White River Junction, VT	[b]	[b]	35,000	52
Seattle, WA	[a]	[a]	132,000	24
Spokane, WA	2,500	1	40,000	10
Tacoma, WA	14,000	26	25,000	26
Walla Walla, WA	40,000	20	40,000	20
Madison, WI	[b]	[b]	30,000	17
Milwaukee, WI	1,020,000	50	50,000	26
Tomah, WI	10,000	6	17,000	12
Beckley, WV	[a]	[a]	[b]	[b]
Clarksburg, WV	16,960	17	18,500	20
Huntington, WV	40,000	16	[b]	[b]
Martinsburg, WV	10,000	36	[b]	[b]
Cheyenne, WY	70,500	9	50,500	34
Sheridan, WY	50,000	26	13,000	8

[a]Facility declined to provide an estimate.

[b]Facility not asked to provide an estimate because it already had a smoking area that meets the law's requirement.

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