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Report to the Chairman, Subcommittee on Health for Families and the Uninsured, Committee on Finance, U.S. Senate

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EMERGENCY DEPARTMENTS

Unevenly Affected by Growth and Change in Patient Use

GAO/HRD-93-4

GAO

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Human Resources Division

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The Honorable Donald W. Riegle, Jr.
Chairman, Subcommittee on Health for
Families and the Uninsured
Committee on Finance
United States Senate

Dear Mr. Chairman:

In response to your request, we have prepared this report, which discusses conditions concerning access to and use of hospital emergency departments nationwide. It provides information on changes in patient use, the different payment sources for their care, and timeliness of providing care in emergency departments.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days from its issue date. At that time, we will send copies to interested committees; the Director, Office of Management and Budget; and the Secretary, Department of Health and Human Services. We are also making copies available to others on request.

Please call me on (202) 512-7119 if you or your staff have any questions concerning the report. Other major contributors are listed in appendix IV.

Sincerely yours,

Mark V. Nadel

Mark V. Nadel
Associate Director, National and
Public Health Issues

Executive Summary

Purpose

Recent studies and reports in the news media have raised concern about crowded conditions and long waits for medical care in hospital emergency departments (EDs). A 1988 study by the National Association of Public Hospitals and The Council of Teaching Hospitals, for example, found that many hospitals in urban areas reported excessive waiting times for inpatient beds;[1] news stories have had headlines such as "Emergency Departments on the Brink of Crisis" and "National Alert: Gridlock in the Emergency Department," but most of these stories have been based on local ED conditions. Comprehensive study data, however, to adequately assess conditions in emergency departments nationwide, have been unavailable.

To determine the extent to which certain problem conditions are prevalent across emergency departments nationwide, the Chairman, Subcommittee on Health for Families and the Uninsured, Senate Committee on Finance, asked GAO to develop nationwide data on factors that affect ED use and access. In response to this request, this report focuses on (1) changes in patient use of EDs, (2) the different sources of payment for ED services, and (3) ED timeliness in providing patient care.

Background

Emergency medicine is a specialty designed to evaluate, stabilize, and treat illnesses and injuries that need immediate attention. In 1990, nationwide, each of about 5,300 general medical hospitals provided emergency care, mostly through an emergency unit or emergency department. An ED is a hospital unit designated to provide unscheduled outpatient services to patients who need immediate medical care. Care provided in this setting can be costly because EDs are equipped with expensive specialized equipment and have specially trained staff available 24 hours a day. EDs are dispersed throughout the United States. As of 1990, 47 percent of EDs were located in rural areas, 28 percent in small urban areas, and 25 percent in large urban areas.[2] More than three-fourths of patient visits were in urban area EDs, although about one-half of the EDs were in rural areas.

Patients with a wide range of illnesses and injuries, some serious and others not so serious, either walk in or are brought to EDs; here, their

[1]Dennis Andrulis, Ph.D., M.P.H., and others, "Emergency Departments and Crowding in U.S. Teaching Hospitals," Annals of Emergency Medicine, Vol. 20, No. 9 (Sept. 1991), pp. 980-86.

[2]The Health Care Financing Administration classifies (1) rural areas as nonmetropolitan statistical areas, (2) small urban areas as metropolitan statistical areas with fewer than 1 million inhabitants, and (3) large urban areas as those with more than 1 million inhabitants.

illness or injury condition is assessed and prioritized according to one of three categories: (1) emergent—an illness or injury that could be life- or limb-threatening and needs immediate attention, (2) urgent—an illness or injury that is not life- or limb-threatening but is time-sensitive and needs prompt medical care, and (3) nonurgent—an illness or injury that is neither life- or limb-threatening nor time-sensitive.

For this study, GAO surveyed a nationally representative, stratified random sample of 1,025 nonfederal general medical adult and children's hospitals. These hospitals provide emergency services in the 50 states and the District of Columbia. GAO used a questionnaire to collect data on hospital officials' views of ED conditions from 1985 through 1990. The data reported are mostly opinions. To obtain additional information on ED conditions and use, GAO also visited 21 hospitals in large urban, small urban, and rural areas. GAO discussed its work with representatives of health and hospital-related organizations such as the American Hospital Association; American College of Emergency Physicians; National Public Health and Hospital Institute, which is a research affiliate of the National Association of Public Hospitals; Emergency Nurses Association; and the Joint Commission on Accreditation of Healthcare Organizations. GAO also discussed its work with other experts in health care.

Results in Brief

Nationwide, from 1985 through 1990, ED patient caseloads grew dramatically. Nearly 85 percent of hospitals reported an increased use of EDs by patients with nonurgent conditions. In 1990, more than 40 percent of ED patients had illnesses or injuries categorized as nonurgent conditions. The largest increases in ED visits were by Medicaid patients, who traditionally have high rates of ED use for nonurgent conditions. Most hospitals also reported that nonurgent use by uninsured patients contributed to ED caseload growth over the 6-year period.

Growth in ED use was concentrated among patients whose medical care is often not fully reimbursed, such as Medicaid in some states, and the uninsured. The mix of patients' insurance coverage, which is a key determinant of hospital reimbursement and patient revenue, shifted from 1985 to 1990 to encompass relatively more Medicaid, Medicare, and uninsured patients. At the same time, there was little, if any, growth in ED visits by patients with private insurance that often reimburses at or above costs (see pp. 23-24). This disproportionate growth may make it more difficult for hospitals to absorb or offset losses due to unreimbursed ED patient care costs.

Nationwide patterns of caseload growth, payer mix, and timeliness of care conceal substantial variations in ED conditions among hospitals. These variations are not explained by hospital size or location. Even hospitals within the same community can experience divergent conditions. GAO observed some appreciable variations in ED conditions by community size. For example, EDs in urban areas were the most likely to have patients waiting a long time for medical care (see pp. 30-31). Furthermore, there was the greatest likelihood for these EDs to have a larger share of uninsured patients and increased visits because of growing numbers of patients with conditions related to acquired immunodeficiency syndrome (AIDS), alcohol, illegal drug use, and violence. In rural EDs, in contrast, patients were least likely to wait long to receive medical care. In addition, rural EDs had the highest percentage of Medicare patients in their payer mixes.

Principal Findings

Growth in ED Use Attributed Most to Uninsured, Elderly, and More Seriously Ill Patients

From 1985 through 1990, visits to EDs increased nationwide by more than 19 percent, from about 84 million to more than 99 million. In comparison, over the same time period, total hospital admissions decreased by 7 percent and patient visits to physicians' offices increased about 11 percent. The factors driving up ED use that were most often cited by all hospitals include the number of people without health insurance, a rise in the number of the elderly using ED services, and an increase in people with more serious illnesses. In most urban communities, hospitals also frequently mentioned AIDS, violence, and alcohol and illegal drug use as factors contributing to the increase in ED use (see ch. 2).

A majority of hospital EDs (86 percent) reported seeing more patients in 1990 relative to 1985, but the rates of increase were more pronounced in rural areas, about 27 percent, and in smaller hospitals, about 30 percent. The slowest growth, about 11 percent, was in large urban areas.

A Large Number of ED Patients Had Nonurgent Conditions; Many Had No Primary Health Care Provider

Nationwide, in 1990, the majority of ED patients (57 percent) had an illness or injury condition that was either emergent or urgent. A large number of ED patients, about 43 million (43 percent), however, had illnesses or injuries that were less serious and probably could have been treated in a less expensive setting, if available, than an ED. Most of these patients

(88 percent) went to EDs even though there were alternative sources of nonurgent care in the community.

Several access barriers to alternative care providers discouraged use of these less expensive services. Lack of a primary care provider was the reason EDs gave for more than 40 percent of nonurgent ED use in 1990, even though alternative care was available in the community. In addition, about 37 percent of patients without a primary care provider were uninsured or enrolled in the Medicaid program and unable to find a provider willing to treat them (see pp. 21-22). Some Medicaid beneficiaries find it difficult to pursue alternative care, a Health and Human Services inspector general's report noted, because of transportation problems.[3] Further, some Medicaid patients may seek care in EDs because many primary health care physicians choose not to actively participate in the Medicaid program. In many rural communities, nonurgent patients who had a primary care provider frequently used an ED as a source of after-hours care.

Growth in ED Use Concentrated Among Government Payers and the Uninsured

Nationwide, hospitals reported that from 1985 through 1990, their EDs had large increases in Medicaid (34 percent) and Medicare (29 percent) patient visits; uninsured patient visits increased 15 percent and commercially insured patient visits increased 11 percent (see p. 23). Commercial insurers' payments to hospitals, unlike some of the other payers, generally cover or are above the cost of providing emergency care. Hospitals rely on above-cost reimbursements to offset losses from below-cost payers, such as Medicaid in some states, and the uninsured. Hospitals could face a greater burden of uncompensated care if ED use by the commercially insured continues to grow at a slower rate than that of other patients.

Most ED Patients Received Timely Physician Examinations

Nationwide, in 1990, most ED patients (89 percent) received timely physician examination, regardless of the severity of the injury or illness. Delays were reported by about 56 percent of the hospitals. Patients with less serious conditions, on average, waited longer than patients with life- or limb-threatening emergent conditions. Using a 30-minute wait for patients with emergent conditions and a 2-hour wait for those with urgent and nonurgent conditions as an indicator of timeliness, 7 percent of emergent patients and 12 percent of urgent and nonurgent patients had to wait a long time for medical care. ED officials pointed out, however, that

[3]Use of Emergency Rooms by Medicaid Recipients, U.S. Department of Health and Human Services, Office of Inspector General (Mar. 1992).

no matter how timely the examination, any wait for care can seem excessive for patients who are in pain or discomfort.

ED Delays More Prevalent in Urban Areas and Large Hospitals

ED delays were most common in urban areas—where, nationally, most ED patients are seen—and hospitals with 300 or more beds. About 70 percent of urban EDs and nearly 75 percent of EDs in large hospitals reported delays before some ED patients were examined by a physician. Further, more than half of EDs in urban hospitals and 74 percent of EDs in large hospitals reported delays in transferring some admitted ED patients to an inpatient hospital bed. In 1990, nearly one in four urban ED patients needing an inpatient bed waited 4 or more hours. In contrast, about 9 percent of rural hospitals reported delays in transferring about 3 percent of their patients (see ch. 4).

Many hospitals that reported ED delays also had other conditions in common—which included an increasing number of patient visits related to AIDS, alcohol and illegal drug use, and violence, as well as higher percentages of uninsured patients. Another condition shared among these hospitals was that many were not able to fully staff their EDs with nurses. In addition, these hospitals were more likely to be located in the nation's biggest cities.

Recommendations

GAO is making no recommendations.

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Abbreviations

AIDS	acquired immunodeficiency syndrome
COBRA	Consolidated Omnibus Budget Reconciliation Act
ED	emergency department
HMO	health maintenance organization
ICU	intensive care unit

Introduction

Each year, millions of people seek care in emergency departments (EDs) throughout the United States. Increases in ED use have raised concern about access to emergency care. An ED is a hospital facility set up to evaluate and stabilize patients' conditions and to provide unscheduled treatment for those who need immediate care. The media have reported seriously ill or injured people lying on gurneys in EDs too crowded to provide prompt care and ambulances searching for an ED with the capacity to accept another injured person. In addition, there is concern about whether the growth in use of EDs has come from people with primary medical care needs but with limited resources to pay for the care. Much of the reported data highlight conditions in some EDs, but do not provide a perspective on conditions in EDs nationwide.

Because of concern about emergency departments and access to emergency care for people who need it, the Chairman, Subcommittee on Health for Families and the Uninsured, Senate Committee on Finance, requested that we develop nationwide information on ED use and access. We focused our work on (1) changes in patient use of EDs, (2) the different sources of payment for ED services, and (3) timeliness of care EDs provide.

Patients Prioritized by Severity of Condition

Emergency medicine was formally established during the 1970s as a specialty to evaluate, stabilize, and treat illnesses and injuries that require immediate care. Consequently, almost all EDs are set up to receive patients with a wide range of illnesses and injuries 24 hours a day. Conditions treated range from life-threatening emergencies, such as cardiac arrest, to those requiring little treatment, such as colds and some lacerations. Patients need no prior appointment and are initially treated on an outpatient basis. Almost all patients either walk in or are brought to the ED by emergency medical system personnel, such as paramedics and emergency technicians.

To ensure that the most seriously ill or injured patients receive care first, most EDs have adopted a system of prioritizing patients by the severity of the illness or injury relative to that of other patients who are waiting for medical care, regardless of the order of arrival. During this process, known as triage, patients are screened by trained personnel and their conditions designated as either emergent, urgent, or nonurgent. Emergent conditions are illnesses or injuries that could be life- or limb-threatening and require immediate attention. Urgent conditions are not life- or limb-threatening, but are time-sensitive and need prompt medical attention, for example, a broken bone or injury that requires sutures.

Nonurgent conditions are neither life- or limb-threatening nor time-sensitive.

After triage, patients often wait in the ED lounge or waiting area for physician examination and treatment, which is conducted in areas separate from waiting patients. If hospital admission is necessary after examination, patients wait on an ED bed for transfer to an inpatient hospital bed. The total time spent in the ED can be quite lengthy if patients are delayed as they progress from triage to examination to treatment and, if necessary, admission. In this report, we focus on the elapsed time (1) between triage and examination and (2) between when hospital admission orders are written and actual transfer to an inpatient bed. The delays discussed in this report do not measure the time during treatment and, therefore, do not estimate patients' total visit length.

Federal Legislation Requires That EDs Examine All Patients

In the mid-1980s, the Congress sought to ensure Americans access to emergency care, regardless of ability to pay, by enacting section 9121 of the Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 (P.L. 99-272). This legislation requires that hospitals with EDs participating in the Medicare program and capable of doing so assess and, if necessary, stabilize the condition of all who come to an ED requesting medical care. Because this can only be done through screening examination, hospitals must examine every patient who enters their doors for examination or treatment of a medical condition. Hospitals failing to comply with COBRA requirements are subject to federal sanctions.

Because EDs at hospitals participating in the Medicare program cannot refuse to examine people who request care, including those without ability to pay, many patients who face financial or other barriers to care use EDs as their primary health care provider. Medical care provided to patients without any health insurance and to those whose care is not fully covered by Medicaid or other payers may result in losses or uncompensated costs to the hospital. [1]

[1]Some emergency physicians are also subject to uncompensated costs for treating patients whose medical care costs are not fully reimbursed. However, in this report we restrict our discussion to ED payer mix and its relationship to hospitals' financial condition.

Many EDs Are in Rural Areas; Most Patient Visits Are in Urban Areas and Larger Hospitals

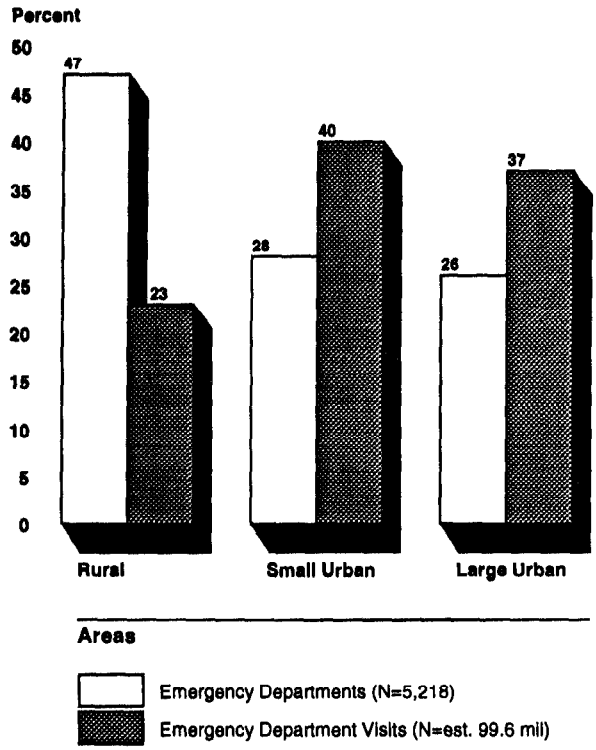
Emergency medical care is provided by about 5,300 adult and children's general medical hospitals dispersed throughout the United States; most of these hospitals have separate EDs. In 1990, about one-half (47 percent) of EDs were located in rural areas, 26 percent in large urban areas, and the remainder in small urban areas [2] (28 percent) (see fig. 1.1). Despite the large number of rural EDs, most visits to EDs in 1990 were to hospitals in urban areas. In 1990, of an estimated 99 million total ED visits, [3] about 37 million were to EDs in large urban areas, 39 million were to EDs in small urban areas, and 23 million [4] were to rural area EDs.

[2]The Health Care Financing Administration classifies (1) rural areas as nonmetropolitan statistical areas, (2) small urban areas as metropolitan statistical areas with fewer than 1 million inhabitants, and (3) large urban areas as those with more than 1 million inhabitants. Sampling errors associated with these estimates do not exceed plus or minus 7 percentage points.

[3]Our estimate is based on the number of 1990 emergency department visits reported by 678 hospitals weighted to the adjusted universe of 5,218 nonfederal general medical adult and children's hospitals.

[4]Estimate has a 13 percentage point sampling error.

Figure 1.1: Most ED Patient Visits Were in Urban Hospitals (1990)

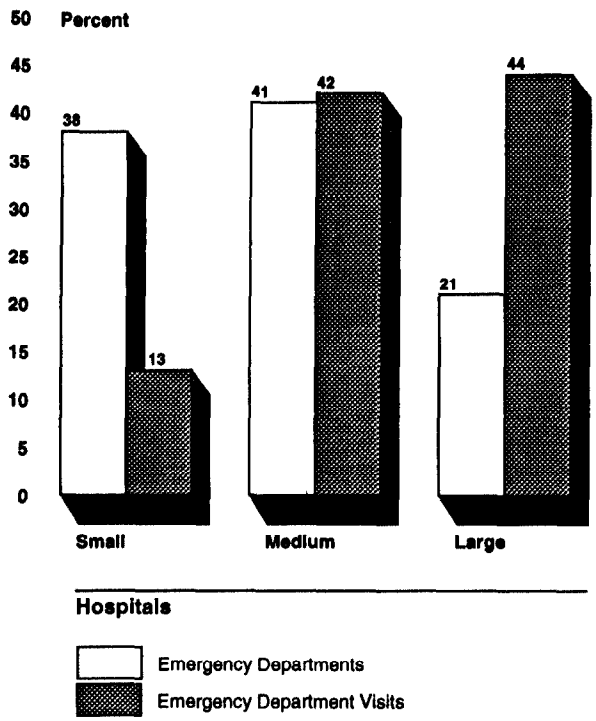


Note: Percentages do not add to 100 due to rounding.

Hospitals with EDs range in size from only a few beds to more than a thousand. About one in three hospitals is small, with fewer than 100 beds, and located primarily in rural areas. Medium-sized hospitals providing emergency services, those with between 100 and 299 beds, represent about 40 percent of all hospitals; these hospitals are evenly distributed throughout rural, small urban, and large urban areas. The nation's largest hospitals, those with 300 or more beds, account for approximately 20 percent of all EDs. These hospitals are found primarily in urban areas. In 1990, most visits to EDs were in the larger hospitals. About 44 million visits (44 percent) were to hospitals with 300 or more beds, nearly 42 million (42 percent) were to hospitals with 100 to 299 beds, and the remaining 13 million visits [5] (13 percent) were to small hospitals with fewer than 100 beds (see fig. 1.2).

[5]Estimate has a 12 percentage point sampling error.

Figure 1.2: Most ED Patient Visits Were to Medium and Large Hospitals (1990)



Notes: (1) Hospital size: Small = fewer than 100 beds; Medium size = 100 to 299 beds; Large = 300 or more beds. (2) Percentages do not add to 100 due to rounding.

Objectives, Scope, and Methodology

The Chairman, Subcommittee on Health for Families and the Uninsured, Senate Committee on Finance, asked us to develop nationwide data on factors that affect emergency department use and access. Our objectives were to determine (1) changes in patient use of EDs, (2) the different sources of payment for ED services, and (3) timeliness of care EDs provide.

To obtain these data, we surveyed a nationally representative, stratified random sample of 1,025 of the estimated 5,218 hospitals with EDs (see app. I). Our analysis is based on 689 valid responses to our survey. Our questionnaire covered the period from 1985 through 1990, and included both hospital officials' perceptions and some patient visit, as well as financial, data from hospital records (see app. II).

We did not independently verify the accuracy of data provided by hospitals. Many of our survey questions asked for officials' impressions

based on their ED experience. The extent to which these data on reasons for ED use and caseload changes, acuteness of patient illness, and waiting times reflect true ED conditions depends on the accuracy of officials' perceptions. We checked each returned questionnaire for completeness, consistency, and mathematical errors. Confusing or incomplete responses were clarified with the responding official through follow-up telephone calls.

We also did a nonresponse analysis and concluded that our respondents were representative of the nation (see app. III). The statistics we cite, based on the survey, therefore, are estimates of the extent or occurrence of a characteristic within EDs nationwide. We calculated sampling error estimates from the survey at the 95-percent confidence level. Unless otherwise noted, the confidence interval of any estimated percentage or proportion included in this report does not exceed + or - 7 percentage points.

In addition, we interviewed hospital officials and toured 21 EDs in rural, small urban, and large urban communities located in seven states: Georgia, Illinois, Michigan, Montana, New York, Texas, and Wyoming. We obtained anecdotal and descriptive information to supplement the questionnaire; many respondents also provided detailed examples and statements with their survey responses. In addition, we met with officials from the American College of Emergency Physicians; the American Hospital Association; the Emergency Nurses Association; the Joint Commission on Accreditation of Healthcare Organizations; and the National Public Health and Hospital Institute, a research affiliate of the National Association of Public Hospitals.

We conducted our work between March 1991 and September 1992 in accordance with generally accepted government auditing standards.

The Uninsured, the Elderly, and Those With Nonurgent Conditions Often Cited as Contributors to Significant Growth in Emergency Department Use

From 1985 through 1990, patient visits to EDs nationwide rose by about 19 percent (from about 84 to 99.6 million), while total hospital admissions declined by 7 percent. The growth in ED visits exceeded the growth in visits to physicians' offices by about 8 percentage points. Rural and small urban areas, as well as small hospitals, had the greatest increases in ED use. The growth in ED use was most often attributed to the number of people without health insurance, the increase in more serious illnesses, and the elderly's growing use of emergency services. In addition, in 1990, a large portion of ED visits (43 percent) was made by those with nonurgent conditions, that is, those with an injury or illness that was neither life- or limb-threatening nor time-sensitive.

Growth in ED Visits Higher in Rural Areas and Small Hospitals

From 1985 through 1990, growth in ED visits varied appreciably by location and hospital size. Eighty-six percent of EDs reported seeing more patients in 1990 compared with 1985, but the rates of increase were more pronounced in rural and small urban areas and small hospitals, relative to large urban areas and larger hospitals. Among the nation's smallest hospitals—those with fewer than 100 beds and located predominantly in rural areas—for example, ED visits rose by about 30 percent compared with 16 percent for hospitals with 300 or more beds (see table 2.1). In addition, EDs in large urban areas experienced slower growth in visits than the nation as a whole.

Table 2.1: ED Visit Growth Greatest in Rural and Small Urban Areas and Small Hospitals (1985-90)

Hospital characteristic	Visit growth rate
All hospitals	19%
Community size:	
Rural	27
Small urban	24
Large urban	11
Hospital size:	
Fewer than 100 beds	30
100-299 beds	20
300 or more beds	16

Uninsured, Elderly, and the Seriously Ill Increased ED Visits in Most Hospitals

The most commonly cited factors contributing to the increase in visits, from 1985 to 1991, were the number of people without health insurance, especially those seeking nonurgent care; the elderly's growing use of emergency services; and the increasing prevalence of more serious illnesses. The majority of hospitals reported these three factors increased their ED caseloads (see table 2.2). During this same time period, the number of visits by uninsured ED patients grew almost 15 percent and by Medicare recipients, almost 29 percent.

Table 2.2: Uninsured, Elderly, and Illness Severity Cited Most Often by Hospitals as Factors Increasing ED Visits (1985-90)

Factor increasing ED visits	Percent of hospitals reporting
Uninsured people seeking nonurgent health care	81
People who are 65 years or older	80
People without health insurance	79
Severity of illness	79
People who do not have a regular physician	71
People who are unemployed	67
Alcohol-related illness or injuries	64
Violence-related injuries	63
Illegal drug-related medical problems	61
Insured people seeking nonurgent care	54
AIDS-related illnesses	51

Alcohol, Illegal Drugs, Violence, and AIDS Growth Factors for ED Visits in Large and Urban Hospitals

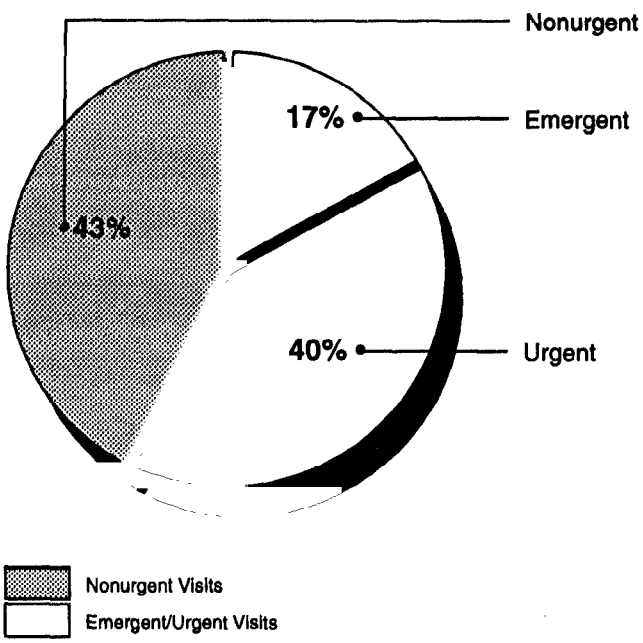
EDs of large hospitals and in urban areas were more likely to report that their ED caseloads increased because of patients with illnesses or injuries related to alcohol, illegal drugs, violence, and AIDS. Illnesses and injuries related to the use of illegal drugs or alcohol increased ED visits from 1985 through 1990, three-fourths of all hospitals with 300 or more beds and nearly as many in urban areas reported. Increases due to violent injuries, which are sometimes associated with alcohol and drug use, were also reported by most of these hospitals. AIDS-related illnesses were another key factor increasing ED visits in large urban areas and large hospitals. More than three-fourths (77 percent) of hospitals in large urban areas, for example, had more AIDS-related ED visits in 1990 than in 1985.

Many ED Visits Were for Nonurgent Conditions

A large proportion of ED visits were by patients with conditions that did not require immediate care, hospital officials reported. Of the nearly 100 million ED visits in 1990, about 43 percent were assessed as nonurgent conditions, those that were not life- or limb-threatening or did not require

immediate care, and probably could have been treated in a doctor's office or clinic. About 17 percent were life- or limb-threatening and assessed as emergent. [1] The remaining 40 percent of visits were for time-sensitive, urgent conditions (see fig. 2.1). Some patients with nonurgent conditions do not know, before going to an ED, that they do not require immediate care. It is usually during triage at an ED that the urgency of a patient's injury or illness condition is assessed by trained ED medical staff.

Figure 2.1: Many ED Visits Were for Nonurgent Conditions (1990)



Note: Estimated number of visits = 99.6 million.

The proportions of nonurgent ED visits varied by hospital size and location. Rural and small hospitals were more likely to report high proportions of nonurgent visits than were large hospitals and those in large urban areas. Many rural EDs (42 percent) classified more than one-half of their patient caseload as nonurgent visits. As much as 93 percent of their ED visits were for nonurgent conditions, some rural hospitals reported.

[1]Estimate has an 8 percentage point sampling error.

Treating patients with nonurgent conditions in an ED can be costly compared with treatment in a clinic or physician's office—settings that are more conducive to providing primary health care. Generally, treatment for nonurgent conditions in an ED setting is more costly because of the hospital's costs for acquiring and maintaining (1) expensive specialized equipment used in the ED and (2) highly trained ED staff for 24 hours a day. A 1992 report on nine states, [2] for example, found that the average charges for treatment of a nonurgent condition in an ED were from one to five times the average charge for a Medicaid visit to a clinic or physician's office in the community. In addition, because EDs are not designed to provide on-going primary health care, the likelihood of continuity of health care is reduced for nonurgent ED patients.

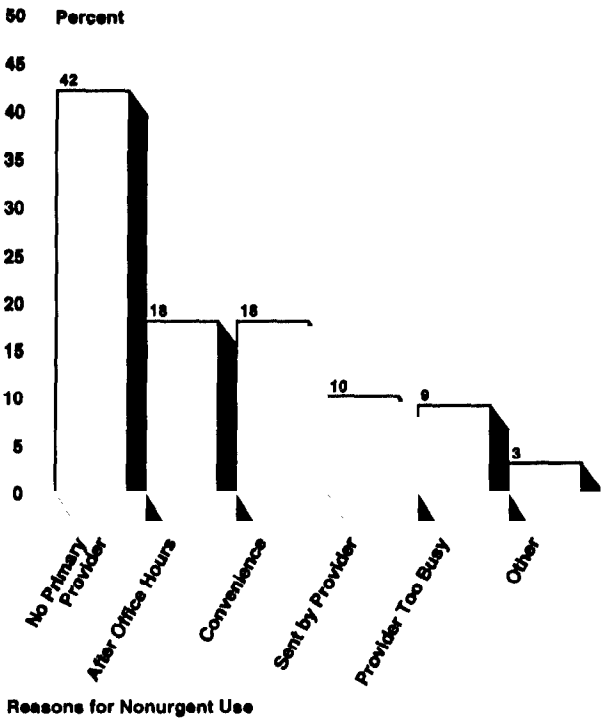
Many Patients With Nonurgent Conditions Lacked a Primary Care Provider

People with nonurgent conditions often seek care in EDs because alternatives might be inaccessible when they want or need care. About 82 percent of hospitals reported that alternative sources of nonurgent care were located in the community. [3] The most frequent reason given for the large nonurgent ED use, however, was that patients did not have a primary health care provider (see fig. 2.2). In 1990, of the 38 million nonurgent ED patient visits, about 42 percent (15 million) did not have a primary health care provider. About 6 million of these patients were unable to find primary care providers willing to treat them because the patients were either uninsured or their medical care costs were covered under a government-assisted program such as Medicaid, hospitals reported.

[2]Use of Emergency Rooms by Medicaid Recipients, U.S. Department of Health and Human Services, Office of Inspector General (Mar. 1992).

[3]Data based on the number of hospitals reporting that other sources of nonurgent care were in their service area. Overall, 88 percent (38 million) of total nonurgent ED visits were made in these communities.

Figure 2.2: Lack of Primary Health Care Provider Leading Reason for ED Nonurgent Use (1990)



When people, particularly the uninsured and those on government-assisted programs, do not have a primary health care provider, they frequently use EDs as their primary source of health care. In the Department of Health and Human Services inspector general's report, for example, one-half to two-thirds of Medicaid ED patient visits could have been made to clinics or physicians' private offices. Access to primary health care was restricted for many of these patients for a variety of reasons, including no transportation and conflicts with work schedules. In addition, some Medicaid patients may seek care in EDs because many primary health care physicians choose not to actively participate in the Medicaid program.

Some patients with nonurgent conditions, about 36 percent, sought care in an ED after their physicians' offices or clinics had closed for the day or because it was otherwise convenient to do so. ED use after-hours was most common in rural hospitals. Patients in rural areas more often have fewer health care alternatives than those in urban areas. For rural hospitals, 1 in 4 reported that the ED was the only source of nonurgent care in their service area, as compared with about 1 in 10 urban hospitals.

Increased ED Use by Medicaid, Medicare, and Uninsured Patients May Be Problematic

From 1985 through 1990, ED visits by patients enrolled in the Medicaid and Medicare programs increased more than for those of any other payer group. This increase placed Medicaid and Medicare among the largest payer sources for ED visits in 1990. Combined, ED visits for the two programs about equalled commercially insured emergency visits. The percentage of Medicare and uninsured ED patient visits differed by community size. EDs in large urban areas had high percentages of uninsured ED patient visits. Medicare patient visits, however, were dominant in rural areas. The form of patients' health care coverage, if any, is a key determinant of the level of reimbursement a hospital will receive for the care it provides. The Medicaid program in some states and uninsured patients generally do not reimburse the full costs of emergency care provided. Our survey results showed that hospital officials are most likely to believe that no compensation by uninsured ED patients has the most negative effect on the hospitals' financial condition; the next most negative effect reported is less than full compensation for care of ED patients covered by the Medicaid and Medicare programs.

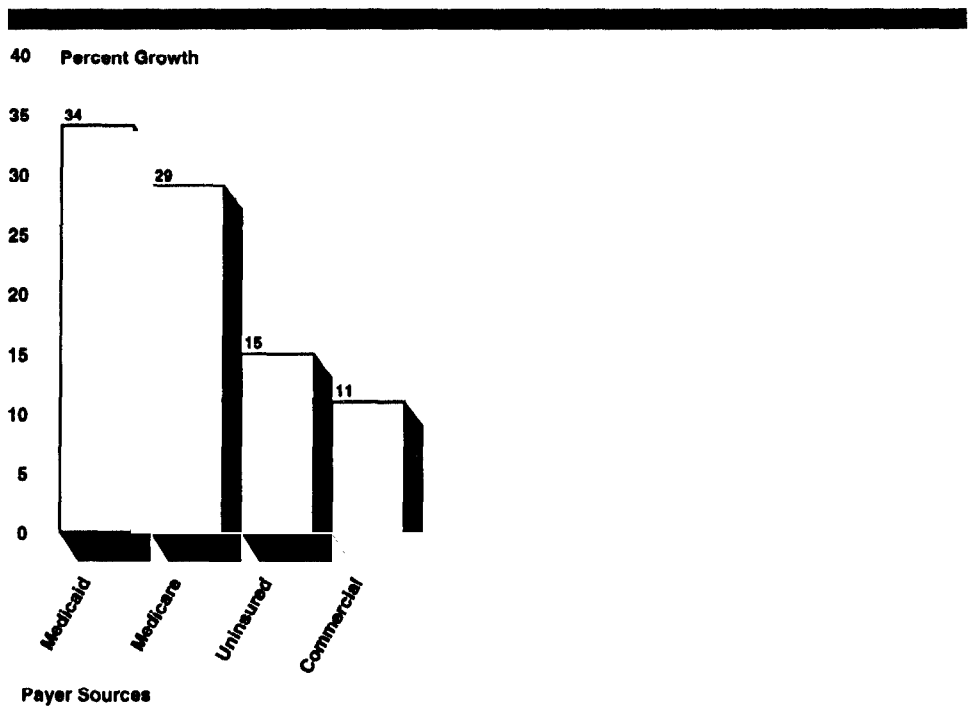
Growth in ED Visits Concentrated Among Patients in the Medicaid and Medicare Programs and the Uninsured

Growth in ED visits, nationwide, was highest for the public program payers, exceeding the national average by 10 or more percentage points. From 1985 through 1990, compared with a 19 percent growth in all ED visits, Medicaid patient visits increased 34 percent, [1] more than any other payer group. Medicare patient visits increased 29 percent, while uninsured visits rose 15 percent. [2] In contrast, commercially insured patient visits rose 11 percent (see fig. 3.1).

[1]Estimate has a 10 percentage point sampling error.

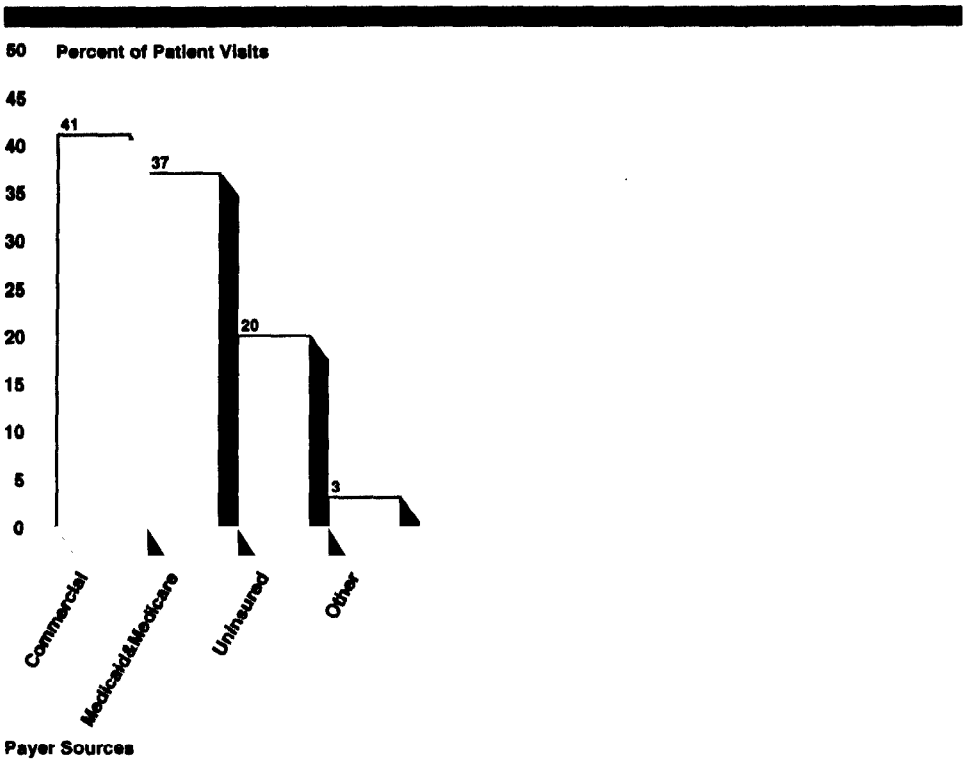
[2]Estimate has a 9 percentage point sampling error.

Figure 3.1: Growth in ED Use Was Greatest Among Medicaid and Medicare Patients (1985-90)



In 1990, the public programs' share of ED patient visits almost equaled that of those privately insured. Patients enrolled in the Medicaid and Medicare programs represented about 37 percent of ED patient volume, and the commercially insured patients represented about 41 percent (see fig. 3.2.). Combined, Medicaid, Medicare, and uninsured patients represented the largest share (about 57 percent) of all 1990 ED visits.

Figure 3.2: Publicly Insured Patient Visits Nearly Equaled Commercially Insured (1990)



Note: Percentages do not add to 100 due to rounding.

If ED use by Medicaid program enrollees and the uninsured continues to grow at a faster rate than use by the commercially insured, hospitals could face a greater burden of uncompensated care and a diminished ability to offset their losses. Hospitals have offset some of their losses from below-cost reimbursements by some payers, including Medicaid in some states and the uninsured, through reliance on above-cost reimbursements from commercially insured patients.

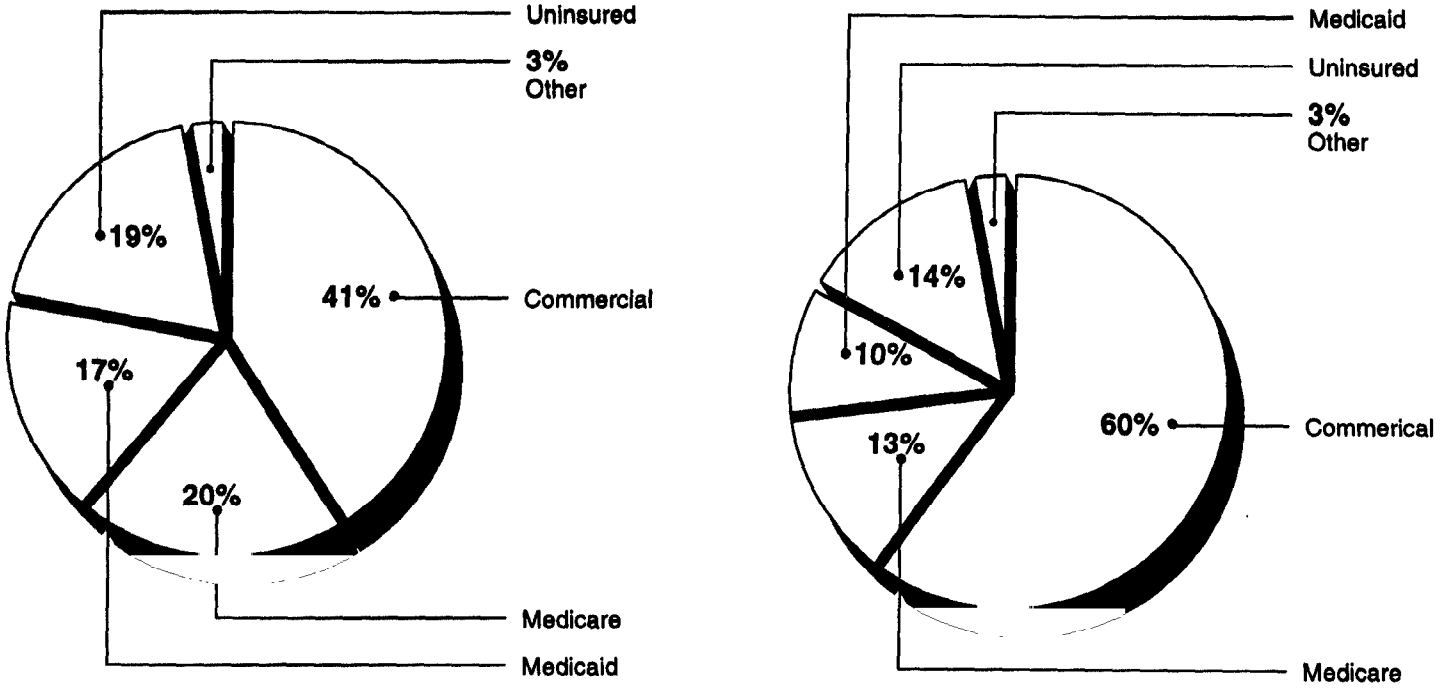
Competition with freestanding urgent care centers is another factor contributing to the slow growth rate of ED use by the commercially insured. The establishment of nonemergency health care facilities, such as urgent care centers in the communities, has reduced the number of commercially insured patients, several hospitals reported. These centers are often open 12 or more hours daily and are equipped to care for less serious conditions. They usually require patients to have insurance or pay

cash up front, however, and are, therefore, not a way of accessing care for many patients with nonurgent conditions who are without means to cover their medical care costs. These centers are not considered Medicare-participating hospitals with EDs and are not covered under COBRA; therefore, urgent care centers are not required to provide care to patients who may not be able to pay. Consequently, hospital EDs serve a growing publicly insured and uninsured nonurgent patient caseload.

EDs Had a Disproportionate Share of Publicly Insured and Uninsured Patients

Hospital EDs have increasingly become a focal point for health care for publicly insured—Medicare and Medicaid—patients and the uninsured. In 1990, ED caseloads included a larger share of publicly insured and uninsured patients than the national distribution of people with Medicare and Medicaid coverage and the uninsured. Nationally, in 1990, about 13 percent of Americans had their health care coverage provided through Medicare and 10 percent through Medicaid. At the same time, Medicare patients represented about 20 percent of ED volume and Medicaid patients represented about 17 percent. Similarly, 14 percent of Americans were without health insurance of any kind in 1990, but they represented more than 19 percent of ED patient volume (see fig. 3.3.)

Figure 3.3: EDs Had a Disproportionate Share of Medicare, Medicaid, and Uninsured Patients (1990)



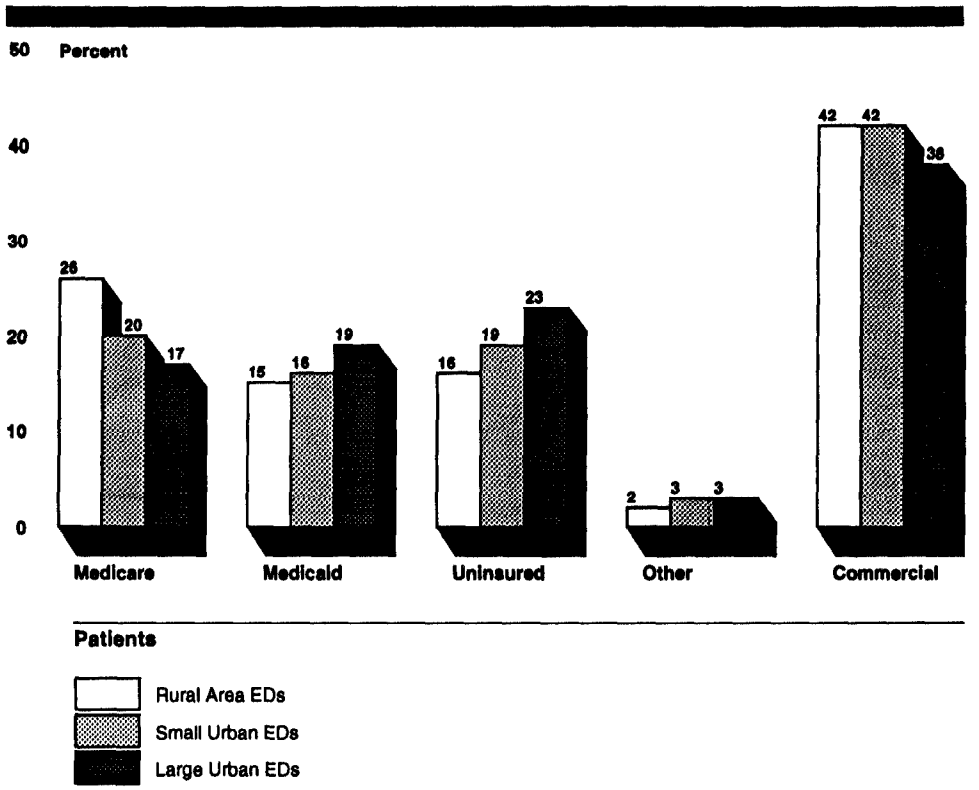
Emergency Department Payer Mix

Americans' Health Insurance Coverage

Urban and Rural Hospitals Have Different Payer Mixes

While patient visits for Medicaid and the uninsured have increased faster than those for above-cost payers in most EDs nationwide, the payer mix differs by type of hospital. Large urban hospitals, for example, reported the largest percentage (23 percent) of uninsured patients in their 1990 ED caseload compared with other hospitals. Rural hospitals, on the other hand, had the highest percentage (26 percent) of Medicare ED patient visits (see fig. 3.4). Reimbursement by Medicaid in some states and the uninsured is usually below the costs of providing emergency care. EDs with a high percentage of uninsured and Medicaid patients in their payer mix are most likely to experience adverse financial effects of uncompensated care.

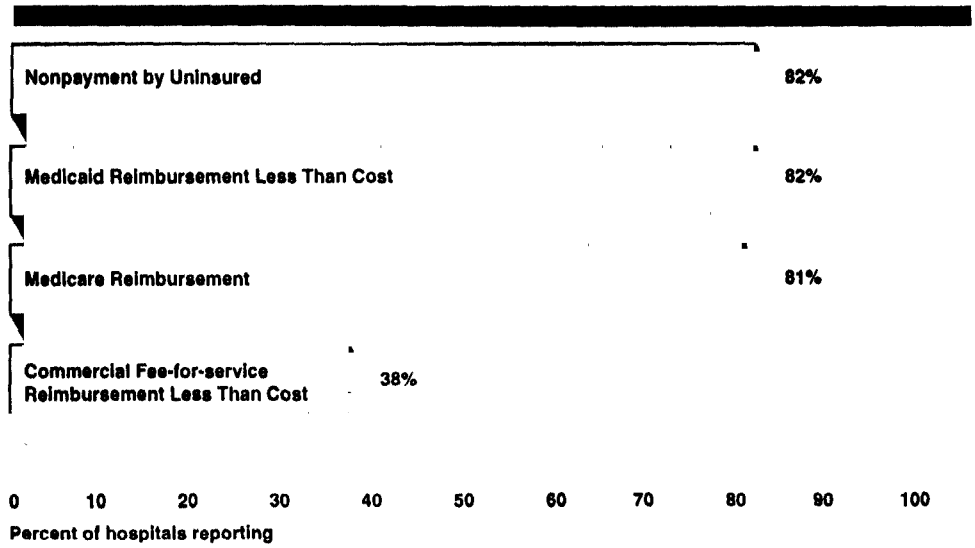
Figure 3.4: Large Urban Area EDs Reported Highest Percentage of Uninsured Patients (1990)



Note: Percentages do not add to 100 due to rounding.

Regardless of community or hospital size, reimbursements by three payers—Medicaid, Medicare, and the uninsured—were seen by a large number of hospitals as adversely affecting their financial condition. Nationwide, 82 percent of hospitals reported, nonpayment by the uninsured and Medicaid reimbursements that were less than cost adversely affected the hospitals' financial ability to provide emergency care. Medicare reimbursements were reported by 81 percent of hospitals as having an adverse financial effect on the provision of emergency care (see fig. 3.5).

Figure 3.5: Hospitals Most Often Reported Three Payers Had an Adverse Impact on the Hospitals' Financial Condition



Long Delays for ED Patients Most Prevalent in Urban Areas

In 1990, hospital EDs nationwide provided most patients prompt physician examinations and most EDs transferred admitted patients to inpatient beds without long delays. Some health care organizations' studies and media reports have noted that in some areas admitted ED patients were waiting in the ED because inpatient beds were unavailable. We found that patients experiencing delays in EDs were most prevalent in urban areas and large hospitals. Few rural hospitals, for example, reported delays in transferring patients to an inpatient bed. In addition, we found that hospitals reporting delays in serving patients were more likely to report other conditions in common. For example, these hospitals often reported that the inability to fully staff their EDs with nurses also made it difficult to provide emergency care. Another characteristic shared by these EDs was that they frequently were located in the nation's biggest cities.

ED Patients Most Likely to Have Delays in Urban Areas and Large Hospitals

In 1990, delays in physician examination and transferring of admitted ED patients to inpatient beds were most pronounced in the nation's urban areas and large hospitals. [1] The majority of ED patients (83 percent) in these hospitals, however, received prompt medical attention. About three-quarters of hospitals in large urban areas and hospitals with 300 or more beds reported physician examination delays. Transfer delays for admitted ED patients were reported by half of urban hospitals and three-quarters of large hospitals. Only about 17 percent of these hospitals' ED patients were delayed for physician examination. In 1990, delays in transferring ED patients to inpatient beds affected about one in four admitted ED patients at large hospitals and hospitals in large urban areas.

Nationwide, about 11 percent of all ED patients getting physician examinations had more than a 30-minute wait for life- or limb-threatening conditions (7 percent) or a 2-hour wait or more for less serious conditions (12 percent); over half of EDs reported having some patients with such waiting times. Fewer hospitals reported delays in transferring admitted ED patients to inpatient beds; these delays, however, affected more patients. In 1990, one in three hospital EDs nationwide reported a delay of 4 hours or more in transferring some admitted ED patients to inpatient beds. Overall, this affected 18 percent of admitted ED patients nationwide (see table 4.1).

[1]There are no established standards for the time within which incoming ED patients should be examined by a physician or admitted ED patients should be transferred from an ED holding bed to an inpatient hospital bed. Therefore, on the basis of discussions with health care organizations and hospital officials, we used the following benchmarks for assessing delays: 30 minutes or more for physician examination of patients with life- or limb-threatening conditions, 2 hours or more for patients with urgent or nonurgent conditions, and 4 hours or more for transferring admitted patients to an inpatient bed.

Table 4.1: Relatively Few Patients Were Delayed for Examination or Transfer to Inpatient Beds Although Many Hospitals Reported Delays (1990)

Numbers in percent

	Delays			
	Examination		Inpatient transfer	
Hospitals	Patients	Hospitals	Patients	Hospitals
Nationwide	11	56	18	32
Location:				
All urban (large and small combined)	13	69	22	52
Large urban	17	74	27	59
Small urban	9	65	17	47
Rural	4	41	3	9
Number of beds:				
Large (300 or more beds)	16	74	28	73
Medium (100 to 299 beds)	8	63	10	35
Small (less than 100 beds)	4	38	1	5

In 1990, urban area hospitals accounted for about one-half of the nation's EDs, but these hospitals provided 76 percent of ED care. These hospitals also were responsible for the majority of patients being delayed for physician examination (91 percent) and transfer to an inpatient bed (97 percent) (see table 4.2).

Table 4.2: Almost All Patients Delayed for Examination or Transfer to Inpatient Beds Were in Urban Area EDs (1990)

	Percent of delayed patients	
Hospital location	Examination	Inpatient transfer
All urban (large and small combined)	**91**	**97**
Large urban (only)	57	59
Small urban (only)	34	38
Rural	9	3

Often, patients waited for care as a result of prioritizing through the triage process. In triaging ED patients, those with more immediate medical needs are examined and treated before other patients with less immediate needs, regardless of when the patient arrived at the ED. For example, 84 percent of the hospitals reported that in at least 50 percent of the cases, delays of patients with nonurgent conditions were due to more seriously ill or injured patients' occupying ED staff and resources. Other reasons for physician examination delays included (1) unavailability of special

equipment to diagnose and evaluate the patient's condition or (2) waiting for the on-call physician to arrive at the ED.

Delays in transferring ED patients to inpatient beds were due half or more of the time to a hospital's not having enough intensive care unit (ICU) beds available, according to 59 percent of the hospitals that reported delays. A contributing factor to the lack of beds was that AIDS patients or the elderly occupied inpatient beds while waiting for transfer to a long-term care facility. Further, about 56 percent of hospitals that reported transfer delays said that some of their admitted ED patients were waiting for laboratory work or X-rays.

Many Hospitals That Reported Delays Were More Likely to Have Other Conditions in Common

Aside from having ED delays in physician examinations and patient transfers to inpatient beds, several other characteristics were common among many of these hospitals. Of hospitals that reported delays in transferring admitted ED patients to inpatient beds, 37 percent said more than 20 percent of their ED patients were without health insurance. From 61 to 72 percent of hospital EDs that reported physician examination delays and 74 to 78 percent of those that reported patient transfer delays also said their ED caseloads increased because of patients with conditions related to alcohol and illegal drug use, violence, and AIDS. In addition, about 40 percent of hospitals with physician examination delays and 46 percent of those with transfer delays reported having difficulty providing ED care because they could not fully staff their EDs with nurses (see tables 4.3 and 4.4).

Table 4.3: Hospital EDs With Physician Examination Delays Are Likely to Have Other Conditions in Common

Attribute	Percent of hospitals with Prompt exams (N=2,296)	Delayed exams[a] (N=2,922)
Increased visits due to:		
Violent acts	51	72
Illegal drugs	51	70
Alcohol use	57	69
AIDS-related illnesses	39	61
Occupancy rate above 60 percent	45	60
Within 5 miles of another hospital	30	48
Some patients were delayed in admission	14	46
Inability to staff ED with nurses	19	39
Located in nation's 25 largest cities	8	20

[a]Defined as a 30-minute wait or more for patients with emergent conditions and a 2-hour wait or more for those with urgent or nonurgent conditions.

Table 4.4: Hospital EDs With Delays in Transferring Admitted ED Patients to Inpatient Beds Are Likely to Have Other Conditions in Common

Attribute	Percent of hospitals with Prompt transfers (N=3,548)	Delayed transfers[a] (N=1,670)
Occupancy rate above 60 percent	39	84
Increased visits due to:		
Illegal drugs	54	78
Violent acts	55	78
AIDS-related illnesses	40	74
Alcohol use	58	74
Requested ambulance diversion[b]	27	65
Staff have great/very great problem managing admitted patients waiting in ED	07	54
Inability to staff ED with nurses	23	46
Caseload more than 20 percent uninsured	24	37
Located in nation's 25 largest cities	08	30
Public hospital	31	14

[a]Defined as a 4-hour wait or more before admitted ED patients are transferred to an inpatient hospital bed.

[b]Ambulance diversion occurs when hospitals request that ambulances temporarily not bring patients to their EDs.

Ambulance Diversion Common Among Urban EDs

Ambulance diversion is an indicator of an ED beyond its capacity to serve more patients. In 1990, 61 percent of urban area hospitals requested, at least once during the year, that ambulances temporarily not bring any more patients to their EDs. Some urban hospital EDs (13 percent) requested diversion more than 100 times. And nearly one-quarter of EDs, nationwide, reported that diversion lasted, on average, 8 hours or more (see table 4.5)

Table 4.5: Many Hospital EDs Requested Ambulance Diversion (1990)

Numbers in percent

Ambulance diversion	Nationwide	Rural	Urban
Requested ambulance diversion	39	14	61
Requested diversion 25 to 100 times	16	0	20
Requested diversion more than 100 times	11	0	13
Diversion lasted more than 8 hours	23	13	25

More than half of the nation's EDs that requested ambulance diversion reported that the frequency with which they diverted ambulances increased from 1985 through 1990. Nearly 61 percent of urban and one-quarter of rural EDs reported an increase in diversion. About 12 percent of urban and 12 percent of rural area EDs reported a decrease in ambulance diversion from 1985 through 1990.

Unavailability of ICU and ED beds was the reason most often cited for diversion in urban areas. In rural areas, hospitals most often reported their EDs were beyond the medical staff's ability to treat any more patients. Broken X-ray equipment or lack of appropriate specialist physicians needed to diagnosis and treat incoming patients were other reasons EDs gave for requesting ambulance diversion (see table 4.6).

Table 4.6: EDs Cited Many Reasons for Ambulance Diversion

Numbers in percent

Reason	Nationwide	Rural	Urban
ED was at or beyond medical staff's ability to treat any more patients	24	40	24
All ICU and ED beds were occupied	45	29	45
All inpatient and ED beds were occupied	22	14	22
Other[a]	9	17	9

[a]Includes reasons such as (1) equipment needed to assess a patient's condition was broken or (2) a certain type of medical specialist needed to assess or treat a patient's condition was not available.

GAO's Survey Methodology

We identified 5,298 hospitals with emergency departments (EDs) in 1989. The hospitals had the following characteristics:

- general medical care,
- adult or children's services,
- nonfederal ownership, and
- location in the 50 states and the District of Columbia.

Questionnaire Development and Pretesting

We designed a questionnaire to obtain information on emergency services provided from 1985 through 1990, including patient volume, acuteness of illness, waiting times, and insurance coverage. We discussed development of this questionnaire with the American College of Emergency Physicians, American Hospital Association, the Emergency Nurses Association, the Joint Commission on Accreditation of Healthcare Organizations, and the National Public Health and Hospital Institute—a research affiliate of the National Association of Public Hospitals.

Before mailing our questionnaire, we pretested it with officials at eight hospitals—three in New York State, three in Wyoming, and two in Texas. These facilities represented a range of large urban, small urban, and rural hospitals, as well as public and private institutions. Results of the pretests indicated that questions, terms, and definitions were generally familiar, clear, and free from confusion. During the face-to-face pretest, officials completed the questionnaire as if they had received it in the mail. Our staff recorded the time necessary to complete the survey and any difficulties the respondents experienced. Once the questionnaire was completed, we used a standardized series of questions to gain feedback on difficulties and questions encountered with each item.

Using the pretest results, we revised the questionnaire to try to ensure that (1) respondents would be able to easily provide the information requested and (2) all questions were relevant, clear, unambiguous, and essentially free of design flaws that could introduce bias or error into the study results.

Sampling

Statistical sampling allows us to draw conclusions about a population on the basis of information from a randomly selected sample of that population. The data used in this report are estimates, therefore, based on a sample of hospitals. Each estimate has a measure of uncertainty, or

sampling error, associated with it because only a portion of the universe was selected for analysis.

Because our goal was to receive sufficient responses to analyze hospitals by location, we chose a stratified, random sampling design. We stratified our sample based on community size, using the Health Care Financing Administration's geographic classification and, within urban areas, by hospital ownership (see table I.1). Hospitals were chosen randomly within each stratum from all facilities included in the American Hospital Association's database of all hospitals in the United States and its territories in 1989. For hospital systems indicating more than one facility with an emergency department, a questionnaire was sent to each site.

Table I.1: GAO Sample of Hospital EDs

	Strata[a]					
	I	II	III	IV	V	Total
Strata size (1989)	2,524	1,235	1,141	390	8	**5,298**
Initial sample size	300	270	270	200	8	**1,048**
Multisite hospitals added	2	8	12	3	0	**25**
Adjusted sample size	302	278	282	203	8	**1,073**
Closed hospitals	6	2	1	3	0	**12**
No ED in 1990	2	8	10	10	6	**36**
Final sample size	294	268	271	190	2	**1,025**
Estimated 1990 strata size	2,474	1,226	1,145	371	2	**5,218**
Valid responses	184	176	188	140	1	**689**

[a]I =all rural hospitals; II=private hospitals, small urban areas; III=private hospitals, large urban areas; IV =public hospitals, all urban areas; and V=hospitals not initially coded as having EDs.

In September, we mailed a questionnaire to the 1,073 hospitals selected. In November, a second mailing was sent to all nonrespondents. We followed up this mailing with telephone calls to all nonresponding hospitals.

Response Rate

Of 1,073 questionnaires mailed, 689 valid surveys were returned. On the basis of our discussions with hospital officials, we adjusted our sample size to 1,025 to exclude hospitals that (1) did not have an ED in 1990 or (2) indicated closure before 1990 (see table I.1). Self-reported data on closure or lack of an ED were not independently verified.

These 689 valid responses resulted in an overall response rate of 67 percent. Comparisons of the respondents with the universe as a whole

did not indicate any meaningful nonresponse bias (see app. III for results of this analysis). The initial and adjusted universe and the number of responses by stratum are shown in table I.1.

Sampling Errors

Sampling errors indicate how much confidence we have that the sample estimate matches the population statistic it measures. We can use sampling errors to form an interval around each estimate, showing where the average result of all possible samples could be expected to fall. Our sample of hospitals with EDs was designed so that we would be 95 percent certain that the sampling errors would be no greater than 5.6 percent for the set of questions we asked. However, the actual sampling error on any question depends on the number of responses to the question and the variance of the response. We computed sampling errors for all estimates used in this report. Unless otherwise noted, sampling errors do not exceed + or - 7 percentage points.

Survey Instrument

In this appendix, our survey instrument and a summary of the responses are presented. Each question includes the weighted nationwide statistic and the unweighted actual number of respondents that answered each question. In each case, we present the format we believe best represents the data, including frequencies, aggregate proportions, medians, and ranges. Because of extreme variation among responses, means are not shown.

U.S. GENERAL ACCOUNTING OFFICE

HOSPITAL EMERGENCY DEPARTMENT QUESTIONNAIRE

Please make corrections,
if any, to the mailing label-------->

<label addressed to hospital CEO>

This questionnaire is part of a study being conducted by the U.S. General Accounting Office (GAO), an agency of the U.S. Congress. GAO has been asked by the Chairman of the Subcommittee on Health for Families and the Uninsured, Senate Finance Committee, and by a Member of the U.S. House of Representatives to gather information on waiting times for evaluation by a physician, waiting times for admission, and the financial conditions of hospitals that provide emergency services.

Your answers will provide valuable information for our report to Congress. Copies of this questionnaire are also being mailed to other hospitals to obtain information on their experiences with waiting times for emergent, urgent, and nonurgent patients, as well as the financial effects of providing emergency services. Your responses to our questions are confidential. They will be combined with those of other respondents and summarized as part of a report to the Congress. Your experience and views are important to us. They will help us and the Congress better understand the problems faced by emergency departments.

Unless otherwise instructed, please answer questions based on calendar year 1990.

Please return your completed questionnaire in the enclosed preaddressed, prepaid envelope within 14 days of receipt. Our return address is

Ms. Dea Crittenden
U.S. GENERAL ACCOUNTING OFFICE
Patrick V. McNamara Federal Building
477 Michigan Avenue, Suite 865
Detroit, Michigan 48226

If you have any questions, please call Dea Crittenden at 313-256-8038.

This questionnaire contains two different types of questions: The first set of questions ask for information about the use of your emergency department; the balance of the questions are about its finances.

Because of the two different types of information, you may wish to have your director of the emergency department complete pages 2 through 24 and have your chief financial officer answer the financial questions on pages 25 through 31. In either event, please give the name, title, and telephone number of one person with whom we should speak if we need to clarify any responses:

Name: _____

Title: _____

Telephone: _____

NOTE: **Please make a copy of your completed questionnaire before mailing it.** This will facilitate any discussions we may have with you should we need to call and clarify your responses.

I. Emergency Department (ED) Use

In this questionnaire, we use the following term:

ED:

We use the current term Emergency Department (ED) to describe what has also been known as the Emergency Room (ER)

1. At any time during calendar year 1990, did your hospital have an emergency department (ED)? *(Check one)* ***(N=689)***

   a. ***100%*** Yes-->GO TO QUESTION 4
   b. ☐ No

2. At any time during calendar years 1985 through 1989, did your hospital have an ED? *(Check one)*

   a. ☐ Yes
   b. ☐ No-->STOP and return this questionnaire

3. In what year did your hospital stop providing an ED? *(Enter year)*

   19____--> *Please complete the balance of this questionnaire based on your experiences during the last 12 months in which your hospital had an ED*

4. During 1990, did your hospital have an ED for the entire year, or part of it? *(Check one)* ***(N=689)***
   a. ***100%*** Entire year-->GO TO QUESTION 6
   b. ☐ Part of the year

5. During which months of 1990 did your hospital have an ED? *(Enter months)*

   _____

6. During 1990, was your ED open 24 hours a day? *(Check one)* ***(N=688)***
   a. ***99.9%*** Yes
   b. ***0.1%*** No-->When was your ED open? *(Indicate a.m. or p.m.)*

      Weekdays: From _____ To _____

      Weekends: From _____ To _____

7. How many miles or part of a mile is the next nearest hospital to your ED? *(Enter number)* ***(N=686)***
   0-100 miles

8. Which of the following best describes who managed your hospital's ED during 1990? *(Check one)* ***(N=687)***

   a. ***94%*** This hospital or its parent corporation
   b. ***0%*** Another, but unaffiliated, hospital
   c. ***5%*** A nonhospital organization through subcontract *(Please provide the organization's name, below:)*

      _____

   d. ***1%*** Other *(Please explain)*

      _____

9. For years 1985 through 1990, how many emergency visits did your ED triage? *(Enter number)*

   369-254,801 emergency visits in 1985 ***(N=575)***
   320-266,391 emergency visits in 1986 ***(N=599)***
   308-251,432 emergency visits in 1987 ***(N=628)***
   267-259,315 emergency visits in 1988 ***(N=650)***
   271-259,234 emergency visits in 1989 ***(N=662)***
   240-273,812 emergency visits in 1990 ***(N=678)***

10. During 1990, how many emergency visits to your ED resulted in admission to your hospital? *(Enter number)* *(N=666)*

    5-40,000 number of emergency visits resulting in admissions

11. During 1990, how many admissions did your hospital have? *(Enter number)* *(N=660)*

    84-90,752 number of admissions

12. During 1990, how many emergency visits to your ED resulted in a person's leaving after triage but before he or she was evaluated? *(Enter number)* *(N=611)*

    0-12,783 number of emergency visits that resulted in a person's leaving before being evaluated

13. During 1990, for those people who sought care in your ED but left before being evaluated by a physician (question 12), how long, on average, would you estimate they waited before they left? *(N=582)*

    0-13 hours

In this questionnaire, we use the following terms and definitions:

Emergent care:

Conditions that threaten life, limb or sense organs

Urgent care:

Conditions that are time-related and must be treated within 12 hours, but do not threaten life or limb

Nonurgent care:

Conditions that are neither emergent nor urgent

14. Of the 1990 visits to your ED that resulted in an evaluation, approximately what percentage would you categorize as emergent care cases, urgent care cases, or nonurgent care cases? (Estimates are acceptable.) *(Enter percentages)* *(N=678)*

    a. *17%* Emergent care cases

    b. *40%* Urgent care cases

    c. *43%* Nonurgent care cases
    100 %

15. Are there alternative sources to your hospital for nonurgent care in your service area? *(Check one)* *(N=689)*

    a. *82%* Yes
    b. *18%* No-->GO TO QUESTION 17

16. Think about the nonurgent care cases (question 14, item c). During 1990, what percentage of the nonurgent care cases would you estimate came to your ED primarily for one of the following reasons? *(Enter percentages; percentages should add to 100%)* *(N=569)*

    a. *26%* Person did not have a primary care provider
    b. *9%* Person had a primary care provider who was too busy to see them
    c. *19%* Person had a primary care provider but it was after office hours
    d. *10%* Person was directed to ED by his or her personal physician
    e. *15%* Person was unable to find a medical care provider willing to treat an uninsured or publicly insured patient
    f. *19%* Person's convenience
    g. *2%* Other *(Please describe)*
    100 % _____

17. Over the past 5 years, to what extent has each of the following increased, decreased or remained about the same in the geographic area served by your hospital? *(Check one box for each factor)*

(N=664-678, except (p.) N=30)	Decrease			Remained about the same	Increase		
	Signif-icant	Mod-erate	Slight		Slight	Mod-erate	Signif-icant
a. The incidence of illness	0%	1%	3%	44%	24%	24%	5%
b. The severity of illness	0%	<1%	1%	24%	22%	35%	17%
c. The number of people without health insurance	<1%	<1%	3%	14%	28%	36%	18%
d. The number of uninsured people seeking nonurgent health care	0%	<1%	1%	16%	24%	37%	22%
e. The number of insured people seeking nonurgent health care	2%	2%	8%	36%	27%	18%	6%
f. The number of people who are unemployed	0%	1%	3%	24%	34%	26%	12%
g. The number of people who are 65 years or older	0%	<1%	<1%	15%	35%	36%	14%
h. The number of primary care physicians	4%	7%	14%	38%	23%	11%	3%
i. The number of physicians who treat uninsured or publicly insured patients	9%	18%	22%	42%	5%	2%	1%
j. The number of public clinics that provide primary care	4%	7%	7%	70%	9%	3%	<1%
k. The number of people who do not have a regular physician	1%	1%	3%	31%	31%	25%	8%
l. The number of AIDS-related illnesses	0%	0%	<1%	32%	42%	15%	12%
m. The number of alcohol-related illnesses or injuries	0%	1%	3%	32%	33%	24%	8%
n. The number of illegal drug-related medical problems	<1%	<1%	3%	34%	34%	20%	9%
o. The number of violence-related injuries	0%	0%	1%	35%	33%	21%	11%
p. Other *(Specify)* _____	3%	0%	0%	18%	10%	39%	30%

18. Listed below are the same elements found in the preceding table. Considering the number of emergency visits to your ED over the past 5 years, how much and in which direction did each of the following factors affect the number of emergency visits your ED received? *(Check one box for each factor)*

(N=662-678, except (p.) N=36)	Decreased ED visits			Neither increased nor decreased	Increased ED visits		
	Signif-icant	Mod-erate	Slight		Slight	Mod-erate	Signif-icant
a. The incidence of illness	0%	1%	3%	35%	33%	22%	5%
b. The severity of illness	0%	<1%	1%	20%	31%	32%	15%
c. The number of peple without health insurance	<1%	<1%	2%	18%	30%	32%	18%
d. The number of uninsured people seeking nonurgent health care	<1%	<1%	1%	17%	28%	34%	19%
e. The number of insured people seeking nonurgent health care	1%	3%	7%	35%	32%	16%	6%
f. The number of people who are unemployed	<1%	<1%	2%	30%	36%	22%	10%
g. The number of people who are 65 years or older	0%	0%	<1%	20%	38%	29%	12%
h. The number of primary care physicians	<1%	3%	9%	48%	26%	10%	5%
i. The number of physicians who treat uninsured or publicly insured patients	<1%	2%	4%	45%	21%	19%	9%
j. The number of public clinics that provide primary care	<1%	1%	4%	68%	14%	8%	5%
k. The number of people who do not have a regular physician	<1%	<1%	2%	27%	37%	26%	8%
l. The number of AIDS-related illnesses	0%	0%	1%	48%	35%	9%	7%
m. The number of alcohol-related illnesses or injuries	0%	<1%	3%	33%	34%	23%	8%
n. The number of illegal drug-related medical problems	<1%	<1%	2%	36%	37%	18%	7%
o. The number of violence-related injuries	0%	0%	<1%	37%	33%	20%	9%
p. Other *(Specify)* _____	5%	2%	2%	22%	13%	26%	29%

19. During the period from 1985 through 1990, did your hospital try to increase the number of patients served by your ED? *(Check one)* ***(N=689)***
    a. *67%* Yes
    b. *33%* No

20. During 1990, which of the following methods or initiatives did your hospital use, if any, to increase the awareness of your ED services? *(Check all that apply)* ***(N=686)***

    a. *45%* Advertise in local newspapers
    b. *6%* Advertise in local magazines
    c. *13%* Advertise on local television
    d. *24%* Advertise on local radio
    e. *20%* Advertise in local health newsletters
    f. *27%* Direct mailings to the general public
    g. *2%* Direct mailings to medical societies
    h. *12%* Direct mailings to physicians
    i. *19%* Other *(Specify)*

    _____

    j. *37%* Did not use any method

21. Given your ED's current staffing and physical capacity, what is the capacity of your ED to serve more patients, fewer patients, or about the same number of patients as you did in 1990? *(Check one)* ***(N=688)***

    a. *7%* Significantly more
    b. *18%* Moderately more
    c. *27%* Somewhat more
    d. *41%* About the same
    e. *4%* Somewhat less
    f. *1%* Moderately less
    g. *2%* Significantly less

II. Waiting to be Evaluated by a Physician

In this questionnaire, we use the following term and definition:

Evaluation:

Post-triage treatment assessment usually, but not always, performed by a physician

The following eleven pages contain a set of questions about how long ED patients waited from the time of triage until they were evaluated for treatment. These questions are repeated three times-- once for each level of emergency care (emergent, urgent, and nonurgent). Except for differing numbers of hours spent waiting for each level of emergency care, we ask for the same type of information.

NOTE: You may not have to answer all of the questions in this section. Depending upon your answers, you may be directed to skip questions.

Complete this page for *emergent patients, only*. Emergent patients have conditions that threaten life, limb or sense organs.

22. For the past 5 years, what has been the general trend for the length of time your emergent patients waited for evaluation? *(Check one)* *(N=688)*

a. *<1%* Increased significantly
b. *2%* Increased moderately
c. *8%* Increased slightly
d. *61%* Remained relatively constant
e. *13%* Decreased slightly
f. *7%* Decreased moderately
g. *5%* Decreased significantly
h. *3%* Fluctuated; no trend

23. In your opinion, during 1990, how great a problem from the emergent patients' perspectives was the length of time they waited in your ED before they were evaluated by a physician? *(Check one)* (N=689)

a. *<1%* Very great problem
b. *1%* Great problem
c. *3%* Moderate problem
d. *6%* Somewhat of a problem
e. *23%* Small problem
f. *66%* Not a problem

24. Estimate the percentage of your 1990 ED emergent care patients who waited the following lengths of time (measured from the time they were triaged) before they were evaluated by a physician. *(Enter percentages)* *(N=683)*

	Emergent care	
a. No wait	%	*93% (a. and b. combined)**
b. Less than 30 minutes	%	
c. At least 30 minutes but less than 1 hour	*4 %*	*NOTE: If the entire shaded area has only zeros, GO TO QUESTION 27.*
d. At least 1 hour but less than 2 hours	*2 %*	
e. At least 2 hours but less than 4 hours	*1 %*	
f. At least 4 hours but less than 6 hours	*<1 %*	
g. At least 6 hours but less than 8 hours	*<1 %*	
h. At least 8 hours but less than 10 hours	*<1 %*	
i. At least 10 hours but less than 12 hours	*<1 %*	
j. 12 or more hours	*0 %*	
	100%	

*Based on concerns expressed by some respondents about the overlap between cells a. and b., we have combined the data for reporting purposes

Complete this page for *emergent patients, only*. Emergent patients have conditions that threaten life, limb or sense organs.

25. During 1990, when emergent patients had to wait longer than 30 minutes for evaluation, how often was each of the following the principal cause? *(Check one box for each cause)*

(N=113-115, except (m.) N=4)	Not a cause	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Evaluation areas were occupied by other emergent patients	*11%*	*13%*	*36%*	*8%*	*24%*	*7%*
b. Evaluation areas were occupied by urgent patients	*16%*	*22%*	*39%*	*6%*	*15%*	*1%*
c. Evaluation areas were occupied by nonurgent patients	*42%*	*25%*	*18%*	*3%*	*10%*	*2%*
d. Nursing staff was treating other emergent patients	*9%*	*14%*	*42%*	*8%*	*17%*	*10%*
e. Nursing staff was treating urgent patients	*17%*	*26%*	*39%*	*8%*	*8%*	*2%*
f. Nursing staff was treating nonurgent patients	*44%*	*28%*	*20%*	*1%*	*4%*	*4%*
g. Physician staff was treating other emergent patients	*7%*	*11%*	*42%*	*11%*	*18%*	*12%*
h. Physician staff was treating urgent patients	*16%*	*25%*	*42%*	*6%*	*8%*	*3%*
i. Physician staff was treating nonurgent patients	*51%*	*30%*	*13%*	*1%*	*3%*	*2%*
j. Patient had to wait for an on-call physician to arrive at hospital	*42%*	*23%*	*18%*	*3%*	*2%*	*13%*
k. Specialist or consultant was not available	*56%*	*25%*	*15%*	*<1%*	*2%*	*2%*
l. Special equipment needed to diagnose or evaluate patient was not available (for example, X-ray and EKG)	*63%*	*18%*	*14%*	*3%*	*1%*	*2%*
m. Other *(Specify)* _____			*0%*	*12%*	*27%*	*61%*

Complete this page for *emergent patients, only*. Emergent patients have conditions that threaten life, limb or sense organs.

26. During 1990, when emergent patients had to wait longer than 30 minutes for evaluations, how often did each of the following result? *(Check one box for each result)*

(N = 114-115, except (i.) N=0)	Not a result	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Patient's medical condition worsened	18%	63%	17%	3%	0%	0%
b. Patient became emotionally upset	11%	25%	42%	12%	9%	2%
c. Patient became verbally abusive	15%	28%	48%	5%	4%	0%
d. Patient became violent	32%	58%	10%	0%	0%	0%
e. Patient's family or friends became verbally abusive	7%	22%	55%	10%	5%	<1%
f. Patient's family or friends became physically violent	41%	50%	8%	1%	0%	0%
g. Patient left the ED without receiving evaluation	25%	48%	26%	1%	0%	0%
h. Patient left against medical advice	23%	47%	30%	1%	0%	0%
i. Other *(Specify)* _____			0%	0%	0%	0%

If you would like to make comments concerning your experiences with emergent care patient waiting times for ED physician evaluation, please do so here, otherwise, PLEASE CONTINUE TO QUESTION 27 ON THE NEXT PAGE.

Complete this page for *urgent patients, only*. Urgent patients have conditions that are time-related and must be treated within 12 hours, but do not threaten life or limb.

27. For the past 5 years, what has been the trend for the length of time your urgent patients waited for evaluation? *(Check one)* ***(N=687)***

    a. **2%** Increased significantly
    b. **12%** Increased moderately
    c. **25%** Increased slightly
    d. **40%** Remained relatively constant
    e. **10%** Decreased slightly
    f. **5%** Decreased moderately
    g. **4%** Decreased significantly
    h. **2%** Fluctuated; no trend

28. In your opinion, during 1990, how great a problem from the urgent patients' perspective was the length of time they waited in your ED before they were evaluated by a physician? *(Check one)* ***(N=685)***

    a. **1%** Very great problem
    b. **5%** Great problem
    c. **18%** Moderate problem
    d. **20%** Somewhat of a problem
    e. **32%** Small problem
    f. **23%** Not a problem

29. Estimate the percentage of your 1990 ED urgent care patients who waited the following lengths of time (measured from the time they were triaged) before they were evaluated by a physician. *(Enter percentages)* ***(N=682)***

	Urgent care	
a. No wait	%	*52% (a. and b. combined)**
b. Less than 30 minutes	%	
c. At least 30 minutes but less than 1 hour	*28 %*	
d. At least 1 hour but less than 2 hours	*14 %*	
e. At least 2 hours but less than 4 hours	*5 %*	*NOTE: If the entire shaded area has only zeros, GO TO QUESTION 32.*
f. At least 4 hours but less than 6 hours	*1 %*	
g. At least 6 hours but less than 8 hours	*<1 %*	
h. At least 8 hours but less than 10 hours	*<1 %*	
i. At least 10 hours but less than 12 hours	*<1 %*	
j. 12 or more hours	*<1 %*	
	100%	

*Based on concerns expressed by some respondents about the overlap between cells a. and b., we have combined the data for reporting purposes

Complete this page for *urgent patients, only*. Urgent patients have conditions that are time-related and must be treated within 12 hours, but do not threaten life or limb.

30. During 1990, when urgent patients had to wait longer than 2 hours for evaluation, how often was each of the following the principal cause? *(Check one box for each cause)*

(N=168, except (m.) N=8)	Not a cause	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Evaluation areas were occupied by emergent patients	*5%*	*9%*	*43%*	*11%*	*22%*	*10%*
b. Evaluation areas were occupied by other urgent patients	*4%*	*54%*	*33%*	*20%*	*29%*	*11%*
c. Evaluation areas were occupied by nonurgent patients	*13%*	*28%*	*40%*	*8%*	*10%*	*2%*
d. Nursing staff was treating emergent patients	*4%*	*8%*	*45%*	*14%*	*24%*	*6%*
e. Nursing staff was treating other urgent patients	*4%*	*6%*	*41%*	*24%*	*18%*	*7%*
f. Nursing staff was treating nonurgent patients	*16%*	*33%*	*39%*	*7%*	*4%*	*1%*
g. Physician staff was treating emergent patients	*3%*	*6%*	*41%*	*16%*	*22%*	*12%*
h. Physician staff was treating other urgent patients	*3%*	*6%*	*39%*	*22%*	*22%*	*8%*
i. Physician staff was treating nonurgent patients	*14%*	*35%*	*38%*	*5%*	*5%*	*2%*
j. Patient had to wait for an on-call physician to arrive at hospital	*39%*	*23%*	*29%*	*5%*	*3%*	*1%*
k. Specialist or consultant was not available	*39%*	*31%*	*23%*	*1%*	*3%*	*2%*
l. Special equipment needed to diagnose or evaluate patient was not available (for example, X-ray and EKG)	*48%*	*34%*	*14%*	*2%*	*2%*	*0%*
m. Other *(Specify)* _____			*21%*	*0%*	*0%*	*72%*

Complete this page for *urgent patients, only*. Urgent patients have conditions that are time-related and must be treated within 12 hours, but do not threaten life or limb.

31. During 1990, when urgent patients had to wait longer than 2 hours for evaluation, how often did each of the following result? *(Check one box for each result)*

(N=167, except (i.) N=1)	Not a result	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Patient's medical condition worsened	*16%*	*61%*	*23%*	*0%*	*0%*	*0%*
b. Patient became emotionally upset	*4%*	*9%*	*51%*	*19%*	*16%*	*3%*
c. Patient became verbally abusive	*5%*	*15%*	*62%*	*13%*	*5%*	*1%*
d. Patient became violent	*20%*	*60%*	*20%*	*1%*	*0%*	*0%*
e. Patient's family or friends became verbally abusive	*3%*	*12%*	*65%*	*8%*	*11%*	*2%*
f. Patient's family or friends became physically violent	*26%*	*61%*	*12%*	*0%*	*0%*	*0%*
g. Patient left the ED without receiving evaluation	*244%*	*23%*	*68%*	*4%*	*1%*	*0%*
h. Patient left against medical advice	*3%*	*31%*	*63%*	*2%*	*1%*	*0%*
i. Other (Specify) _____			*100%*	*0%*	*0%*	*0%*

If you would like to make comments concerning your experiences with urgent care patient waiting times for ED physician evaluation, please do so here, otherwise, PLEASE CONTINUE TO QUESTION 32 ON THE NEXT PAGE.

Complete this page for *nonurgent patients, only*. Nonurgent patients have conditions that are neither emergent nor urgent.

32. For the past 5 years, what has been the trend for the length of time your nonurgent patients waited for evaluation? *(Check one)* ***(N=683)***

a. ***8%*** Increased significantly
b. ***21%*** Increased moderately
c. ***24%*** Increased slightly
d. ***29%*** Remained relatively constant
e. ***9%*** Decreased slightly
f. ***4%*** Decreased moderately
g. ***3%*** Decreased significantly
h. ***3%*** Fluctuated; no trend

33. In your opinion, during 1990, how great a problem from the nonurgent paticats' perspective was the length of time they waited in your ED before they were evaluated by a physician? *(Check one)* ***(N=685)***

a. ***4%*** Very great problem
b. ***12%*** Great problem
c. ***24%*** Moderate problem
d. ***19%*** Somewhat of a problem
e. ***26%*** Small problem
f. ***16%*** Not a problem

34. Estimate the percentage of your 1990 ED nonurgent care patients who waited the following lengths of time (measured from the time they were triaged) before they were evaluated by a physician. *(Enter percentages)*

(N=679)	Nonurgent care	
a. No wait	%	***35% (a. and b. combined)****
b. Less than 30 minutes	%	
c. At least 30 minutes but less than 1 hour	***27 %***	
d. At least 1 hour but less than 2 hours	***21 %***	
e. At least 2 hours but less than 4 hours	***12 %***	
f. At least 4 hours but less than 6 hours	***3 %***	*NOTE: If the entire shaded area*
g. At least 6 hours but less than 8 hours	***1 %***	*has only zeros,*
h. At least 8 hours but less than 10 hours	***<1 %***	*GO TO QUESTION 37.*
i. At least 10 hours but less than 12 hours	***<1 %***	
j. 12 or more hours	***<1 %***	
	100%	

*Based on concerns expressed by some respondents about the overlap between cells a. and b., we have combined the data for reporting purposes

Complete this page for *nonurgent patients only*. Nonurgent patients have conditions that are neither emergent nor urgent.

35. During 1990, when nonurgent patients had to wait longer than 4 hours for evaluation, how often was each of the following the principal cause? *(Check one box for each cause)*

(N = 109-110, except (m.) N=6)	Not a cause	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Evaluation areas were occupied by emergent patients	6%	7%	33%	21%	22%	11%
b. Evaluation areas were occupied by urgent patients	2%	5%	30%	27%	22%	14%
c. Evaluation areas were occupied by other nonurgent patients	7%	14%	47%	9%	19%	5%
d. Nursing staff was treating emergent patients	0%	9%	36%	21%	26%	9%
e. Nursing staff was treating urgent patients	1%	7%	34%	22%	27%	9%
f. Nursing staff was treating other nonurgent patients	7%	19%	43%	13%	14%	4%
g. Physician staff was treating emergent patients	0%	7%	38%	15%	31%	9%
h. Physician staff was treating urgent patients	0%	4%	37%	25%	24%	10%
i. Physician staff was treating other nonurgent patients	5%	19%	45%	10%	16%	4%
j. Patient had to wait for an on-call physician to arrive at hospital	51%	26%	16%	2%	6%	0%
k. Specialist or consultant was not available	45%	33%	19%	1%	2%	0%
l. Special equipment needed to diagnose and evaluate patient was not available (for example, X-ray and EKG)	54%	30%	14%	<1%	1%	<1%
m. Other (Specify) _____			49%	30%	6%	15%

Complete this page for *nonurgent patients only*. Nonurgent patients have conditions that are neither emergent nor urgent.

36. During 1990, when nonurgent patients had to wait longer than 4 hours for evaluation, how often did each of the following result? *(Check one box for each result)*

(N=109-110, except (i.) N=1)	Not a result	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Patient's medical condition worsened	*34%*	*60%*	*6%*	*0%*	*0%*	*0%*
b. Patient became emotionally upset	*0%*	*4%*	*51%*	*21%*	*19%*	*5%*
c. Patient became verbally abusive	*0%*	*5%*	*79%*	*9%*	*4%*	*3%*
d. Patient became violent	*12%*	*62%*	*24%*	*1%*	*0%*	*0%*
e. Patient's family or friends became verbally abusive	*0%*	*6%*	*71%*	*16%*	*4%*	*3%*
f. Patient's family or friends became physically violent	*17%*	*59%*	*23%*	*0%*	*0%*	*0%*
g. Patient left the ED without receiving evaluation	*5%*	*72%*	*15%*	*8%*	*0%*	*0%*
h. Patient left against medical advice	*4%*	*20%*	*71%*	*4%*	*1%*	*0%*
i. Other *(Specify)*			*0%*	*0%*	*0%*	*100%*

If you would like to make comments concerning your experiences with nonurgent care patient waiting times for ED physician evaluation, please do so here, otherwise, PLEASE CONTINUE TO QUESTION 37 ON THE NEXT PAGE.

III. Waiting for ED Patients to be Transferred to the Inpatient Unit

In this section, we ask questions about how long ED patients who were treated and admitted to the hospital had to wait before they were physically transferred from the ED to an inpatient bed.

37. For the past 5 years, what has been the trend for the length of time your ED patients have waited to be physically transferred from the ED to hospital beds ? *(Check one)* ***(N=687)***

    a. ***15%*** Increased significantly
    b. ***18%*** Increased moderately
    c. ***22%*** Increased slightly
    d. ***34%*** Remained relatively constant
    e. ***4%*** Decreased slightly
    f. ***1%*** Decreased moderately
    g. ***1%*** Decreased significantly
    h. ***5%*** Fluctuated; no trend

38. In your opinion, during 1990, how great a problem was it for your ED staff to monitor and manage patients who were waiting to be transferred to an inpatient bed? *(Check one)* ***(N=686)***

    a. ***8%*** Very great problem
    b. ***14%*** Great problem
    c. ***22%*** Moderate problem
    d. ***15%*** Somewhat of a problem
    e. ***18%*** Small problem
    f. ***24%*** Not a problem

39. In 1990, approximately what percentage of the ED patients admitted to the hospital waited for each of the following time periods, from the time orde s we written to admit until the patient actually left the care and supervision of the ED? *(Enter percentages)* ***(N=680)***

a. No wait	%
b. Less than 30 minutes	%
c. At least 30 minutes but less than 1 hour	21 %
d. At least 1 hour but less than 2 hours	22 %
e. At least 2 hours but less than 4 hours	16 %
f. At least 4 hours but less than 6 hours	7 %
g. At least 6 hours but less than 8 hours	4 %
h. At least 8 hours but less than 10 hours	3 %
i. At least 10 hours but less than 12 hours	2 %
j. 12 or more hours	3 %
	100 %

24% (a. and b. combined)*

NOTE: If the entire shaded area has only zeros, GO TO QUESTION 42.

*Based on concerns expressed by some respondents about the overlap between cells a. and b., we have combined the data for reporting purposes

40. During 1990, when ED patients had to wait longer than 2 hours before being transferred to an inpatient bed, how often were each of the following the principal cause? *(Check one box for each cause)*

(N=389-392, except (m.) N=37)	Not a cause	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. No ICU beds were available due to a lack of actual beds	*5%*	*10%*	*35%*	*18%*	*24%*	*9%*
b. No ICU beds were available due to a lack of staff to monitor patient	*20%*	*25%*	*38%*	*8%*	*7%*	*1%*
c. No general medical beds were available due to a lack of actual beds	*7%*	*19%*	*41%*	*12%*	*16%*	*4%*
d. No general beds were available due to a lack of staff to monitor patient	*28%*	*33%*	*31%*	*4%*	*4%*	*<1%*
e. Had to wait for a bed held by an inpatient who was waiting final physician evaluation for discharge	*3%*	*11%*	*51%*	*16%*	*16%*	*3%*
f. Had to wait for a bed held by an inpatient who was homeless and had no place to go	*39%*	*47%*	*12%*	*1%*	*1%*	*<1%*
g. Had to wait for a bed held by an elderly or AIDS patient who was waiting for transfer to a long term care bed or facility	*27%*	*38%*	*31%*	*2%*	*2%*	*<1%*
h. Patient was held in the ED while waiting for laboratory work or x-rays	*13%*	*28%*	*41%*	*9%*	*8%*	*2%*
i. Other ED patient needs were given equal or higher priority	*10%*	*26%*	*53%*	*7%*	*2%*	*1%*
j. Other *(Specify)* _____			*38%*	*30%*	*29%*	*4%*

41. During 1990, when ED patients had to wait longer than 2 hours before being transferred to an inpatient bed, how often did each of the following result? *(Check one box for each result)*

(N=386, except (j.) N=4)	Not a result	Rarely, if at all	Some of the time	About half of the time	Much of the time	Almost always
a. Patient's medical condition worsened	*23%*	*52%*	*25%*	*<1%*	*0%*	*0%*
b. Patient became emotionally upset	*4%*	*21%*	*53%*	*10%*	*10%*	*2%*
c. Patient became verbally abusive	*12%*	*42%*	*41%*	*3%*	*2%*	*0%*
d. Patient became violent	*45%*	*48%*	*7%*	*0%*	*0%*	*0%*
e. Patient's family or friends became verbally abusive	*7%*	*30%*	*51%*	*5%*	*5%*	*1%*
f. Patient's family or friends became physically violent	*56%*	*40%*	*4%*	*0%*	*0%*	*0%*
g. Patient's recovery was delayed	*53%*	*40%*	*6%*	*1%*	*0%*	*<1%*
h. Incoming ambulances had to be diverted	*46%*	*20%*	*27%*	*3%*	*4%*	*1%*
i. Other ED patient care was delayed or affected	*8%*	*14%*	*46%*	*12%*	*13%*	*7%*
j. Other *(Specify)* _____			*28%*	*32%*	*40%*	*0%*

IV. Diverting Ambulances

42. Did your hospital ever request that ambulances be diverted from your ED to another medical facility at any time during 1990? *(Check one)* ***(N=685)***

    a. ***39%*** Yes
    b. ***61%*** No-->GO TO QUESTION 48

43. During 1990, regardless of whether or not they were approved, how many times would you estimate that you requested that ambulances be diverted from your hospital? *(Enter number)* ***(N=323)***

    1-2,254 times requested ambulance diversion
    Median = 10 times

44. During 1990, how many times were your requests for ambulance diversion approved? *(Enter number)* ***(N=322)***

    0-2,254 times diversion requests approved
    Median = 10 times
    (If zero, GO TO QUESTION 47)

45. On average, approximately how many hours did a typical diversion last? *(Enter number)* ***(N=312)***
    0-50 hours

46. For the past 5 years, what has been the trend for the frequency with which your ED has had to divert ambulances to another ED? *(Check one)* ***(N=317)***

    a. ***17%*** Increased significantly
    b. ***14%*** Increased moderately
    c. ***22%*** Increased slightly
    d. ***24%*** Remained relatively constant
    e. ***3%*** Decreased slightly
    f. ***2%*** Decreased moderately
    g. ***7%*** Decreased significantly

    h. ***10%*** Fluctuated; no trend

47. During 1990, in approximately what percentage of the cases was each of the following the primary reason why your hospital requested or was placed on ambulance diversion? (Estimates are acceptable.) *(Enter percentages)* ***(N=305)***

    26% Our ED was at or beyond its medical staff's capacity to provide treatment
    44% All ICU and ED observation beds were occupied
    17% All hospital and ED beds were occupied
    13% Other *(Specify)*_____
    100%

48. During 1990, approximately how many times was there a period of 1 hour or longer when the number of patients who needed an ED bed exceeded the number of beds available? (Estimates are acceptable) *(Enter number)* ***(N=415)***
    0-3,000 times (If zero, GO TO QUESTION 50)

49. On average, approximately how many hours did the typical period of unmet need for an ED bed (indicated in the previous question) last? *(Enter number)* ***(N=425)***

    0-24 hours

V. Availability of and Need for Alternative Medical Care

Emergent and urgent medical care

50. Over the past 5 years, what has been the trend in the *need* for emergent and urgent medical care from your hospital as well as other health care providers in the area? *(Check one)* *(N=686)*

a. *14%* Increased significantly
b. *37%* Increased moderately
c. *32%* Increased slightly
d. *14%* Remained relatively constant
e. *1%* Decreased slightly
f. *<1%* Decreased moderately
g. *0%* Decreased significantly

h. *2%* Fluctuated

51. Over the past 5 years, what has been the trend in the *availability* of emergent and urgent medical care from your hospital as well as other health care providers in the area? *(Check one)* *(N=687)*

a. *6%* Increased significantly
b. *17%* Increased moderately
c. *23%* Increased slightly
d. *42%* Remained relatively constant
e. *8%* Decreased slightly
f. *3%* Decreased moderately
g. *1%* Decreased significantly

h. *1%* Fluctuated

52. Which of the statements below best describes the *current* overall relationship between the need for emergent and urgent medical care and the availability of emergent medical care in the area? *(Check one)* *(N=687)*

a. *2%* Need is much greater than availability
b. *9%* Need is greater than availability
c. *31%* Need is somewhat greater than availability
d. *48%* Need is about equal to availability
e. *7%* Need is somewhat less than availability
f. *2%* Need is less than availability
g. *0%* Need is much less than availability

Nonurgent medical care

53. Over the past 5 years, what has been the trend in the *need* for nonurgent medical care from your hospital as well as other health care providers in the area? *(Check one)* *(N=684)*

a. *23%* Increased significantly
b. *34%* Increased moderately
c. *27%* Increased slightly
d. *13%* Remained relatively constant
e. *2%* Decreased slightly
f. *1%* Decreased moderately
g. *0%* Decreased significantly

h. *<1%* Fluctuated

54. Over the past 5 years, what has been the trend in the *availability* of nonurgent medical care from your hospital as well as other health care providers in the area? *(Check one)* *(N=686)*

a. *5%* Increased significantly
b. *16%* Increased moderately
c. *22%* Increased slightly
d. *38%* Remained relatively constant
e. *9%* Decreased slightly
f. *7%* Decreased moderately
g. *2%* Decreased significantly

h. *<1%* Fluctuated

55. Which of the statements below best describes the *current* overall relationship between the need for nonurgent medical care and the availability of nonurgent medical care in the area? *(Check one)* *(N=687)*

a. *11%* Need is much greater than availability
b. *17%* Need is greater than availability
c. *30%* Need is somewhat greater than availability
d. *36%* Need is about equal to availability
e. *6%* Need is somewhat less than availability
f. *1%* Need is less than availability
g. *<1%* Need is much less than availability

56. Listed below are some possible contributing factors to why an ED might have difficulty providing emergency medical care. Consider your hospital's ED in 1990. How much, if at all, did each factor adversely affect your ED's provision of emergency medical care? *(Check one box for each factor)*

(N=683-687, except (g.) N=109)	None	Little	Some	Moderate	Great	Very great
a. Inability to fully staff ED with physicians	61%	15%	14%	4%	4%	1%
b. Inability to fully staff ED with nurses	45%	25%	18%	8%	3%	2%
c. Increasing number of AIDS-related illnesses	72%	20%	5%	2%	1%	<1%
d. Increasing number of alcohol-related illnesses or injuries	39%	30%	21%	8%	3%	<1%
e. Increasing number of illegal drug-related medical problems	43%	31%	17%	7%	2%	<1%
f. Increasing number of violence-related injuries	42%	29%	17%	8%	4%	<1%
g. Other ED-related factors *(Specify)*			24%	33%	26%	12%

VI. ED Financial Profile

You may wish to have your chief financial officer complete the balance of the questions.

57. During fiscal year 1990, what percentage of your ED patients had neither public nor private health insurance coverage (that is, totally uninsured)? *(Enter percentage)*
(N=637)

0-72% patients without public or private health insurance coverage (totally uninsured)

58. For your hospital's fiscal years 1985 and 1990, what percentage of your ED patients were covered by each of the following payer classifications? *(Enter percentages)*

(N=278)	1985	1990
a. Commercial/private insurance (including Blue Cross/Blue Shield)	*37 %*	*29 %*
b. HMO/PPO	*2 %*	*6 %*
c. Workman's Compensation	*4 %*	*4 %*
d. Medicare	*19 %*	*21 %*
e. Medicaid	*15 %*	*17 %*
f. Self-pay/private pay	*21 %*	*20 %*
g. Other third-party payment sources (for example, CHAMPUS, Indian Health Services or other federal, state or local assistance)	*4 %*	*3 %*
	100%	*100%*

59. During fiscal year 1990, what percentage of the ED patients that were admitted (inpatients), and what percentage of the ED patients that were not admitted (outpatients), were covered by each of the following payer classifications *(Enter percentages)*

(N=370)	Admitted/Inpatient	Nonadmitted/Outpatient
a. Commercial/private insurance (including Blue Cross/Blue Shield)	*25 %*	*32 %*
b. HMO/PPO	*6 %*	*6 %*
c. Workman's Compensation	*2 %*	*4 %*
d. Medicare	*41 %*	*15 %*
e. Medicaid	*13 %*	*18 %*
f. Self-pay/private pay	*11 %*	*22 %*
g. Other third-party payment sources (for example, CHAMPUS, Indian Health Services or other federal, state or local assistance)	*3 %*	*3 %*
	100%	*100%*

60. Was your hospital a public hospital (owned and operated) during 1990? *(Check one)*
(N=685)
a. *26%* Yes-->GO TO QUESTION 67
b. *74%* No

61. For fiscal year 1990, what percentage of hospital patient charges within each of the following payer classifications did each payer reimburse? *(Enter percentages)*
(Median Percent)
87% Commercial/private insurance (including BC/BS) *(N=335)*
80% HMO/PPO *(N=251)*
90% Workman's Compensation *(N=264)*
57% Medicare *(N=347)*
50% Medicaid *(N=347)*
50% Self-pay/private pay *(N=311)*
65% Other third-party payment sources (for example, CHAMPUS, Indian Health Services or other federal, state or local assistance) *(N=205)*

62. For fiscal year 1990, what percentage of ED patient costs within each of the following payer classifications did each payer reimburse? *(Enter percentages)*
(Median Percent)
100% Commercial/private insurance (including BC/BS) *(N=196)*
95% HMO/PPO *(N=149)*
100% Workman's Compensation *(N=157)*
72% Medicare *(N=200)*
60% Medicaid *(N=198)*
57% Self-pay/private pay *(N=184)*
80% Other third-party payment sources (for example, CHAMPUS, Indian Health Services or other federal, state or local assistance) *(N=117)*

63. Using your HCFA Medicare Cost Report, Worksheet G-3, item 5, what was your hospital's net income from patient services for fiscal years 1985 through 1990? *(Enter dollar amounts; indicate negative income by placing dollar figure within parentheses)*

HOSPITAL

1985 *$(31.5 million) to $134.5 million (N=337)*
1986 *$(36 million) to $146.8 million (N=352)*
1987 *$(33.4 million) to $151.7 million (N=372)*
1988 *$(48.8 million) to $173.2 million (N=382)*
1989 *$(29.2 million) to $197.1 million (N=389)*
1990 *$(34 million) to $236.9 million (N=391)*

64. What was your ED's net income from patient services for fiscal years 1985 through 1990? *(Enter dollar amounts; indicate negative income by placing dollar figure within parentheses)*

EMERGENCY DEPARTMENT

1985 *$(6.0 million) to $5.1 million (N=148)*
1986 *$(6.1 million) to $6.6 million (N=165)*
1987 *$(6.3 million) to $9.6 million (N=185)*
1988 *$(10.9 million) to $11.2 million (N=194)*
1989 *$(8.2 million) to $15.1 million (N=198)*
1990 *$(11.3 million) to $16.2 million (N=213)*

65. For fiscal years 1985 through 1990, to what extent, if any, did income attributed to services provided to your ED patients reduce or increase your hospital's reported net income? *(Check one box for each year)*

(N=405-423)	Don't know	None	Little	Some	Moderate	Great	Very great
1985	*48%*	*5%*	*9%*	*14%*	*14%*	*7%*	*2%*
1986	*46%*	*5%*	*9%*	*17%*	*13%*	*8%*	*2%*
1987	*43%*	*7%*	*8%*	*17%*	*12%*	*10%*	*2%*
1988	*40%*	*6%*	*9%*	*17%*	*13%*	*10%*	*4%*
1989	*38%*	*6%*	*8%*	*16%*	*16%*	*12%*	*5%*
1990	*37%*	*5%*	*9%*	*16%*	*15%*	*12%*	*6%*

66. During 1990, did your ED serve as a loss leader that provided a financial benefit to your hospital because ED patients were admitted to your hospital? *(Check one)* *(N=451)*

a. *29%* Yes
b. *42%* No
c. *27%* Don't know
d. *2%* Other *(Please specify)*

67. In what ways, if any, do the medical care services offered by your ED in 1990 differ from 1985? *(Check all that apply)* *(N=669)*

a. *4%* Eliminated certain services
b. *39%* Offered additional services
c. *13%* Hospital has opened a treatment center to divert nonurgent care cases
d. *<1%* Eliminated nonurgent charity care
e. *1%* Limited nonurgent charity care
f. *8%* Expanded nonurgent charity care
g. *<1%* Reduced hours of operation
h. *8%* Expanded hours of operation
i. *3%* Decreased on-call physician availability
j. *23%* Increased on-call physician availability
k. *17%* Other *(Please describe)*

l. *36%* No basic differences in services

68. Over the past 5 years, which of the following actions, if any, has your ED taken to continue its emergency medical care? *(Check all that apply)* *(N=672)*

a. *4%* Hospital endowment used to offset expenses of the ED
b. *39%* ED services have been actively promoted to the community
c. *38%* Intake procedures have been streamlined or simplified to make ED user friendly
d. *6%* ED has merged or shared facility or staff resources with other health providers
e. *15%* ED has increased its use of part time medical staff
f. *37%* Accuracy of triage screening has been improved
g. *1%* ED physician wages have been frozen
h. *1%* ED physician wages have been reduced
i. *50%* ED physician wages have been increased
j. *2%* ED nurse wages have been frozen
k. *0%* ED nurse wages have been reduced
l. *59%* ED nurse wages have been increased
m. *12%* Other *(Please describe)*

n. *16%* No extra efforts have been made specifically intended to continue emergency medical care in this hospital

69. Listed below are some possible contributing factors to why an ED might have financial difficulty providing emergency medical care. Consider your hospital's ED in 1990. How much, if at all, did each factor adversely affect your hospital's financial ability to provide emergency medical care? *(Check one box for each factor)*

(N=640-653, except (i.) N=67)	None	Little	Some	Moderate	Great	Very great
a. ED medical staff salaries	*37%*	*13%*	*15%*	*16%*	*14%*	*6%*
b. ED administrative overhead costs	*30%*	*28%*	*22%*	*16%*	*3%*	*2%*
c. Cost of ED medical liability insurance	*33%*	*18%*	*19%*	*20%*	*8%*	*2%*
d. Nonpayment of ED medical care by self-pay/private pay patients	*12%*	*7%*	*20%*	*19%*	*22%*	*21%*
e. Medicaid reimbursement payments that are less than ED costs	*11%*	*7%*	*15%*	*19%*	*27%*	*21%*
f. Medicare reimbursement payments that are less than ED costs	*11%*	*8%*	*20%*	*26%*	*22%*	*13%*
g. Commercial insurance reimbursement payments that are less than ED costs	*32%*	*29%*	*21%*	*12%*	*4%*	*2%*
h. HMO/PPO reimbursement payments that are less than ED costs	*42%*	*20%*	*18%*	*13%*	*5%*	*2%*
i. Other ED-related factors *(Specify)* _____			*18%*	*29%*	*24%*	*28%*

70. Considering your ED's provision of emergency care, which of the factors listed in the table of the preceding question do you believe first, second and third most adversely affects your hospital's financial ability to provide emergency care? *(Enter up to three letters from the preceding question which corresponds to these factors)* *(N=689)*

a. *D* First most adversely affects

b. *E* Second most adversely affects

c. *F* Third most adversely affects

VII. Hospital's and ED's Continuing Viability

71. What would you estimate to be the likelihood that your hospital will close during the next 3 years *(Check one)* ***(N=679)***

- a. ***0%*** Definitely will close---------->
- b. ***<1%*** Very great likelihood---------->
- c. ***1%*** Great likelihood---------->
- d. ***5%*** About a 50-50 chance---------->
- e. ***11%*** Little likelihood
- f. ***25%*** Very little likelihood
- g. ***55%*** Definitely will not close
- h. ***3%*** No basis to judge

71a. To what extent, if at all, is the likelihood that your hospital will close during the next 3 years due to your ED's net income? *(Check one)* ***(N=35)***

- a. ***2%*** Very great
- b. ***17%*** Great
- c. ***25%*** Moderate
- d. ***32%*** Small
- e. ***24%*** Not at all

72. Assuming the hospital remains open, what would you estimate to be the likelihood that your ED will close during the next 3 years? *(Check one)* ***(N=677)***

- a. ***<1%*** Definitely will close---------->
- b. ***0%*** Very great likelihood---------->
- c. ***1%*** Great likelihood---------->
- d. ***2%*** About a 50-50 chance---------->
- e. ***10%*** Little likelihood
- f. ***26%*** Very little likelihood
- g. ***59%*** Definitely will not close
- h. ***2%*** No basis to judge

72a. To what extent, if at all, is the likelihood that your ED will close during the next 3 years due to your ED's net income? *(Check one)* ***(N=17)***

- a. ***0%*** Very great
- b. ***37%*** Great
- c. ***36%*** Moderate
- d. ***8%*** Small
- e. ***19%*** Not at all

If you would like to contribute comments about your hospital's emergency medical care practices or hospital emergency medical care in general, please write them on the remaining pages or enclose additional materials with your completed questionnaire.

Thank you for participating in our study!

|____|____||____|____|
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Nonresponse Analysis

Comparison of Sample With Universe for Selected Parameters

We compared selected characteristics of responding hospitals with the universe of hospitals with EDs to determine if they differed appreciably. The results shown below indicated that the composition of our respondents parallels the national profile of hospitals with EDs (see table III.1). On the basis of this result, we weighted our analysis to estimate to the nationwide universe of hospitals with EDs. Data on the universe and responding hospitals were obtained from the American Hospital Association.

Table III.1: Comparison of Sample With Universe for Selected Parameters

Numbers in percent

Parameter	Respondents	Universe[a]
MSA[b]		
Rural	47.4	47.7
Small Urban	28.0	28.1
Large Urban	24.6	24.2
Total	**100.0**	**100.0**
Region		
Northeast	16.2	14.3
Midwest	29.2	29.2
South	36.1	37.8
West	18.5	18.7
Total	**100.0**	**100.0**
Ownership		
Private	73.8	72.4
Public	26.2	27.6
Total	**100.0**	**100.0**
Trauma[c]		
Yes	14.9	12.6
No	85.1	87.4
Total	**100.0**	**100.0**
Teaching[d]		
Yes	8.3	6.0
No	91.7	94.0
Total	**100.0**	**100.0**
Number of Beds		
Fewer than 100	37.8	45.1
100-299	40.7	38.0
300 or more	21.5	16.9
Total	**100.0**	**100.0**

(continued)

Numbers in percent

Parameter	Respondents	Universe[a]
Occupancy rate		
0-20%	2.6	3.7
20-40%	15.1	18.6
40-60%	30.2	31.0
60-80%	38.9	35.9
80-90%	10.9	8.9
Over 90%	2.3	1.9
Total	**100.0**	**100.0**

[a]Adult and children's general medical, nonfederal hospitals with emergency departments in 1990.

[b]Based on the Health Care Financing Administration's geographic classification of areas by metropolitan statistical areas (MSAs). Large urban MSAs have more than 1 million inhabitants, except in the Northeast where they have more than 970,000, and small urban MSAs have fewer than 1 million inhabitants. Rural areas are not metropolitan statistical areas.

[c]Includes only certified trauma centers.

[d]Member of the Council of Teaching Hospitals of the Association of American Medical Colleges.

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