Accessibility of Primary Care Physicians' Offices for People With Disabilities

An Analysis of Compliance With the Americans With Disabilities Act

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Objective: To determine if primary care physicians are in compliance with the Americans With Disabilities Act of 1990 (ADA) and to what extent offices of primary care physicians are usable for persons with disabilities.

Design: Cross-sectional survey.

Setting: Members listed in the Harris County (Texas) Medical Society roster.

Subjects: Sixty-two general practitioners, family practitioners, internists, and obstetrician-gynecologists.

Main Outcome Measure: A 15-page questionnaire with 57 items and 136 variables.

Results: Eleven (18%) of the primary care physicians in this study were unable to serve their patients with disabilities in the last year for reasons that could be interpreted as noncompliant with the ADA. Two physicians (3%) had offices that patients with disabilities could not enter because of physical barriers, and 1 physician (2%) had inaccessible equipment. Fourteen physicians (22%) were improperly referring patients with disabilities although they generally treat such patients. In measuring the level of compliance with regard to structural features that enhance the accessibility of the physicians' offices, only 8 (13%) had a low level of compliance. Thirtynine (63%) of the physicians supplied auxiliary aids and services to their patients with disabilities. The most common aid was printed materials.

Conclusions: A substantial portion of primary care physicians' offices are not in compliance with the ADA, and some informational tools will be required to inform physicians about the nondiscriminatory requirements of the statute.

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Editor's Note: In fact, we treat many patients with disabilities every day; it is just that some disabilities are more subtle than others. Many disabilities are easy to accommodate in the routine of office practice; others are more difficult. This article suggests that while many family physicians do help patients with disabilities and do not discriminate, other family physicians do not provide care, particularly for those patients with more disabling conditions. This article contains much information to remind us of what we should be doing.

Marjorie A. Bowman, MD, MPA

LACK OF ACCESS to the daily commerce of public life has promoted persistent isolation of persons with disabilities.[1] Negative attitudes toward persons with disabilities and discrimination have contributed to their status as the poorest, least educated, and least employed minority.[2,3] The Americans With Disabilities Act of 1990 (ADA) prohibits discrimination on the basis of physical or mental disabilitites and mandates reasonable accommodation by removing obstacles that hamper persons with disabilities.[3,4] The ADA is designed to improve opportunities for the nation's estimated 49 million persons with disabilites,[5] including opportunities to receive medical care.[6]

Very little is known about the degree to which private medical facilities are in compliance with the ADA. The ADA was passed by Congress and signed by President George Bush on July 26, 1990.[7] The ADA is considered to be landmark legislation, because it expands the basic protections of Titles II and VII of the Civil Rights Act of 1964.[4] The ADA provides that services, programs, activities, employers, benefit providers, and other public opportunity providers may not discriminate against otherwise qualified individuals with disabilities.[8] The definition of a qualified individual with a disability is an individual with a physical or mental impairment that substantially limits 1 or more of the major life activities, with a record of such an impairment, or who is regarded as having such an impairment.[9] The

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PARTICIPANTS AND METHODS

A stratified random sample of 220 physicians in active practice was chosen from the Harris County (Texas) Medical Society roster. All the physicians were primary care practitioners, and included 55 physicians in each of the following specialties: general practice, family practice, internal medicine, and obstetrics-gynecology. An appropriate institutional review board approved the project. A pilot study of 15 physicians was performed to test and refine a 15-page questionnaire. The pilot study took 2 months. The pilot questionnaire was sent to physicians we knew personally in the Harris County area, and the original contact was made by telephone. We delivered the questionnaire to the physicians' offices and provided a return envelope. Eleven of the 15 physicians filled out the pilot questionnaire. The pilot study respondents included 4 family practitioners, 3 internal medicine specialists, 3 obstetrician-gynecologists, and 1 physician in general practice.

Using the different sections of the ADA statute[27] and the equivalent sections of the Code of Federal Regulations,[28] we found examples to illustrate the different prohibitions or affirmative duties that a public accommodation must follow. Many published articles on Title III were also helpful in citing examples. We constructed 57 items with 136 variables based on the examples we found in the ADA statute, Code of Federal Regulations, and articles. The questions were designed to measure the physicians' compliance with the ADA. We used no standardized measurement tool in the questionnaire that was sent to the physicians in our sample.

We sent out 1 full mailing of the questionnaire and made continual efforts, by telephone, to encourage the physicians to return the questionnaire. We went to the physicians' offices to hand out a second or third copy of the questionnaire, and we personally picked up many completed questionnaires.

In the questionnaire, the definition of a person with a disability was drawn from the ADA statute.[29,30] Examples given to the physicians of conditions and diseases of patients protected by the ADA included seeing, hearing, learning, or orthopedic impairments; cerebral palsy; muscular dystrophy; multiple sclerosis; cancer; heart disease; diabetes; tuberculosis; spinal cord or brain injury; past history of alcoholism or other drug addition; some current alcoholism; and illness related to human immunodeficiency virus infection and acquired immunodeficiency syndrome.[31] This definition was designed to show physicians that many kinds of patients with physical impairments and other disabilities are protected under the ADA.

Each physician was first asked to complete questions concerning type of specialty, years in practice, sex and race, number of physicians in the practice, number of patients in managed care plans, number of patients enrolled in Medicare and Medicaid, and the year the physician first occupied the office.

The next group of questions was designed to show whether the physicians were complying with the general prohibitions of Title III of the ADA. We asked the following questions: (1) How many patients whom you know with a chronic physical impairment have you treated in the last 12 months?[16-18] (2) In the last 12 months, has anyone with a disability not been able to receive services in your practice for the following reasons: *(a)* you or your staff were not familiar with the disability of the patient; *(b)* you were unable to use your equipment with the patient because it was not accessible; *(c)* although you generally treat a person for the condition your patient with a disability had, you felt more comfortable referring the patient to another physician who knew more about the patient's disability; *(d)* patient was difficult to treat or to handle; and *(e)* patient was unable to enter your premises due to physical barriers.[16-18] (3) How many times in the last 12 months have you had a

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ADA is intended to provide not only equal treatment, but also equal opportunity. This means that entities subject to ADA requirements are required to make reasonable accommodations, such as providing auxiliary aids and services. It also may require barrier removal in certain cases, and it clearly requires that new construction and alterations meet accessibility guidelines.[8] The cost of making places of employment and public accommodations accessible is generally reasonable and manageable.[2]

Title III of the ADA prohibits discrimination in places of public accommodation. Places of public accommodation are defined as private entities that affect commerce. There are 12 categories listed in the statute.[10] The ADA imposes significant new responsibilities on physicians,[11-13] because the professional offices of health care providers are included under Title III.[14] The Department of Justice has issued regulations for Title III, and these regulations cover nearly 150 pages in the Code of Federal Regulations.[15] In the **Table**, we have listed some of the important general and specific prohibitions that are given under Title III of the ADA for public accommodations.[16-26]

This study addresses the questions, "Are physicians in compliance with the ADA?" and "To what extent are the offices of physicians usable for persons with disabilities?"

RESULTS

Responses were received from 62 physicians (28%) surveyed. All our data came from the physicians self-reporting in the questionnaire. We did not observe the respondents' offices. The respondents included 8 general practitioners (13%), 21 family practitioners (34%), 22 obstetrician-gynecologists (35%), 9 internists (15%), and 2 (3%) who characterized themselves as practicing other than these 4 specialties. Seventy-six percent were male and 24% were female. The respondents had practiced medicine from 2 to 48 years, with a mean of 18.5 years and a median of 16 years. Forty-five of the 60 physicians who answered the question regarding ethnicity were white (75%), 6 were Hispanic (10%), 6 were Asian or Pacific Islander (10%), 2 were African American (3%), and 1 was mixed race (2%).

Most of the physicians were solo practitioners (38%; 23/60) or in a group practice of not more than 5 physicians (40%; 24/60). Twelve (20%) of the physicians were

difficult or demanding patient whom you knew had a physical impairment and whom you considered was a threat to the health and safety of others?[32,33] (4) Did you decide not to treat the patient? (5) To what extent did you deliberate on, with reasonable judgment that relies on current medical knowledge or the best available objective evidence, whether to treat the patient?[34] (6) Do you offer classes or special lectures on health education to your patients, and were you able to include persons with disabilities in those classes? These questions were also designed to show whether the physicians were providing goods or services to their patients in integrated settings.[35]

To determine whether the physicians were complying with the specific prohibitions of Title III, including setting up eligibility criteria that tend to screen out patients with disabilities[22] and failing to make modifications in policies, practices, and procedures,[23] the physicians were asked the following questions: (1) Do you always schedule your patients with disabilities for appointments at certain times of the day? (2) What type of identification do you require when patients pay by check?[23] (3) Have you ever provided the following services to your patients with disabilities [respondents were asked to check 1 or more of the these items]: sign language interpreters, readers, braille materials, large-print materials, audio recordings, telecommunication devices for the deaf, relay services, printed materials, videotapes, computer diskettes, and others?[24] (4) If you did not provide these aids, did you provide an alternative means of communication?[24] (5) Do you charge nonrefundable fees for providing patients with auxiliary aids and services or for seeing patients in locations other than your offices?[24]

The ADA requires that new construction of places of public accommodation be readily accessible after January 26, 1993, and that alterations to places of public accommodation be accessible after January 26, 1992. To find whether the physicians were making an effort to remove architectural and communication barriers that were structural in nature where such removal was readily achievable, the respondents were asked to check yes, no, or not needed (already accessible) to a list of 17 actions that would make their offices more accessible. The list was drawn from the Code of Federal Regulations.[36] The list included installing ramps, making curb cuts in sidewalks and entrances, repositioning shelves, adding raised markings on elevator control buttons, installing flashing alarm lights, widening doors to 815 mm, installing offset hinges to widen doorways, eliminating turnstiles or providing an alternative accessible path, installing accessible door hardware, rearranging toilet partitions, insulating lavatory pipes, installing raised toilet seats, installing a full-length bathroom mirror, repositioning a paper towel dispenser, ensuring designated accessible parking spaces, installing an accessible paper cup dispenser, and removing high-pile, low-density carpet. The physicians were also asked if they had remodeled the primary function areas of their offices after January 26, 1992, and whether the remodeling included a continuous, unobstructed pedestrian path to the entrance of the building and a wheelchair-accessible restroom, telephone, and water fountain.[37]

This study was also designed to obtain information on some of the features of the ideal physician's office for patients with disabilities. The respondents were asked the following questions: (1) Has any patient with physical impairments ever requested assistance with lifting, dressing, and toileting? (2) Have you assisted, in the following ways, patients who need to be lifted, dressed, or toileted when the patient comes to your office for diagnosis and treatment, ie, asked the patient to come with an attendant or a reclinable wheelchair or asked your staff to assist the patient in lifting, dressing, and toileting? (3) Do you examine or treat patients in their wheelchairs instead of treating them on an examination table? (4) Could you perform an adequate examination? (5) Have you ever used or purchased an adjustable-height or padded examination table? (6) Have you ever used or purchased a platform or sitting scale for your patients with disabilities? (7) Have you ever seen patients who you knew had a disability in other locations?

in group practices of 11 or more physicians. Thirty-five (58%) of the physicians reported that more than 50% of their patients were in managed care programs. Seventy percent of the physicians (42/60) reported they had 20% or fewer of their patients enrolled in the Medicare or Medicaid programs. Thirty-one (52%) of the physicians had occupied their current offices for 6 years or less, and the mean number of years the physicians were in their current offices was 8.8. (Two physicians did not answer questions regarding their practice.)

COMPLIANCE WITH THE GENERAL PROHIBITIONS OF TITLE III

Thirty-four (55%) of the physicians reported they had treated fewer than 20 patients with a chronic physical impairment at all their practice sites in the last 12 months. In this group, 23 physicians (37%) had treated 10 or fewer patients in the last 12 months, and 11 (18%) had treated from 11 to 20 patients. However, 15 respondents (24%) reported treating more than 50 patients with a chronic physical impairment in the last 12 months. When the respondents were asked how many times in the last 12 months they were unable to serve a patient with a disability, for any reason, 51 (82%) reported 0 times. Seven respondents (11%) reported they were unable to serve a patient with a disability 1 to 2 times in the last 12 months; 1 respondent (2%), 3 to 4 times in the last 12 months; and 3 respondents (5%), 5 or more times in the last 12 months. The total of all the respondents unable to serve a patient with a disability in the last 12 months was 11 (18%). The reasons why they were unable to serve patients with chronic impairments are presented in the following tabulation:

Reason	No. (%) of Respondents
Equipment not accessible	1 (2)
Not familiar with disability	1 (2)
Patient unable to enter premises (physical barriers)	2 (3)
Patient difficult to treat or handle	12 (19)
More comfortable referring patient, although usually treats condition	14 (22)

Respondents sometimes checked that they were able to always treat their patients with disabilities, and then checked reasons why they did not treat patients with disabilities.

General and Specific Prohibitions of Title III of the ADA*

General Prohibitions	Specific Prohibitions
Do not deny an individual with a disability participation in or benefit from goods, services, facilities, privileges, advantages, or accommodations of the public accommodation.[16]	Do not set up eligibility criteria that screen out individuals with disabilities from enjoying goods and services of the public accommodation.[22]
Do not provide unequal benefits to an individual with a disability.[17]	Do not fail to make reasonable modifications in policies, practices, and procedures.[23]
Do not provide different or separate benefits or services to an individual with a disability from those provided to other individuals unless such action is necessary for effective provision of the benefits or services.[18]	Do not fail to take steps to ensure that no individuals with a disability are excluded or denied services because of the absence of auxiliary aids and services, unless there is an undue burden.[24]
Provide integrated settings appropriate to the needs of the individual with a disability.[19]	Do not fail to remove architectural and communication barriers that are structural in nature in existing facilities.[25]
Provide an individual with a disability an opportunity to participate in the programs and activities of the public accommodation.[19]	Do not fail to make goods and services available through alternative methods when an entity can demonstrate that removal of a structural barrier is not readily achievable.[26]
An individual or an entity shall not use standards, criteria, or methods of administration that have the effect of discrimination on the basis of a disability.[20]	
Do not exclude or otherwise deny equal goods, services, facilities, privileges, advantages, accommodations, or opportunities to a person because that person associates with an individual with a known disability.[21]	

*ADA indicates the Americans With Disabilities Act of 1990.

When asked how many times in the last 12 months the respondents had a difficult or demanding patient who they knew had a chronic impairment and who they believed was a threat to the health and safety of others, 57 (92%) of the respondents said 0 times, 3 (5%) said 1 to 2 times, and 1 (2%) said 3 to 5 times. An additional physician answered subsequent questions relating to the issue. Of the 5 respondents who had difficult or demanding patients with known chronic impairments, only 1 respondent decided not to treat the patient. This physician used considerable deliberation, including a consultation with staff, before deciding. Four other respondents chose to treat their difficult patients, but only 1 of these physicians used considerable deliberation with a consultation with staff. Three of the 4 respondents who chose to go ahead and treat their difficult patients reported they used some or little deliberation.[33]

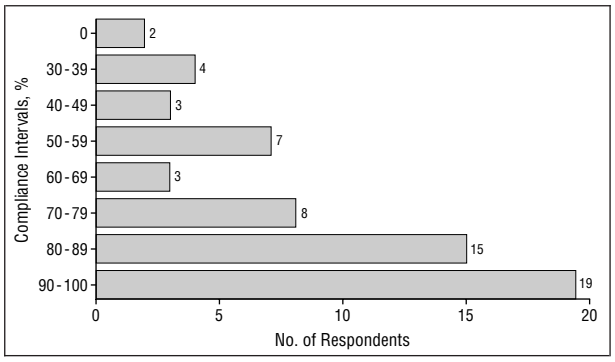
When the physicians were asked if they offered classes or special lectures on health education for their patients, 13 (21%) responded that they did. When we also asked about including patients with impairments in these classes or special lectures, cross-tabulations revealed that 11 physicians included patients with orthopedic impairments in their health education classes; 10, wheelchair users; 9, patients with hearing impairments; and 7, patients with speech or visual impairments.

COMPLIANCE WITH THE SPECIFIC PROHIBITIONS OF TITLE III

To test whether the respondents were setting up eligibility criteria that tend to screen out patients with physical disabilities or if the physicians were failing to modify policies, practices, or procedures in their offices, they were asked if they always scheduled patients with disabilities for appointments at certain times of the day, such as at lunchtime or at the end of the day.[38] Fifty-seven (92%) of the physicians reported they did not, but 5 (8%) reported that they did. The respondents were also asked if they accepted only a driver's license from patients who were paying by check.[39] Twelve physicians (19%) said they required patients to have a driver's license to pay by check and did not accept other forms of identification such as other photographic identification or a credit card. None of the almost 70% (n = 43) who responded to the question about whether they charged nonrefundable fees to provide auxiliary aids and services reported that they charged such fees[40]; however, of the 25 (40%) who responded to the question of charging a nonrefundable fee for seeing a patient who they knew had a disability in other locations besides their offices, 5 (8%) said that they did.

Our questionnaire asked the physicians what kinds of auxiliary aids and services they provided to patients with physical disabilities. Printed materials were the most often chosen auxiliary aid at 60% (36/60); sign language interpreters were at 22% (13/60); large-print materials were at 16% (10/60); audio recordings were at 15% (9/60); and videotapes with captioning were at 8.5% (5/60). Sixty of the respondents chose other auxiliary aids and services fewer times: 4 (7%) of the physicians checked readers; 3 (5%), telephones compatible with hearing aids; 3 (5%), telecommunication relay services; and 2 (3%), a typewriter or computer for the hearing impaired. No physician in the study provided computer diskettes, or braille materials for the visually impaired.

When the physicians were asked that if they did not provide auxiliary aids and services, did they provide an alternative means of communication, 12 (19%) of the respondents said that they did. The most common types of alternative communication reported were for hearing and visually impaired patients, including notepads and pencils and readers. However, 7 physicians (11%) reported that they provided neither auxiliary aids and services nor an alternative form of communication. Only 1 of these 7 respondents said that it was much too difficult to do. Four of these 7 physicians said that there was not enough demand for or the patients did not request the aids and services. The 12 respondents (19%) who provided an alternative means of communication only cited the same 2 reasons most frequently. Another reason they gave was that they never thought of it.



The structural accessibility in the offices of the physicians in this study is measured in terms of compliance with 17 recommended features. Few of the physicians had a compliance rate below 50%. For example, a rate of 50% indicates 1 yes response and 7 not needed responses; a rate of 35%, 6 yes responses and 0 not needed responses.

Before passage of the ADA in 1990, the only federal statutes that required architectural access in buildings were the Architectural Barriers Act of 1968[41] and Section 504 of the Rehabilitation Act of 1973.[42] There was very little litigation under either of these laws with respect to architectural accessibility. With the passage of the ADA, physicians in their private offices were required to comply with the removal of structural barriers, if readily achievable. We used a list of 17 items to assess whether the physicians in this study were complying with Title III of the ADA in removing architectural and communication barriers that are structural in nature where such removal was readily achievable,[43,44] ie, easily accomplished without much difficulty or expense. We formulated a measure of compliance (rate) by assigning the sum of the total number of the 17 items to the denominator, and the sum of the yes and not needed responses to the numerator. The mean compliance rate for all the physicians was 75.3%. We chose the 50% compliance rate as an important indicator of the structural or physical accessibility of the physicians' offices. Only 8 (13%) were below a 50% level of compliance. Two physicians had a 0% compliance rate. Fourteen physicians reported a 100% compliance rate. The **Figure** shows rates of compliance.

To compare the level of compliance, we partitioned the respondents into distinct groups according to years in practice, sex, type of practice, and race. We conducted an analysis of variance test to compare percentage of compliance distributions among levels within various groups. This statistical test indicated that there were no significant differences of percentage of compliance among levels within the groups.

Of the 10 physicians (16%) who were in offices that were newly constructed after January 26, 1993, when the ADA began to apply to new construction under Title III,[45] 8 physicians responded to the question about whether they used a builder, architect, or contractor to oversee compliance with the ADA. Of these 8 physicians, 7 (88%) answered it affirmatively. For the 28 physicians (45%) who reported remodeling the primary function areas of their offices, only 15 (24%) were able to answer affirmatively to having a continuous, unobstructed pedestrian path to the outside entrance of their buildings and a wheelchair-accessible restroom, telephone, and water fountain in the renovated areas.[46] Thirty-four physicians (55%) reported that they remodeled their offices and had a continuous unobstructed pedestrian path and 1 other accessible feature in the remodeled areas, such as a wheelchair-accessible restroom, water fountain, or telephone.

COMPLIANCE WITH RECOMMENDATIONS FOR THE IDEAL OFFICE FOR PATIENTS WITH PHYSICAL DISABILITIES

Although the ADA does not require physicians, under Title III, to assist persons with physical disabilities with services of a personal nature,[47,48] we asked the physicians whether patients with disabilities asked for assistance in lifting, dressing, or toileting. More than 85% of the physicians (52/60) said they did get such requests. We also asked the physicians whether they asked these patients to come with a reclinable wheelchair or an attendant or asked their staffs to assist the patients. None reported asking for a reclinable wheelchair. Fifty-eight (93%) of the physicians asked their staffs to assist patients with disabilities, and 25 (40)% of the physicians asked their staff to assist patients and in addition asked the patients with disabilities to bring an attendant.

Twelve (19%) of the physicians responded that they examined their patients with disabilities while the patients remained in their wheelchairs. Seven (11%) of these respondents believed that they could perform an adequate examination in this manner, and another 5 (8%) believed that they could sometimes perform an adequate examination. Twenty-eight (45%) of the physicians said they did not examine patients with disabilities in their wheelchairs. Twenty-one respondents (34%) said they sometimes examined their patients with disabilities in wheelchairs, and of the 13 who answered the question about their ability to perform an adequate examination, 7 (54%) believed that they could. Five physicians (38%) of the 13 could sometimes perform an adequate examination, and 1 physician (8%) could not but sometimes did so.

Twenty-four respondents (39%) had used or purchased an adjustable-height examination table; 8 respondents (13%), a padded examination table the height of a wheelchair seat; and 1 respondent (2%), a platform or sitting scale. Twenty-three respondents (37%) had seen patients with disabilities in other locations.

COMMENT

Because we had a low response rate to our questionnaire, we inquired, when an opportunity presented itself, why the questionnaire was not returned. Some physicians said they had academic or research positions and saw no patients. Some said they had no patients with physical disabilities, and therefore believed they could not answer the questionnaire in an informed manner. Other nonrespondents or their staff members said the physicians were too busy with their clinical practices and had no time to answer the questionnaire. One nonrespondent thought that the questionnaire was

too long and too tedious to answer. We surmise that some of the nonrespondents were wary of the legal implications of responding to the questionnaire, although we promised complete confidentiality. We also surmise that some of the nonrespondents had insufficient information on the requirements of the ADA, and therefore believed they could not draw on any personal knowledge to answer the questionnaire. The low response rate indicates that primary care physicians need to know more about the ADA.

Fifteen respondents to our questionnaire (24%) were seeing more than 50 patients a year with chronic impairments, and if the respondents were accurately reading our definition of a person with a disability, these patients are protected by the ADA. Although most physicians reported they were able to serve their patients with disabilities, there is a substantial percentage of respondents who were unable to serve their patients with chronic impairments. The reasons for being unable to serve their patients with chronic impairments were crucial to our analysis, and again support the importance of physician education in this area. Two physicians said their patients with physical disabilities were unable to enter their premises because of physical barriers. Since Title III of the ADA includes private physician offices as public accommodations, the inability of those patients with physical disabilities to enter the premises could indicate a failure to remove architectural barriers, and a violation of the ADA, unless the physicians could prove that removal of barriers was not readily achievable.[25]

Another reason for the repondents not being able to serve their patients with chronic physical impairments was inaccessible equipment. The ADA and the Code of Federal Regulations currently have no accessibility standards addressing furniture and equipment.[49] The Department of Justice had proposed that newly purchased furniture and equipment used in public accommodations be accessible, but the rule was never made final. This is an area where primary care physicians must consider going beyond the requirements of the ADA and making their office more ideally suited to their patients with physical disabilities.

A third reason for the respondents' inability to serve their patients with chronic impairments was they felt more comfortable referring these patients to other physicians, although they generally treat patients for the conditions requiring medical treatment. The Department of Justice, in the Code of Federal Regulations, indicates the following:

> A health care provider may refer an individual with a disability to another provider, if that individual is seeking, or requires, treatment or services outside the referring provider's area of specialization, and if the referring provider would make a similar referral for an individual without a disability who seeks or requires the same treatment or services. A physician who specializes in treating only a particular condition cannot refuse to treat an individual with a disability for that condition, but is not required to treat the individual for a different condition.[50]

The physician who refers a patient with a known disability, although the physician generally treats such patients without disabilities, may be denying the patient the benefits of services and failing to make the necessary reasonable modifications in the policies, practices, or procedures of the office so that the patient can be treated.

One defense that a physician might have in not treating a patient with a chronic impairment would be "direct threat."[51] If a physician believed a patient to be a significant risk to the health or safety of others and that that risk could not be eliminated by a modification in policies, practices, or procedures or by the provision of auxiliary aids or services,[52] the physician can perform "an individualized assessment based on reasonable judgment that relies on current medical knowledge or on the best objective evidence."[33,34] Of our respondents, only 1 physician decided not to treat a physically disabled patient and used considerable deliberation with a consultation with staff. This indicates the respondent was using an individualized assessment and was complying with the ADA. Although other respondents in the study decided to treat their disabled patients who might be a direct threat or a risk to the health and safety of others, they used only some or little deliberation in the process. Using some or little deliberation in these decisions, if the physician decides not to treat the patient with a known disability, may indicate a lack of compliance with the ADA and a failure to understand how to deal with a patient who is a threat to the health and safety of others.

THE ADA HAS had some effect in getting the respondents to our questionnaire to provide patients with disabilities with an integrated setting and an opportunity to participate. However, some of the respondents were setting up eligibility criteria that screened out patients with disabilities[22] or were not making modifications in policies, practices, or procedures in their offices necessary to afford the services they offered to patients with disabilities.[23] For instance, 5 (8%) of the physicians reported that they were scheduling patients with disabilities at certain times of the day, ie, near lunchtime or at the end of the day. Miltko[38] has suggested that such scheduling decisions are tenuous and separate out patients with disabilities on the basis of their disability. If the physician insists on seeing patients with disabilities only at certain times and shows no flexibility in seeing patients with disabilities when an appointment time is mutually agreeable, this practice could indicate a failure of the physician to modify policies, practices, or procedures.

Other respondents to the questionnaire said that they required patients to have a driver's license to make payments by check. In Section 36.301 of Title 28 of the Code of Federal Regulations,[39] the Department of Justice clearly states that this policy screens out individuals with disabilities, and Parry[53] has noted that it screens out individuals on the basis of their disability. None of the physicians reported surcharging patients for auxiliary aids and services, yet 5 (8%) of the respondents surcharged seeing patients with physical disabilities in other locations. The Department of Justice states in the Code of Federal Regulations that "a public accommodation may not impose a surcharge on a particular individual with a dis-

ability or any group of individuals with disabilties to cover the costs of measures, such as the provision of auxiliary aids, barrier removal, alternatives to barrier removal, and reasonable modifications in policies, practices, or procedures that are required to provide that individual or group with the nondiscriminatory treatment required by the Act."[40] The Department of Justice has also stated that providers of public accommodations and services must provide alternative services to the maximum extent possible where fundamental alteration or undue burden would exist.[8,54] If a physician needs to see a patient with a disability in another location as an alternative to barrier removal, it could be easily argued that the imposition of a surcharge for this service would be a failure of the physician to modify the policies, practices, and procedures in the office.

The ADA may be influencing the respondents to provide their patients with disabilities a variety of auxiliary aids and services. A high percentage reported providing printed materials, although this high percentage may reflect the fact that these physicians were providing printed materials to all their patients. Many provided sign-language interpreters, large-print materials, and audio recordings. We had respondents who said that they tried to meet the needs of their patients with disabilities based on an individual assessment, and used their staff members to assist the patients in whatever way they could. The most common forms of alternative communication reported by the respondents—notepads, pencils, and readers—may be adequate in some cases for patients, but not always. For patients using American Sign Language, the communication by notepad and pencil could be inadequate to explain a complicated course of treatment. Some of the respondents said that they had never thought about supplying auxiliary aids and services to their patients.

The ADA seems to have had a beneficial effect on improving the architectural accessibility of the private offices of our respondents. Many of the respondents reported high rates of compliance based on 17 readily achievable structural features in their offices. Only 2 physicians reported a 0 rate of compliance based on these 17 features. More than three quarters of the respondents reported a rate of compliance above 50%, indicating that physicians, in their private offices, are making the physical setup of their offices more accessible to persons with disabilities. The physicians were also able to report high levels of compliance with the ADA when they remodeled their offices, and 28 (45%) of the respondents had installed accessible elevators in the buildings where their offices were located, after the ADA had become effective.

The Department of Justice, in the Code of Federal Regulations, has said that public accommodations do not have to provide personal devices, individually prescribed devices, or services of a personal nature to customers and clients.[47] However, patients with disabilities express the need for adjustable-height examination tables, padded examination tables, platform or sitting scales, and other accessible features in their physicians' offices that would make their experiences at least as comfortable as those of patients without disabilities and without the possibility that, as patients, they are separated out and receive less thorough treatment.[55] These features represent the ideal physician's office for the patient with a disability. Although most physicians reported that their staffs were able to assist patients with disabilities during office visits, a large number asked their patients with disabilities to bring an attendant. Patients with disabilities want physicians and their staffs to inquire about their specific needs and wants and to be assisted in the most comfortable manner possible.

Although physicians in their private offices are largely complying with the structural and architectural aspects of the ADA, there is still a percentage of primary care physicians who are unable to serve their patients. There seems to be a need for physician education about the requirements of the ADA. Patients have to be more aware of what goods and services they can ask for under ADA requirements. Patients with physical disabilities and their physicians need to assess what their ideal office is and need to work on achieving it.

The following list contains our recommendations for primary care physicians to improve their compliance with the ADA, and to meet the needs of patients with physical disabilities:

1. Do not deny your services to patients with disabilities. You may refer a patient with a disability if that individual requires treatment outside of your area of specialization.
2. Do not separate out or give unequal service to patients with disabilities unless you must do so to provide a service that is as effective as that provided to other patients without disabilities. Try to include individuals with disabilities in classes you may have for all your patients.
3. Watch for criteria that screen out patients with disabilities. For instance, do not require a driver's license for payment by check. Use policies, practices, and procedures in your office that can be modified for patients with disabilities, such as making sure service animals are permitted in your office.
4. You may need to provide auxiliary aids and services, such as readers, sign-language interpreters, braille materials, large-print materials, video and audio tapes, and computers when necessary to effectively communicate with your patients with disabilities. You may use alternative forms of communication, such as notepads and pencils, when these forms are as effective.
5. Evaluate your office for structural and architectural barriers that prevent individuals with disabilities from getting the services they need in your office. Change these barriers when it is readily achievable to do so (without much difficulty or expense). Look at ramps, handicapped parking spaces, curb cuts, shelving, elevator control buttons, width of doorways (for wheelchair accessibility), need for levered door handles, width of toilet partitions, height of toilet seats and high-pile carpeting, and examination rooms where persons in wheelchairs can turn around.
6. The ideal office for patients with disabilities will have an adjustable-height examination table, a platform or sitting scale, padded tables, and a staff able to properly assist patients with disabilities.

7. When building new offices or remodeling, hire an architect or contractor familiar with ADA requirements.

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REFERENCES

1. Burgdorf RL Jr. Equal access to public accomodations. In: West J, ed. *Americans With Disabilities Act: From Policy to Practice.* New York, NY: Milbank Memorial Fund; 1991:183-213.
2. West J. Introduction: implementing the Act: where we begin. In: West J, ed. *Americans With Disabilities Act: From Policy to Practice.* New York, NY: Milbank Memorial Fund; 1991:xi-xxxi.
3. Martin DV. The Americans With Disabilities Act: introductory comments. *J Law Health.* 1994;8:1-13.
4. Anderson WL, Roth ML. Deciphering the Americans With Disabilities Act. *J Mo Bar.* 1995;51:142-154.
5. McNeil JM. *Americans With Disabilities: 1991-92, Current Population Reports, P70-33.* Washington, DC: Bureau of the Census; 1993.
6. Mahoney RE, Gibofsky A. Changes in existing protection and impact on the private health services provider. *J Leg Med.* 1992;13:51-74.
7. Americans With Disabilities Act, 42 USC §12101-12213 (1995).
8. Rothstein LF. *Disabilities and the Law.* Danvers, Mass: West Group; 1997:23-26.
9. Americans With Disabilities Act, 42 USC §12102(2) (1995).
10. Americans With Disabilities Act, 42 USC §12181(7) (1995).
11. Howard-Martin J. How the Americans With Disabilities Act will affect physicians' offices. *HealthSpan.* 1993;10:15-23.
12. Golden M. Americans With Disabilities Act of 1990: implications for the medical field. *West J Med.* 1991;154:522-524.
13. Cohen J. Access to medical care for HIV-infected individuals under the Americans With Disabilities Act: a duty to treat. *Am J Law Med.* 1992;18:233-250.
14. Americans With Disabilities Act, 42 USC §12181(7)(F) (1995).
15. 28 CFR §36 (1998).
16. Americans With Disabilities Act, 42 USC §12182(b)(1)(A)(i) (1995).
17. Americans With Disabilities Act, 42 USC §12182(b)(1)(A)(ii) (1995).
18. Americans With Disabilities Act, 42 USC §12182(b)(1)(A)(iii) (1995).
19. Americans With Disabilities Act, 42 USC §12182(b)(1)(B)(C) (1995).
20. Americans With Disabilities Act, 42 USC §12182(b)(1)(D) (1995).
21. Americans With Disabilities Act, 42 USC §12182(b)(1)(E) (1995).
22. Americans With Disabilities Act, 42 USC §12182(b)(2)(A)(i) (1995).
23. Americans With Disabilities Act, 42 USC §12182(b)(2)(A)(ii) (1995).
24. Americans With Disabilities Act, 42 USC §12182(b)(2)(A)(iii) (1995).
25. Americans With Disabilities Act, 42 USC §12182(b)(2)(A)(iv) (1995).
26. Americans With Disabilities Act, 42 USC §12182(b)(2)(A)(v) (1995).
27. Americans With Disabilities Act, 42 USC §12181-12189 (1995).
28. 28 CFR §36.101-36.308 (1998).
29. Americans With Disabilities Act, 42 USC §12102(2) (1995).
30. 28 CFR §36.104 (1998).
31. 28 CFR §36.104 Disability (1)-(5) (1998).
32. 28 CFR §36.208(a)(b) (1998).
33. Matson CC, Holleman WL, Nosek M, Wilkinson W. Impact of the Americans With Disabilities Act on family physicians. *J Fam Pract.* 1993;36:201-206.
34. 28 CFR §36.208(c) (1998).
35. Americans With Disabilities Act, 42 USC §12182(b)(1)(B) (1995).
36. 28 CFR §36.303(b) (1998).
37. 28 CFR §36.402 (1996).
38. Miltko SM. The need for professional discretion: health professionals under the Americans With Disabilities Act. *Northwestern Univ Law Rev.* 1995;89:1731-1767.
39. 28 CFR §36.301(a) (1998).
40. 28 CFR §36.301(c) (1998).
41. 42 USC §§4151-4157 (1994).
42. 29 USC §§701-797 (1985 and Supp 1998).
43. American With Disabilities Act, 42 USC §12182(b)(2)(A)(iv) (1995).
44. 28 CFR §36.304(b) (1997).
45. 28 CFR §36.401(a) (1998).
46. 28 CFR §36.403(a) (1998).
47. 28 CFR §36.306 (1998).
48. Perry LG. Questions and answers on ADA compliance for medical buildings. *HealthSpan.* 1994;11:25-27.
49. Proposed section 28 CFR 36.309.
50. 28 CFR §36.302(b)(2) (1998).
51. 28 CFR §36.208(a)(b) (1998).
52. 28 CFR §36.208(b) (1998).
53. Parry JW. Public accommodations under the Americans With Disabilities Act: nondiscrimination on the basis of disability. *Ment Phys Disabil Law Rep.* 1992; 16:92-99.
54. 28 CFR 303(f) (1998).
55. Nosek MA, Young ME, Rintala DH, Howland CA, Foley CC, Bennett JL. Barriers to reproductive health maintenance among women with physical disabilities. *J Womens Health.* 1995;4:505-518.

Clinical Pearl

How Many Neuroimaging Studies in Stroke?

The number of MRIs or CTs was not related to hospital outcome for acute stroke. Serial studies were useful in determining an etiology for those originally listed as unknown cause, and changed the classification of 20% listed as known cause. (*Ann Intern Med.* 1996;124:21-26.)