VITAL AND HEALTH STATISTICS

Hospital Use in France and the United States

This report presents national statistics on hospital use from the U.S. National Hospital Discharge Survey conducted by the National Center for Health Statistics and the national survey of hospitalization conducted by CREDES, Centre de Recherche d'Étude et de Documentation en Economie de la Santé, previously the Medical Economics Division of CREDOC. The use statistics compared between the two countries include rates and percent distributions of discharges and days of care and average lengths of stay. These statistics are shown by sex, age, diagnostic category, and other hospital and patient characteristics. The similarities and differences between the two countries in population characteristics, causes of death, health care systems, and hospital systems are also described.

Comparative International Vital and Health Statistics Reports
Series 5, No. 4

DHHS Publication No. (PHS) 89–1480

U.S. Department of Health and Human Services
Public Health Service
Centers for Disease Control
National Center for Health Statistics
Hyattsville, Md.
January 1989

Suggested Citation

National Center for Health Statistics, L. J. Kozak, E. McCarthy, A. Mizrahi, et al. 1989. Hospital use in France and the United States. *Vital and Health Statistics*. Series 5, No. 4. DHHS Pub. No. (PHS) 89–1480. Washington: U.S. Government Printing Office.

Library of Congress Cataloging-in-Publication Data

Hospital use in France and the United States. (Vital & health statistics. Series 5, Comparative international vital and health statistics reports ; no. 4) (DHHS publication ; no. (PHS) 89–1480)

Supt. of Docs. no.: HE 20.6209:5/4

"This report presents national statistics on hospital use from the U.S. National Hospital Discharge Survey conducted by the National Center for Health Statistics and the national survey of hospitalization conducted by the Medical Economics Division of the Centre de recherche pour l'étude et l'observation des conditions de vie (CREDOC)".

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Bibliography: p.

1. Hospital utilization—United States—Statistics. 2. Hospital utilization—France—Statistics. I. Kozak, Lola Jean. II. National Center for Health Statistics (U.S.). III. Centre de recherche pour l'étude et l'observation des conditions de vie. Dép. d'économie medicale. IV. Series: Vital and health statistics. Series 5, Comparative international vital and health statistics reports ; no. 4. V. Series: DHHS publication ; no. (PHS) 89–1480. [DNLM: 1. National Hospital Discharge Survey (U.S.). 2. Hospitals—utilization—France—statistics. 3. Hospitals—utilization—United States—statistics. W2 A N148ve no. 4]

RA407.3.H63 1988 362.1'1'0973021 88–600248

ISBN 0–8406–0425–4

Cooperation of the U.S. Bureau of the Census

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

In accordance with specifications established by the National Center for Health Statistics, the U.S. Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.

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Symbols

- - -	Data not available
. . .	Category not applicable
-	Quantity zero
0.0	Quantity more than zero but less than 0.05
Z	Quantity more than zero but less than 500 where numbers are rounded to thousands
*	Figure does not meet standards of reliability or precision
#	Figure suppressed to comply with confidentiality requirements

Hospital Use in France and the United States

by Lola Jean Kozak and Eileen McCarthy, Division of Health Care Statistics, National Center for Health Statistics, and Andrée Mizrahi, Arié Mizrahi, and Simone Sandier, Centre de Recherche D'Étude et de Documentation en Économie de la Santé

Introduction

This report presents a comparison of short-stay hospital use in the United States and France. In the United States, national estimates of the use of short-stay hospitals have been available from the National Center for Health Statistics (NCHS) since 1965. These estimates are based on the National Hospital Discharge Survey (NHDS), a continuous, voluntary survey that obtains a sample of inpatient records from a national sample of short-stay hospitals in the United States. Data from the survey include demographic characteristics of discharged patients, characteristics of the hospitals where the patients are treated, conditions diagnosed, and surgical and nonsurgical procedures performed.

There is no similar ongoing national survey of hospital use in France. Annual questionnaires on hospital facilities, personnel, and use have been collected from the public hospitals in France since 1961 (Douxami et al., 1982) and from private French hospitals since 1972 (Gottely and Puichaud, 1983). However, the questionnaires do not include information about characteristics of patients or their diagnoses. In 1968, a voluntary hospital morbidity study was established, but it did not cover private hospitals, which account for more than a third of French hospital discharges, and only about half of the discharges from the public hospitals were reported in the study (Gascon and Leroux, 1980).

From February 1981 to January 1982, a national survey of hospitalization in both public and private French hospitals was conducted by the Medical Economics Division of the Centre de Recherche pour L'Etude et L'Observation Des Conditions de Vie (CREDOC), which is now the Centre de Recherche D'Étude et de Documentation en Économie de la Santé (CREDES). Data collected in this survey were similar to information available from the U.S. National Hospital Discharge Survey on patient characteristics and diagnoses. In addition, it was possible to separate data for patients treated in short-term hospital departments from the data for patients in long-term departments.

Thus, the CREDES survey created a unique opportunity to compare national patterns of short-term hospital use in France and the United States. Such a comparison is expected to make a contribution to the assessment of health problems in the two countries. The comparison could also suggest new approaches for providing health care in a more efficient manner, which is important because hospital care accounts for a large proportion of total health costs in both France and the United States.

This report is divided into two main sections. The first section provides background information about characteristics of France and the United States. Demographic characteristics of the two countries, such as population distributions by age, sex, and marital status, are compared. The health care systems are briefly described, with attention to the supply of physicians and the health insurance system in each country. The supply and organization of U.S. and French hospital beds and differences in the distributions of beds by hospital ownership and bed size are discussed. This discussion is followed by an examination of the health status of the populations in the two countries through a comparison of mortality statistics. The life expectancies of males and females at different ages are compared, and death rates are shown by age, sex, and major causes of death.

The second main section is a comparison of hospital use by characteristics of patients and hospitals. It begins with a discussion of hospital use patterns by age and sex in the two countries. The rates and distributions of hospitalizations and hospital days and average lengths of stay are compared by diagnostic category. Hospital use for diagnostic categories is also examined for selected age groups.

The effect of marital status on hospital use patterns is explored, and the disposition of patients at discharge is discussed. Distributions of discharges and days of care and average lengths of stay by hospital bed size and ownership categories are compared. Finally, sources of payment for hospitalizations in each country are reviewed.

Data sources

The hospitals within the scope of the U.S. National Hospital Discharge Survey are short-stay non-Federal hospitals located in the 50 States and the District of Columbia. Short-stay hospitals are defined as general and specialty hospitals in which the average length of stay is less than 30 days. The excluded Federal hospitals include inpatient facilities operated by the Department of Defense, Veterans' Administration, and Indian Health Service. Hospital units of institutions such as prisons are also excluded, as are hospitals with fewer than six beds. Patients discharged from long-term or psychiatric units of short-stay hospitals are excluded from the survey if the units maintain a record system separate from the rest of the hospital. Data on newborn infants are collected in the survey but are not included in this report.

The NHDS has a two-stage sampling design. In the first stage, hospitals are sampled in direct proportion to size. The second stage consists of sampling discharges from the sampled hospitals. Because the discharges are selected in inverse proportion to size, the overall probability of selecting a discharge is approximately the same for each size hospital. Further information about sample design and other aspects of the survey can be found in appendix I. A detailed report on the design of the survey is also available (NCHS, 1970). In 1981, 428 hospitals participated in NHDS, and they provided approximately 227,000 abstracts of medical records.

The abstract is a one-page form that is completed using information mainly from the face sheets of medical records. The forms are completed by staff of the hospital's medical records department or field staff of the U.S. Bureau of the Census. Medical information is coded centrally by staff of the National Center for Health Statistics. In 1981, the *International Classification of Diseases, 9th Revision, Clinical Modification* (U.S. Public Health Service and Health Care Financing Administration, 1980) was used for coding.

The French survey of hospitalization was carried out in two stages. The first stage was a 1980 survey of hospital institutions (Com-Ruelle et al., 1982). The second stage, the survey of hospital departments and patients conducted February 1981 to January 1982, was the data source for this report. For the second stage, a sample of 301 hospital departments was obtained from the sample of 296 hospitals that participated in the first stage of the survey. A questionnaire was completed on each patient discharged from the sampled departments during a set observation period of 1 to 6 days. Data were thus collected on a total of 2,229 discharges, of which 1,665 were discharged from short-term departments. Further information about the survey methodology is available in appendix I and in a separate report (Lecomte et al., 1980).

All French hospitals were within the scope of the French survey except the military hospitals and hospitals in overseas territories. Infirmaries within institutions such as prisons and old age homes were not included. In addition, hospice sections of general hospitals, which provide care similar to that in U.S. nursing homes, were excluded. Short-term departments, which are included in this report, are medicine and medical specialties, surgery and surgical specialties, and obstetrics and gynecology. The medium and long-term departments, which are excluded, are the psychiatric, chronic care, convalescence, and rehabilitation departments. Data on French newborn infants are not included in this report.

The patient questionnaire was approximately 40 pages long, much more detailed than the U.S. abstract form. The questionnaire was filled out by hospital staff. The medical information, and sometimes the whole questionnaire, was completed by a department physician. The data were coded centrally. A team of physicians coded the medical data using the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, 9th Revision* (World Health Organization, 1977).

In the French survey, data were collected only on patients who stayed in the hospital overnight. To improve the comparability of the data, patients who were admitted and discharged on the same day were excluded from the U.S. statistics. Thus, the statistics presented here are slightly different than those in earlier NHDS reports on U.S. hospital use in 1981 (NCHS, 1983a).

Familiarity with the methods and definitions used in the U.S. and French surveys is important for interpreting the data and making comparisons between the countries. Appendix II provides technical notes about the methods used to make national estimates, sampling and measurement error, guidelines for presentation of estimates, and the like. Definitions of terms used in the report are presented in appendix III.

Highlights

Age and sex

- The discharge rate was 23 percent higher in the United States than in France.
- The U.S. discharge rate was 60 percent higher than the French rate for patients 45–54 years of age, 54 percent higher for the 65–74 year group, 71 percent higher for patients 75–84 years of age, and more than twice the French rate for patients 85 years of age and over.
- U.S. females had a discharge rate 32 percent higher than French females.
- The U.S. discharge rate was 82 percent higher than the French rate for male patients 75–84 years of age.
- U.S. females 45–54 years of age had a discharge rate twice that of French females in the same age group. Discharge rates were also 69 percent higher for females 65–74 years and 65 percent higher for females 75–84 years in the United States.
- The rate of days of care was higher in France than in the United States.
- The rate of days of care for U.S. males was 25 percent lower than the rate for French males.
- The average length of stay was 11.2 days in France, 50 percent longer than the average stay of 7.4 days in the United States.
- The French average length of stay was 85 percent longer for children 1–14 years of age, 40 percent longer for the three age groups within the 15–44 year group, 50 percent longer for patients 55–64 years and 75–84 years, and 75 percent longer for patients 65–74 years and 85 years and over.
- Both male and female patients were hospitalized significantly longer in France than in the United States.

Diagnosis

- The U.S. discharge rate was 89 percent higher for the entire circulatory disease category and 4.5 times the French rate for heart disease.
- The discharge rate for diseases of the circulatory system was 81 percent higher for males and 96 percent higher for females in the United States than in France.
- The U.S. rate of days of care for heart diseases was more than twice the French rate.
- The French average length of stay for diseases of the circulatory system was 64 percent longer than the U.S. average stay.
- The U.S. discharge rates for diseases of the circulatory system for patients 45–64 years of age and 65 years of age and over were more than twice the French rates.
- About one in every five females discharged from a hospital in both the United States and France had a diagnosis in the category of complications of pregnancy, childbirth, and the puerperium.
- The average lengths of stay were significantly longer in France than in the United States for complications of pregnancy, childbirth, and the puerperium and its subcategory of uncomplicated deliveries.
- The U.S. discharge rate for diseases of the respiratory system was more than twice the French rate.
- The discharge rate for diseases of the respiratory system was 79 percent higher for males in the United States than for males in France. The rate for U.S. females was 2.8 times the rate for French females.
- The U.S. discharge rates for diseases of the digestive system for patients 45–64 years of age and 65 years of age and over were more than twice the French rates.
- The French discharge rate for acute appendicitis was nearly four times the U.S. rate.
- The U.S. discharge rate for diseases of the genitourinary system was 76 percent higher than the French rate.
- U.S. females had a discharge rate 90 percent higher for genitourinary diseases than French females had.
- The French discharge rate for symptoms, signs, and ill-defined conditions was 2.4 times the U.S. discharge rate.
- The French rate of days of care for symptoms, signs, and ill-defined conditions was 5.5 times the U.S. rate.
- The average length of stay for symptoms, signs, and ill-defined conditions was significantly longer in France than in the United States.
- U.S. males had a rate of days of care for mental disorders that was more than twice the rate for French males.
- The U.S. rate of days of care for mental disorders for patients 15–44 years of age was 2.7 times the French rate.
- The discharge rate for patients 65 years of age and over was 41 percent higher in the United States than in France for neoplasms and 83 percent higher for its subcategory, malignant neoplasms.

Marital status

- The patterns of hospital use by marital status were generally similar in the United States and France.
- In the United States, rates of discharges and days of care were higher for married persons 15–44 years of age than for single persons in that age group.
- The rates of discharges and days of care were higher in the United States for single than for married persons 45–64 years of age and 65 years of age and over.
- The proportions of discharges and days of care in the United States for divorced or separated patients were three times the proportions in France.
- Average lengths of stay were significantly longer for French than for U.S. patients for most marital status categories.
- Married U.S. patients generally had shorter average lengths of stay than patients in the same age group who did not have spouses.

Disposition

- In both France and the United States, more than 80 percent of patients were discharged to their place of residence.
- The proportion of patients discharged dead was similar in the two countries.
- French patients were twice as likely as U.S. patients to be reported as transfers.
- The percent of patients transferred was significantly higher in France for patients 15–44 years of age and 45–64 years of age, but not for patients 65 years of age and over.
- In both countries, the percent of patients discharged to their place of residence decreased with age and the percent transferred or discharged dead increased.
- Average lengths of stay were longer in both countries for patients transferred and discharged dead than for patients discharged to their usual place of residence.

Hospital characteristics

- Hospitals with 1,400 beds or more accounted for almost a third of discharges and a fourth of days of care in France, but for less than 1 percent of each in the United States.
- Hospitals with 120–799 beds accounted for approximately three-fourths of discharges and days of care in the United States, but for only 36.2 percent of discharges and 41.7 percent of days of care in France.
- French average lengths of stay were 4.1 to 6.4 days longer for hospitals with 50–799 beds, but were similar to U.S. average stays for hospitals with 800 beds or more.
- The majority of discharges and days of care were in private nonprofit hospitals in the United States and in public hospitals in France.
- The proportions of discharges and days of care in private for-profit hospitals in France were three times the proportions in the United States.
- In France, less than 20 percent of children under 15 years of age and of the elderly 65 years of age and over were hospitalized in private for-profit hospitals. More than 30 percent of patients 15–44 years and 45–64 years of age were discharged from private for-profit hospitals.
- French patients had longer average lengths of stay than U.S. patients in each hospital-ownership category.

Source of payment

- In the United States, private insurance was the principal expected source of payment for more than half of hospitalizations.
- The primary source of payment for almost all French hospitalizations was the sick fund, the national health insurance program of France. All hospital costs were covered by the sick funds for 63 percent of French hospital patients.
- Nearly half of hospitalized U.S. patients whose principal expected source of payment was Medicare also had private insurance and another 11 percent were also covered by Medicaid.
- About a third of French hospital patients covered by the sick fund were charged for a proportion of their hospital costs, but more than half had private insurance to cover these charges.

Characteristics of the United States and France

The number of people in the United States is more than four times the number in France. In 1981, the U.S. population was estimated at 227.7 million, the French population at 54 million (table A and table 1). The area of the United States is more than 17 times the area of France, but in 1981 France had 98.3 persons per square kilometer, more than four times the population density of the United States of 24.3 persons per square kilometer. The majority of the population in both countries lived in urban areas, but the United States, unlike France, has large areas that are very sparsely populated. This difference in population distribution is probably one reason that the United States has a larger proportion of small hospitals.

Comparison of the gross domestic product per capita in the two countries suggests that the United States enjoys a higher standard of living than France. In equivalent purchasing power, the gross domestic product per capita was 29 percent higher in the United States.

Another economic difference between the countries is that the population active in the labor force was more likely to be engaged in a service occupation in the United States. The service sector accounted for 66.4 percent of the civilian labor force in the United States, 56.2 percent in France. The proportion of the labor force was higher in France for both agriculture, forestry, and fisheries (8.6 percent compared with 3.5 percent in the United States) and industry (35.2 percent compared with 30.1 percent in the United States).

Table A. Selected characteristics: United States and France, 1981

Characteristic	*United States*	*France*
Population distribution	Number	
Resident population	227,659,000	53,965,810
Area in square kilometers	9,363,123	549,192
Persons per square kilometer	24.3	98.3
Gross domestic product per capita	Amount	
In national currency	$12,759	57,557 FF
Purchasing power parities[1]	$12,759	$ 9,855
Percent distribution of civilian labor force	Percent distribution	
Total	100.0	100.0
Agriculture, forestry, fisheries	3.5	8.6
Industry	30.1	35.2
Services	66.4	56.2

[1]One dollar had the same purchasing power as 5.84 French Francs in 1981.

SOURCES: U.S. Bureau of the Census. 1982. Preliminary estimates of the population of the United States by age, sex, and race: 1970–1981. *Current Population Reports.* Series P-25, No. 917. Washington: U.S. Government Printing Office; United Nations. 1983. *Demographic Yearbook, 1981.* New York; Institut National de la Statistique et des Etudes Economiques. 1983. *Annuaire Statistique de la France, 1982.* Paris; Organization for Economic Cooperation and Development. 1983. *National Accounts, Main Aggregates. Vol. 1. 1952–1981.* Paris.

Population

People 65 years of age and over, who use considerable amounts of hospital care, make up a larger proportion of the population in France than in the United States. In 1981, 13.9 percent of the French population was 65 years of age and over compared with 11.5 percent of the U.S. population (table 2). As can be seen in figure 1, more of the French than of the U.S. population was 65–74 years of age (7.6 percent versus 7.0 percent), 75–84 years of age (5.0 percent versus 3.5 percent), and 85 years of age and over (1.3 percent versus 1.0 percent). A smaller proportion of males than of females were 65 years of age and over in each country, but a greater proportion of both sexes were elderly in France. Males 65 years of age and over accounted for 11 percent of the male population in France, 9.6 percent in the United States. Females in this age group made up 16.7 percent of the female population in France, 13.3 percent in the United States.

More than half of the population in both countries was under 35 years of age. The proportion of the population in this age group was greater in the United States, 57.4 percent, than in France, 53 percent. More of the U.S. than of the French population was under 1 year of age (1.6 percent versus 1.5 percent), 1–14 years (20.9 percent versus 19.8 percent), 15–24 years (18.1 percent versus 15.8 percent) and 25–34 years (16.8 percent versus 15.9 percent). In contrast to the elderly population, a larger percent of males than of females were under 35 years of age in both countries, and a larger percent of both sexes were under 35 years of age in the United States. Males under 35 years of age accounted for 59.6 percent of the male population in the United States, 55.2 percent in France. Females in this age group made up 55.5 percent of the female population in the United States compared with 50.9 percent in France.

The proportion of the population 35–64 years of age was higher in France, 33.2 percent, than in the United States, 31 percent. About the same proportions were 35–44 years of age (11.5 percent in the United States, 11.6 percent in France) and 55–64 years of age (9.6 percent in the United States, 9.8 percent in France). However, the group 45–54 years of age made up 11.8 percent of the French population compared with 9.9 percent of the U.S. population. The distri-

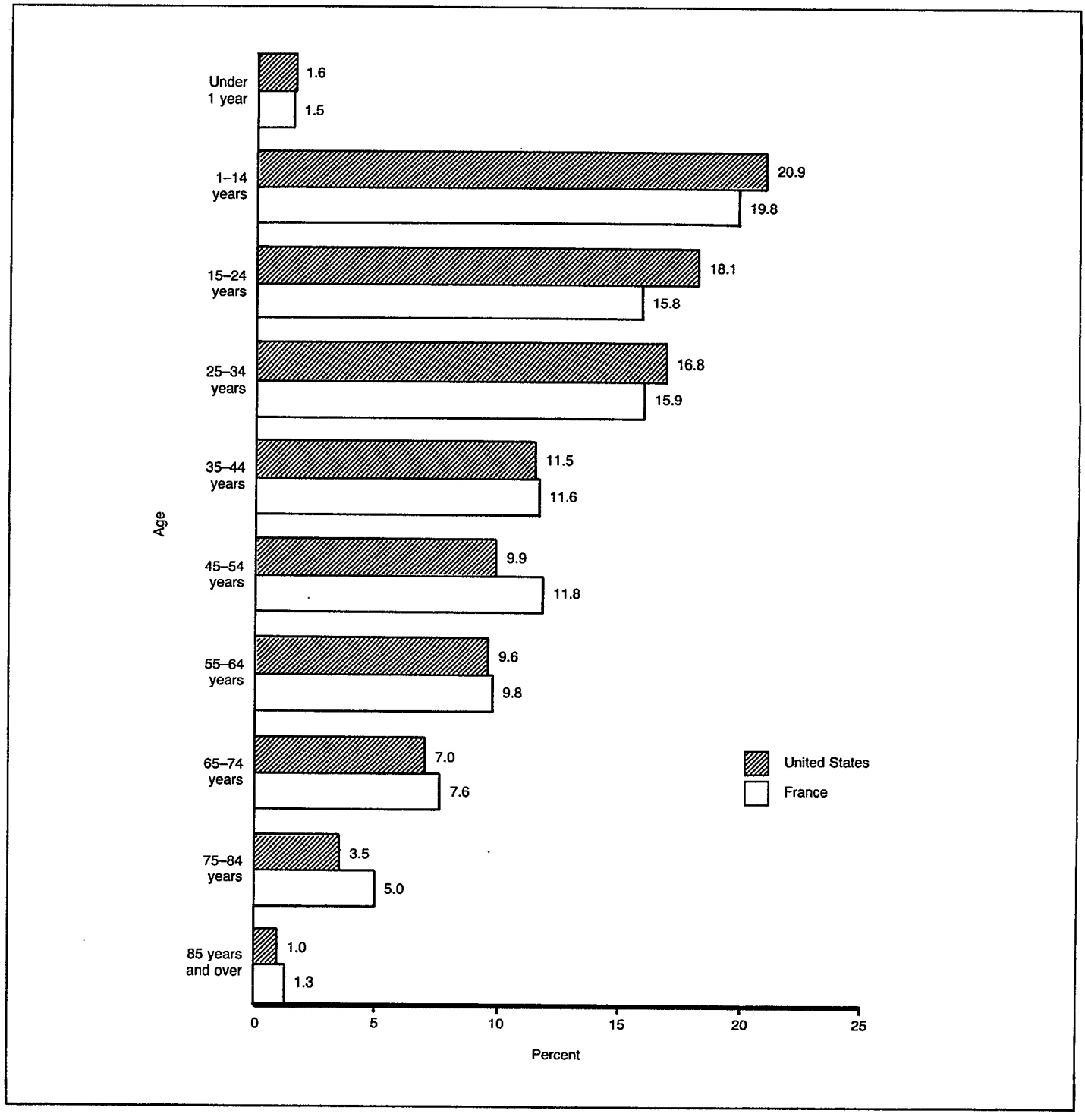

Figure 1. Percent distributions of population by age: United States and France, 1981

bution of the male and female populations followed the same pattern. A higher percent of the French than of the U.S. population of each sex was 35–64 years of age, the difference mainly attributable to a greater proportion of French males and females 45–54 years of age.

There were more females than males in both France and the United States. Females made up 51.7 percent of the U.S. population and 51.0 percent of the French population in 1981 (table 3). In the United States, females accounted for more than half of the population in each age group except the two youngest, under 1 year of age and 1–14 years (figure 2). In France, though, males outnumbered females in each of the age groups under 45 years of age. The presence of male immigrant workers in France may help to explain this difference. The predominance of females increased in the three age groups 65 years of age and over. The population 85 years of age and over was 70.1 percent female in the United States and 75.6 percent female in France.

The distributions of the population 15 years of age and over by marital status were generally similar in the two coun-

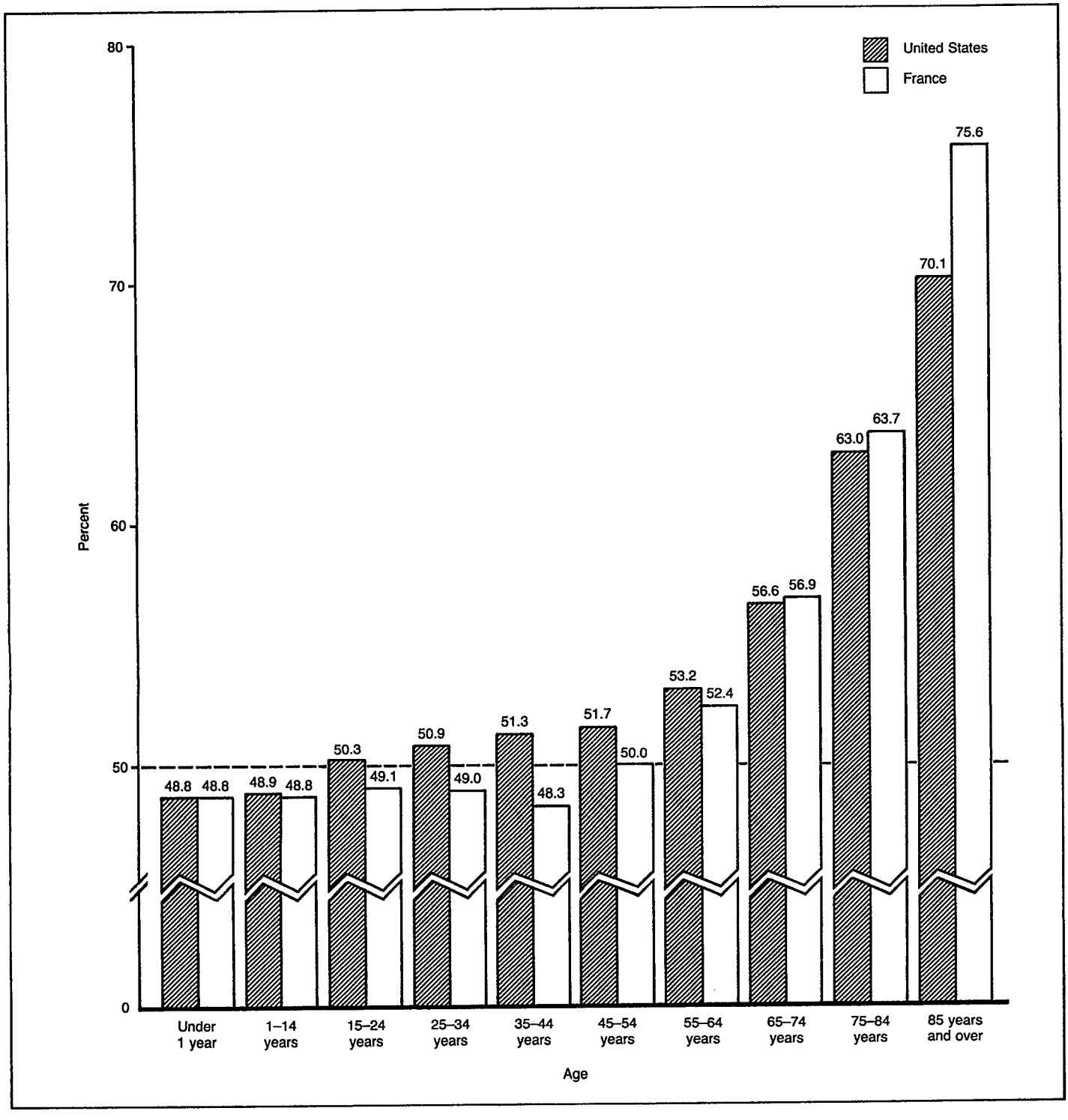

Figure 2. Percent female population in age groups: United States and France, 1981

tries (figure 3). The main difference was that 6.2 percent of the U.S. population was divorced compared with only 3.3 percent of the French population. Another 2.4 percent of the U.S. population was separated, a category not reported for the French population. The French population was somewhat more likely to be married (60.6 percent versus 58.2 percent of the U.S. population), single (27.0 percent versus 25.8 percent), or widowed (9.1 percent versus 7.3 percent).

There was some variation in these patterns for different age groups. For example, a larger percent of the French population 15–44 years of age and 45–64 years of age were married, but the proportion of people 65 years of age and over that were married was higher in the United States (table 4). Although more of the French population 65 years of age and over was widowed, the percent widowed was higher in the United States for the group 45–64 years of age, and it was the same in the two countries for the group 15–44 years of age. Single people made up a larger proportion of the

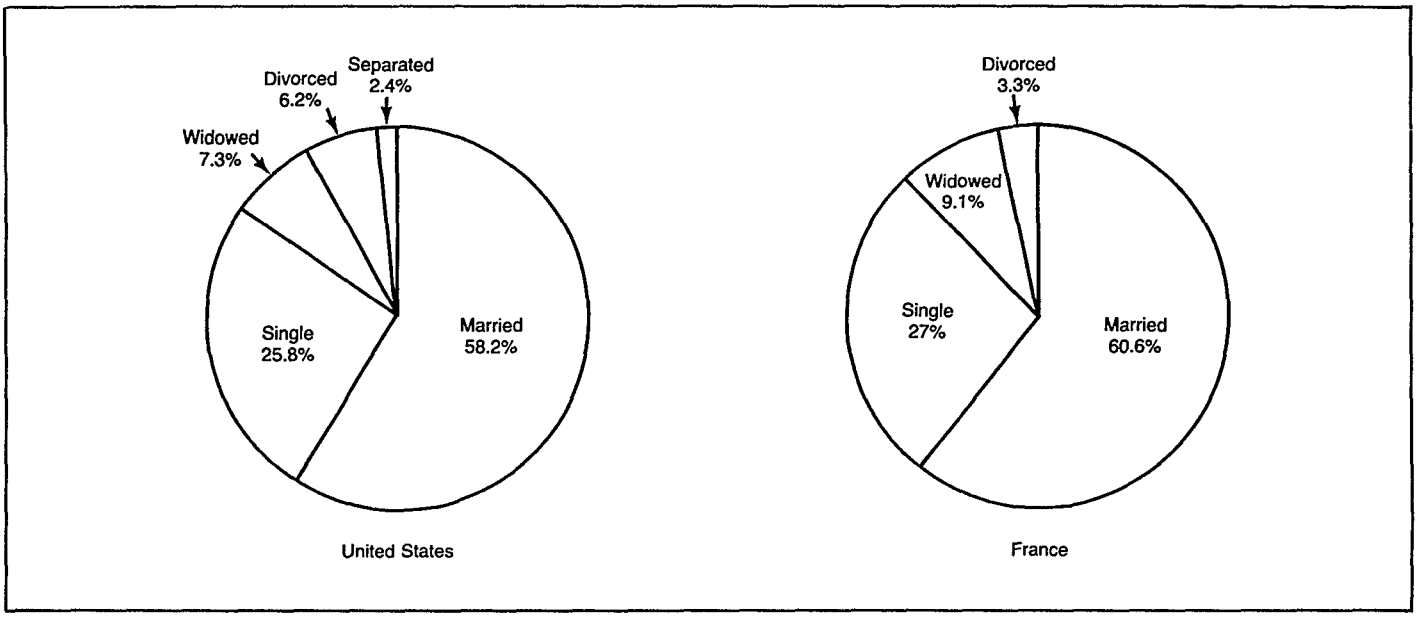

Figure 3. Percent distributions of population 15 years of age and over by marital status: United States and France, 1981

French population in each of the three age groups, and the divorced population was larger for each age group in the United States.

Health care system

Personal health expenditures amounted to $1,090 per person in the United States in 1981, which was 42 percent higher than personal health expenditures in France of $768 per person in equivalent dollars (table B). Personal health expenditures also made up a larger proportion of the gross national product in the United States, 8.7 percent as compared with 7.8 percent in France.

Because of variations in definitions, the statistics on costs of institutional care are not completely comparable in the two countries. However, institutional care—that is, care in hospitals and nursing home type facilities—appears to account for about half of personal health expenditures in both countries. The U.S. population spent $607 per person on institutional care, which was 57 percent higher than the $386 per person in equivalent dollars spent in France. The U.S. institutional care expenditures can be broken down into $505 per person for hospital care and $102 per person for nursing home care.

The supply of active physicians was larger in France than in the United States. There were 20.1 physicians per 10,000 population in France compared with 18.6 physicians per 10,000 population in the United States (table C). The distributions of physicians by practice settings were very similar. Approximately two-thirds of the active physicians in each country were primarily in private office-based practices. Many of these physicians were also employed part time as hospital staff or in other activities.

In the United States, 70.7 percent of the physicians who were not in office-based practice (23.3 percent of all U.S. physicians) were in hospital-based practices. The majority of these physicians were residents in specialty training. Besides serving in hospital and office-based practices, U.S. physicians

Table B. Health expenditures: United States and France, 1981

Expenditure	*United States*	*France*
Personal health expenditures	Amount	
Per capita:		
National currency	$1,090	4,485 FF
Purchasing power parities[1]	$1,090	$ 768
	Percent	
Percent of gross national product	8.7	7.8
Institutional care expenditures	Amount	
Per capita:		
National currency	$ 607	2,253 FF
Purchasing power parities[1]	$ 607	$ 386
	Percent	
Percent of personal health expenditure	55.7	50.2

[1]One dollar had the same purchasing power as 5.84 French Francs in 1981.

SOURCES: Robert M. Gibson and Daniel R. Waldo. 1982. National health expenditures, 1981. *Health Care Financing Review.* 4(1):1–35; Centre de Recherche D'Etude et de Documentation en Économie de la Santé. Software Programme C.M.F.-C.R.E.D., Paris; Organization for Economic Cooperation and Development. 1983. *National Accounts, Main Aggregates. Vol. 1. 1952–1981.* Paris.

Table C. Percent distribution and rate of active physicians, by activity: United States, 1981, and France, 1980

Activity	*United States*	*France*	*United States*	*France*
	Percent distribution		Rate per 10,000 population	
All active physicians	100.0	100.0	18.6	20.1
Office-based practice	67.1	67.8	12.5	13.6
General practice	11.6	41.8	2.2	8.4
Specialized practice	55.5	26.0	10.3	5.2
Other active physicians	32.9	32.2	6.1	6.5

SOURCES: *Physician Characteristics and Distribution in the U.S., 1982 Edition.* Department of Physician Data Services. Division of Survey and Data Resources. Chicago: American Medical Association (Copyright 1983: Used with the permission of the American Medical Association); Ministere des Affaires Sociales et de la Solidarité Nationale. 1984. *Annuaire des Statistiques Sanitaires et Sociales 1982–1983.* Paris.

were active mainly in research, administration, and medical teaching. Data were not available on the activities of the French physicians not in office-based practice, but most of them were also likely to be full-time hospital staff.

Physician specialization was much more common in the United States than in France. Specialists made up 83 percent of office-based physicians in the United States compared with only 38 percent in France. The U.S. rate of office-based specialists was almost twice the French rate. Conversely, the French rate of office-based general practitioners, 8.4 per 10,000 population, was almost four times the rate in the United States of 2.2 per 10,000 population. It should be noted, however, that specialization was defined differently in the two countries. The U.S. data were taken from reports by physicians about whether they were in general or specialized practice. In France, "specialist" refers to a physician trained and certified in a specialty. All French physicians who were not certified were counted as general practitioners.

In both France and the United States, patients are generally free to choose the physician they wish to visit for care, and they can visit either a general practitioner or a specialist. Physicians in office-based practice in both countries are usually reimbursed on a fee-for-service basis, but the fees are more strictly regulated in France. Staff physicians in hospitals are generally salaried in both countries.

There is a greater degree of separation between ambulatory and inpatient care in France than in the United States. U.S. physicians in office-based practice usually not only provide ambulatory care but can admit their patients to hospitals and take responsibility for inpatient treatment. Office-based practice in France is concentrated on the provision of ambulatory care. Hospital staff physicians treat French patients admitted to the public hospitals. Private French hospitals do allow office-based physicians to admit and treat patients, but these facilities account for less than a third of French hospital beds.

Separation between ambulatory and inpatient care may result in low rates of hospitalization in France because the ambulatory care physicians are less likely to refer their patients to hospitals. Longer hospitalizations may also result because the patients who are admitted are more seriously ill and because the hospital physicians want to supervise patients until they are fully recovered.

Virtually all of the French population (99.2 percent) is protected by health insurance. Most are covered by a compulsory insurance system, but coverage for some is voluntary. These insurance systems generally do not cover the total costs of health care services, leading many people in France to purchase supplementary benefits from mutual societies, which are private insurance organizations. Insurance usually provides the most complete coverage of the costs of hospital care and covers less of the costs of drugs and ambulatory care. In 1981, the national government financed about 2.3 percent of all health care costs, the mutual societies 3.5 percent, and the other insurance programs 73.3 percent. The remaining 20.9 percent of health care costs were paid directly by patients.

In the United States, there are two main public programs, Medicare, a national program that provides health insurance protection primarily for people 65 years of age and over, and Medicaid, a joint Federal-State welfare program that provides medical benefits for persons, including the aged, who meet each State's definition of "low income." The rest of the population resorts mainly to the purchase of private health insurance. However, 12 percent of the U.S. population had no insurance in 1981 and thus was unprotected against the financial risks of illness. As is the case in France, hospital care is more likely than other health services to be covered by insurance. In 1981, 39.8 percent of the costs of health care were paid by Federal, State, or local government, 31.1 percent by private insurance plans, and 1.2 percent by private charities and industry. The remaining 27.9 percent of costs were paid directly by patients (Levit et al., 1985).

Hospital system

The supply of beds in hospitals and other health care facilities was considerably larger in France than in the United States. The French rate of beds, at 177 per 10,000 population, was 42 percent higher than the U.S. rate of 124.6 per 10,000 population (table 5). These totals include both hospitals and long-term care facilities, which are nursing homes in the United States and, in France, hospital departments and homes for the elderly and convalescent homes. The rate of beds per 10,000 population in the long-term care facilities was very similar in the two countries (figure 4). However, since the elderly population was larger in France, the supply of beds per 10,000 population 65 years of age and over was about 20 percent larger in the United States. Some of the types of patients treated in nursing homes in the United States are thought to be cared for in long-term hospital services in France (NCHS, 1983b).

The rate of hospital beds per 10,000 population was 111.4 in France, 88 percent higher than the U.S. rate of 59.4 per 10,000 population. Differences in rates were reported across the various hospital services (figure 5). The French rate was 38 percent higher for medical and surgical services and was more than twice the U.S. rate for obstetrics and gynecology and psychiatric services. Tuberculosis and other long-term care services accounted for only 9.6 percent of U.S. hospital

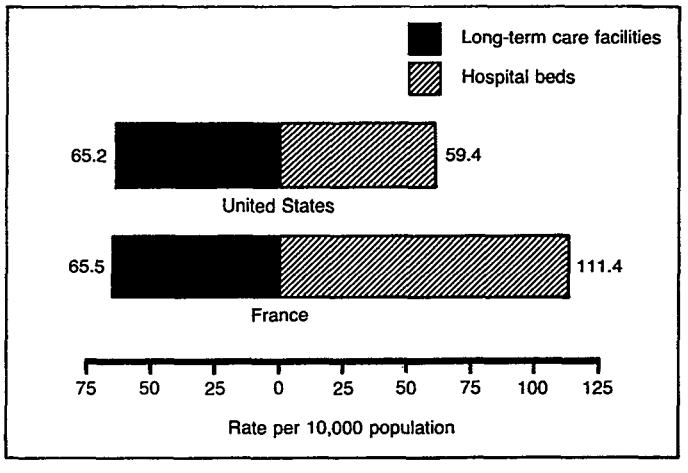

Figure 4. Rates of beds in hospitals and other health care facilities: United States and France, 1981

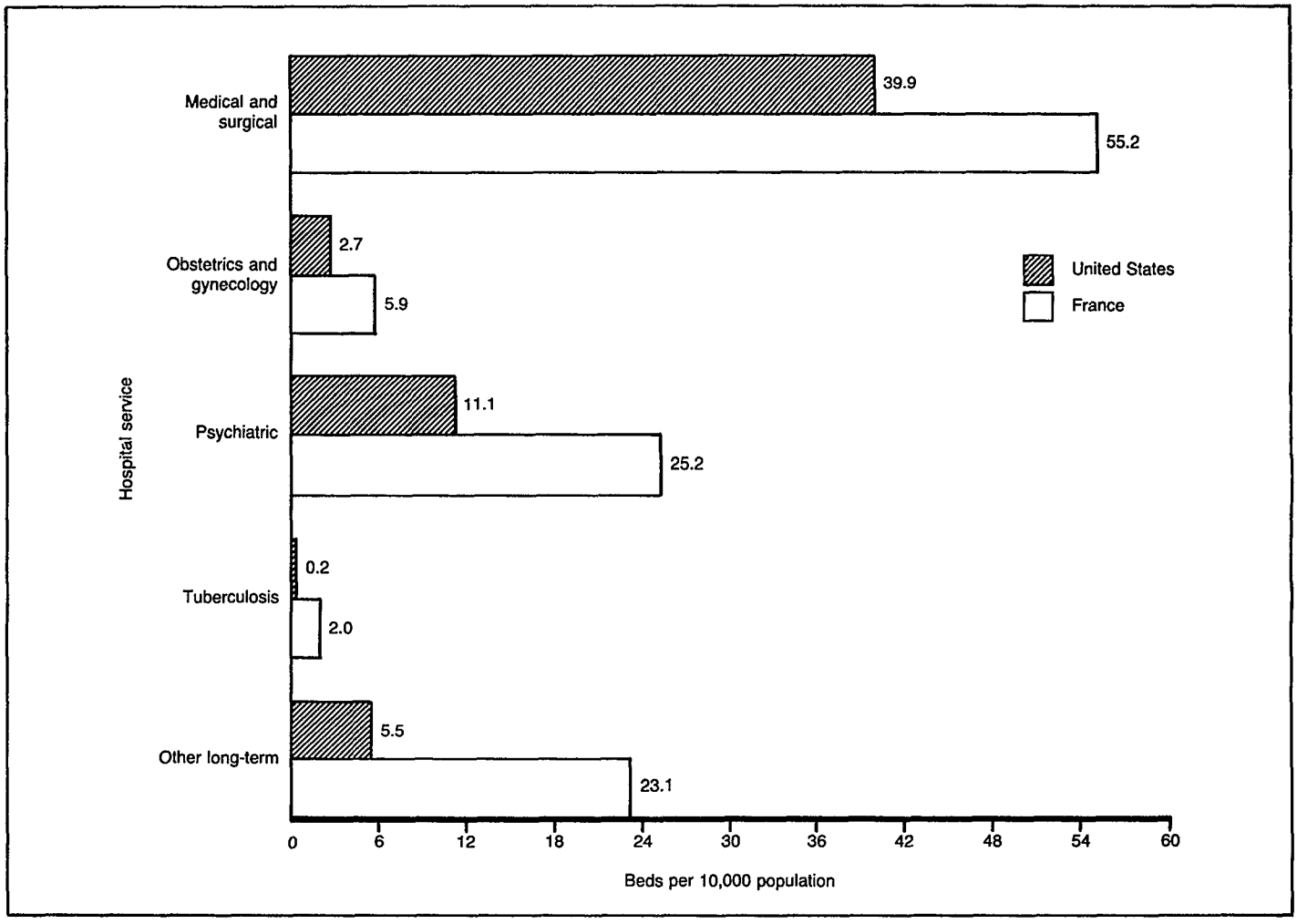

Figure 5. Rates of beds in hospital services: United States and France, 1981

beds, a rate of 5.7 per 10,000 population. These services made up 22.5 percent of French hospital beds, or 25.1 beds per 10,000 population.

The supply of beds in private health care facilities was larger in the United States (96.6 beds per 10,000 population) than in France (58 beds per 10,000 population). Rates of private hospital beds did not differ greatly in the two countries, but the U.S. rate of private nursing home beds was 60.4 per 10,000 population, compared with 24.5 beds per 10,000 population in private long-term care facilities in France.

Beds in public health care facilities were much more plentiful in France. The French rate of public hospital beds was 77.9 per 10,000 population, more than three times the U.S. rate of 23.2 per 10,000 population. For long-term care facilities the difference was even more pronounced; there were 41.1 public beds per 10,000 population in France and only 4.8 per 10,000 population in the United States.

Among hospital services, beds in psychiatric services and other long-term services were predominantly public beds in both countries. Tuberculosis beds were also mainly public beds in the United States, but there were more private than public tuberculosis beds in France. In all the services except the tuberculosis service, more French hospital beds were public than were private. In the United States, though, beds in both medical and surgical services and obstetrics and gynecology services were mainly in private rather than public hospitals.

Although the rates of private hospital beds did not differ greatly in the two countries, most private beds in the United States were in nonprofit hospitals whereas more private beds in France were in for-profit than in nonprofit hospitals (figure 6). More than half of all U.S. hospital beds and 63.9 percent of short-stay hospital beds were in nonprofit hospitals, compared with 12.5 percent of all beds and 11.2 percent of short-stay beds in France (table 6). The U.S. rate of nonprofit beds per 10,000 population was more than twice the French rate for all hospitals, and more than four times the French rate for short-stay beds.

In France, 17.5 percent of all hospital beds and almost a fourth of short-stay beds were in for-profit hospitals, compared with 7.5 percent of all beds and 8.5 percent of short-stay hospital beds in the United States. For the for-profit hospitals, the French rate of beds per 10,000 population was more than four times the U.S. rate for all hospitals and three and a half times the U.S. rate for short-term hospital beds.

As was discussed previously, public hospital beds were more abundant in France. They accounted for almost 70 percent of all French hospital beds and for 64.8 percent of short-stay beds. U.S. public hospitals made up 39.1 percent of all hospital

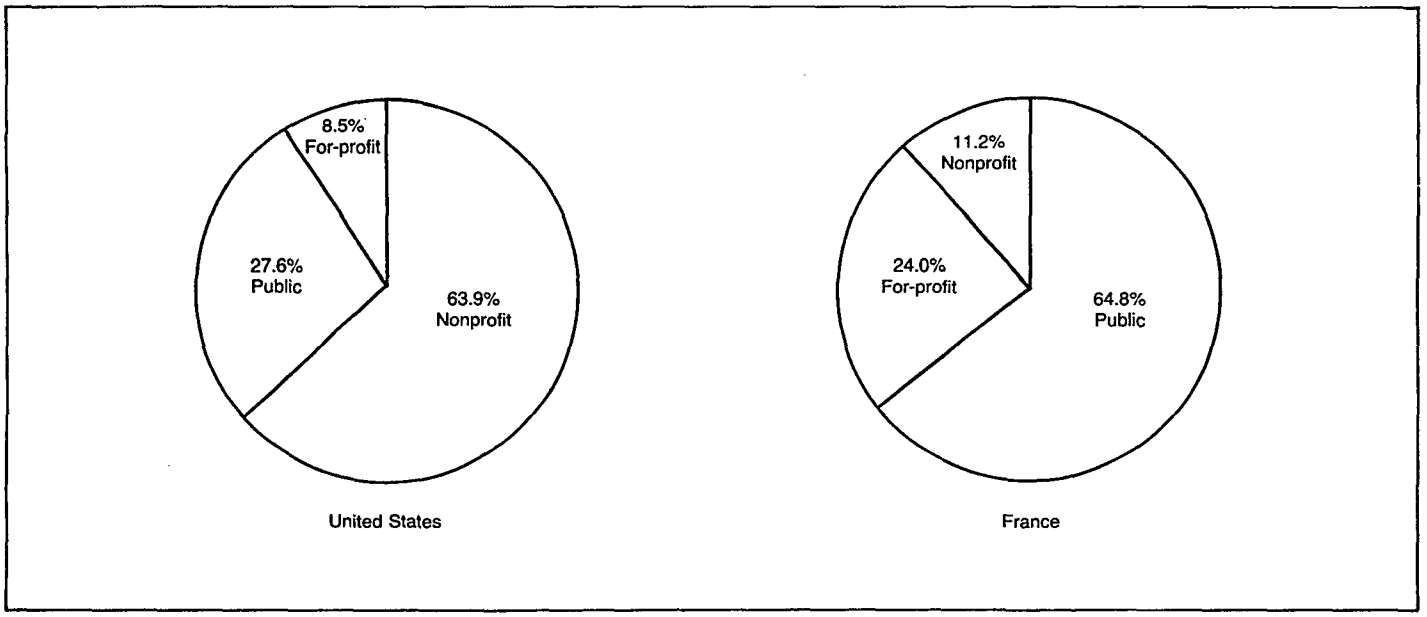

Figure 6. Percent distributions of short-stay hospital beds by ownership: United States and France, 1981

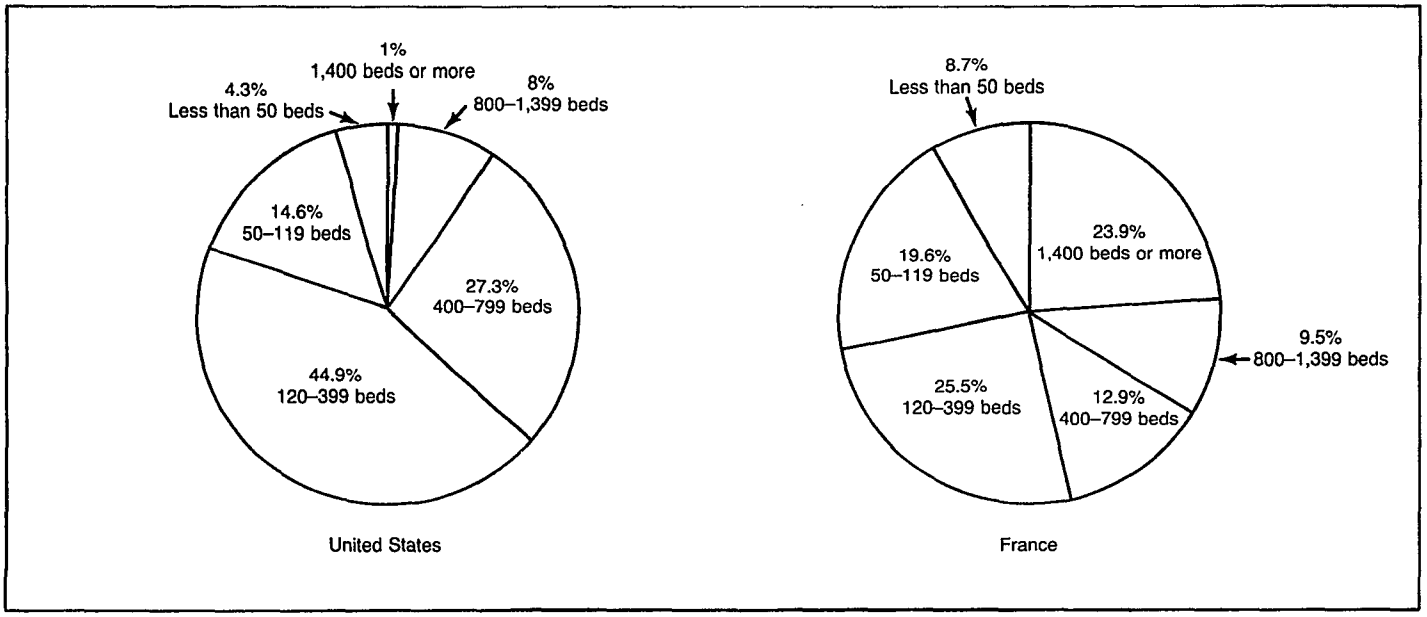

Figure 7. Percent distributions of short-stay hospital beds by bed size of hospital: United States and France, 1981

beds and 27.6 percent of short-stay hospital beds. The rate of short-stay public beds in France was almost three times the rate in the United States.

The distribution of hospital beds by bed size categories differs considerably in the two countries (figure 7). Especially striking is the difference in the proportion of beds in the largest hospitals. In France, hospitals with 1,400 beds or more contain 22 percent of all hospital beds and 23.9 percent of short-stay beds. Hospitals with 1,400 beds or more in the United States make up only 4.6 percent of all hospital beds and 1.0 percent of short-stay hospital beds (table 7).

French hospital beds were more likely than were U.S. beds to be in hospitals with 800–1,399 beds. In addition, larger proportions of French beds fell into the two smallest bed size categories, less than 50 beds and 50–119 beds. These differences held for all hospital beds and for short-stay beds.

In the United States, two-thirds of all hospital beds and 72.2 percent of short-stay hospital beds were in hospitals with 120–799 beds. Only 37.1 percent of all beds and 38.4 percent of short-stay beds were in hospitals with 120–799 beds in France.

Life expectancy

Data on life expectancy suggest that the health status of the populations in the United States and France are similar. Males born in 1981 in either country could expect to live to 70.4 years of age, and females born in 1981 could expect to live to 77.9 years of age in the United States, 78.5 years of age in France (table D).

The life expectancy for people at other ages was also generally similar in the two countries. At 15 and 45 years of age, males had a slightly longer life expectancy in the United States; females could expect to live slightly longer in France. Both males and females 65 years and 80 years of age had a longer life expectancy in the United States. The difference was only 0.4 of a year for persons 65 years of age, but at 80 years of age, U.S. males could expect to outlive their French counterparts by 0.8 year, and U.S. females could expect to live 1.3 years longer than French females.

The differences in life expectancy result from variations in death rates by age and sex (table 8). The crude death rate was higher in France, but that was because of a higher proportion of elderly and higher death rates for persons 75 years of age and over in France. For age groups under 75 years of age, the death rates were higher in the United States (figure 8).

The largest difference between the countries was in death rates for infants under 1 year of age. The U.S. death rate was 23 percent higher for the whole age group under 1 year of age and 31 percent higher for females in their first year of life. The smallest difference in death rates was for children 1–14 years of age. In fact, French girls 1–14 years of age had a slightly higher death rate than U.S. girls.

The differences between U.S. and French death rates also varied by sex for other age groups. Greater differences were found in the death rates of males than of females for the age groups 15–24 and 25–34 years of age. For example, U.S. males 25–34 years of age had a death rate 20 percent higher than French males, but the death rate of U.S. females in this age group was only 11 percent higher than the rate for French females. The reverse was true for the age groups 35–44, 45–54, 55–64, and 65–74 years of age, where the differences in death rates of females were greater than the differences in the rates of males. The sex differences for the age groups 45–54 and 55–64 years of age were particularly noteworthy. Males 45–54 years of age had a 4-percent higher death rate in France, but females in that age group had a 32-percent higher death rate in the United States. For the age group 55–64 years, the death rate was 10 percent higher in the United States for males but 45 percent higher for females.

Table D. Life expectancy at selected ages by sex: United States and France, 1981

Age	Males		Females	
	United States	France	United States	France
	Life expectancy in years			
At birth	70.4	70.4	77.9	78.5
At 15 years	56.8	56.6	64.1	64.4
At 45 years	29.4	29.0	35.4	35.7
At 65 years	14.4	14.0	18.6	18.2
At 80 years	6.9	6.1	8.9	7.6

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; United Nations. 1986. *Demographic Yearbook, 1984.* New York.

Causes of death

Death rates for leading causes of death in France and the United States are shown in table 9. Diseases of the circulatory system and neoplasms were the most important causes of death in both countries. The death rate for circulatory diseases was higher, and circulatory diseases accounted for a larger proportion of deaths (figure 9) in the United States. The death rate and the proportion of deaths for neoplasms were higher in France. To some extent, these variations may reflect differences in the selection of underlying cause of death. Studies have shown that when given the same set of death certificates, U.S. coders were more likely than coders in other countries to choose a circulatory disease as the underlying cause of death; French coders were more likely to choose cancer (Percy and Dolman, 1978).

Among the circulatory diseases, the U.S. death rate for ischemic heart disease was two and a half times the rate in France, and the rate for myocardial infarction was 75 percent higher in the United States. French rates were higher for cerebrovascular disease and for heart failure and ill-defined heart disease.

In the neoplasm category, the United States had a 42-percent higher death rate for malignant neoplasms of the trachea, bronchus, and lung. It is interesting to note that U.S. death rates were also higher for chronic obstructive pulmonary disease and pneumonia, although the French death rate was higher for all respiratory diseases.

The French death rate was higher for malignant neoplasms of the intestine, rectum, and anus. In addition, the death rate in France was more than twice the rate in the United States for diseases of the digestive system and the subcategory of alcoholic liver disease and other cirrhosis of the liver.

Large differences were found in the death rates and proportions of deaths for the category of symptoms, signs, and ill-defined conditions. The French death rate was over five times the U.S. rates for that category, which accounted for 6.5 percent of French deaths compared with only 1.5 percent of U.S. deaths. Within the category, deaths about which virtually no information about cause was available were assigned to the subcategory of unknown and unspecified cause. This subcategory was reported almost three times more frequently in France than in the United States.

Under 1 year

The leading causes of death for persons of all ages primarily reflect the causes for older people, whose death rates are much higher than the rates for the younger population. Therefore, leading causes were also compared for specific age groups. Table 10, illustrated by figure 10, presents leading causes of death for infants under 1 year of age in France and the United States.

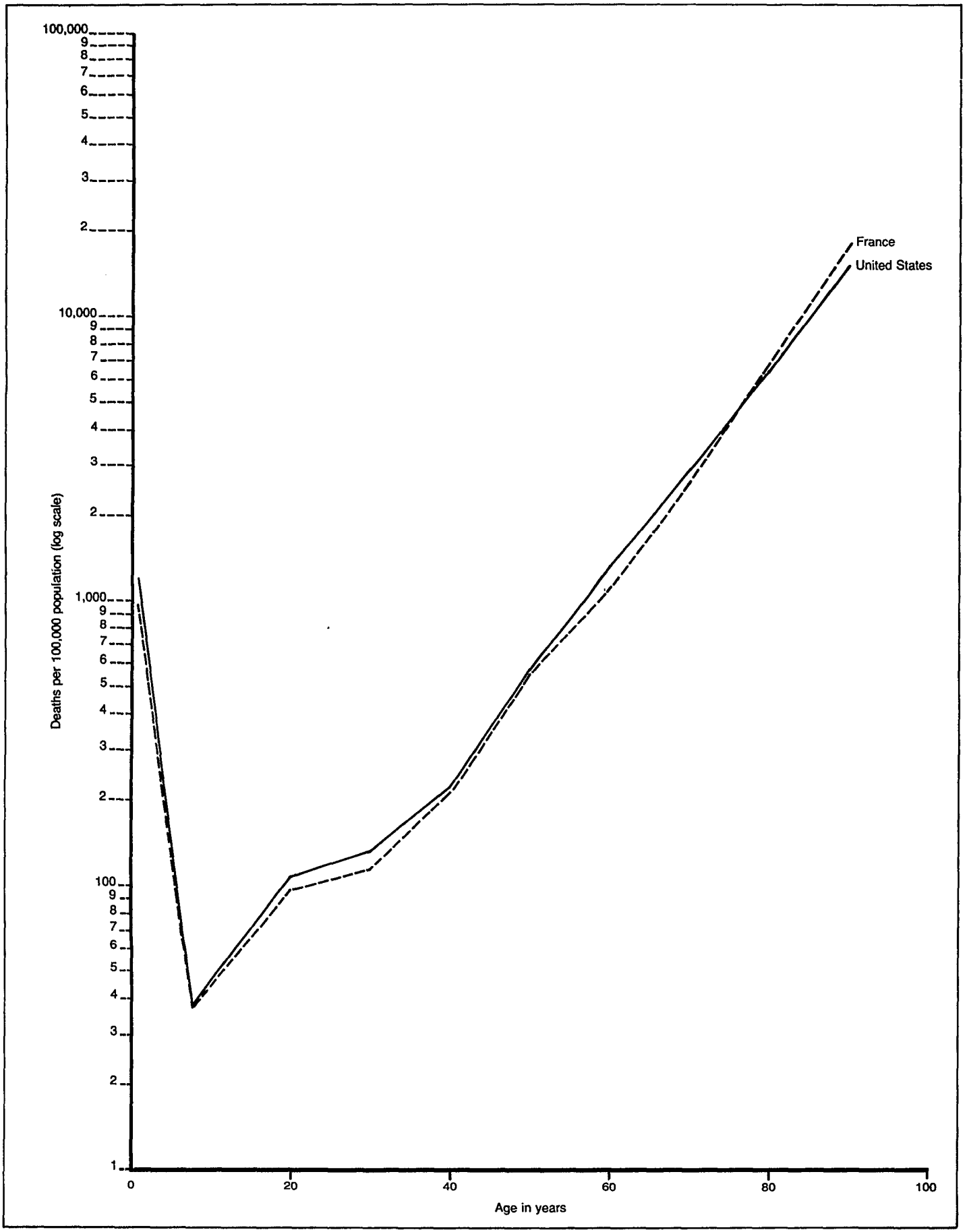

Figure 8. Death rates by age: United States and France, 1981

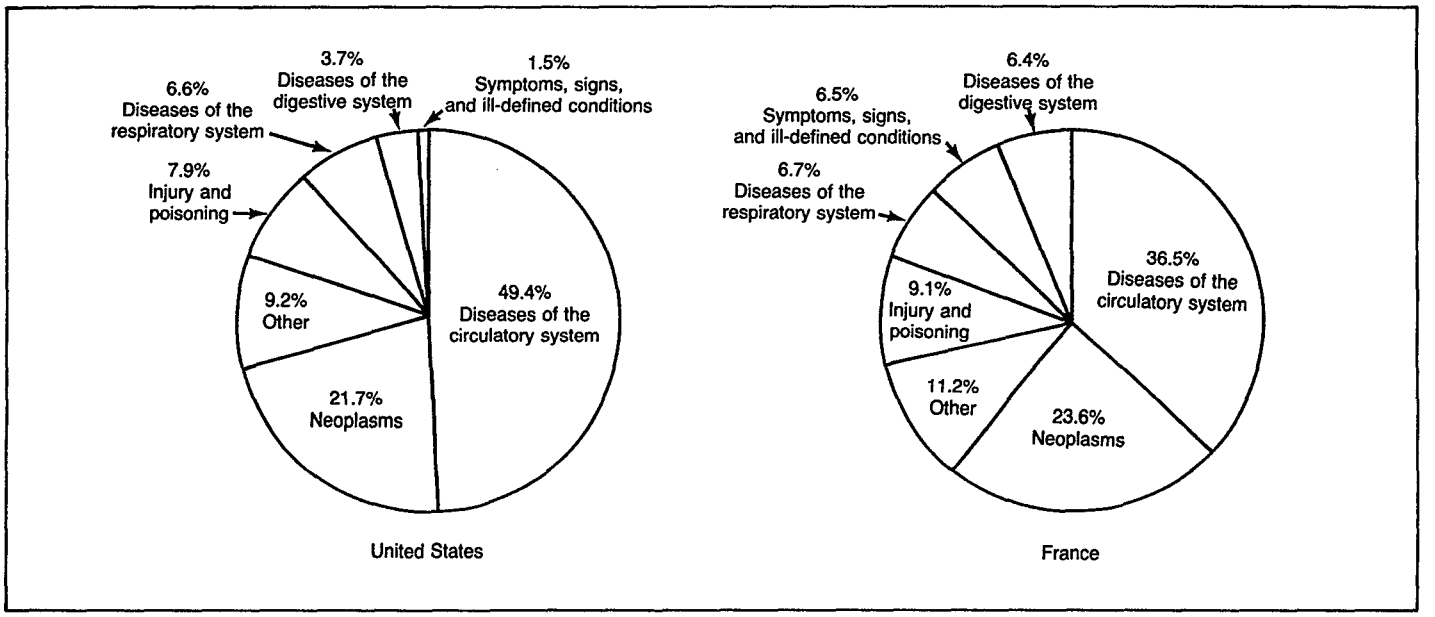

Figure 9. Percent distributions of deaths by leading causes of death: United States and France, 1981

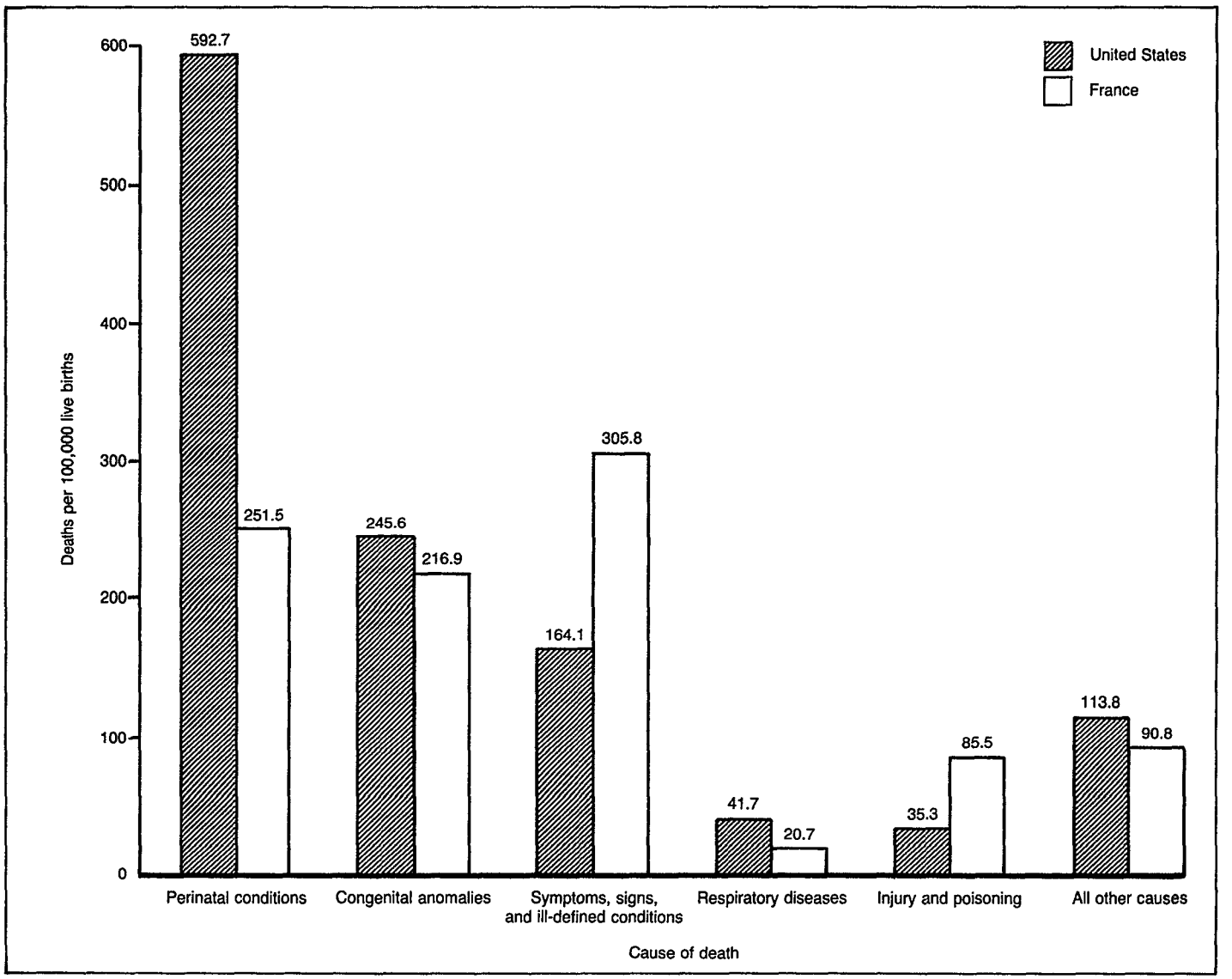

Figure 10. Death rates for infants under 1 year of age by leading causes of death: United States and France, 1981

Certain conditions originating in the perinatal period were responsible for almost half of the infant deaths in the United States. The U.S. infant mortality rate for perinatal conditions was more than twice the French rate. The U.S. rate was twice the French rate for the subcategories of anoxia and other respiratory conditions, and of birth trauma and fetal and neonatal hemorrhage. For the subcategory of disorders relating to short gestation and unspecified low birth weight, the U.S. rate was almost five times the French rate. However, the infant rate for infections specific to the perinatal period was almost 50 percent higher in France.

More infant deaths in France were attributed to symptoms, signs, and ill-defined conditions than to any other diagnostic category. The French infant mortality rate for the category was almost twice the U.S. rate. The designation of an unknown and unspecified cause was applied to infant deaths in France at a rate more than 11 times that in the United States. It should be noted, though, that the infant mortality rate for sudden death, cause unknown, which includes sudden infant death syndrome, was higher in the United States.

Congenital anomalies were a leading cause of infant death in both countries. The U.S. infant mortality rate for congenital anomalies was 13 percent higher than the French rate for both sexes, 28 percent higher for females. Deaths from congenital anomalies of the circulatory system occurred at a 14-percent higher rate in France, but the infant mortality rate for congenital anomalies of the nervous system was 46 percent higher in the United States for both sexes, 75 percent higher for females.

The differences in the rates for the other two leading causes of infant deaths were again large. The U.S. infant mortality rate for diseases of the respiratory system was twice the rate in France, and the French rate for injury and poisoning was twice the rate in the United States.

1–14 years

The leading causes of death for children 1–14 years of age were similar in the two countries (table 11). The most important cause-of-death category in both countries was injury and poisoning. This category was responsible for half of children's deaths in the United States and 41.9 percent in France (figure 11). The U.S. death rate for children 1–14 years of age for injury and poisoning was 22 percent higher than the French rate. The U.S. death rate was 19 percent higher for all accidents and adverse effects, 11 percent higher for traffic accidents, and more than 4 times the French rate for homicide and injury purposely inflicted by other persons.

Neoplasms was the second leading cause-of-death category for children 1–14 years of age in both countries. Neoplasms caused 16.5 percent of French deaths and 12.1 percent of U.S. deaths. The French death rate was 35 percent higher for all neoplasms, 23 percent higher for malignant neoplasms, and 47 percent higher for leukemia.

Congenital anomalies accounted for approximately the same rate and percent of the deaths of children 1–14 years of age in each country. French children had a slightly higher rate and percent of deaths for diseases of the nervous system and sense organs. U.S. children had a slightly higher rate and percent of deaths for diseases of the respiratory and circulatory systems.

Children's death rates were the most different in the two countries for symptoms, signs, and ill-defined conditions. The French rate was over two and a half times the U.S. rate for the whole category and for the subcategory of unknown and unspecified cause. Symptoms, signs, and ill-defined conditions accounted for 6.4 percent of children's deaths in France compared with 2.4 percent of children's deaths in the United States.

15–44 years

Injury and poisoning was the leading cause-of-death category for people 15–44 years of age in both the United States and France (table 12, figure 12). Injury and poisoning accounted for 62 percent of the deaths of males 15–44 years of age in the United States, 54 percent in France. In both

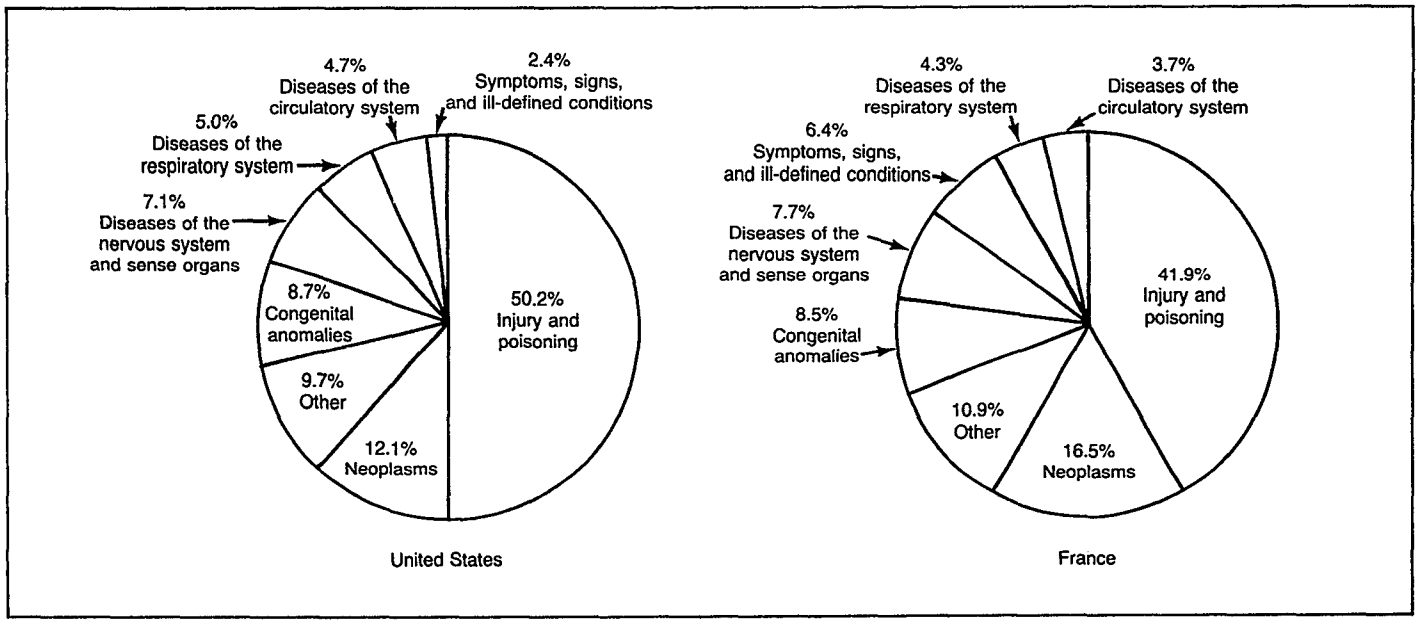

Figure 11. Percent distributions of deaths by leading causes of death for children 1–14 years of age: United States and France, 1981

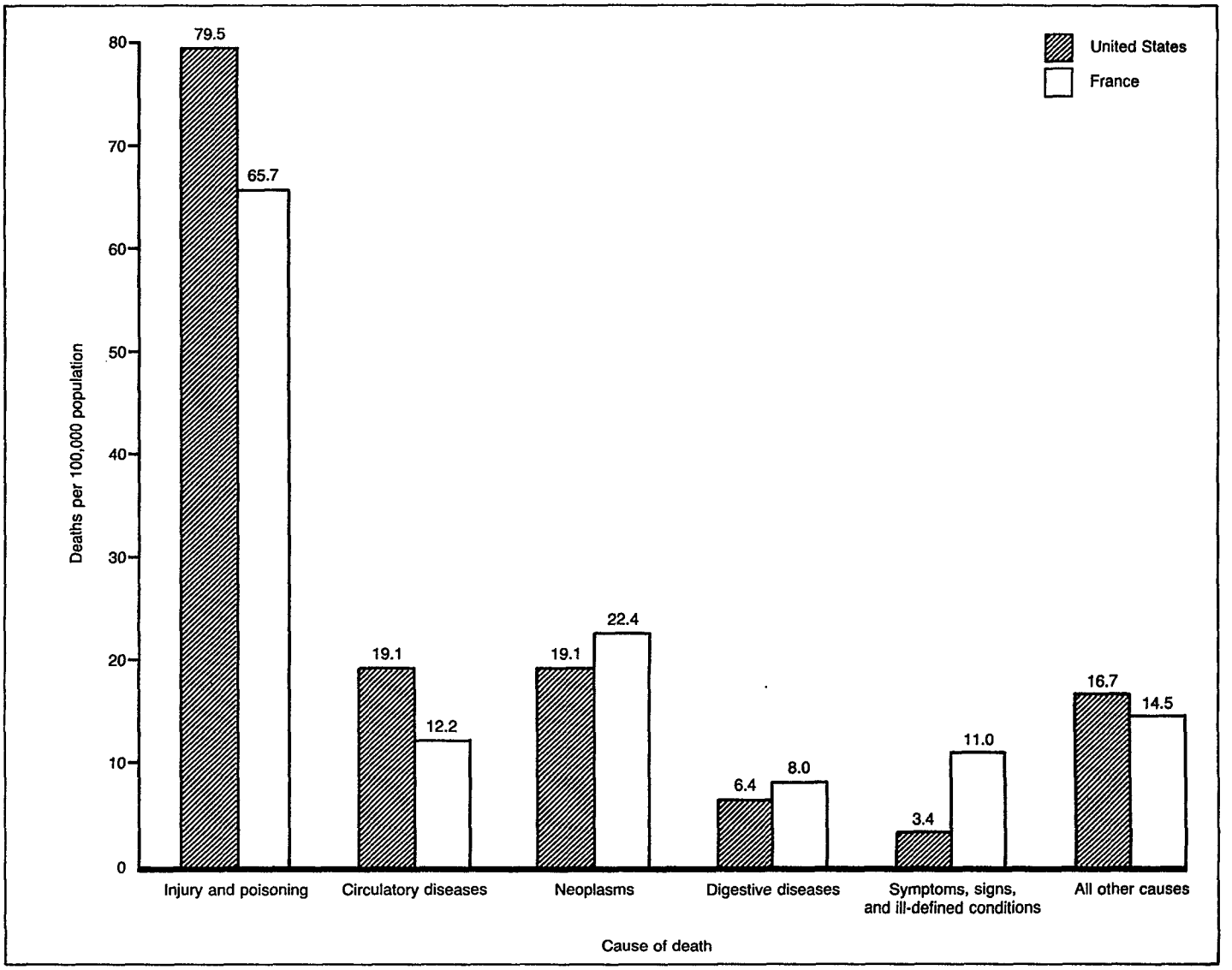

Figure 12. Death rates for persons 15–44 years of age by leading causes of death: United States and France, 1981

countries, approximately 38 percent of female deaths in the age group were caused by injury and poisoning. The death rate for injury and poisoning was 21 percent higher in the United States. The U.S. rate was 8 percent higher for all accidents and adverse effects and 18 percent higher for traffic accidents. The largest difference, though, was for homicide and injury purposely inflicted by another person. The U.S. rate for this subcategory was 13 times the French rate for both sexes, 16 times the French rate for males. In contrast, the death rate for suicide and self-inflicted injury was 16 percent higher in France for both sexes, 31 percent higher in France for females.

Neoplasms was the second leading cause-of-death category for the population 15–44 years of age in France. In the United States, the death rates for neoplasms and diseases of the circulatory system were the same, making both second in importance as causes of death for this age group. The French death rate for neoplasms was 33 percent higher than the U.S. rate for males, but only 6 percent higher than the U.S. rate for females. The main reason for the sex difference was probably the 14-percent higher death rate of females in the United States for malignant neoplasm of the breast.

The death rate for diseases of the circulatory system was 57 percent higher in the United States. Ischemic heart disease resulted in deaths in the United States at a rate two and a half times that in France, and the U.S. death rate for acute myocardial infarction was 83 percent higher than the French rate. The total death rate for cerebrovascular disease was the same in the two countries, but the rate for males was 29 percent higher in France and the rate for females was 38 percent higher in the United States.

The French death rate for diseases of the digestive system was 25 percent higher than the U.S. rate. The French rate was 50 percent higher for the subcategory of alcoholic liver disease and other cirrhosis of the liver. Symptoms, signs, and ill-defined conditions was also an important cause-of-death category for this age group in France. The French death rates for this category, and for the subcategory of unknown and unspecified cause, were over three times the rates in the United States.

45–64 years

Diseases of the circulatory system was the leading cause-of-death category for persons 45–64 years of age in the United States, accounting for 41 percent of that group's deaths (table 13). In France, however, circulatory diseases were responsible for only 22 percent of the deaths of persons in this age group; and neoplasms accounted for 40 percent of French deaths.

The U.S. death rate for all circulatory diseases was more than twice the French rate. Among the circulatory diseases, the U.S. death rate for ischemic heart disease was three times the French rate for males and five and a half times the French rate for females. For acute myocardial infarction alone, the U.S. death rate was two and a half times the French rate for males and more than four times the French rate for females (figure 13). The U.S. death rate was also 68 percent higher than the French rate for heart failure and ill-defined heart disease, and U.S. females had a 29-percent higher rate for cerebrovascular disease. Males 45–64 years of age, like males 15–44 years of age, had a higher death rate for cerebrovascular disease in France.

The death rates for neoplasms were similar in the United States and France, but males 45–64 years of age had a 24-percent higher death rate for neoplasms in France; females had a 33-percent higher rate in the United States. Death rates for malignant neoplasms of the trachea, bronchus, and lung; malignant neoplasms of the breast; and malignant neoplasms of the intestine, rectum, and anus all were higher in the United States. Especially notable was the death rate for U.S. females for malignant neoplasms of the trachea, bronchus, and lung, which was more than five and a half times the rate for French females. In contrast, the French death rate for malignant neoplasms of the lip, oral cavity, and pharynx was more than three times the U.S. rate; and French males had a rate more than four times that for U.S. males.

Unlike the population 1–44 years of age, persons 45–64 years had a higher death rate for injury and poisoning in France. French rates were 33 percent higher for accidents and adverse effects and 77 percent higher for suicide and self-inflicted injury.

As was the case for the age group 15–44 years of age, the death rate for those 45–64 years of age for diseases of the digestive system was higher in France. The French death rate for alcoholic liver disease and other cirrhosis of the liver was more than twice the U.S. rate. The death rates for symptoms, signs, and ill-defined conditions and the subcategory of unknown and unspecified cause were higher in France for persons 45–64 years of age, as they were for younger age groups.

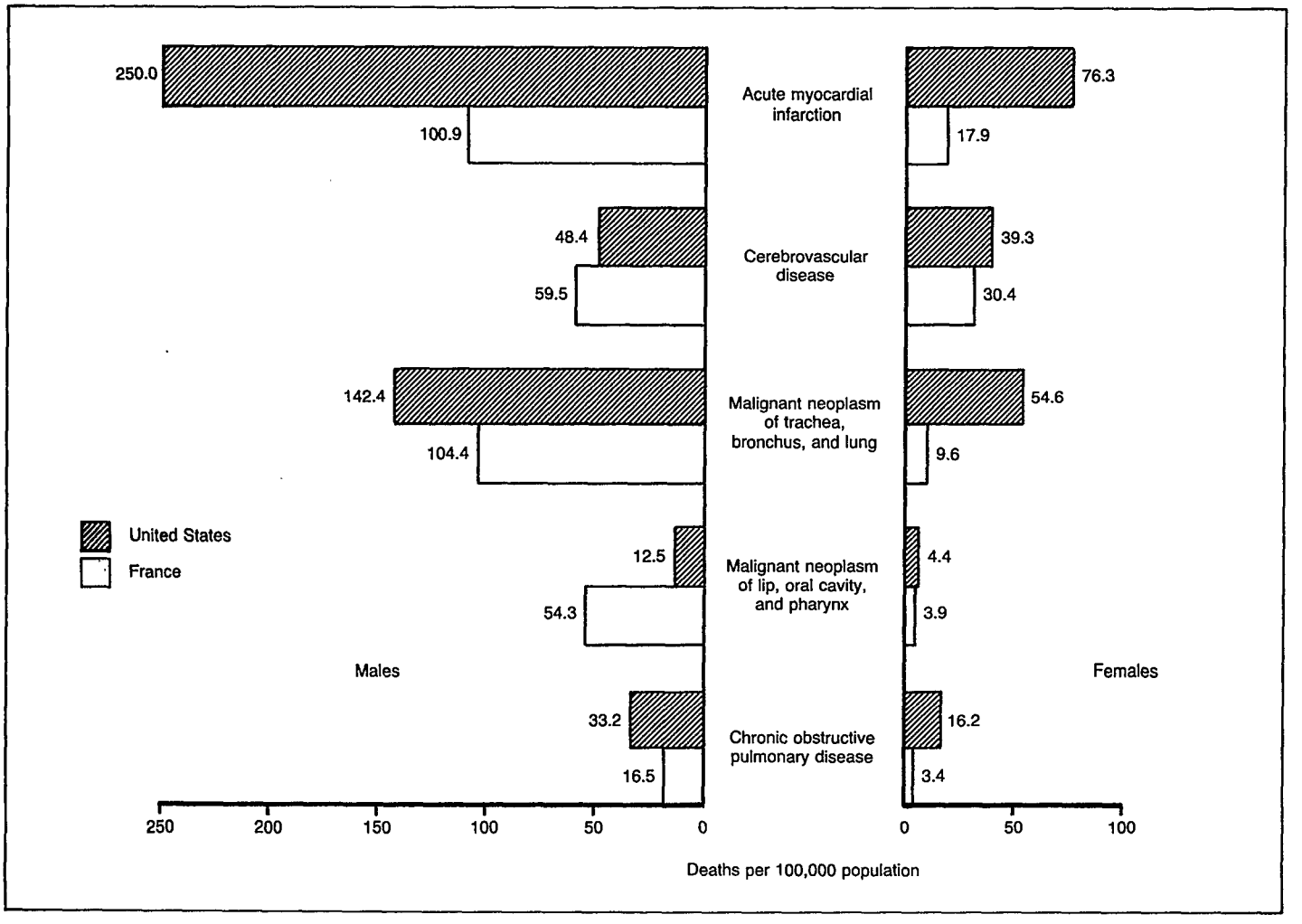

Figure 13. Death rates for persons 45–64 years of age by sex and selected causes of death: United States and France, 1981

The death rate for diseases of the respiratory system was higher for this age group, as well as younger age groups, in the United States. Chronic obstructive pulmonary disease was a significant cause of death for persons 45–64 years of age in the United States; the U.S. death rate for this condition was twice the French rate for males and more than four and a half times the French rate for females.

65 years and over

The leading cause-of-death category for persons 65 years of age and over in both France and the United States was diseases of the circulatory system (table 14). The U.S. death rate for circulatory diseases was 26 percent higher than the French rate. As was the case for the younger age groups, the differences in death rates were particularly large for ischemic heart disease, for which the U.S. rate was almost three times the French rate, and acute myocardial infarction, for which the U.S. rate was almost twice the French rate. Death rates were 52 percent higher in France for cerebrovascular disease and for heart failure and ill-defined heart disease (figure 14.)

The second leading cause-of-death category for the elderly in the two countries was neoplasms. The French rate was 24 percent higher than the U.S. rate for males, 7 percent higher for females. Nevertheless, the death rate for malignant neoplasm of the trachea, bronchus, and lung remained higher in the United States, and the difference was especially large for females, whose death rate in the United States was three times the rate in France. The death rate for males for malignant neoplasm of the intestine, rectum, and anus was 15 percent higher in France, but the death rates for females for this category were almost identical in the two countries.

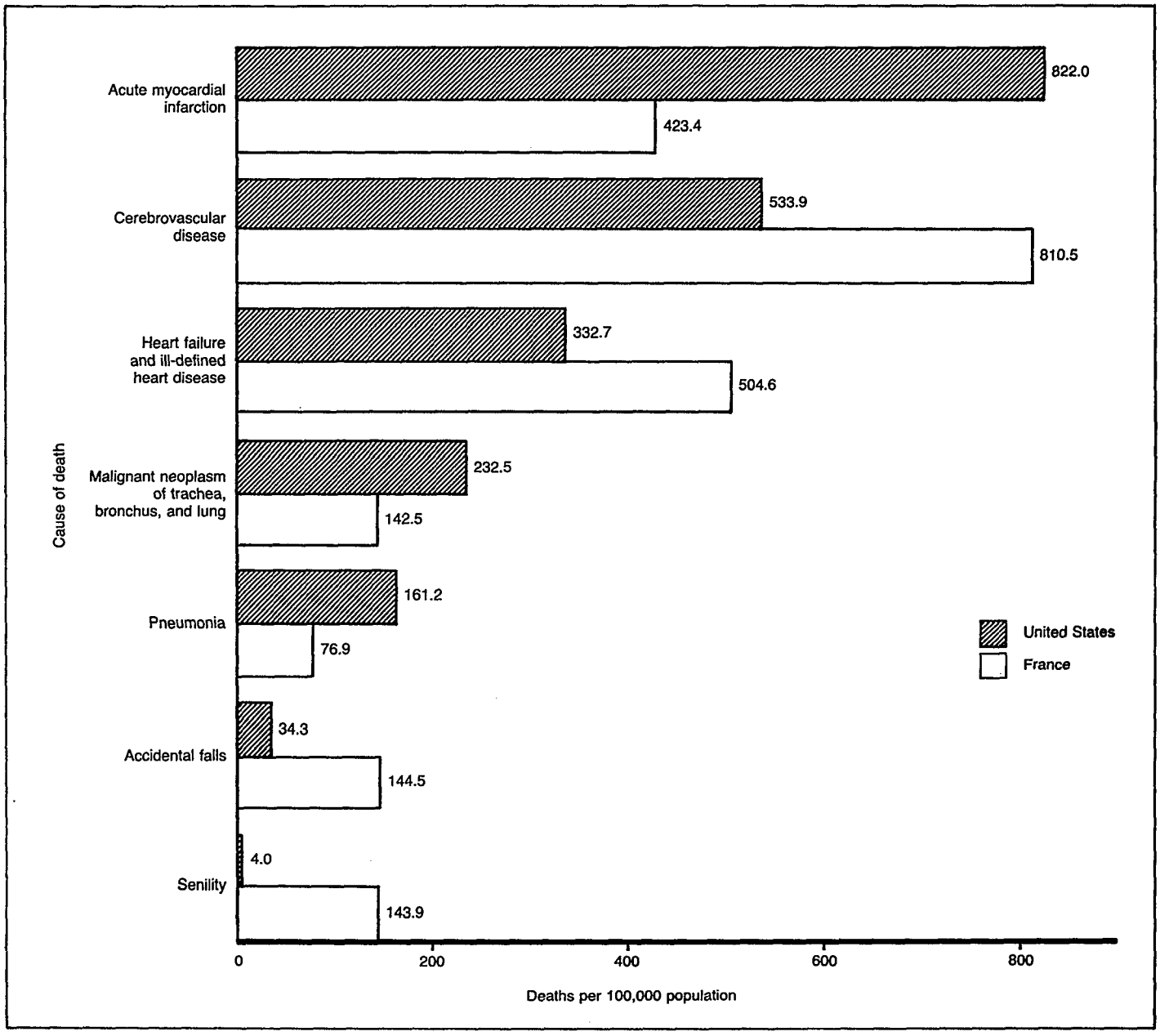

Figure 14. Death rates for persons 65 years of age and over by selected causes of death: United States and France, 1981

The third leading cause-of-death category in both countries was diseases of the respiratory system. Unlike the other age groups, the elderly had a higher death rate for respiratory diseases in France. The difference was small for males, but the death rate for females was 25 percent higher in France. However, the death rate for chronic obstructive pulmonary diseases was 30 percent higher in the United States, and the U.S. death rate for pneumonia was more than twice the rate in France.

The French death rate was almost twice the U.S. rate for diseases of the digestive system, 25 percent higher than the U.S. rate for endocrine, nutritional and metabolic diseases, and immunity disorders, 2.6 times the U.S. rate for injury and poisoning, and 6.8 times the U.S. rate for symptoms, signs, and ill-defined conditions. In the injury and poisoning category, almost half of French deaths were from accidental falls, for which the French rate was more than four times the U.S. rate. Senility without mention of psychosis accounted for 40 percent of French deaths in the symptoms, signs, and ill-defined conditions category. The French death rate was almost 36 times the U.S. death rate for senility.

Hospital use

In 1981 an estimated 37.4 million U.S. patients were discharged after spending at least one night in a short-stay hospital, according to data from the National Hospital Discharge Survey. These patients were hospitalized for a total of 276.1 million days of care. According to the CREDES study of French hospitalization, 7.2 million patients were discharged after at least one night in a short-term hospital service in 1981. They spent an estimated 79.1 million days in these short-term services. It is important to note that because these data are from sample surveys, a certain amount of variability in the estimates can be attributed to sampling error. The differences in estimates highlighted in this section of the report are those that have been found to be significant, based on the *t*-test, using Bonferroni critical values for post-hoc multiple comparisons.

Age and sex

The rates of patients discharged from short-stay hospital services varied by age and sex in the United States and France (table 15). The variations by age were larger in the United States (figure 15). The discharge rate for U.S. patients of all ages was 164.3 per 1,000 population. Rates ranged from 55.8 per 1,000 population for patients 1–14 years of age to more than 10 times that, 576.9 discharges per 1,000 population for patients 85 years and over. In France the discharge

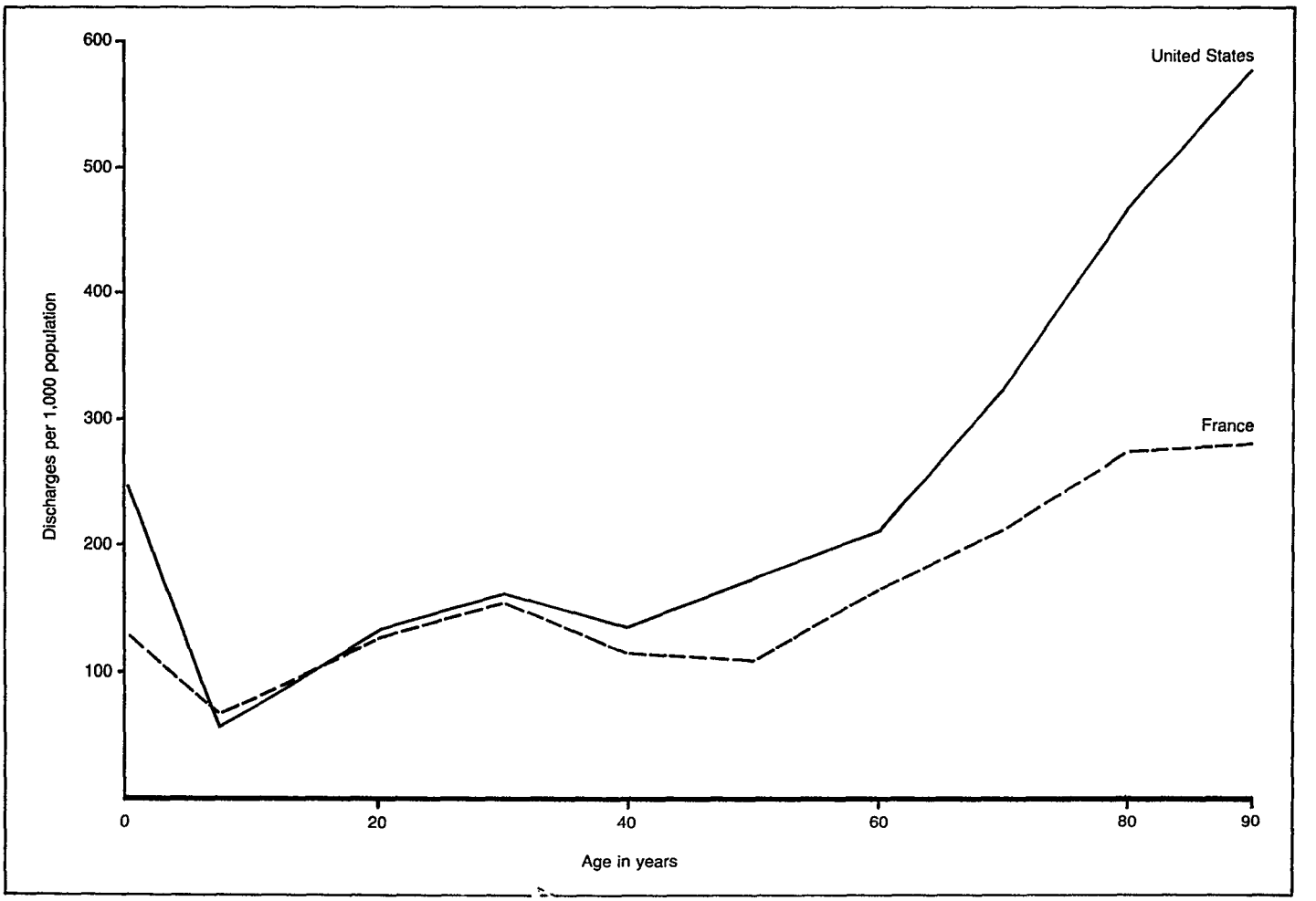

Figure 15. Discharge rates for patients discharged from short-stay hospitals or services by age: United States and France, 1981

rate for all patients was 134.1 per 1,000 population, and the range in rates was from 65.4 per 1,000 population for patients 1–14 years to 279.9 per 1,000 population 85 years and over, a fourfold difference.

The discharge rate was 23 percent higher in the United States than in France. U.S. discharge rates were significantly higher for several specific age groups. Patients in the United States 45–54 years of age were discharged from hospitals at a rate 60 percent higher than their French counterparts, and all three age groups 65 years and over were discharged more frequently in the United States than in France. The U.S. discharge rate was 54 percent higher for the 65–74 year group, 71 percent higher for patients 75–84 years of age, and more than twice the rate for French patients 85 years of age and over.

The discharge rates of U.S. males, French males, and French females were not significantly different in 1981. However, U.S. females had a discharge rate 32 percent higher than French females and 40 percent higher than U.S. males.

The pattern of discharge rates by age differed for males and females in each country. For U.S. and French males, discharge rates were below 100 per 1,000 population for patients 1–14 years, 15–24 years, and 25–34 years of age, then gradually increased with age (figure 16). The increases were generally larger in the United States, so that for patients 75–84 years of age, the discharge rate for U.S. males was 82 percent higher than the discharge rate for French males.

Discharge rates for females in both countries were more than 200 per 1,000 population for the age group 25–34 years (figure 17). In the United States, the rate was 157.0 discharges per 1,000 population for female patients 35–44 years and then generally increased with age. In France the discharge rate was down to 91.1 per 1,000 population for female patients 45–54 years of age—half the rate of U.S. females—before it began to rise again. U.S. rates were also significantly higher than French rates for females in the age groups 65 years and over. The U.S. rate was 69 percent higher than the French rate for females 65–74 years, and 65 percent higher for females 75–84 years.

The percent distributions of patients discharged from short-stay hospital services are shown by sex for four age groups in figure 18. The distributions were much the same for females

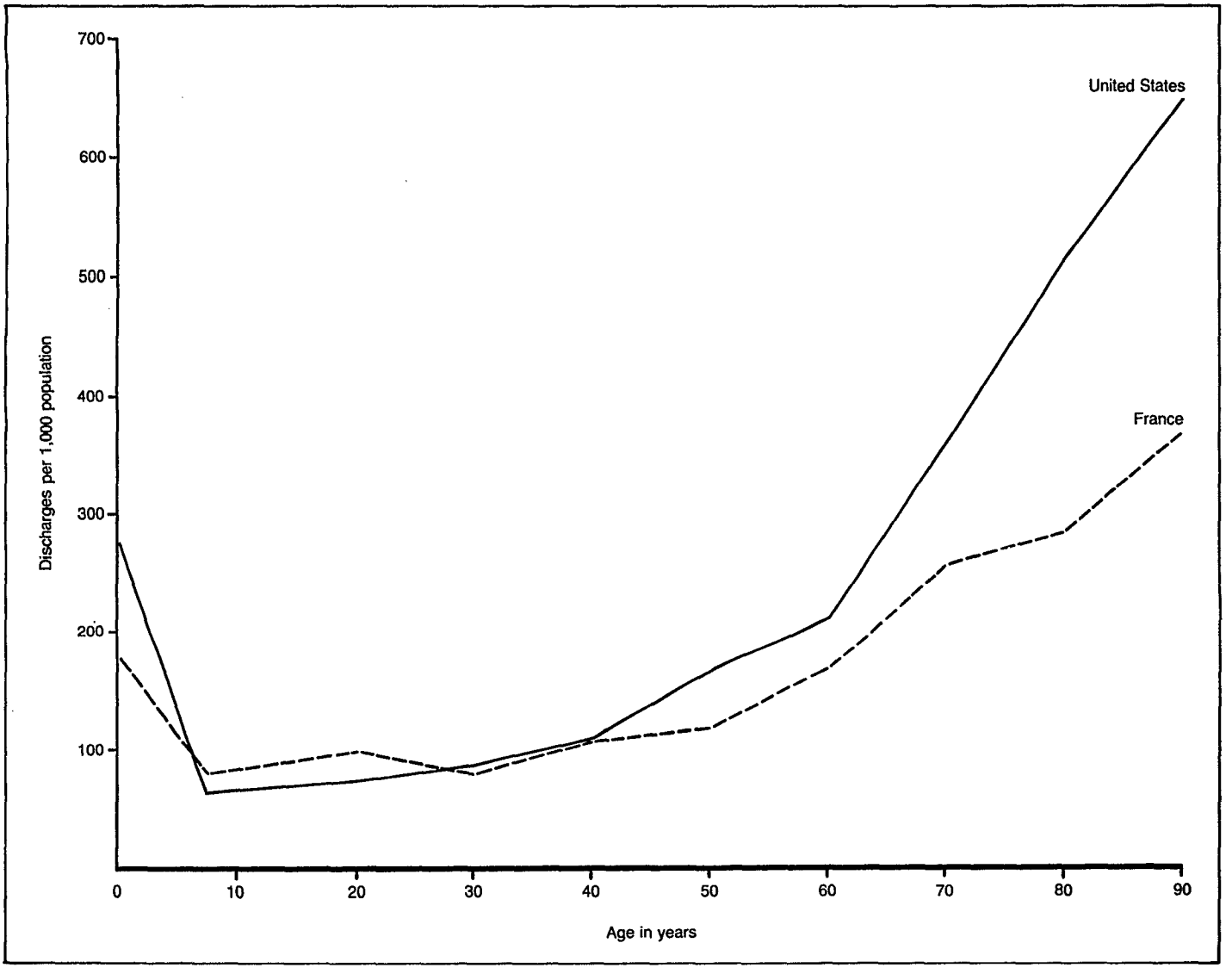

Figure 16. Discharge rates for males discharged from short-stay hospitals or services by age: United States and France, 1981

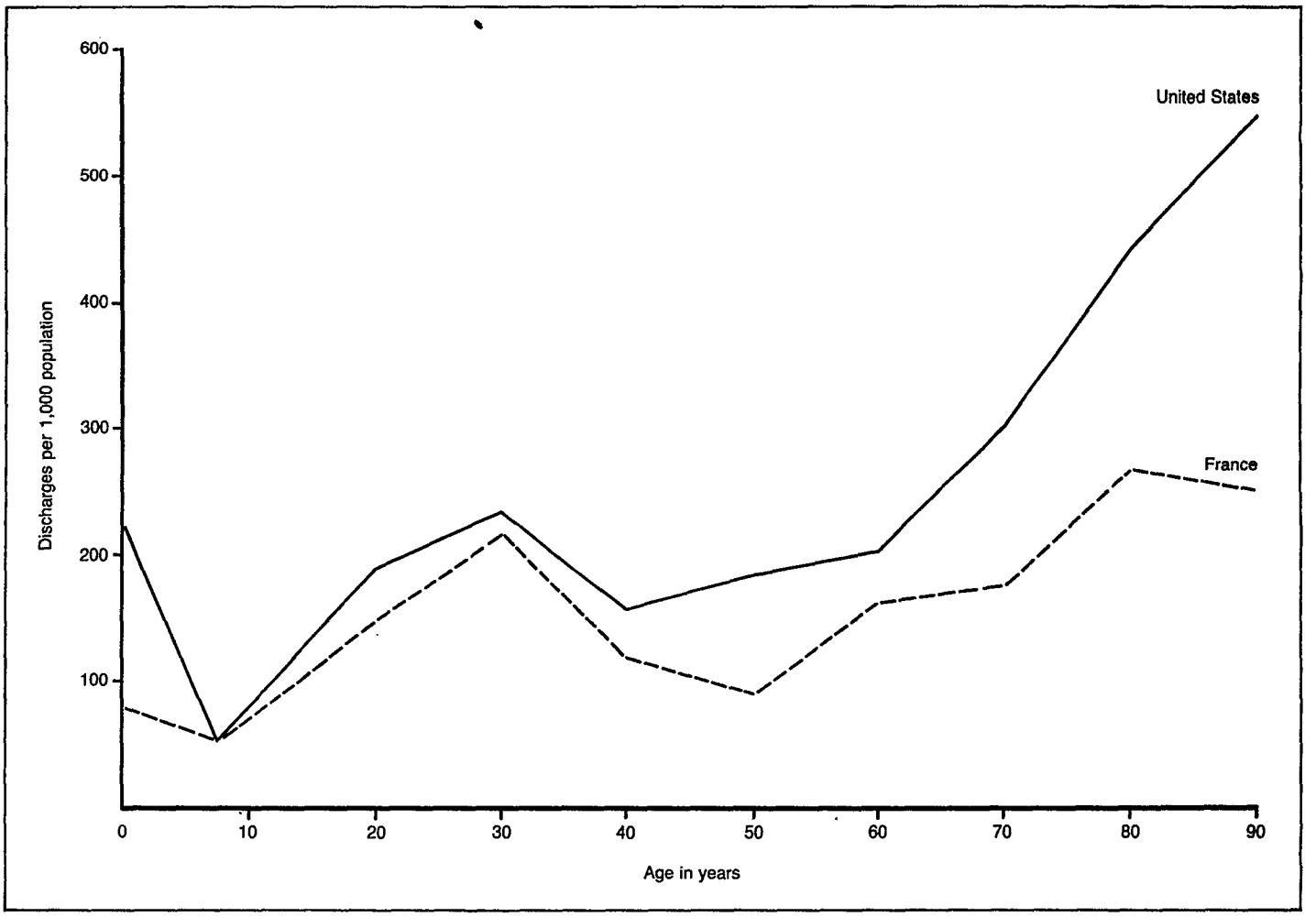

Figure 17. Discharge rates for females discharged from short-stay hospitals or services by age: United States and France, 1981

in the two countries. Almost half of all females discharged were in the childbearing years, 15–44 years of age. Approximately 26 percent of female discharges were 65 years of age and over in both countries. Patients 45–64 years of age accounted for 18.6 percent of female discharges in France and 20 percent in the United States. Children under 15 years made up 6.9 percent of female discharges in the United States, 7.4 percent in France. Patients under 45 years accounted for 43.5 percent of male discharges in the United States compared with 50.2 percent in France. Thus, patients 45 years and over were responsible for 56.5 percent of male discharges in the United States, 49.8 percent in France.

Rates and percent distributions of days of care are shown in table 16 by age and sex. Days of care are the estimated number of days patients who were discharged from short-stay hospital services in 1981 spent in the hospital. The rate of days of care is a measure of the total volume of hospital use for a given population. In 1981 the total rate of days of care was higher in France than in the United States, 1,501.9 versus 1,212.8 per 1,000 population.

The variations in the rates of days of care by age were similar in the two countries (figure 19). The rates generally increased with age in both countries. U.S. rates ranged from 230.3 per 1,000 population for patients 1–14 years of age to 6,901.7 per 1,000 population for patients 85 years and over. The range in French rates was from 497.0 per 1,000 population for patients 1–14 years of age to 6,017.9 per 1,000 population for patients 85 years and over. Unlike discharge rates, none of the U.S. rates of days of care for specific age groups were found to be significantly different from French rates.

Also unlike discharge rates, the rates of days of care were not significantly different for U.S. females, French females, and French males. However, the rate of days of care for U.S. males was 25 percent lower than the rate for French males and 21 percent lower than the rate for U.S. females.

The patterns in rates of days of care for each sex were similar to the patterns in discharge rates. For males (figure 20), the age groups 1–14 years, 15–24 years, and 25–34 years, which had discharge rates below 100 per 1,000 population, also had rates of days of care of less than 1,000 per 1,000 population in both countries. Their rates of hospital days, like their discharge rates, then increased with age. Females 25–34 years of age (figure 21), who had discharge rates of more than 200 per 1,000 population in both countries, had rates of days of care of more than 1,100 per 1,000 population in the United States and more than 1,500 per

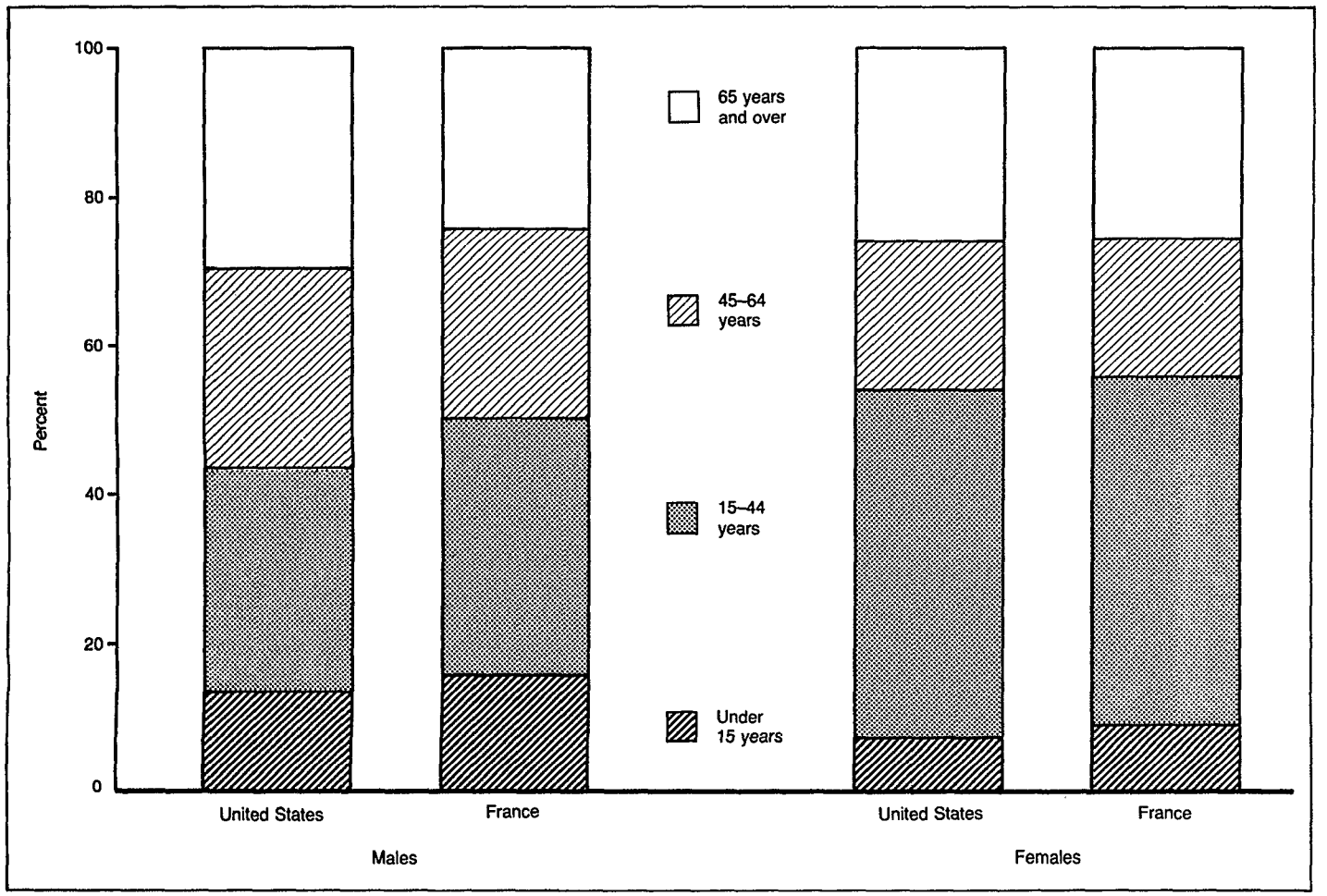

Figure 18. Percent distributions of patients discharged from short-stay hospitals or services by age and sex: United States and France, 1981

1,000 population in France. Rates this high were not seen again until reported for the group 45–54 years in the United States, and the group 55–64 years in France.

The percent distributions of days of care by age were similar for the two sexes in the two countries (figure 22). Patients 65 years of age and over made up from 37 to 42 percent of all days of care. The group 45–64 years of age accounted for from 20 to 27 percent of hospital days, and patients 15–44 years of age used 25 to 32 percent of all days. Children under 15 accounted for only 5 to 11 percent of all days of care.

The higher rate of days of care in France was the result not of more frequent hospitalizations but of longer hospital stays. The average length of stay in a short-term hospital service was 11.2 days in France, 50 percent longer than the average of 7.4 days in the United States (table 17).

Average lengths of stay varied threefold by age in both countries (figure 23). In France average stays ranged from 6.9 days for patients 15–24 years of age to 21.5 days for patients 85 years and over. In the United States the range was from 4.1 days for children 1–14 years to 12.0 days for the group 85 years and over.

There were statistically significant differences in the average lengths of stay for most of the specific age groups, but the sizes of the differences varied. Patients 1–14 years, 15–24 years, 25–34 years, and 35–44 years stayed 2.2–3.5 days longer in France, but the average stays of the group 45–54 years were not significantly different in the two countries. The French average lengths of stay were substantially longer for all the age groups 55 years and over: 4.7 days longer for patients 55–64 years, 7.7 days longer for those 65–74 years, 6.4 days longer for the age group 75–84 years, and 9.5 days longer for patients 85 years of age and over.

Both male and female patients were hospitalized significantly longer in France than in the United States. The average lengths of stay of males in France ranged from 7.0 days for those 15–24 years of age to 17.6 days for the group 65–74 years. In the United States the range was from 4.1 days for children 1–14 years of age to 11.5 days for patients 85 years of age and over. As can be seen in figure 24, the average stays of male patients 15–24 years were quite similar, 7.0 days in France and 6.2 days in the United States; but the average stay of a male patient 65–74 years was 17.6 days in France compared with 10.0 days in the United States.

The range in average lengths of stay of female patients in France was from 6.9 days for the group 15–24 years of age to 23.6 days for those 85 years of age and over (figure 25). In the United States average stays ranged from 4.1 days for female patients 1–14 years of age to 12.2 days for females 85 years and over.

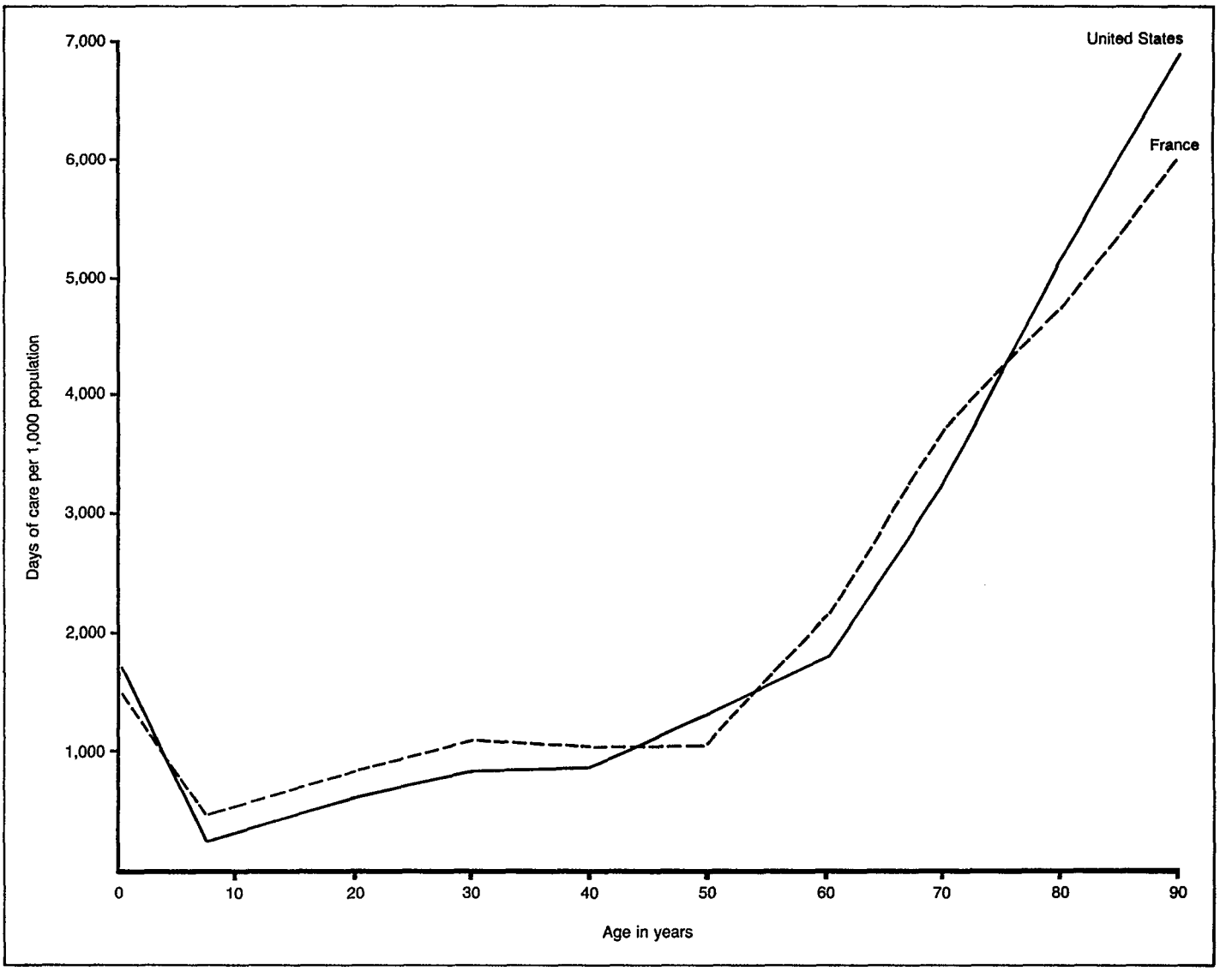

Figure 19. Rates of days of care for patients discharged from short-stay hospitals or services by age: United States and France, 1981

Diagnosis

Hospital use in the United States and France for specific diagnostic categories is examined in this section of the report. The rates and percent distributions of discharges by diagnostic categories are compared for U.S. and French patients, followed by comparisons of the rates and percent distributions of days of care and average lengths of stay by diagnostic categories for patients in both countries. Rates of discharges and days of care and average lengths of stay by diagnostic category are also shown separately for three age groups: 15–44 years, 45–64 years, and 65 years and over. The diagnostic data for the age group under 15 years could not be compared because of the small number of cases in the French survey for this age group.

The French diagnostic data were coded according to the *International Classification of Diseases, 9th Revision* (ICD–9). In the United States the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) was used, but it is identical to ICD–9 at the level of 3-digit codes used here. The principal diagnosis or the one listed first on the medical record is used in the comparison.

Data are compared for 15 of the 17 diagnostic categories in the International Classification of Diseases. The French data for two of the categories, diseases of the blood and blood-forming organs and certain conditions originating in the perinatal period, were insufficient for comparison. The category of complications of pregnancy, childbirth, and the puerperium includes females with deliveries, which are coded to the supplementary classification in other reports from the U.S. survey. The tables for the specific age groups include the diagnostic categories for which the number of cases in the French study were large enough to make reliable estimates.

Discharges

Leading diagnostic categories in the United States included diseases of the circulatory system; complications of pregnancy, childbirth, and the puerperium; diseases of the digestive system; injury and poisoning; diseases of the respiratory system;

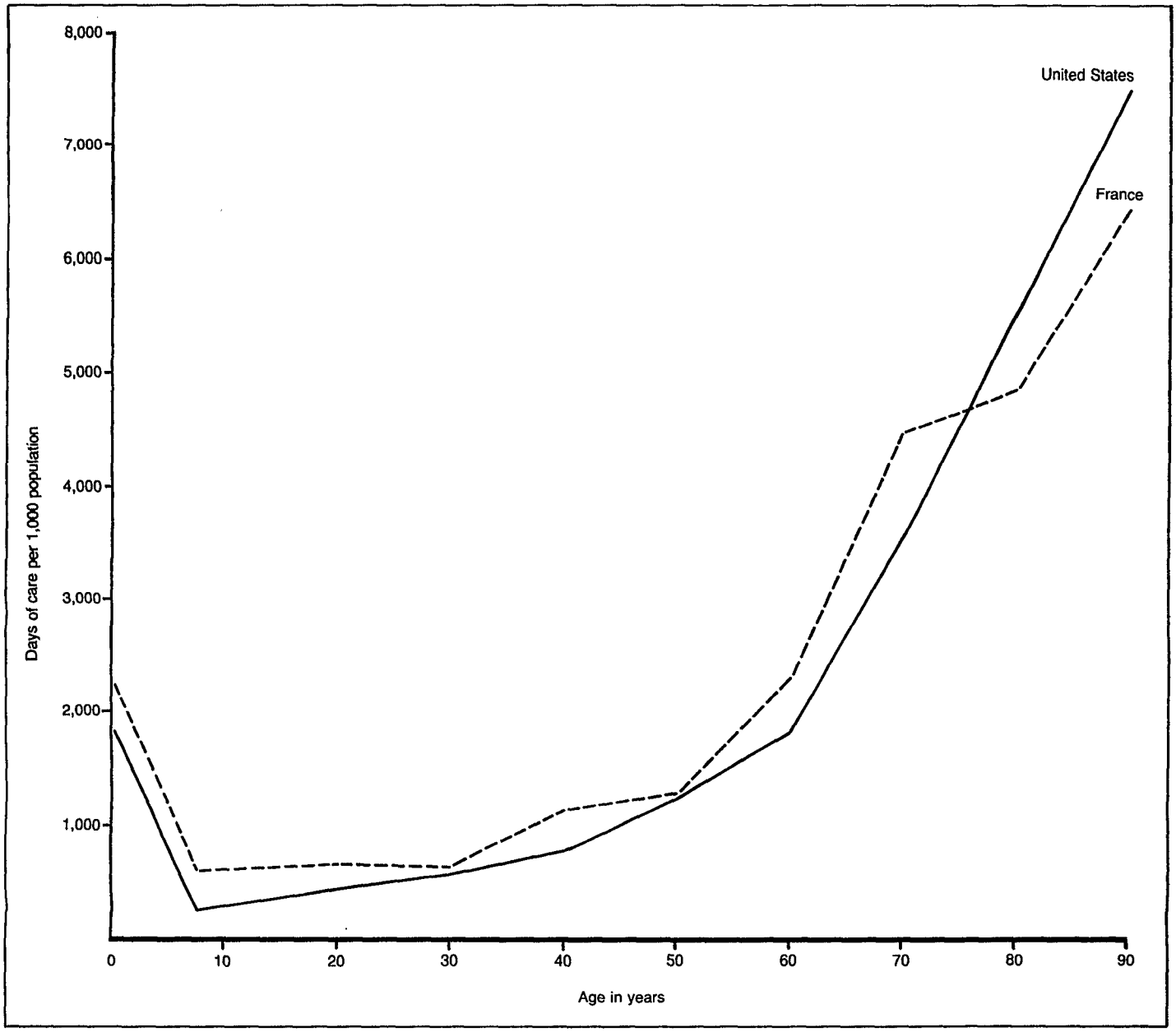

Figure 20. Rates of days of care for males discharged from short-stay hospitals or services by age: United States and France, 1981

and diseases of the genitourinary system (tables 18 and 19). These six diagnostic categories accounted for 66 percent of U.S. discharges. These categories made up more than half of French discharges, and with the addition of neoplasms, also a leading discharge category in France, 62 percent of French discharges were accounted for.

Diseases of the circulatory system made up 14 percent of U.S. discharges and 9.2 percent of discharges in France. Heart disease accounted for 63 percent of the circulatory disease discharges in the United States but only for 26 percent in France. The U.S. discharge rate was 89 percent higher for the whole circulatory disease category, but it was a startling 4.5 times the French rate for heart disease (figure 26). The death rates for diseases of the circulatory system and the subcategory, ischemic heart disease, were also higher in the United States (table 9).

The proportions of discharges in the category of complications of pregnancy, childbirth, and the puerperium were much more similar, 12.5 percent in the United States and 11 percent in France. The discharge rate for normal deliveries was almost the same in both countries, but normal deliveries made up more than half of the pregnancy category in France and only 38 percent in the United States.

Diseases of the digestive system accounted for 12.3 percent of discharges in the United States, 10.2 percent in France. The difference between the countries in discharge rates for the digestive disease category was not statistically significant. However, the French discharge rate for acute appendicitis was nearly four times the U.S. rate. As can be seen in figure 27, more than one of every four French discharges with a digestive disease had the diagnosis of acute appendicitis, but only 6 percent of digestive disease discharges were for appendicitis in the United States.

The injury and poisoning category made up 12.1 percent

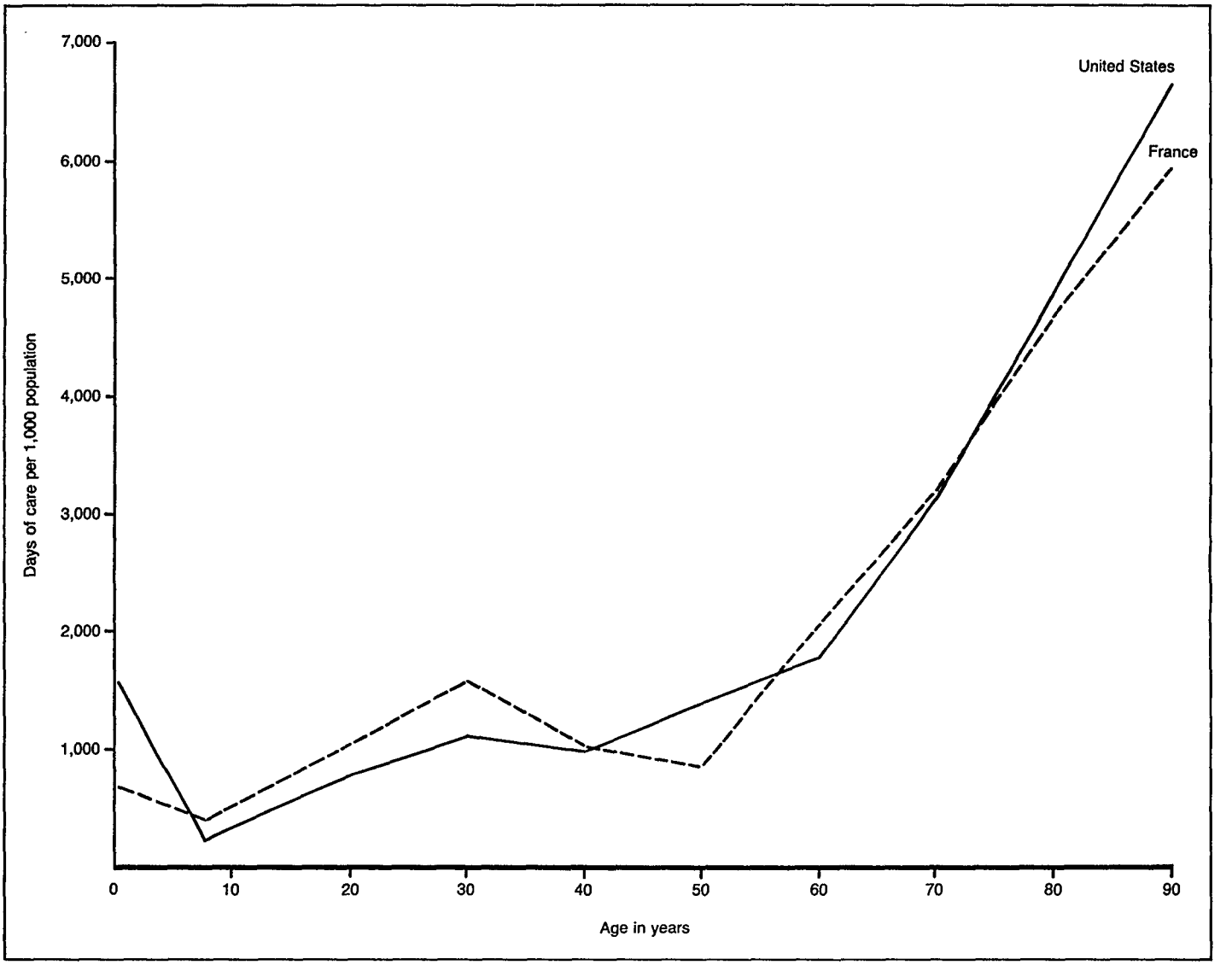

Figure 21. Rates of days of care for females discharged from short-stay hospitals or services by age: United States and France, 1981

of French discharges and 9.2 percent in the United States, but the discharge rates for the category were similar in the two countries. The U.S. discharge rate for diseases of the respiratory system was more than twice the French rate (figure 28), and respiratory disease discharges accounted for 9.9 percent of discharges in the United States compared with 5.1 percent in France. The discharge rate for diseases of the genitourinary system was also significantly higher in the United States, and genitourinary diseases made up 9 percent of U.S. discharges versus 6.3 percent of French discharges.

There was a significantly higher rate of French discharges for one diagnostic category, symptoms, signs, and ill-defined conditions. This category contains conditions for which a more definitive diagnosis could not be made. The French discharge rate was 2.4 times the U.S. rate for this category, and the category accounted for 4.8 percent of French discharges but only 1.7 percent of U.S. discharges. The French death rate for the category was more than five times the U.S. rate (table 9).

Both males and females with circulatory disease diagnoses were discharged more frequently in the United States. U.S. males had a discharge rate 81 percent higher than that of French males, and the discharge rate of U.S. females was 96 percent higher than the rate of French females for this category (figure 29). Diseases of the circulatory system made up 17.5 percent of the discharges of males and 11.7 percent of the discharges of females in the United States. Circulatory diseases accounted for 10.7 percent of male discharges and 7.8 percent of female discharges in France.

U.S. males and females were also hospitalized more often for diseases of the respiratory system. The discharge rate for males was 79 percent higher in the United States than in France, and the rate for U.S. females was 2.8 times the rate for French females. The percent of discharges in this category was 11.3 for U.S. males and 7.7 for U.S. females. Diseases of the respiratory system accounted for 7 percent of the discharges for French males, 3.6 percent for French females.

In addition, females were discharged more often in the United States for diseases of the genitourinary system. U.S. females had a rate 90 percent higher than females in France. Diseases of the genitourinary system accounted for 10.3 per-

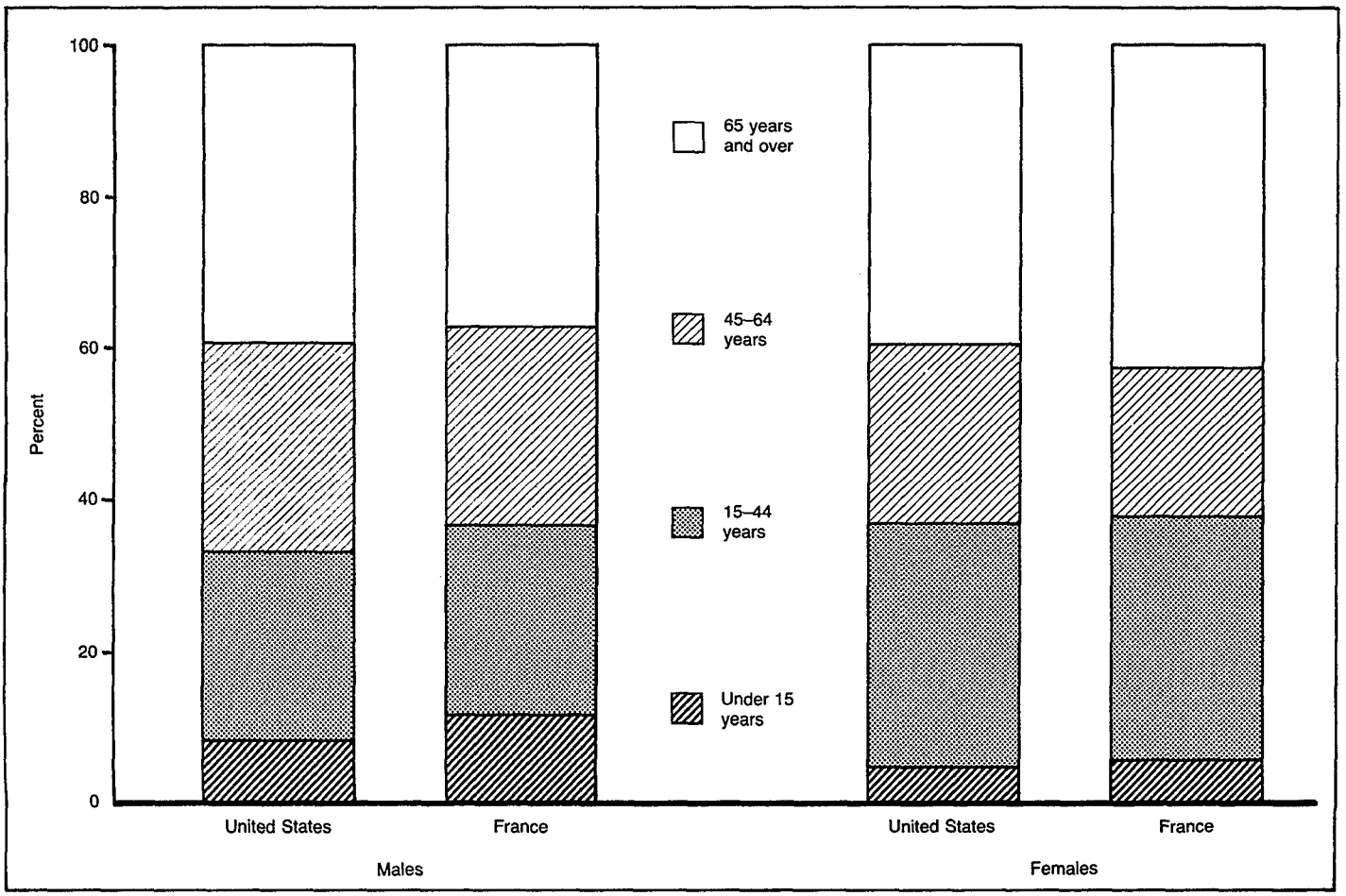

Figure 22. Percent distributions of days of care for patients discharged from short-stay hospitals or services by age and sex: United States and France, 1981

cent of female discharges in the United States and 7.1 percent in France.

Besides diseases of the circulatory system and diseases of the respiratory system, other leading discharge categories for U.S. males were diseases of the digestive system and injury and poisoning. These four diagnostic categories made up 56 percent of male discharges in the United States. Almost half of the discharges of French males were for diseases of the circulatory and digestive systems, injury and poisoning, and neoplasms.

About one of every five females discharged from hospitals in both France and the United States had a diagnosis in the category of complications of pregnancy, childbirth, and the puerperium. This category, along with diseases of the circulatory system, diseases of the genitourinary system, and diseases of the digestive system, accounted for more than 54 percent of the discharges of females in the United States, 44 percent in France.

Days of care

The rates and percent distributions of days of care by diagnostic categories are shown in tables 20 and 21. In both countries, diagnostic categories responsible for large numbers of days of care included diseases of the circulatory system, diseases of the digestive system, injury and poisoning, and neoplasms. These categories accounted for half of the days of care in the United States, 43 percent in France (figure 30).

A greater proportion of hospital days were for diseases of the circulatory system in the United States (18.6 percent) than in France (13.4 percent). The rates of days of care for circulatory diseases were, however, not significantly different in the two countries (figure 31). The rate of days of care for heart disease, like the discharge rate for heart disease, was much higher in the United States. The U.S. rate was more than twice the French rate.

The proportions of hospital days for diseases of the digestive system, injury and poisoning, and neoplasms were not significantly different in the two countries, and neither were the rates of days of care for these categories. One diagnostic category for which there were significant differences in use was symptoms, signs, and ill-defined conditions. The French rate of days of care was 5.5 times the U.S. rate for that category. In France 4.4 percent of all days of care were for symptoms, signs, and ill-defined conditions, but only 1 percent of all days of care were attributed to it in the United States. The French rate and percent of discharges were also higher for this category, as was the French death rate.

Another difference between the two countries was for the mental disorders category. The rate of days of care for U.S. males was more than twice the rate of French males for the category. Mental disorders made up 9.2 percent of

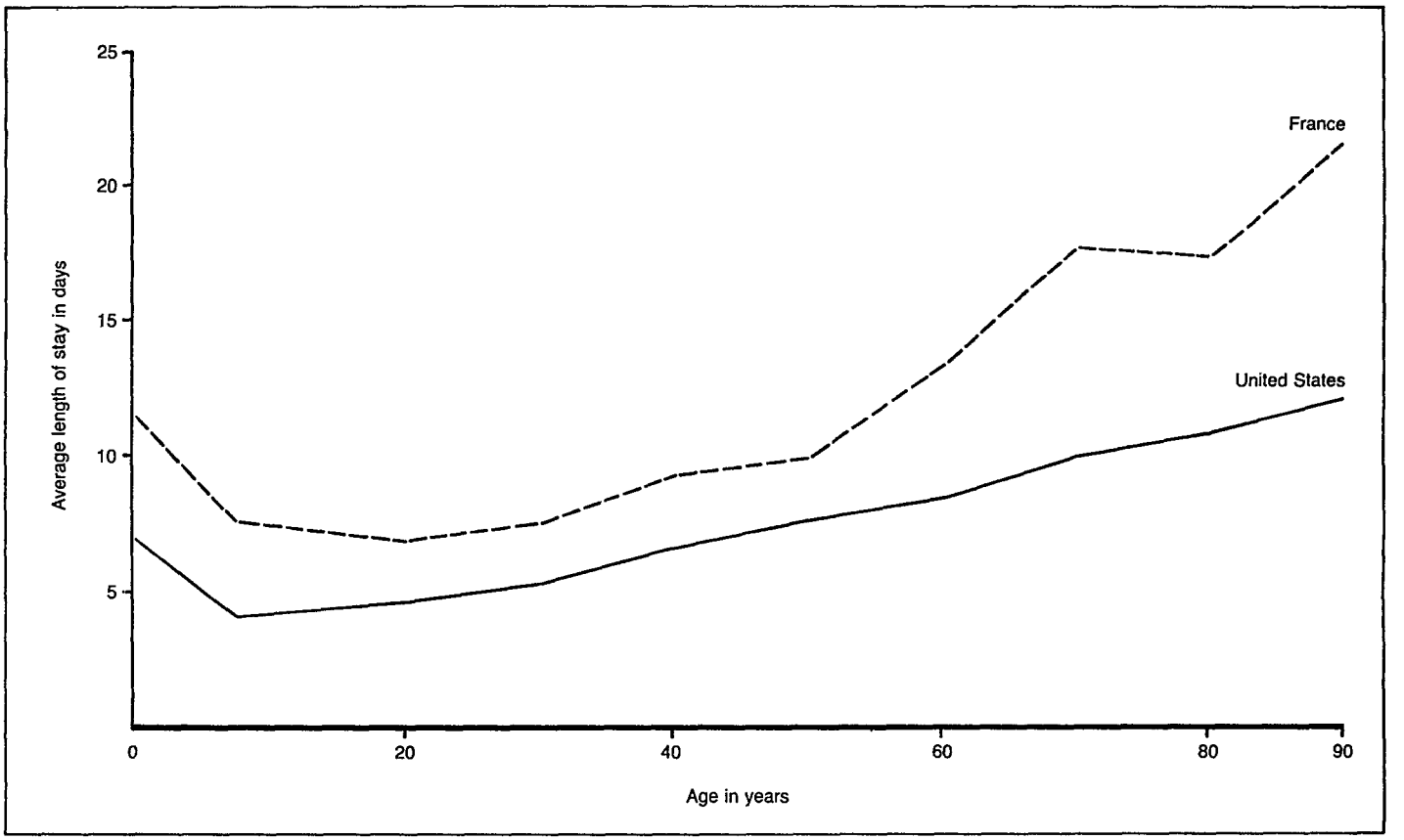

Figure 23. Average lengths of stay for patients discharged from short-stay hospitals or services by age: United States and France, 1981

all hospital days for U.S. males, but only 2.9 percent of the days of French males.

Diagnostic categories for which large numbers of days of care were reported were the same for males as for all patients. Diseases of the circulatory system, diseases of digestive system, injury and poisoning, and neoplasms together accounted for more than half of the days of care of males in both countries. In addition, complications of pregnancy, childbirth, and the puerperium was a leading category for females in both countries. The pregnancy category together with the other four categories made up 57.1 percent of the hospital days for U.S. females, 48.6 percent for French females.

Average length of stay

In the United States, average lengths of stay for the major diagnostic categories ranged from 12.3 days for mental disorders to 3.6 days for complications of pregnancy, childbirth, and the puerperium (table 22). French average lengths of stay for the major categories ranged from 16.1 days for diseases of the circulatory system to 4.4 days for the supplementary classification. The supplementary classification is for factors influencing health status and contact with health services. It includes codes for factors like exposure to communicable diseases, personal history of malignant neoplasm, adjustment of prosthetic device, and special examinations.

The French average length of stay was at least 2 weeks for the major categories of circulatory, infectious and parasitic, and respiratory diseases. None of the stays for major categories averaged 2 weeks or more in the United States, but the U.S. average stays for both mental disorders and neoplasms exceeded 10 days.

Among the diagnostic subcategories, French average lengths of stay were at least 2 weeks for cerebrovascular diseases and heart disease, arthropathies and related disorders, and malignant neoplasms. Average lengths of stay were more than 10 days in the United States for cerebrovascular diseases, malignant neoplasms, fractures, and diseases of the central nervous system.

Average lengths of stay of less than 5 days were reported in the United States for the major diagnostic categories, complications of pregnancy, childbirth, and the puerperium; symptoms, signs, and ill-defined conditions; and the supplementary classification. Within the pregnancy category, the U.S. average stay for deliveries without complications was only 3 days. The supplementary classification was the only major category in France with an average length of stay of less than 5 days, but stays were less than 8 days in France for congenital anomalies and the pregnancy category. The average lengths of stay for both the pregnancy category as a whole (figure 32) and for uncomplicated deliveries were significantly longer in France than in the United States.

French average lengths of stay were also significantly longer than U.S. stays for diseases of the circulatory system and symptoms, signs, and ill-defined conditions. Hospitalizations for circulatory diseases were 6.3 days longer in France,

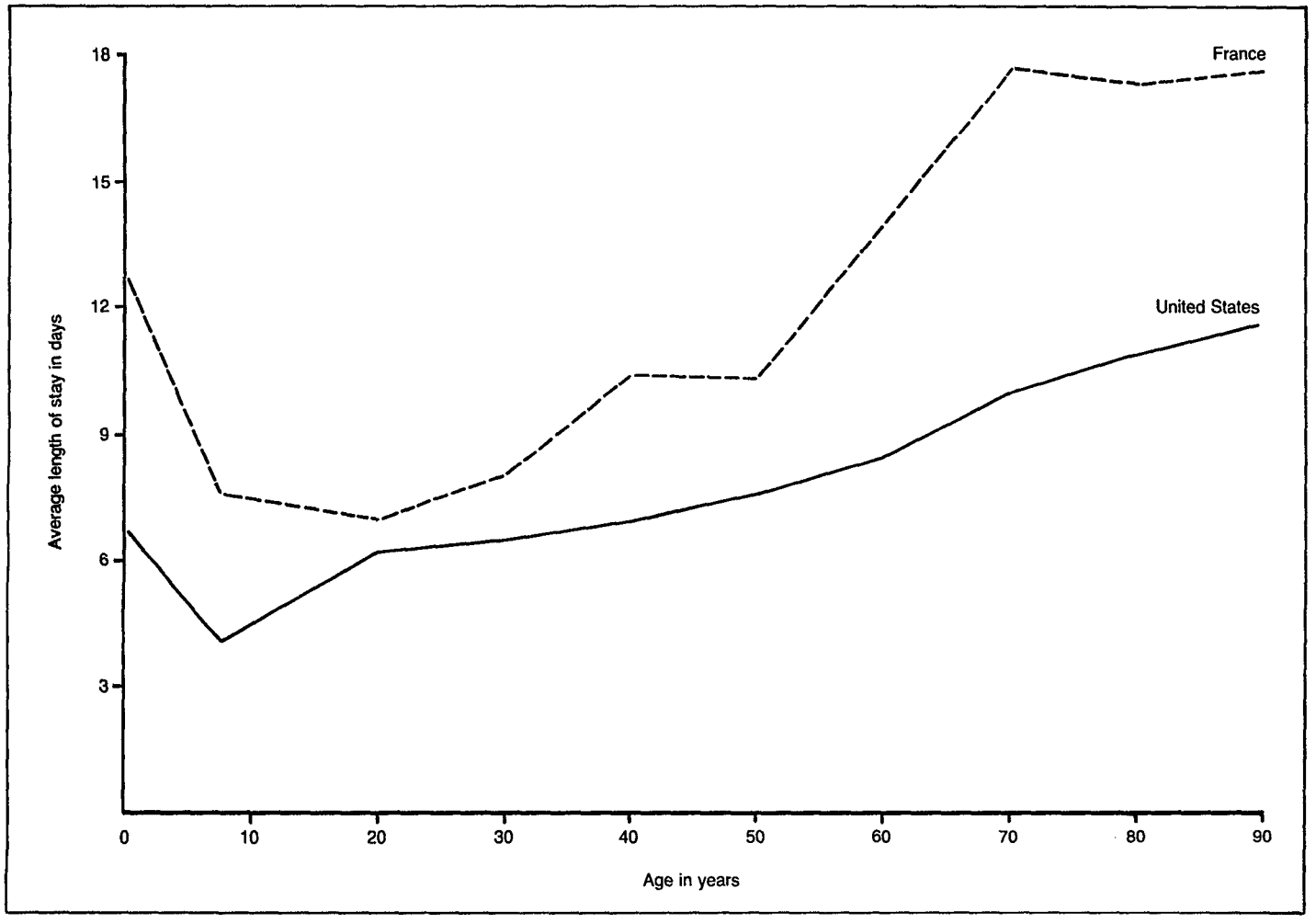

Figure 24. Average lengths of stay for males discharged from short-stay hospitals or services by age: United States and France, 1981

but French patients were hospitalized less often for the treatment of circulatory diseases. For symptoms, signs, and ill-defined conditions, not only was the French average length of stay more than twice the U.S. average, but the category was a more frequent cause of hospital discharges and days of care, and accounted for a larger proportion of discharges and days of care in France.

Patients 15–44 years of age

The number of children under 15 years of age in the French survey was too small to allow detailed comparisons of children's diagnoses, but the hospital use of patients 15–44 years of age can be compared by diagnostic categories in table 23. The discharge rates of U.S. and French patients in this age group did not differ greatly for most diagnostic categories. In both countries, categories accounting for large numbers of discharges included complications of pregnancy, childbirth, and the puerperium; injury and poisoning; diseases of the digestive system; and diseases of the genitourinary system. These four categories made up 63 percent of the discharges of U.S. patients and 57 percent of the discharges of patients in France (figure 33). Approximately one of every eight discharges of U.S. patients and one of seven French discharges in this age group were for deliveries without complications.

The rate of days of care for patients 15–44 years of age was 32 percent higher in France than in the United States. However, the U.S. rate of days of care for mental disorders was 2.7 times the French rate for this category. Mental disorders made up 14 percent of U.S. days of care but less than 4 percent of the days of care in France. Mental disorders; complications of pregnancy, childbirth, and the puerperium; and injury and poisoning were major causes of hospital days in the United States. These three diagnostic categories together accounted for almost half of U.S. days of care. In France, the categories of complications of pregnancy, childbirth, and the puerperium; injury and poisoning; and diseases of the digestive system together made up half of all hospital days.

Patients 15–44 years of age were hospitalized 2.4 days longer in France than in the United States. The French average stays for that age group ranged from 11.0 days for diseases of the musculoskeletal system and connective tissue to 4.9 days for the supplementary classification. In the United States, the range was from 12.0 days for mental disorders to 3.2 days for the supplementary classification. Besides mental disorders, U.S. average stays exceeded a week for the diagnostic category of neoplasms and the subcategory of fractures. In France, the average stay exceeded a week for the majority of diagnostic categories.

In addition to the supplementary classification, U.S. stays

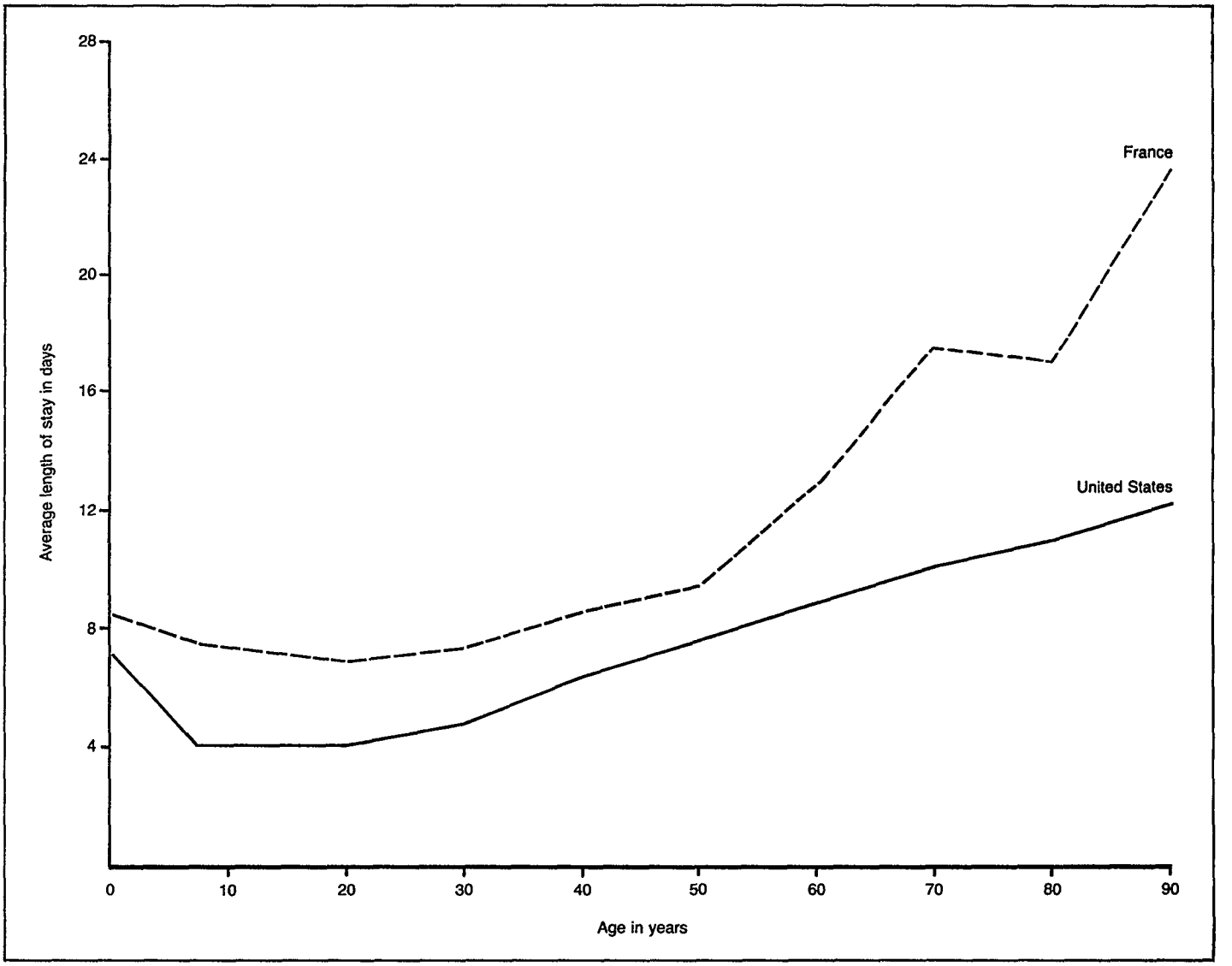

Figure 25. Average lengths of stay for females discharged from short-stay hospitals or services by age: United States and France, 1981

were less than 4 days for the pregnancy category as a whole and for both major subcategories shown in the table—abortion and pregnancy with abortive outcome, and deliveries without mention of complications. An average U.S. stay of less than 4 days was also reported for symptoms, signs, and ill-defined conditions. The only French stay of less than 4 days was 2.7 days for abortion and pregnancy with abortive outcome, which was almost the same as the U.S. average stay for the diagnosis.

Patients 45–64 years of age

Patients 45–64 years of age were hospitalized more frequently in the United States than in France. The U.S. discharge rate for all conditions was 191.6 per 1,000 population, which was 44 percent higher than the French rate of 133.4 per 1,000 population (table 24). Differences in discharge rates were particularly large for diseases of the circulatory and digestive systems. The U.S. rates for these categories were more than twice the French rates (figure 34). On the other hand, the discharge rates for neoplasms were quite similar in the two countries.

Diseases of the circulatory system, diseases of the digestive system, and neoplasms accounted for 46 percent of the discharges of patients 45–64 years in the United States. Circulatory diseases alone were responsible for more than one in every five U.S. discharges (21 percent). In France, circulatory diseases accounted for only about one in nine of the discharges (11 percent) of this age group. Neoplasms, injury and poisoning, diseases of the circulatory system, and diseases of the digestive system together made up 48 percent of the French discharges.

Although the rate of days of care for the 15–44-year age group was higher in France, the rates of days of care of patients 45–64 years were not significantly different in the two countries. In the United States, diseases of the circulatory system were responsible for more than 1 of every 5 hospital days (22 percent) of this age group. About 1 of every 6 hospital days (16 percent) were for circulatory diseases in France. Diseases of the circulatory and digestive systems

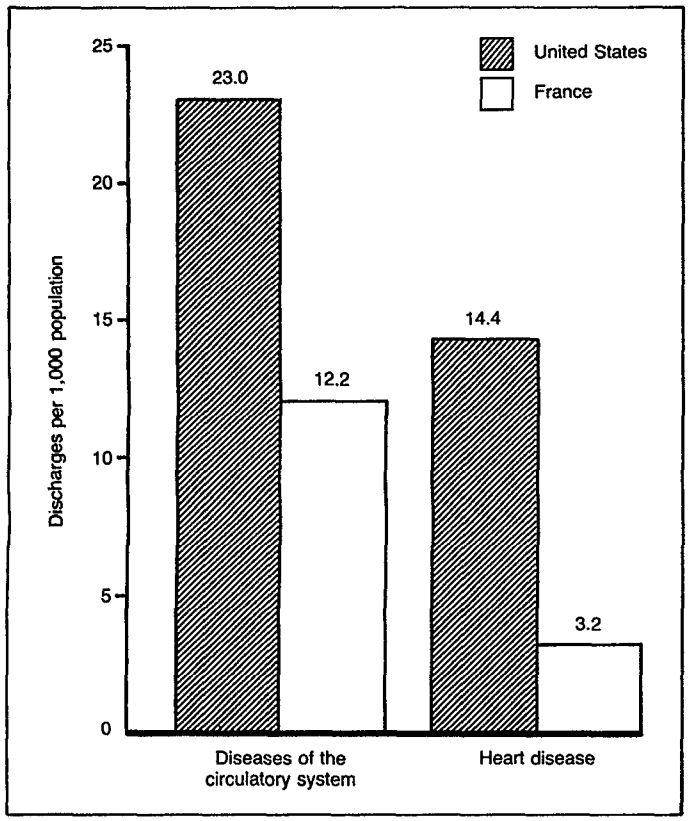

Figure 26. Discharge rates for patients discharged from short-stay hospitals or services for diseases of the circulatory system and heart disease: United States and France, 1981

and neoplasms together accounted for almost half of the hospital days of U.S. patients 45–64 years. Almost half of the hospital days of French patients in this age group were for these same three categories plus mental disorders.

The average length of stay for patients 45–64 years of age was 3.7 days longer in France than in the United States. Among the leading diagnostic categories shown in table 24, French average lengths of stay ranged from 16.5 days for mental disorders to 7.4 days for injury and poisoning. Besides mental disorders, average stays of more than 2 weeks were reported in France for diseases of the circulatory system (16.4 days) and endocrine, nutritional and metabolic diseases, and immunity disorders (15.6 days).

No lengths of stay of 2 weeks or more were reported in the United States. The range in lengths of stay for the major diagnostic categories was from 11.9 days for mental disorders to 7.6 days for diseases of the digestive system. Besides mental disorders, only neoplasms and its subcategory, malignant neoplasms, required stays of 10 days or more in the United States.

Patients 65 years and over

Patients 65 years of age and over, like those 45–64 years, were hospitalized more frequently in the United States than in France (table 25). The U.S. discharge rate of 391.4 was 63 percent higher than the rate for France of 239.6. The elderly were also like patients 45–64 years in that the U.S. discharge rates for diseases of the circulatory system and diseases of the digestive system were more than twice the French rates (figure 35).

Unlike the 45–64 year age group, the discharge rate for patients 65 years and over was significantly higher in the United States for neoplasms. The U.S. rate for the category as a whole was 41 percent higher, and the discharge rate for malignant neoplasms was 83 percent higher in the United States.

The diagnostic categories diseases of the circulatory system, diseases of the digestive system, and neoplasms together were responsible for 52 percent of the discharges of U.S. patients 65 years and over. These three categories and injury and poisoning together made up 52 percent of the discharges of French patients 65 years and over. Circulatory diseases

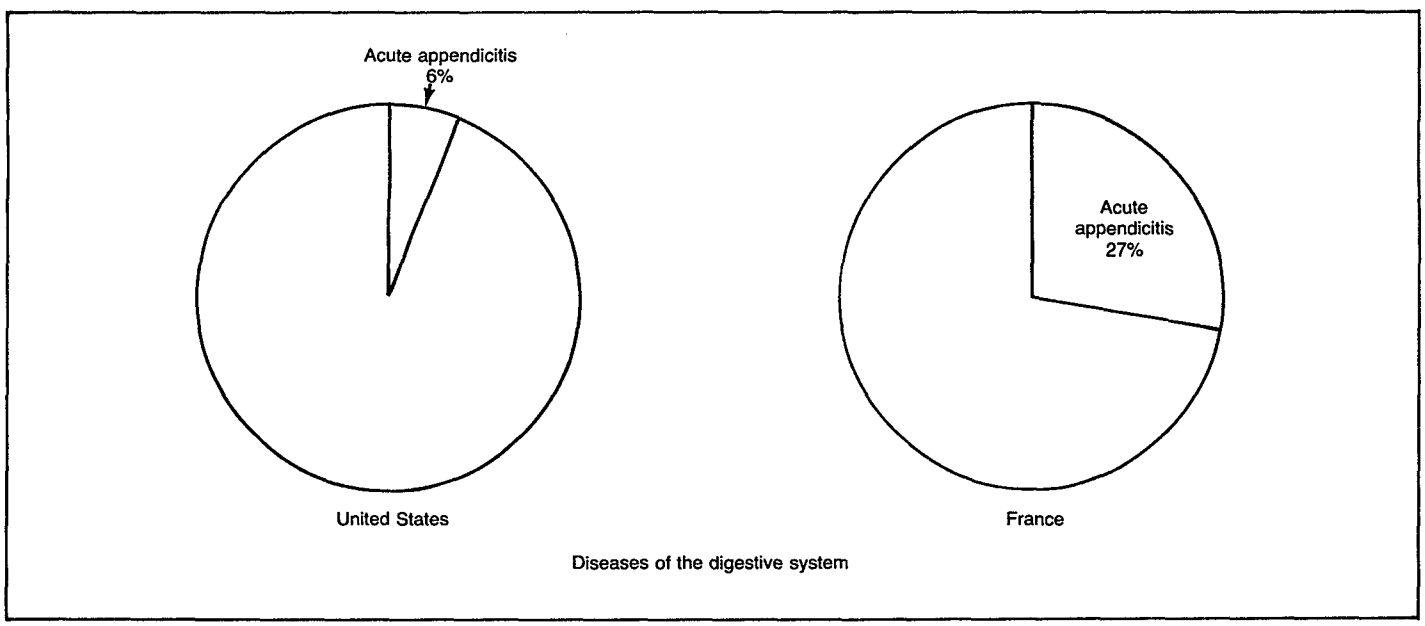

Figure 27. Discharges from short-stay hospitals or services with acute appendicitis as a proportion of discharges with diseases of the digestive system: United States and France, 1981

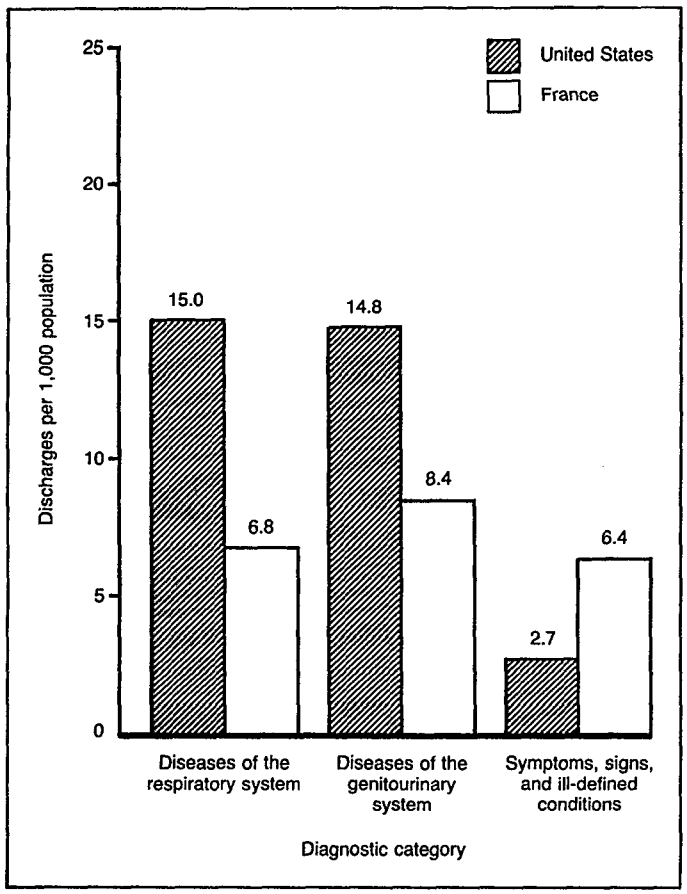

Figure 28. Discharge rates for patients discharged from short-stay hospitals or services by selected diagnostic categories: United States and France, 1981

alone accounted for 29 percent of U.S. discharges, 22 percent of French discharges.

Diseases of the circulatory system was the leading cause of hospital days for the elderly in both countries. Circulatory diseases accounted for 30 percent of U.S. days of care, 21 percent of French days of care. In the United States, circulatory diseases, together with diseases of the digestive system and neoplasms, were responsible for 54 percent of the days of care for patients 65 years and over. In France, circulatory diseases, neoplasms, injury and poisoning, and diseases of the respiratory system jointly made up 52 percent of the hopsital days of the elderly. The total hospital use of the elderly, that is, the rate of days of care for all conditions, was similar in the two countries.

The average length of stay of patients 65 years and over was 6.6 days longer in France than in the United States. The range of French lengths of stay for the main diagnostic categories was from 23.6 days for diseases of the respiratory system to 14.3 days for diseases of the nervous system and sense organs. In the United States the range was from 14.1 days for mental disorders to 5.9 days for diseases of the nervous system and sense organs. A relatively short average length of stay, 14.1 days, was reported in France for the subcategory of fracture of the neck of the femur (hip fracture). The United States had a long length of stay, 20.8 days, for fracture of the neck of the femur.

Marital status

Discharge rates and rates of days of care are shown in table 26 by marital status for patients 15 years of age and over. In France the married category includes persons cohabitating but in the United States it does not. Separated refers to legal separations in France but also includes other persons permanently or temporarily separated because of marital discord in the United States. The marital status of 6 percent of U.S. discharges and 7.2 percent of French discharges was not reported.

For the United States, estimates of the population in each marital status category were available only for the civilian noninstutionalized population. The civilian resident population was used to compute U.S. rates elsewhere in this report. Use of the civilian noninstitutionalized population had the largest effect on the rates for the population 65 years and over, which was most likely to be residing in an institution, usually a nursing home. The rates based on the civilian noninstitutionalized population were 6 percent higher, on average, than the rates based on the civilian resident population for the population 65 years and over. The distribution of the U.S. population under 15 years of age by marital status was not available, but almost all children under 15 years would be expected to be single.

More than 90 percent of the population 15–44 years of age in the United States and 96 percent in France was either married or single. In the United States the discharge rate for the married population 15–44 years was 157.3, 50 percent higher than the rate for single persons of 104.0 (figure 36). The U.S. rate of days of care was also 28 percent higher for married than for single persons, probably reflecting more hospital use by the married population for care related to childbearing. In France the discharge rate was 138.9 per 1,000 population for the married category compared with 94.4 per 1,000 for the single population, and the rates of days of care were 1,069.5 per 1,000 for married persons, 717.4 per 1,000 population for single persons. The differences between the United States and France in hospital use rates for the marital status categories were not statistically significant.

The discharge rate for patients 45–64 years of age (figure 37) was 44 percent higher in the United States than in France. Married persons were discharged at a rate 52 percent higher in the United States. The discharge rate of the single population was 307.6 per 1,000 population in the United States compared with 189.8 per 1,000 population in France, and widowed persons had a discharge rate of 206.8 per 1,000 population in the United States, 124.4 per 1,000 population in France.

Unlike the younger age group, the U.S. single population 45–64 years of age had a discharge rate 80 percent higher than the married population, and its rate of days of care was more than twice the rate of the married population. Single people 45–64 years also had a discharge rate and a rate of days of care approximately 50 percent higher than people who were widowed in the United States. The patterns were similar in France, but the differences in use rates by marital status were not large enough to be statistically significant.

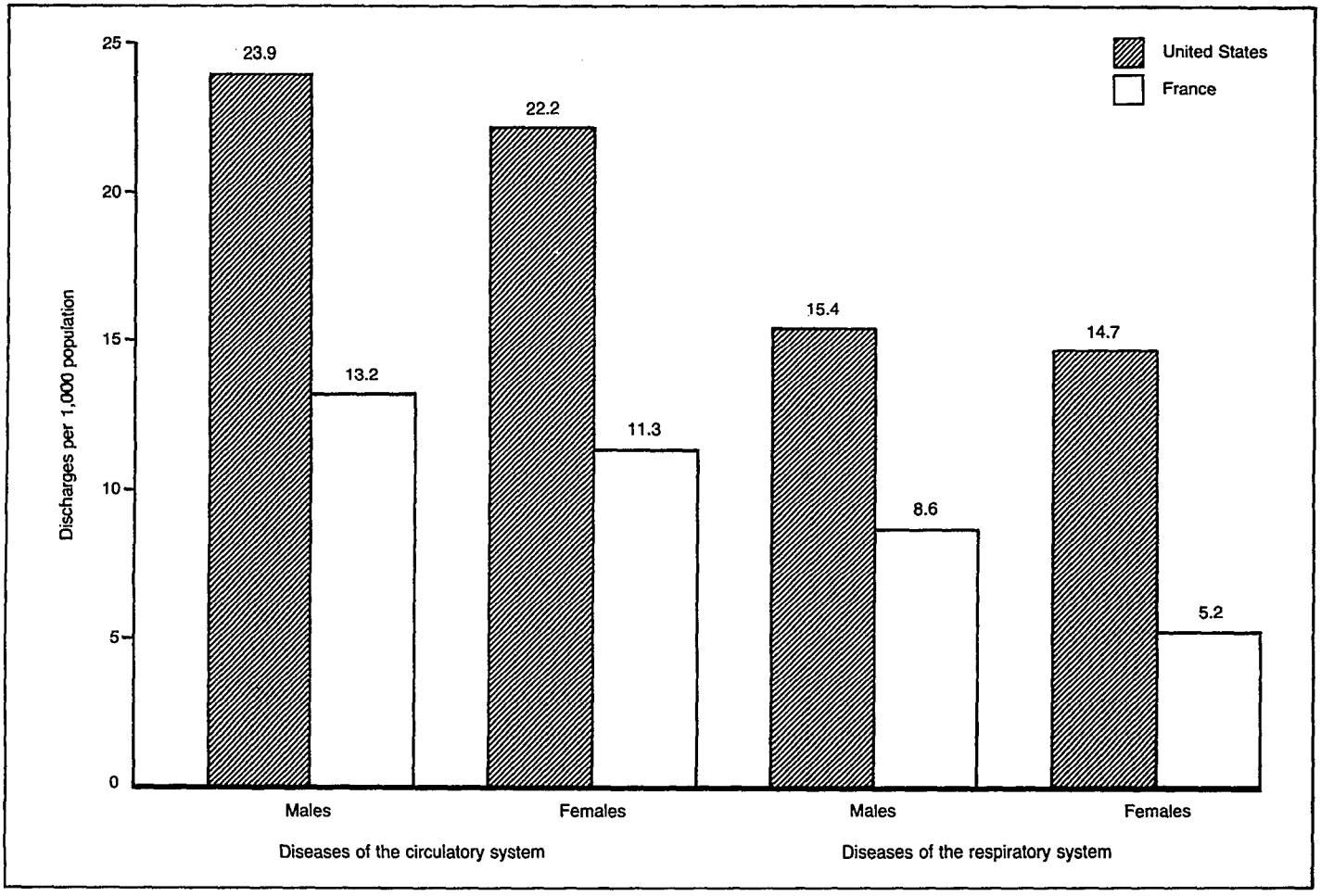

Figure 29. Discharge rates for patients discharged from short-stay hospitals or services for diseases of the circulatory and respiratory systems by sex: United States and France, 1981

The discharge rate for the population 65 years and over (figure 38) was 74 percent higher in the United States than in France. Married persons 65 years and over had a 46 percent higher discharge rate in the United States, and the U.S. rate of the widowed population was almost twice the rate in France. As was the case for the population 45–64 years, single persons 65 years and over had a higher discharge rate and rate of days of care than did married persons in the United States. The discharge rate and rate of days of care were also higher in the United States for the widowed than for the married population.

These differences may be related, in part, to the use of the civilian noninstitutionalized population to compute use rate in the United States. Widowed, divorced and separated, and especially single people are more likely to be admitted to nursing homes in the United States than are married people 65 years of age and over (NCHS, 1987). Thus, a smaller proportion of persons without spouses than of married people in this age group would be counted in the civilian noninstitutionalized population, and the rates based on this population would be somewhat inflated for the nonmarried groups. However, the same factors that lead persons 65 years of age and over without spouses to be more likely to enter nursing homes (especially the lack of others at home to care for them) could also increase their likelihood of hospitalization.

It should also be noted that the hospital use rates for the single population 65 years and over in France, which are particularly low, are based on only 21 sample cases.

Percent distributions of discharges and days of care by marital status are presented for all age groups in table 27. Patients who were married made up about half of all discharges and days of care in both France and the United States (figure 39). Single patients accounted for about one in every four or five discharges and days of care in both countries. U.S. and French widowed patients were responsible for a little over 10 percent of all discharges, but over 18 percent of days of care. The proportions of discharges and days of care for U.S. patients who were divorced or separated were approximately three times those for French patients in these categories, 6.3–6.9 percent versus 2.0–2.2 percent.

Not surprisingly, single patients accounted for almost all the discharges and days of care of the age group under 15 years in both countries. By the ages of 15–44 years, though, over half of discharges and days of care were for married patients. Single patients were responsible for about 30 percent of the discharges and days of care of patients 15–44 years.

Just over two-thirds of the discharges and a little less than two-thirds of the days of care for the group 45–64 years of age were for married patients in the two countries. Single patients in this age group made up 7.6 percent of U.S. dis-

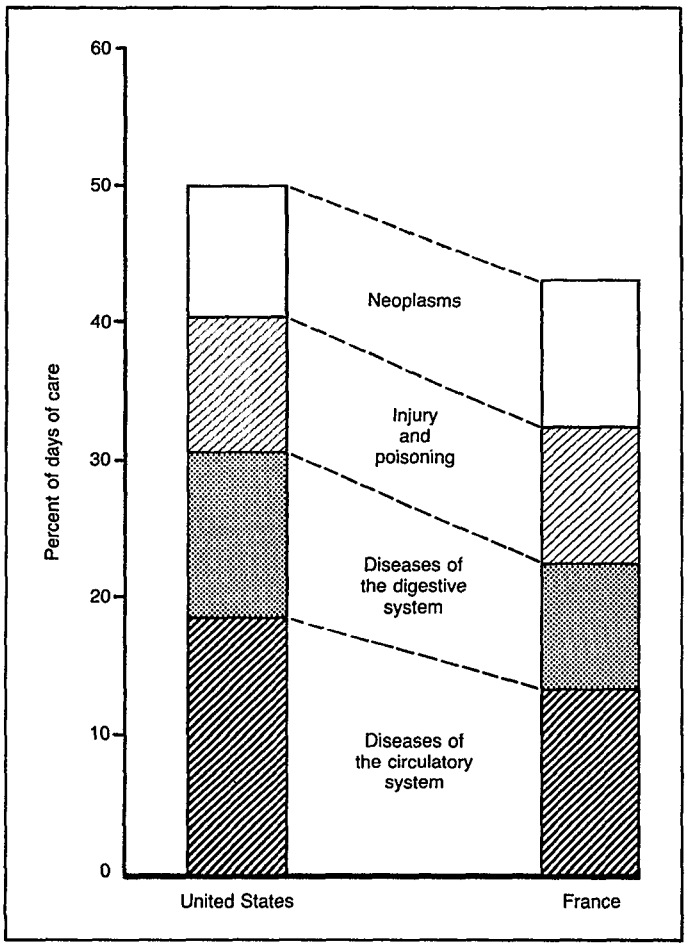

Figure 30. Percent of days of care for selected diagnostic categories for patients discharged from short-stay hospitals or services: United States and France, 1981

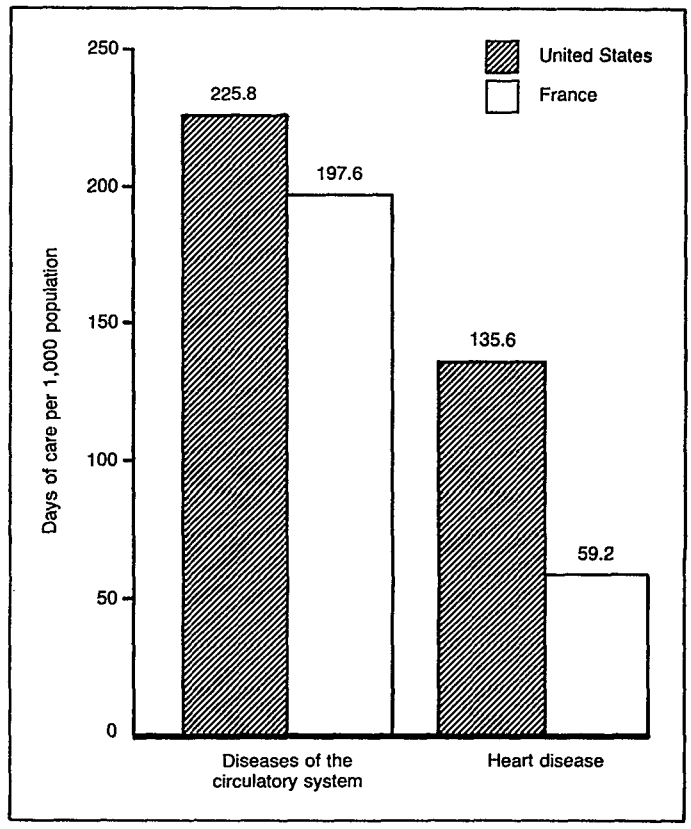

Figure 31. Rates of days of care for patients discharged from short-stay hospitals or services for diseases of the circulatory system and heart disease: United States and France, 1981

charges compared with 12.4 percent of French discharges, and had 8.9 percent of U.S. days of care versus 19.8 percent of the days of care in France. Widowed patients accounted for 6–10 percent of both discharges and days of care.

Married patients made up a little less than half of discharges and days of care for the group 65 years of age and over in France and the United States. Widowed patients accounted for nearly 40 percent of each, and single patients were also responsible for similar proportions, 5–8 percent, of discharges and days of care in the two countries.

The average lengths of stay of French patients were significantly longer for most of the marital status groups (table 28, figure 40). Married patients stayed in French hospitals 57 percent longer than in U.S. hospitals. The average length of stay for single patients was 54 percent longer in France, and French widowed patients stayed 66 percent longer.

In both France and the United States, widowed patients, most of whom were 65 years of age and over, had longer average lengths of stay than patients in the other marital status categories. The lengths of stay of the other marital status categories in France were not significantly different. The shortest average stay in the United States was for single patients, most of whom were young.

It is important to note, however, that within specific age groups, married U.S. patients generally had shorter average lengths of stay than patients without spouses. Married patients were hospitalized for 15–25 percent less time on average than single, widowed, or divorced or separated patients 15–44 years of age. For the group 45–64 years of age, average hospitalizations of married patients were 16–19 percent shorter than the average stays of patients without spouses. Married patients 65 years of age and over had a 20 percent shorter average stay than single patients and a 13 percent shorter average stay than patients who were widowed.

Disposition

The percent distributions and average lengths of stay by disposition of patients are shown by the patient's age in table 29. The home/routine category consists of patients who returned to their place of residence after discharge. As well as patients returning to private homes, the category includes patients discharged to nonmedical residential facilities, such as prisons, orphanages, and homes for the elderly. Transfers refer to patients transferred to other hospitals or long-term health care facilities (nursing homes). In France, patients transferred from a short-term department to a medium or long-term care department (such as a psychiatric, chronic, convalescence, or rehabilitation department) within a hospital are also included in the category. Deaths are patients who died during an inpatient hospital stay, and the other/not stated category includes patients whose destinations were unknown or did not match the listed categories. For the United States, patients who left the hospital against medical advice were included in the other

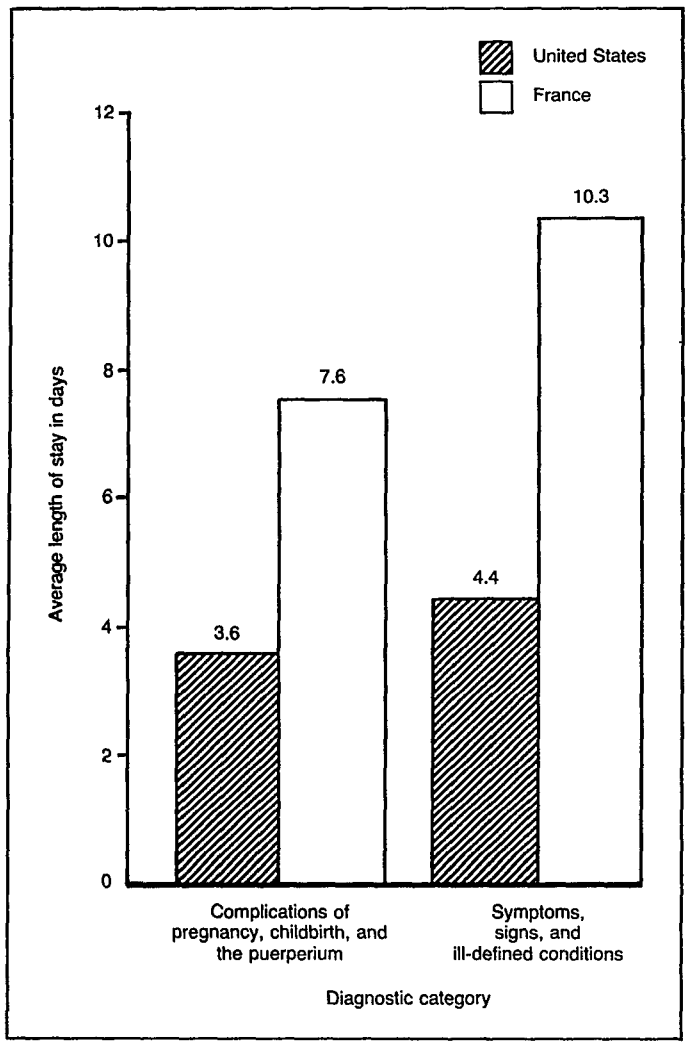

Figure 32. Average lengths of stay for patients discharged from short-stay hospitals or services by selected diagnostic categories: United States and France, 1981

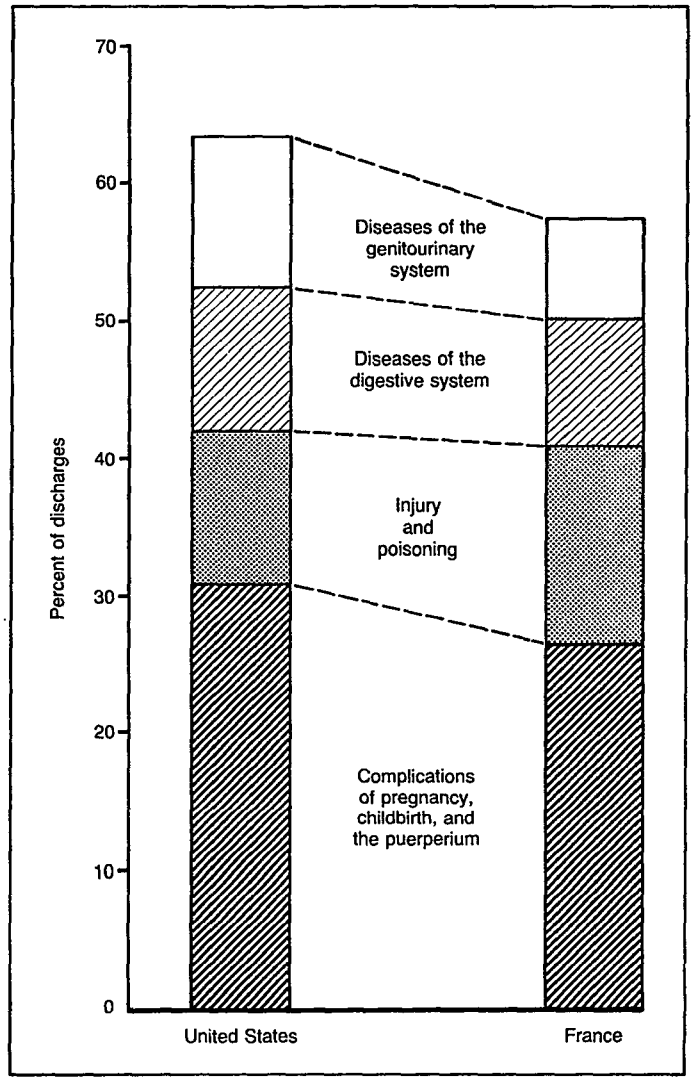

Figure 33. Percents of discharges for selected diagnostic categories for patients 15–44 years of age discharged from short-stay hospitals or services: United States and France, 1981

category, but these patients accounted for only 0.7 percent of all discharges.

In both France and the United States, more than 80 percent of patients were discharged to their place of residence. The proportion of discharges in the home/routine category was reported to be higher in France, but this was probably because of the larger other/not stated category in the United States. The similarity in the average lengths of stay of the home/routine and other/not stated categories in the United States suggests that most U.S. patients whose dispositions were not known were likely to be discharged to their place of residence. Among U.S. discharges whose dispositions were known, 92 percent were in the home/routine category.

French patients were twice as likely as U.S. patients to be reported as transfers, which did not appear to be greatly affected by the larger U.S. other/not stated category. Transfers made up only 4.5 percent of the U.S. discharges whose dispositions were known. The larger proportion of transfers in France probably resulted in part from the definitional difference, but it also may reflect a greater availability of an intermediate level of hospital care in France between acute care and being discharged home.

The proportion of patients who were discharged dead was very similar in the two countries. Patterns in patient disposition by age were also similar. In general, the percent of patients discharged to their place of residence decreased with age (figure 41) while the percent transferred or discharged dead increased with age. The percent transferred was significantly higher in France than in the United States for patients 15–44 years and 45–64 years of age, but the difference in the proportions of patients 65 years and over who were transferred was not statistically significant.

Variations in average lengths of stay by disposition were similar in the two countries. In both, stays were longer for transferred patients and patients discharged dead than for the patients in the home/routine category (figure 42). This is partly due to differences in the ages of patients with different dispositions. More than half of all patients discharged to their usual place of residence were under 45 years of age in both countries. Approximately 70 percent of deaths in the United States and 76 percent in France were patients 65 years and over. Most transfers, 68 percent, were also 65 years and

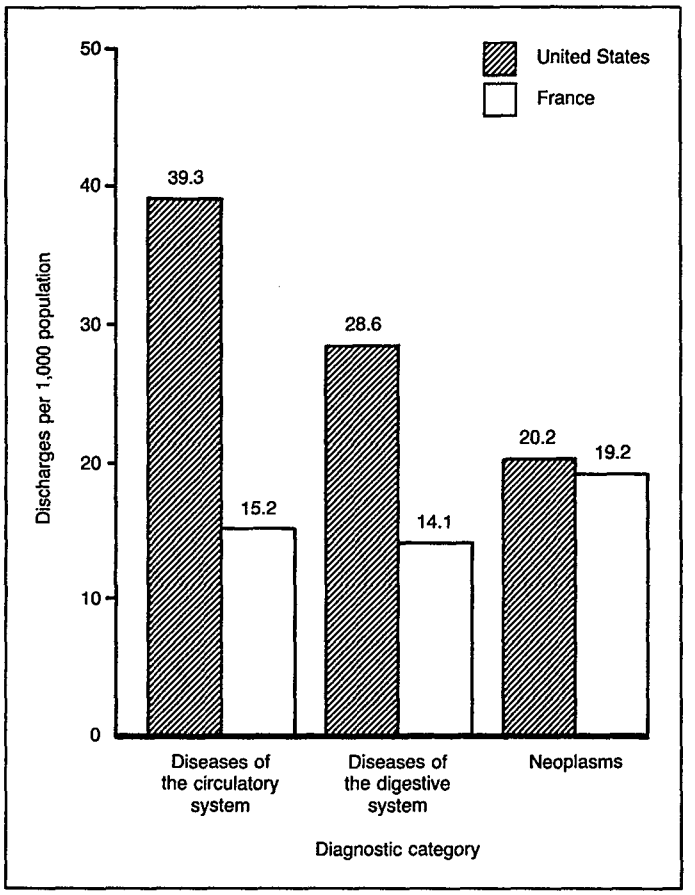

Figure 34. Discharge rates for patients 45–64 years of age discharged from short-stay hospitals or services by selected diagnostic categories: United States and France, 1981

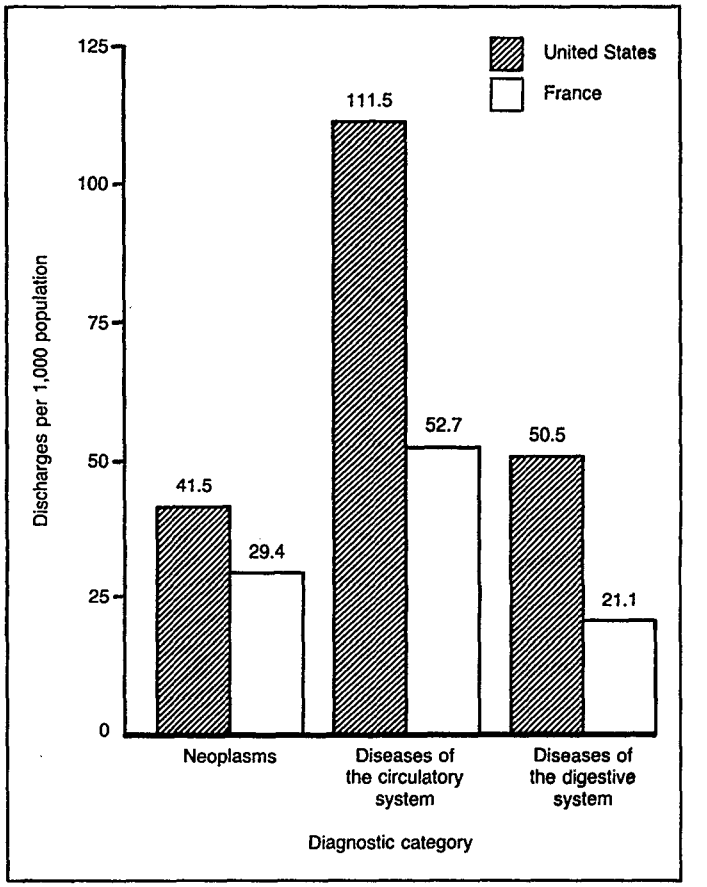

Figure 35. Discharge rates for patients 65 years of age and over discharged from short-stay hospitals or services by selected diagnostic categories: United States and France, 1981

over in the United States. In France, 43 percent of transfers were 65 years and over.

There were, however, significant differences in average lengths of stay by disposition within specific age groups. In each of the four age groups the average length of stay for U.S. patients was lower for the home/routine category than for the transfer or death categories. Transferred patients in the United States also had significantly shorter average stays than U.S. patients discharged dead, when the patients were under 65 years of age. The average lengths of stay of U.S. transferred patients increased significantly with age, but the average stay of U.S. patients discharged dead did not.

Hospital characteristics

The distributions of discharges and days of care by bed size categories are shown in table 30 for each of four age groups. The distributions differ in the two countries. In the United States, approximately three fourths of all discharges and days of care were accounted for by hospitals with 120–799 beds, whereas hospital use was somewhat more evenly divided by bed size categories in France (figures 43 and 44).

An especially large difference in the patterns of use was found for hospitals with 1,400 beds or more. These hospitals accounted for almost a third of the discharges and over a fourth of the days of care in France, but less than one percent of the discharges and days of care in the United States. This difference was also seen in the distribution of short-stay hospital beds in the two countries (see table 7). About a fourth of French beds were in hospitals with 1,400 beds or more but only one percent of U.S. short-stay beds were in hospitals of this size. Likewise, a higher proportion of French short-stay hospital beds and French discharges were in hospitals with 800–1,399 beds. The percents of days of care in this bed size category were, however, very similar in the two countries.

The proportions of discharges and days of care in U.S. hospitals with 120–399 beds were more than twice the proportions in this category in France. In addition, the proportions of discharges and days of care for the category of 400–799 beds were about 50 percent higher in the United States. The percents of short-stay hospital beds in these two categories were also substantially higher in the United States.

The distributions of discharges and days of care by bed size categories were generally similar for the four age groups within each country. The percents of discharges and days of care in hospitals with 120–399 beds in the United States were generally two to three times the percents in France. Hospitals with 1,400 beds or more accounted for a fourth to a third of the discharges and days of care of each French age group, and for less than one percent of the use of each age group in the United States.

Average lengths of stay by bed size and age are shown in table 31 for the United States and France. Differences

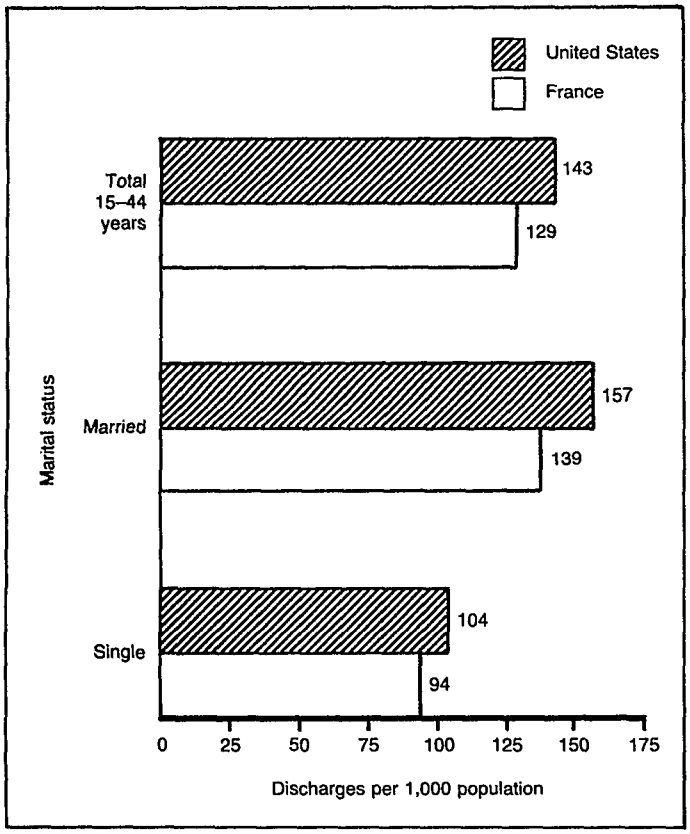

Figure 36. Discharge rates for patients 15–44 years of age discharged from short-stay hospitals or services by marital status: United States and France, 1981

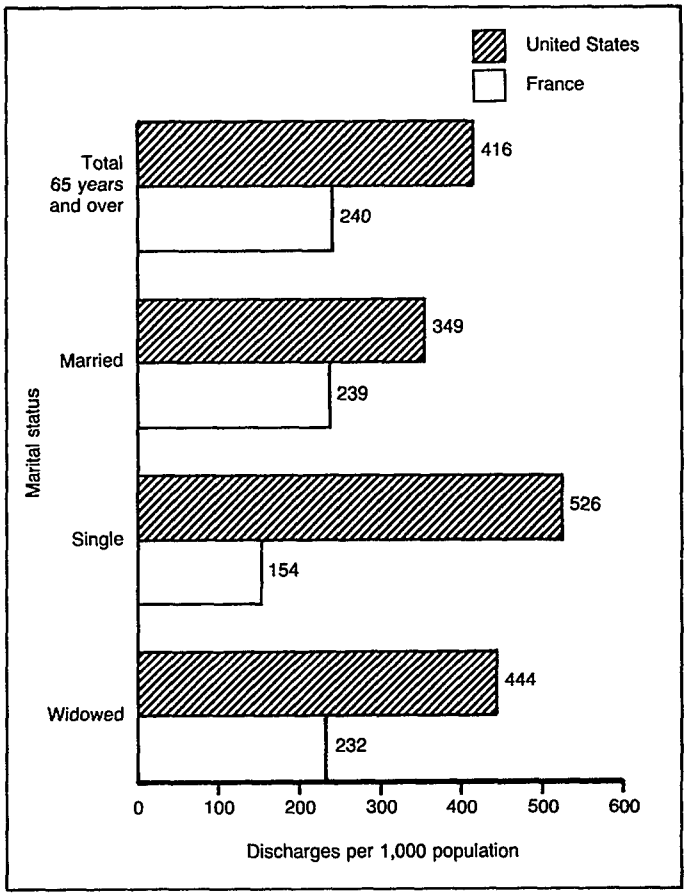

Figure 38. Discharge rates for patients 65 years of age and over discharged from short-stay hospitals or services by marital status: United States and France, 1981

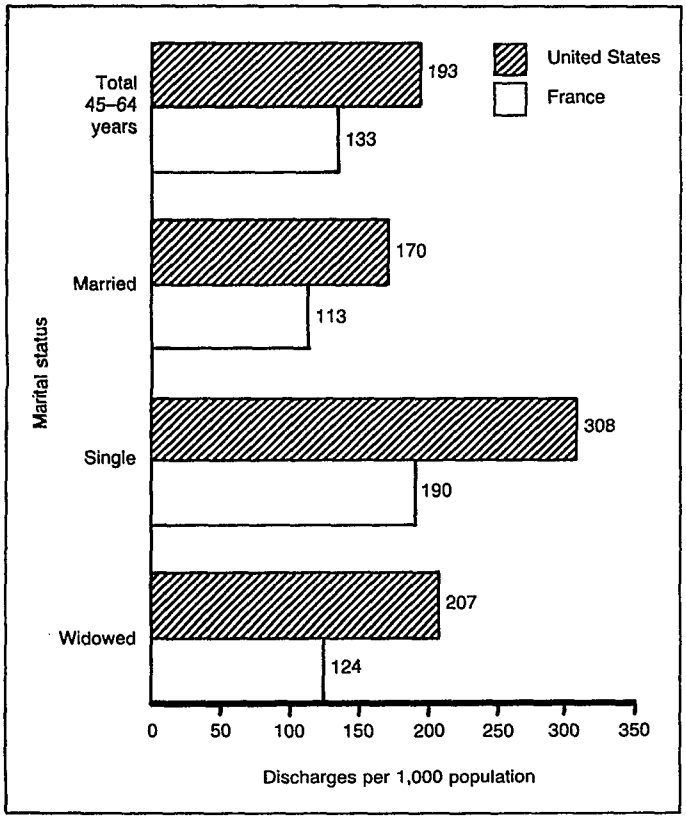

Figure 37. Discharge rates for patients 45–64 years of age discharged from short-stay hospitals or services by marital status: United States and France, 1981

between the countries in lengths of stay were particularly large for the hospitals with 50–119 beds and those with 120–399 beds (figure 45). Hospitals with 50–119 beds had average stays 91 percent (5.8 days) longer in France than in the United States. Similarly, the average length of stay for hospitals with 120–399 beds was 88 percent (6.4 days) longer in France. There was also a statistically significant difference in the average lengths of stay of hospitals with 400–799 beds, the French hospitals this size having an average stay 51 percent (4.1 days) longer than the U.S. hospitals. The average lengths of stay for the two largest bed size categories, 800–1,399 beds and 1,400 beds or more, were more similar in the two countries.

The distributions of discharges and days of care by hospital ownership, like the distributions by bed size categories, were quite different in France and the United States (table 32). As with the bed size differences, the variations in hospital use by ownership reflected the different patterns in the distribution of short-stay hospital beds in the two countries.

In the United States, the majority of short-stay hospital beds, 63.9 percent, were located in private nonprofit hospitals (table 6). These hospitals accounted for more than 70 percent of U.S. discharges and days of care (figures 46 and 47). The nonprofit hospital was the least common ownership category in France, containing only 10.8 percent of all short-stay beds, 10.1 percent of discharges and 15.3 percent of days of care.

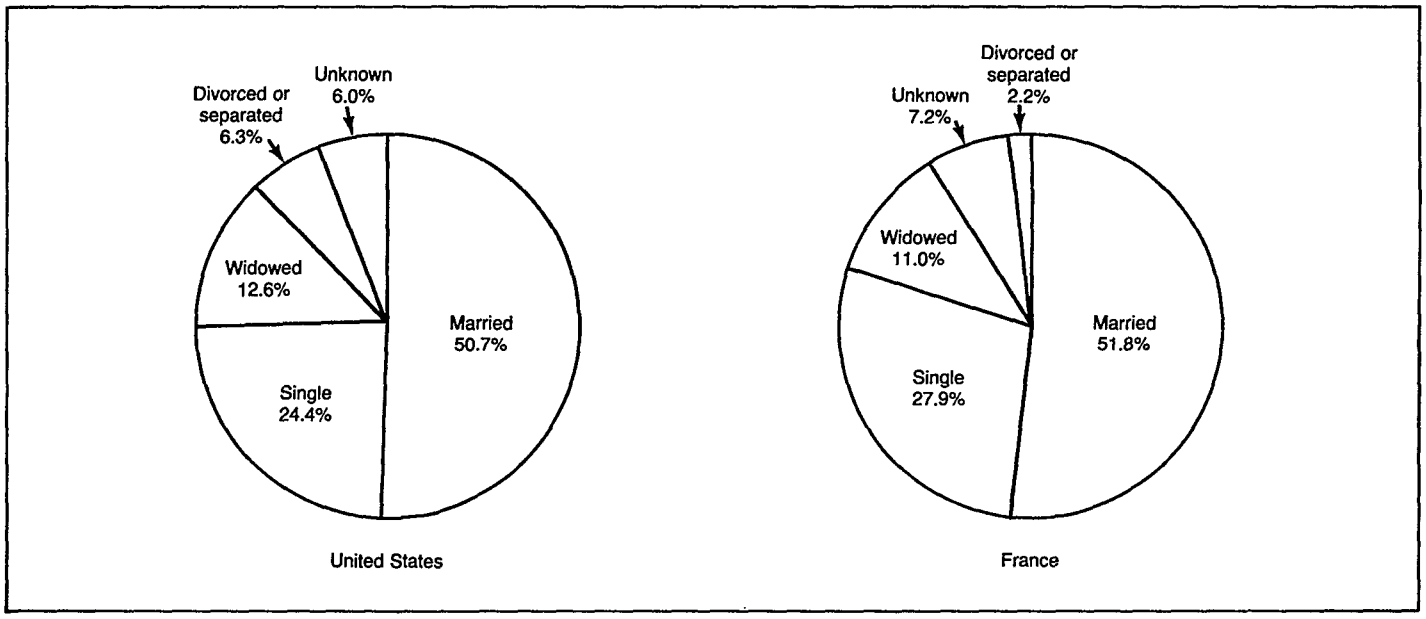

Figure 39. Percent distributions of patients discharged from short-stay hospitals or services by marital status: United States and France, 1981

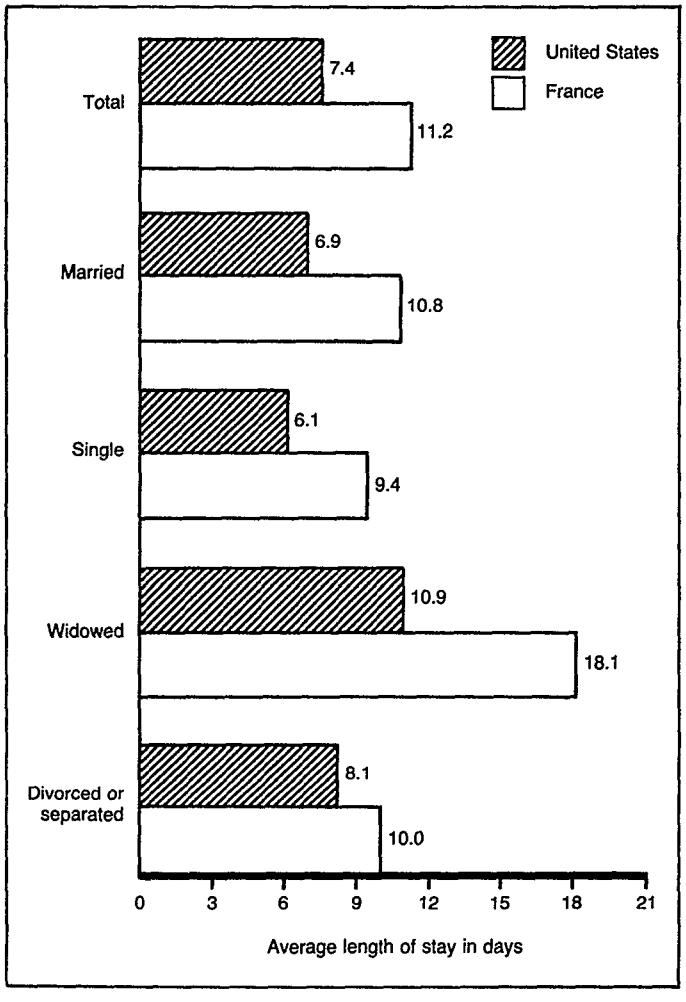

Figure 40. Average lengths of stay for patients discharged from short-stay hospitals or services by marital status: United States and France, 1981

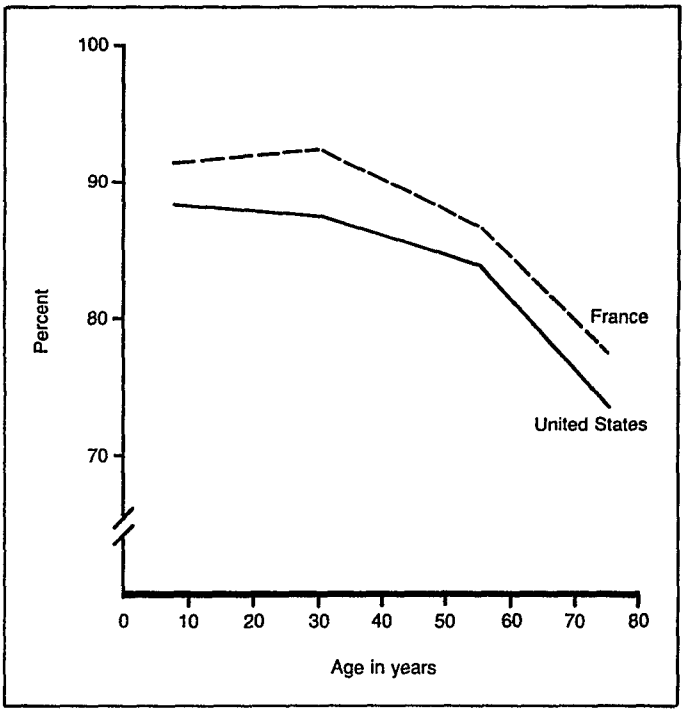

Figure 41. Percent of patients discharged home from short-stay hospitals or services by age: United States and France, 1981

The majority of French short-stay hospital beds, 64.8 percent, were found in public hospitals. Public hospitals also reported the majority of French discharges, 62.2 percent, and French days of care, 57.9 percent. In the United States, public hospitals held only 27.6 percent of beds and were responsible for only about a fifth of discharges and days of care.

The proportions of discharges and days of care in private for-profit hospitals in France were three times the proportions

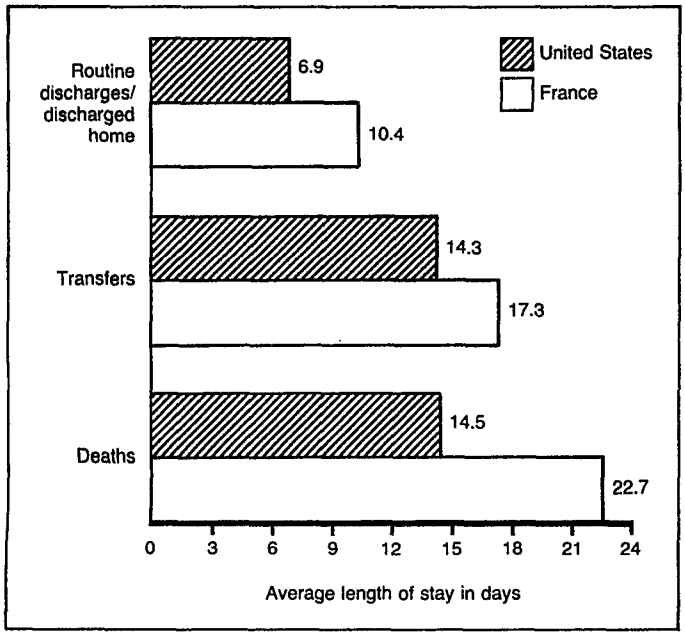

Figure 42. Average lengths of stay for patients discharged from short-stay hospitals or services by disposition: United States and France, 1981

in these hospitals in the United States. The French private for-profit hospitals accounted for more than a fourth of discharges and days of care and slightly less than a fourth of short-stay beds. Only about 8 percent of discharges and days of care, and 8.5 percent of beds were in private for-profit hospitals in the United States.

The distributions of discharges and days of care by ownership categories were much the same for each age group within each country. The majority of discharges and days of care for each age group were in private nonprofit hospitals in the United States and in public hospitals in France. One age variation was noted for French private for-profit hospitals. Less than 20 percent of the discharges of children under 15 years and of the elderly 65 years and over were in the private for-profit hospitals in France, but more than 30 percent of French patients 15–44 years and 45–64 years were discharged from these hospitals. French patients 15–44 years were the only age group with less than 10 percent of discharges in private nonprofit hospitals. Patients 45–64 years were the only age group in France with less than 60 percent of discharges in public hospitals.

French patients stayed longer than U.S. patients in all three categories of hospitals (figure 48). The difference was particularly large for the private nonprofit hospitals where the French average length of stay was more than twice the U.S. average stay. The average length of stay for public hospitals was 50 percent longer in France than in the United States. French private for-profit hospitals had average stays 41 percent longer than the U.S. hospitals in this category.

Source of payment

The sources of payment for hospitalizations in the United States and France are shown in table 33. The U.S. statistics are for the principal expected source of payment, which is usually reported at the time of admission. The actual source of payment may not always be the same as the expected source. For example, a patient admitted to a hospital after an accident may cite private insurance as the expected source of payment when, in fact, Workmen's Compensation may ultimately pay the bill.

Private insurance, which consists of Blue Cross and other private or commerical insurance, was the expected principal source of payment for more than half of U.S. hospitalizations (figure 49). Medicare, a government insurance program that primarily provides health insurance protection to persons 65 years and over, was the principal source of payment for almost 30 percent of all U.S. hospitalizations. Nearly half of the patients with Medicare also reported having private insurance

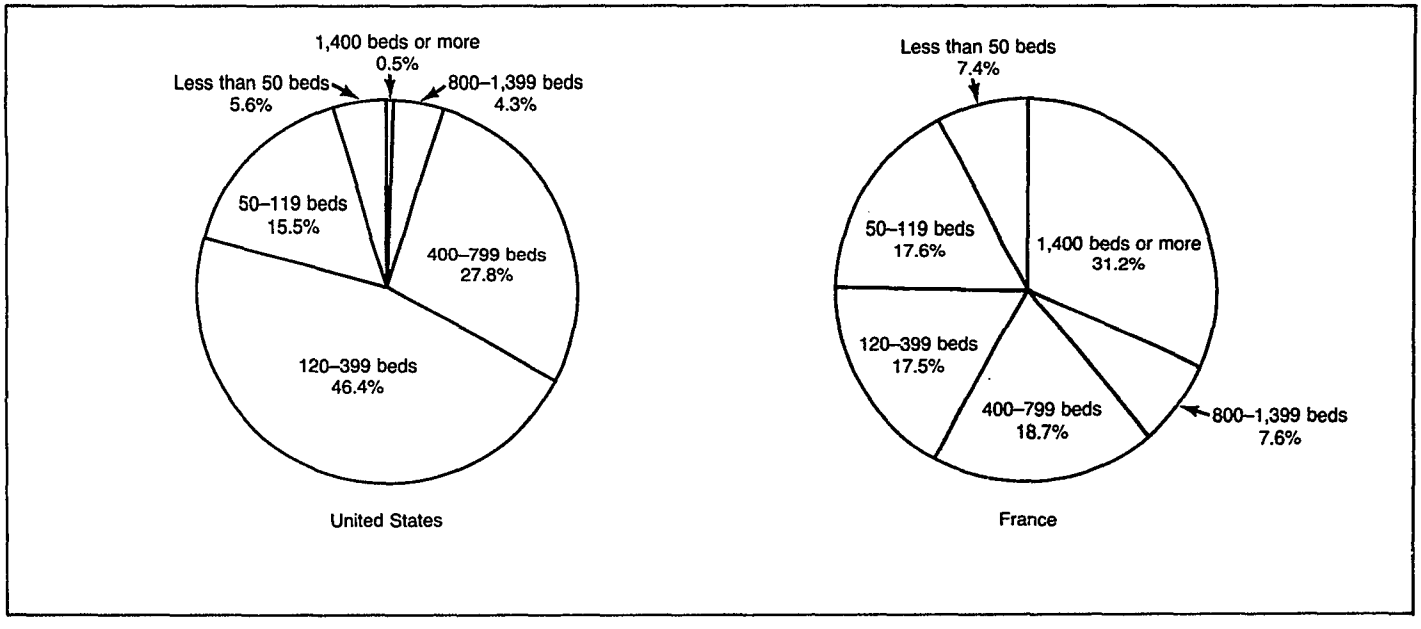

Figure 43. Percent distributions of patients discharged from short-stay hospitals or services by bed size: United States and France, 1981

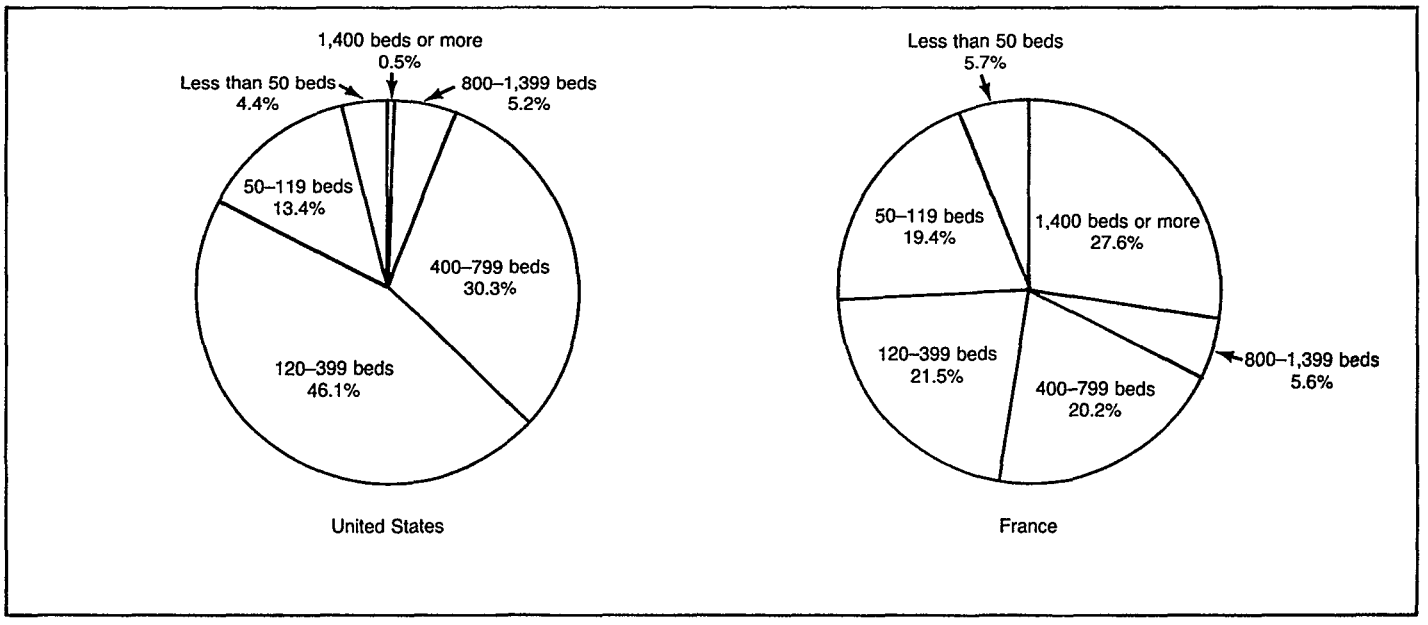

Figure 44. Percent distributions of days of care for patients discharged from short-stay hospitals or services by bed size: United States and France, 1981

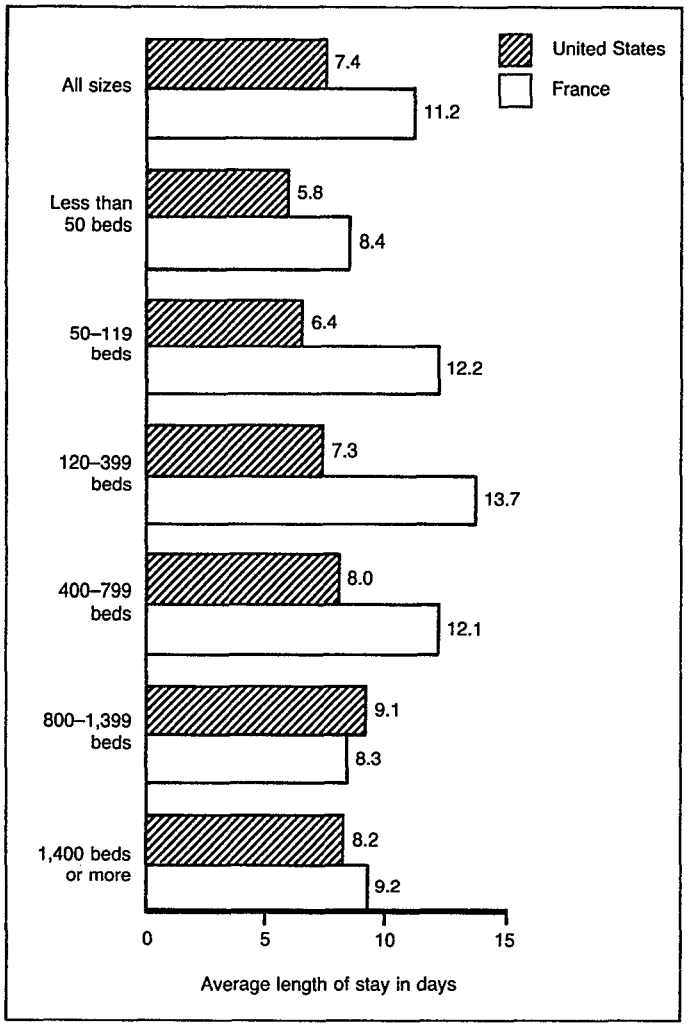

Figure 45. Average lengths of stay for patients discharged from short-stay hospitals or services by bed size: United States and France, 1981

to cover Medicare copayments. Medicaid was cited as the secondary source of payment for another 11 percent of the Medicare patients.

Medicaid is a government health insurance program that provides benefits to low-income persons in the United States. Medicaid was the principal expected source of payment for 9 percent of all U.S. discharges. The major share of hospital costs was expected to be paid by the patient or family for about 5 percent of hospitalizations. Patients with other sources of payment also could have out-of-pocket expenses for hospital care. In all, U.S. patients paid about one-tenth of the total costs of hospital care directly in 1981 (Gibson and Waldo, 1982).

The only significant variation in average length of stay by source of payment in the United States was between Medicare and non-Medicare patients. The stays of Medicare patients were 4–5 days longer, on average, than the stays of patients with other sources of payment. This was the result of differences in the age of patients in these categories. Almost all Medicare patients were 65 years and over, but almost all patients in other payment categories were under 65 years of age.

The primary source of payment for almost all French hospitalizations was the sick fund, the compulsory national health insurance program of France. In 1981, all of the costs of hospitalization were covered by the sick funds for 63 percent of French patients. Included in this group were maternity patients, who made up 9.2 percent of the total, and patients with work-connected injuries or illnesses that began at work, who accounted for 2.2 percent of all discharges. Another 51.6 percent of French patients qualified for 100 percent coverage of hospital costs because they had a long-term disease, such as tuberculosis, heart disease, cancer, or mental illness, or because they had limited means. The sick fund also provides

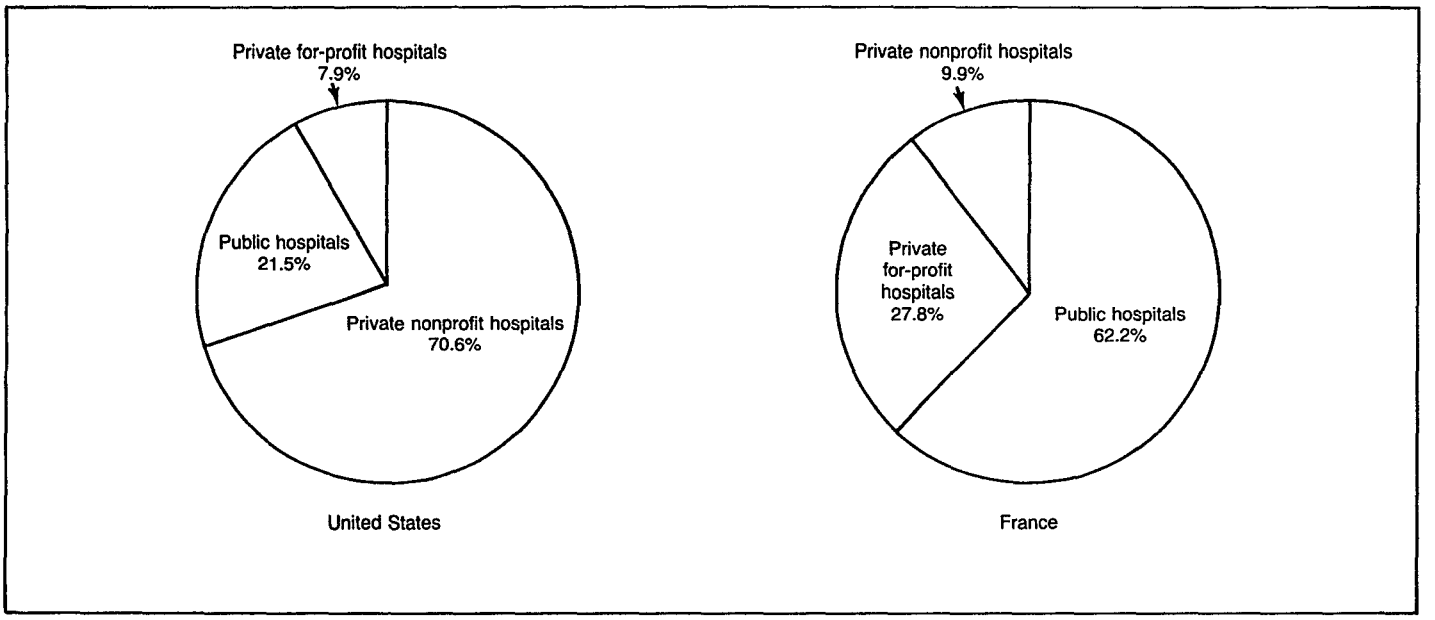

Figure 46. Percent distributions of patients discharged from short-stay hospitals or services by ownership of hospitals: United States and France, 1981

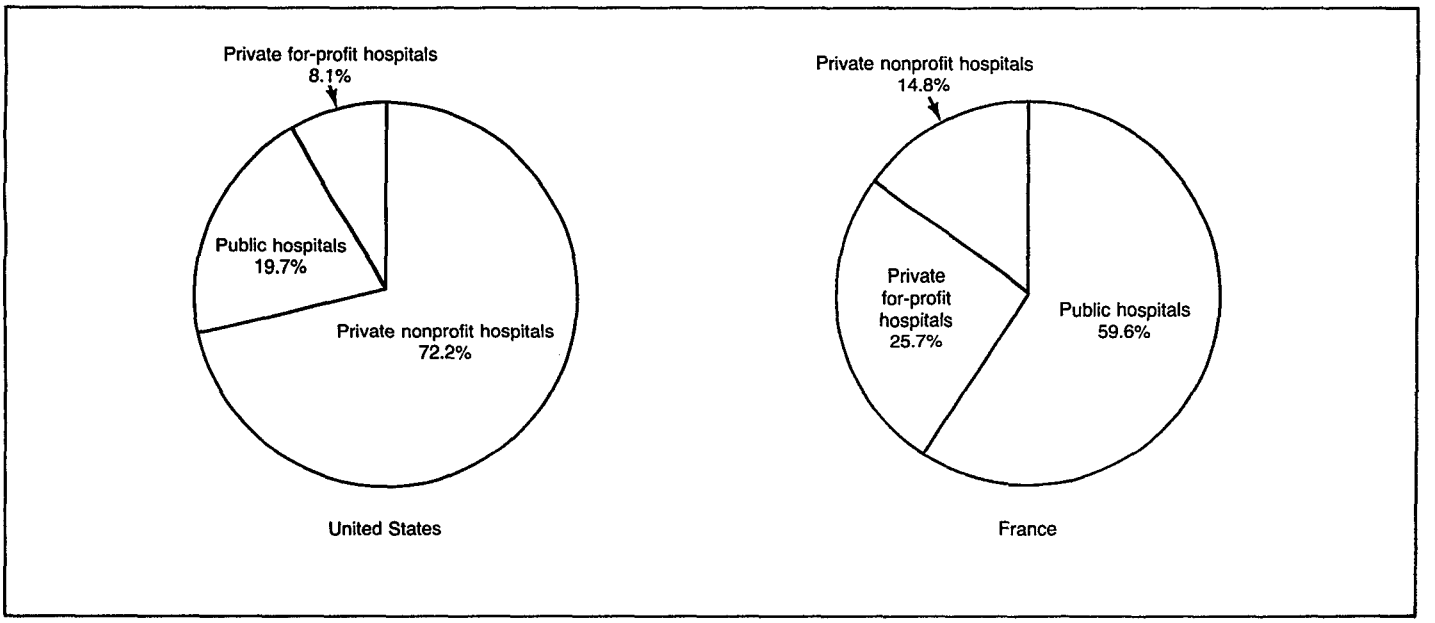

Figure 47. Percent distributions of days of care for patients discharged from short-stay hospitals or services by ownership of hospitals: United States and France, 1981

100 percent coverage of all major surgery, other expensive treatments, such as cobalt therapy and hemodialysis, and hospital stays after the thirtieth day.

A proportion of the costs of the first 30 days of hospitalization were charged to about a third of French patients in 1981. The usual copayment was 20 percent of the costs. About half of those charged with a copayment, 17.2 percent of the total, had private insurance to cover costs not reimbursed by the sick fund. Thus, the copayment was fully applicable to only 15.4 percent of discharged patients.

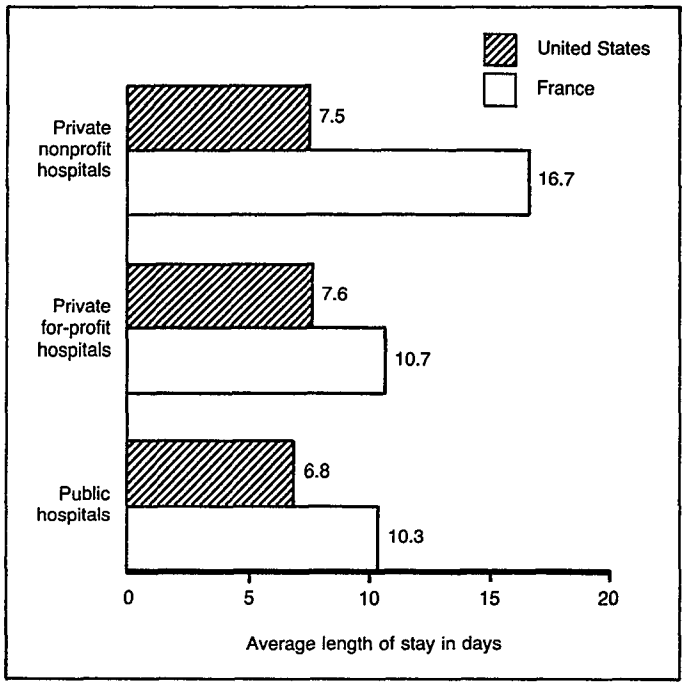

Figure 48. Average lengths of stay for patients discharged from short-stay hospitals or services by ownership of hospitals: United States and France, 1981

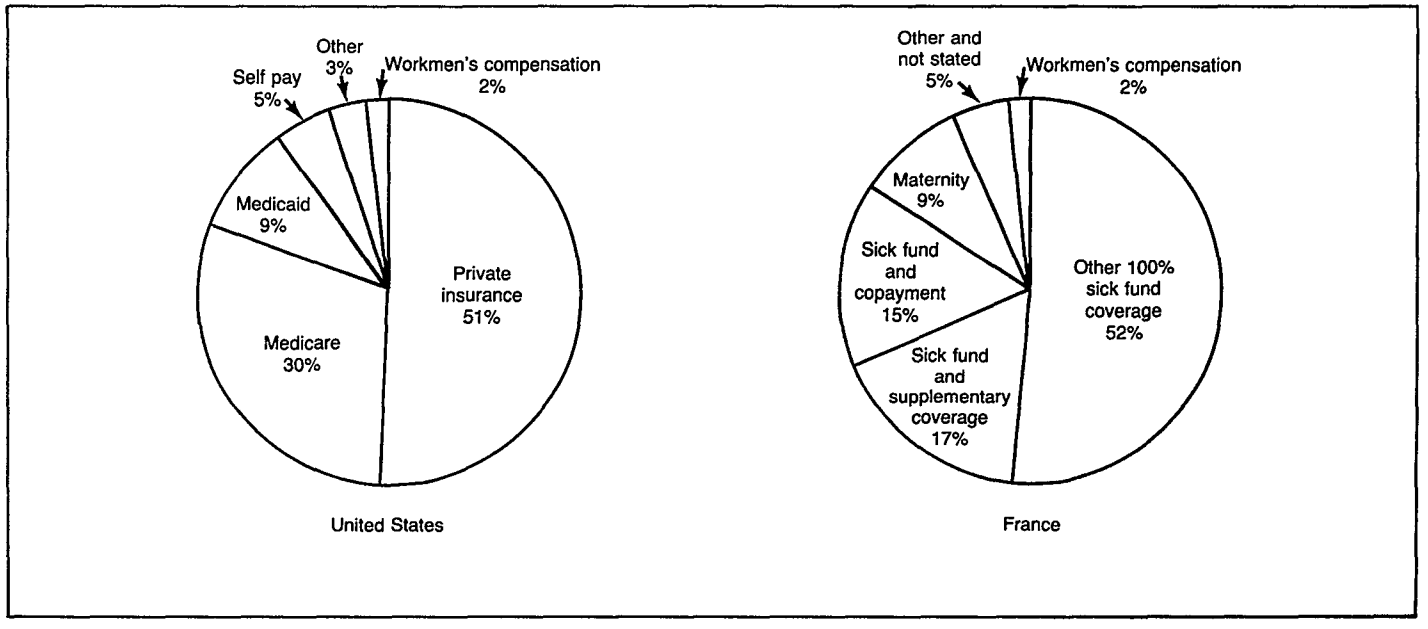

Figure 49. Percent distributions of patients discharged from short-stay hospitals or services by source of payment: United States and France, 1981

Summary

The hospital systems in France and the United States differed in several ways. The supply of hospital beds was higher in France in all hospital services and in short-stay services. Most French hospital beds were in public hospitals, and the second most common were beds in private for-profit hospitals. In the United States, most hospital beds were in private nonprofit hospitals; private for-profit hospitals contained a much smaller proportion of beds than the other ownership categories. French hospitals were also more extreme in size than U.S. hospitals. A larger proportion of French than of U.S. hospital beds were in the small hospitals with less than 120 beds and in the very large hospitals with 1,400 beds or more. Two-thirds of U.S. hospital beds were in medium-sized hospitals (120–799 beds).

The majority of U.S. hospitalizations had private insurance as the principal expected source of payment, but some out-of-pocket expense was likely for most patients. The majority of French hospitalizations were paid for entirely by the sick fund. Comparison of national health expenditures shows a much higher rate of expenditures for institutional care in the United States, which may suggest that U.S. hospital care is more technologically intensive than French care.

Another important difference is that U.S. hospitals are generally open-staffed; they allow office-based private physicians to admit and treat patients. The public hospitals in France, which account for most hospital care, have closed staffs. Only hospital-based physicians can admit and follow patients. The organization of long-term care also differs in the two countries. A larger supply of long-term care beds was found in hospital institutions in France than in the United States. Some of the types of patients treated in nursing homes in the United States probably would be cared for in these long-term hospital services in France.

Besides the variations in hospital systems, there were notable differences in the populations of the two countries. The population was older in France. Greater proportions of the French were 65–74 years of age, 75–84 years of age, and 85 years of age and over. The life expectancy of the population at birth was similar in the two countries, and the leading causes of death in both were diseases of the circulatory system and neoplasms. However, the death rate was higher in the United States for circulatory diseases, especially ischemic heart disease. The French death rate was higher for neoplasms, in spite of a higher rate for malignant neoplasms of the trachea, bronchus, and lung in the United States.

U.S. death rates were also higher for the population under 65 years of age for diseases of the respiratory system, and although the French death rate was higher for persons 65 years of age and over, even for this age group the U.S. death rate was higher for chronic obstructive pulmonary disease. The death rate for diseases of the digestive system was higher in France, in large part because of higher French rates for alcoholic liver disease and other cirrhosis of the liver. French death rates were much more likely than U.S. deaths to be assigned to the category of symptoms, signs, and ill-defined conditions, and the cause of many of these deaths was reported as entirely unknown and unspecified.

The death rates for injury and poisoning were higher in the United States for the populations 1–14 and 15–44 years of age, who died more often as the result of traffic accidents and at a much higher rate from homicide. The populations under 1 year and 45 years of age and over died more frequently from injuries and poisonings in France. The death rates for these age groups were higher for all types of accidents, especially accidental falls for the elderly. French death rates were also higher than U.S. rates for suicide.

Despite these differences, there were similarities in the hospital use patterns in France and the United States. For instance, age had similar effects on hospital use in both countries. Rates of discharges and days of care showed U-shaped curves, elevated for infants, low for children, and climbing with age with high rates for the elderly.

Major diagnostic categories were generally similar in the two countries. Diseases of the circulatory system and neoplasms were leading causes of hospital days in both countries, and were leading discharge diagnoses for patients 45 years of age and over. Diseases of the digestive system was a major diagnostic category for discharges and was one of the main causes of days of care for both sexes and each of the three age groups compared. Complications of pregnancy, childbirth, and the puerperium was a leading discharge diagnosis and cause of hospital days for females and for the group 15–44 years of age in each country. Injury and poisoning was a leading discharge diagnosis and cause of hospital days in the two countries. In the United States, however, it was primarily important for patients 15–44 years of age. It was a leading diagnostic category for all three of the age groups compared in France.

The distributions of hospital use by age and marital status were very much alike in the two countries. Almost all hospital discharges and days of care in the group under 15 years of age were for single patients. More than half of discharges

and hospital days for the group 15–44 years of age were for married patients, and approximately 30 percent of the hospital use of that age group was by single patients. Approximately two-thirds of the hospital use of patients 45–64 years of age in each country was by married patients. For the elderly, 65 years of age and over, both the married and widowed patients were major hospital users.

More than 80 percent of the patients in both countries were discharged to their place of residence. The proportions of patients discharged dead were very similar in the two countries, and in both countries the proportion of patients discharged to their place of residence declined with age. The percent of patients transferred and discharged dead increased with age in both countries. The average lengths of stay for patients discharged dead and transferred were longer in both countries than the average stays of patients discharged to their usual place of residence.

The distributions of discharges and days of care by hospital size and ownership categories were similar in that these distributions followed the distributions of beds in each country. Thus, in France more than half of discharges and days of care were in hospitals with less than 120 beds and 1,400 beds or more. In the United States, almost 90 percent of discharges and days of care were in hospitals with 120–799 beds. In France the majority of discharges and days of care were in public hospitals. In the United States the majority were in private nonprofit hospitals.

Among the differences in the hospital use patterns was the higher U.S. discharge rate. In particular, females and patients 45 years of age and over had significantly higher discharge rates in the United States. The rate of days of care, however, was higher in France, the result of a 50 percent longer average length of stay for French patients. Rates of discharges and days of care did not differ by sex in France, but both rates were higher for females in the United States. The differences in discharge rates were particularly large for elderly patients; the U.S. rate was twice the French rate for those 85 years of age and over. An especially large difference in average lengths of stay was the 85 percent longer stay for children 1–14 years of age in France.

The discharge rate for diseases of the circulatory system was significantly higher in the United States, and the U.S. rate for heart disease was 4.5 times the French rate. Both U.S. males and females had higher discharge rates for circulatory diseases, and the U.S. discharge rate for patients 45 years of age and over with circulatory diseases was twice the French rate. Even though the average length of stay for diseases of the circulatory system was longer in France, the U.S. rate of days of care for heart disease was twice the French rate.

Discharge rates were also higher in the United States for diseases of the respiratory system and genitourinary system, and U.S. patients 45 years of age and over had higher rates for diseases of the digestive system. U.S. patients 65 years of age and over also had a higher discharge rate for neoplasms. The discharge rate, average length of stay, and rate of days of care for symptoms, signs, and ill-defined conditions were higher in France.

The main difference in hospital use by marital status was the higher proportion of discharges and days of care for the divorced/separated category in the United States. This difference reflects the higher proportion of the U.S. population that was divorced. In addition, the U.S. category was more broadly defined, including all separations, whether or not legally established.

The main difference in the disposition of patients was that French patients were twice as likely as U.S. patients to be reported as transfers. Again, the definitions of the category were not the same. The French category included transfers from short-term to medium or long-term departments of the same hospital, which were not counted in the United States. Nevertheless, the difference may indicate a greater availability of intermediate levels of care between acute treatment and being discharged home in France. French patients 15–44 years of age and 45–64 years of age were more likely than U.S. patients to be transfers, but the difference was not significant for patients 65 years of age and over.

These definitional differences were one of the problems that arose from comparison of data from surveys that were designed and carried out independently. The survey methodologies, data collection procedures, questionnaires, and other aspects of the U.S. National Hospital Discharge Survey and the French survey of hospitalization were somewhat different. However, the analysis of the data was closely coordinated between the two countries. In addition, the small size of the French survey precluded more detailed analysis of the data and made it necessary for differences between the countries to be quite large before they would reach statistical significance.

These problems could be addressed by the establishment of coordinated cross-national studies. Such studies, using similar definitions and methodologies, would allow more precise and detailed analysis of the functioning of hospitals, and the health status of the populations, in countries with different health care systems.

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List of detailed tables

Table 1. Population estimates by sex and age: United States and France, 1981

Age	United States			France		
	Both sexes	Male	Female	Both sexes	Male	Female
	Number in thousands					
All ages	227,659	109,912	117,747	53,966	26,435	27,530
Under 15 years	51,226	26,192	25,034	11,489	5,878	5,611
Under 1 year	3,591	1,839	1,752	796	408	388
1–14 years	47,634	24,353	23,282	10,693	5,470	5,223
15–44 years	105,748	52,048	53,699	23,327	11,938	11,389
15–24 years	41,231	20,484	20,745	8,506	4,333	4,173
25–34 years	38,282	18,791	19,491	8,579	4,376	4,203
35–44 years	26,235	12,772	13,463	6,242	3,229	3,013
45–64 years	44,432	21,112	23,320	11,633	5,693	5,941
45–54 years	22,499	10,857	11,641	6,370	3,186	3,184
55–64 years	21,934	10,255	11,679	5,263	2,506	2,756
65 years and over	26,253	10,560	15,693	7,517	2,927	4,590
65–74 years	15,893	6,893	9,000	4,127	1,779	2,348
75–84 years	7,999	2,961	5,037	2,710	983	1,728
85 years and over	2,362	706	1,656	680	166	514

SOURCES: U.S. Bureau of the Census. 1982. Preliminary estimates of the population of the United States by age, sex, and race: 1970 to 1981. *Current Population Reports.* Series P-25, No. 917. Washington: U.S. Government Printing Office; Institut National de la Statistique et des Études Économiques. 1982. La Situation Démographique en France en 1980. *Les Collections de L'INSEE.* Serie D, No. 90. Paris.

Table 2. Percent distributions of population by age, according to sex: United States and France, 1981

Age group	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Percent distribution					
All ages	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 year	1.6	1.5	1.7	1.5	1.5	1.4
1–14 years	20.9	19.8	22.2	20.7	19.8	19.0
15–24 years	18.1	15.8	18.6	16.4	17.6	15.2
25–34 years	16.8	15.9	17.1	16.6	16.6	15.3
35–44 years	11.5	11.6	11.6	12.2	11.4	10.9
45–54 years	9.9	11.8	9.9	12.1	9.9	11.6
55–64 years	9.6	9.8	9.3	9.5	9.9	10.0
65–74 years	7.0	7.6	6.3	6.7	7.6	8.5
75–84 years	3.5	5.0	2.7	3.7	4.3	6.3
85 years and over	1.0	1.3	0.6	0.6	1.4	1.9

SOURCES: U.S. Bureau of the Census. 1982. Preliminary estimates of the population of the United States by age, sex, and race: 1970 to 1981. *Current Population Reports.* Series P-25, No. 917. Washington: U.S. Government Printing Office; Institut National de la Statistique et des Études Économiques. 1982. La Situation Démographique en France en 1980. *Les Collections de L'INSEE.* Serie D, No. 90. Paris.

Table 3. Percent distributions of population by sex, according to age: United States and France, 1981

Age group	United States			France		
	Both sexes	Male	Female	Both sexes	Male	Female
	Percent distribution					
All ages	100.0	48.3	51.7	100.0	49.0	51.0
Under 1 year	100.0	51.2	48.8	100.0	51.2	48.8
1–14 years	100.0	51.1	48.9	100.0	51.2	48.8
15–24 years	100.0	49.7	50.3	100.0	50.9	49.1
25–34 years	100.0	49.1	50.9	100.0	51.0	49.0
35–44 years	100.0	48.7	51.3	100.0	51.7	48.3
45–54 years	100.0	48.3	51.7	100.0	50.0	50.0
55–64 years	100.0	46.8	53.2	100.0	47.6	52.4
65–74 years	100.0	43.4	56.6	100.0	43.1	56.9
75–84 years	100.0	37.0	63.0	100.0	36.3	63.7
85 years and over	100.0	29.9	70.1	100.0	24.4	75.6

SOURCES: U.S. Bureau of the Census. 1982. Preliminary estimates of the population of the United States by age, sex, and race: 1970 to 1981. *Current Population Reports.* Series P-25, No. 917. Washington: U.S. Government Printing Office; Institut National de la Statistique et des Études Économiques. 1982. La Situation Démographique en France en 1980. *Les Collections de L'INSEE.* Serie D, No. 90. Paris.

Table 4. Percent distributions of population by marital status, according to age: United States and France, 1981

Marital status	15 years and over		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France
	Percent distribution							
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married	58.2	60.6	51.0	54.5	77.1	79.9	54.7	49.5
Single	25.8	27.0	39.5	42.0	4.8	8.7	5.2	8.7
Widowed	7.3	9.1	0.5	0.5	7.9	7.2	35.5	39.0
Divorced	6.2	3.3	6.3	3.1	7.7	4.2	3.5	2.8
Separated	2.4	---	2.7	---	2.6	---	1.0	---

SOURCES: U.S. Bureau of the Census. 1981. Marital status and living arrangements, March 1981. *Current Population Reports.* Series P-20, No. 372. Washington: U.S. Government Printing Office; Institut National de la Statistique et des Études Économiques. 1982. La Situation Démographique en France en 1980. *Les Collections de L'INSEE.* Serie D, No. 90. Paris.

Table 5. Rates of beds in hospitals and other health care facilities by type of service and ownership: United States and France, 1981

Type of service	United States[1]			France		
	Total	Public	Private	Total	Public	Private
	Beds per 10,000 population					
All facilities	124.6	28.0	96.6	177.0	119.0	58.0
Hospital services	59.4	23.2	36.2	111.4	77.9	33.5
Medical and surgical	39.9	10.4	29.5	55.2	36.1	19.0
Obstetrics and gynecology	2.7	0.7	2.0	5.9	3.4	2.4
Psychiatric	11.1	8.6	2.6	25.2	21.9	3.4
Tuberculosis	0.2	0.1	0.0	2.0	0.7	1.3
Other long-term	5.5	3.4	2.0	23.1	15.7	7.4
Long-term care facilities	65.2	4.8	60.4	65.5	41.1	24.5
Sections[2]	-	-	-	22.8	22.8	-
Homes	65.2	4.8	60.4	42.7	18.3	24.5

[1]U.S. hospital beds not reported by service were classified according to type of hospital. For example, beds in psychiatric hospitals not reported by type of service were counted as psychiatric service beds. Nursing home data were for 1982.
[2]Sections of hospital institutions.

SOURCES: American Hospital Association. 1982. *Hospital Statistics, 1982 Edition.* Chicago (Copyright 1982: Used with the permission of the American Hospital Association); National Center for Health Statistics, A. Sirrocco. 1985. An overview of the 1982 National Master Facility Inventory Survey of nursing and related care homes. *Advance Data From Vital and Health Statistics.* No. 111. DHHS Pub. No. (PHS) 85–1250. Public Health Service. Hyattsville, Md.; D. Douxami, S. Elbaz, S. Laloum, and A.M. Louers. 1982. Statistiques annuelle des établissements d'hospitalisation de soins ou de cure publics, année 1981. *Santé Sécurité Sociale, statistiques et commentaires.* (6):63–111, Nov.–Dec. P. Gottely and É. Puichaud. 1983. Statistiques annuelle des établissements d'hospitalisation privés. *Santé Sécurité Sociale, statistiques et commentaires.* (4):5–84; Ministère des Affaires Sociales et de la Solidarité Nationale. 1984. *Annuaire des Statistiques Sanitaires et Sociales, 1982–1983.* Paris.

Table 6. Percent distributions and rates of beds in all and short-stay hospital services by ownership: United States and France, 1981

Ownership	All hospitals		Short-stay services[1]	
	United States	France	United States	France
	Percent distribution			
Total	100.0	100.0	100.0	100.0
Nonprofit	53.4	12.5	63.9	11.2
For profit	7.5	17.5	8.5	24.0
Public	39.1	69.9	27.6	64.8
	Rate per 10,000 population			
Total	59.4	111.4	48.4	61.0
Nonprofit	31.7	13.9	30.9	6.8
For profit	4.5	19.6	4.1	14.6
Public	23.2	77.9	13.4	39.6

[1]Refers to beds in short-stay hospitals for the United States and to beds in short-stay hospital services for France.

SOURCES: American Hospital Association. 1982. *Hospital Statistics, 1982 Edition.* Chicago (Copyright 1982: Used with the permission of the American Hospital Association); Ministère des Affaires Sociales et de la Solidarité Nationale. 1982. *Annuaire des Statistiques Sanitaires et Sociales, 1982–1983.* Paris; P. Gottely and É. Puichaud. 1983. Statistiques annuelle des établissements d'hospitalisation privés. *Santé Sécurité Sociale, statistiques et commentaires.* (4):5–84.

Table 7. Percent distributions of all and short-stay hospital beds by bed size of hospital: United States, 1981, and France, 1980

Ownership	All hospitals		Short-stay services[1]	
	United States	France	United States	France
	Percent distribution			
All sizes	100.0	100.0	100.0	100.0
Fewer than 50 beds	3.6	6.9	4.3	8.7
50–119 beds	12.6	20.0	14.6	19.6
120–399 beds	39.6	23.4	44.9	25.5
400–799 beds	27.1	13.7	27.3	12.9
800–1,399 beds	12.6	14.0	8.0	9.5
1,400 beds or more	4.6	22.0	1.0	23.9

[1]Refers to beds in short-stay hospitals for the United States and to beds in short-stay hospital services for France.

SOURCES: American Hospital Association. Unpublished data from the 1981 Annual Survey of hospitals; L. Com-Ruelle, L. Haeusler, A. Mizrahi, and A. Mizrahi. 1982. *Les Etablissements Hospitaliers en 1980.* No. 4824/579. Paris. Centre de Recherche Pour L'Etude et L'Observation des Conditions de Vie.

Table 8. Death rates by age and sex: United States and France, 1981

Age group	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Rate per 100,000 population					
All ages	862.4	1,028.1	954.5	1,088.0	775.4	970.6
Under 1 year	1,207.3	982.5	1,331.8	1,132.9	1,076.7	824.3
1–14 years	38.0	37.5	44.6	42.9	31.2	31.7
15–24 years	107.1	97.6	158.3	140.6	54.8	52.9
25–34 years	132.1	114.0	190.6	158.9	74.3	67.2
35–44 years	221.3	210.2	291.9	278.9	153.2	136.7
45–54 years	573.5	545.6	751.7	782.7	406.9	308.2
55–64 years	1,322.1	1,103.7	1,774.7	1,615.2	925.2	638.7
65–74 years	2,922.3	2,652.5	3,994.6	3,852.0	2,100.6	1,743.9
75–84 years	6,429.9	6,887.2	8,519.6	9,123.5	5,201.0	5,615.3
85 years and over	15,379.7	18,059.2	18,138.2	21,136.3	14,202.5	17,068.6

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; Institut National de la Santé et de la Recherche Médicale. 1981. *Causes Médicales de Décès, Année 1981.* Paris.

Table 9. Death rates for leading causes of death, by sex: United States and France, 1981

Cause of death and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 100,000 population					
All causes		862.4	1,028.1	954.5	1,088.0	775.4	970.6
Diseases of the circulatory system	390–459	426.3	374.8	445.6	352.6	408.0	396.1
Ischemic heart disease	410–414	242.1	95.1	272.7	108.3	213.1	82.3
Acute myocardial infarction	410	127.5	72.9	155.1	84.4	101.4	61.9
Cerebrovascular disease	430–438	71.3	124.1	59.6	106.1	82.3	141.4
Heart failure and ill-defined heart disease	428–429	45.1	75.1	44.1	61.3	45.9	88.3
Neoplasms	140–239	186.8	242.6	207.1	295.0	167.5	192.3
Malignant neoplasms	140–208	184.0	234.7	204.5	286.9	164.7	184.5
Malignant neoplasm of trachea, bronchus, and lung	162	46.5	32.8	68.9	59.1	25.3	7.5
Malignant neoplasm of intestine, rectum, and anus	152–154	23.6	27.7	23.6	28.7	23.5	26.7
Injury and poisoning	E800–E999	67.8	93.3	101.2	114.8	36.3	72.6
Accidents and adverse effects	E800–E949	43.9	69.1	63.6	79.9	25.3	58.7
Traffic accidents	E810–E819, E826–E829	22.0	20.5	33.0	30.6	11.6	10.9
Diseases of the respiratory system	460–519	57.3	69.3	70.0	77.6	45.2	61.4
Chronic obstructive pulmonary disease	490–492, 494, 496	24.3	20.4	34.5	28.4	14.7	12.8
Pneumonia	480–486	22.1	11.8	23.3	11.1	21.0	12.5
Diseases of the digestive system	520–579	32.3	65.7	35.8	75.5	29.0	56.3
Alcoholic liver diseases and other cirrhosis of the liver	571.0–571.3, 571.5	11.6	27.0	15.6	39.0	7.7	15.5
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	20.0	25.2	17.0	20.0	22.7	30.1
Symptoms, signs, and ill-defined conditions	780–799	12.9	67.2	15.4	62.0	10.5	72.2
Unknown and unspecified cause	799.9	8.2	23.9	10.1	28.5	6.4	19.5

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. *Causes Médicales de Décès, Année 1981.* Paris; World Health Organization. 1984. *World Health Statistics Annual, 1984.* Geneva.

Table 10. Death rates for leading causes of death, by sex, for infants under 1 year of age: United States and France, 1981

Cause of death and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 100,000 live births					
All causes		1,193.2	971.2	1,314.4	1,118.1	1,065.8	816.3
Certain conditions originating in the perinatal period	760–779	592.7	251.5	657.3	289.7	524.7	211.2
Anoxia and other respiratory conditions	768–770	257.1	124.9	298.0	147.5	214.2	101.0
Disorders relating to short gestation and unspecified low birth weight	765	100.8	18.0	105.8	17.4	95.5	18.6
Birth trauma and fetal and neonatal hemorrhage	767, 772	50.3	22.1	55.0	25.2	45.4	18.9
Infections specific to the perinatal period	771	24.7	36.4	26.6	40.9	22.7	31.6
Congenital anomalies	740–759	245.6	216.9	256.4	248.4	234.3	183.7
Congenital anomalies of circulatory system	745–747	98.3	111.7	106.7	128.7	89.4	93.9
Congenital anomalies of nervous system	740–742	45.5	31.2	40.2	32.9	51.2	29.3
Symptoms, signs, and ill-defined conditions	780–799	164.1	305.8	191.0	351.6	135.7	257.4
Sudden death, cause unknown	798	146.0	120.4	171.2	147.5	119.5	91.8
Unknown and unspecified cause	799.9	15.3	173.7	17.0	189.9	13.4	156.6
Diseases of the respiratory system	460–519	41.7	20.7	48.1	23.0	35.0	18.4
Injury and poisoning	E800–E999	35.3	85.5	36.8	101.8	33.7	68.4
Accidents and adverse effects	E800–E949	27.0	82.4	29.1	98.4	24.8	65.6

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. 1981. *Causes Médicales de Décès, Année 1981.* Paris.

Table 11. Death rates for leading causes of death, by sex, for children 1–14 years of age: United States and France, 1981

Cause of death and ICD–9 code[1]	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Rate per 100,000 population					
All causes	38.0	37.5	44.6	42.9	31.2	31.7
Injury and poisoning E800–E999	19.1	15.7	24.4	19.6	13.7	11.7
Accidents and adverse effects E800–E949	16.8	14.1	21.7	17.3	11.7	10.7
Traffic accidents E810–E819, E826–E829	7.0	6.3	8.6	7.4	5.4	5.2
Homicide and injury purposely inflicted by other persons E960–E969	1.6	0.4	1.8	0.4	1.5	0.3
Neoplasms 140–239	4.6	6.2	5.1	6.9	4.1	5.5
Malignant neoplasms 140–208	4.3	5.3	4.8	5.9	3.8	4.7
Leukemia 204–208	1.7	2.5	2.0	2.8	1.4	2.1
Congenital anomalies 740–759	3.3	3.2	3.3	3.3	3.2	3.0
Congenital anomalies of circulatory system 745–747	1.8	1.8	1.9	2.0	1.8	1.6
Diseases of the nervous system and sense organs 320–389	2.7	2.9	2.8	3.2	2.5	2.6
Diseases of the respiratory system 460–519	1.9	1.6	2.0	1.7	1.7	1.4
Diseases of the circulatory system 390–459	1.8	1.4	1.8	1.5	1.7	1.2
Symptoms, signs, and ill-defined conditions 780–799	0.9	2.4	1.1	2.7	0.8	2.2
Unknown and unspecified cause 799.9	0.6	1.6	0.7	1.7	0.4	1.4

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. *Causes Médicales de Décès, Année 1981.* Paris; World Health Organization. 1984. *World Health Statistics Annual, 1984.* Geneva.

Table 12. Death rates for leading causes of death, by sex, for persons 15–44 years of age: United States and France, 1981

Cause of death and ICD–9 code[1]	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Rate per 100,000 population					
All causes	144.2	133.8	202.3	184.7	86.5	80.4
Injury and poisoning E800–E999	79.5	65.7	126.0	99.5	33.3	30.2
Accidents and adverse effects E800–E949	47.0	43.7	74.6	67.6	19.6	18.6
Traffic accidents E810–E819, E826–E829	31.1	26.3	47.9	40.3	14.4	11.6
Homicide and injury purposely inflicted by other persons E960–969	15.8	1.2	25.5	1.6	6.1	0.7
Suicide and self-inflicted injury E950–E959	14.6	17.0	22.6	24.8	6.7	8.8
Diseases of the circulatory system 390–459	19.1	12.2	26.2	17.3	12.1	6.8
Ischemic heart disease 410–414	8.2	3.3	13.5	5.8	3.0	0.8
Acute myocardial infarction 410	5.5	3.0	9.1	5.2	1.9	0.7
Cerebrovascular disease 430–438	3.4	3.4	3.4	4.4	3.3	2.4
Neoplasms 140–239	19.1	22.4	18.2	25.0	19.9	19.6
Malignant neoplasms 140–208	18.6	21.0	17.7	23.6	19.4	18.3
Malignant neoplasm of breast 174–175	2.8	2.4	0.0	0.0	5.6	4.9
Diseases of the digestive system 520–579	6.4	8.0	8.5	9.7	4.4	6.3
Alcoholic liver disease and other cirrhosis of the liver 571.0–571.3, 571.5	3.6	5.4	5.0	6.2	2.2	4.7
Symptoms, signs, and ill-defined conditions 780–799	3.4	11.0	4.5	15.6	2.3	6.2
Unknown and unspecified cause 799.9	3.0	9.2	3.9	13.2	2.0	5.0
Diseases of the respiratory system 460–519	3.4	2.7	4.0	3.3	2.8	2.2
Diseases of the nervous system and sense organs 320–389	2.9	3.4	3.5	4.5	2.3	2.4

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. *Causes Médicales de Décès, Année 1981.* Paris; World Health Organization. 1984. *World Health Statistics Annual, 1984.* Geneva.

Table 13. Death rates for leading causes of death, by sex, for persons 45–64 years of age: United States and France, 1981

Cause of death and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 100,000 population					
All causes		942.8	798.1	1,247.6	1,149.2	666.5	461.6
Diseases of the circulatory system	390–459	387.6	177.6	566.1	271.0	225.9	88.0
Ischemic heart disease	410–414	242.6	71.2	379.6	121.9	118.5	21.7
Acute myocardial infarction	410	158.9	58.5	250.0	100.9	76.3	17.9
Cerebrovascular disease	430–438	43.6	44.6	48.4	59.5	39.3	30.4
Heart failure and ill-defined heart disease	428–429	32.0	19.0	47.4	27.7	18.1	10.7
Neoplasms	140–239	308.0	315.7	351.2	434.8	268.9	201.5
Malignant neoplasms	140–208	304.7	306.5	347.6	423.7	265.8	194.2
Malignant neoplasm of trachea, bronchus, and lung	162	96.3	56.0	142.4	104.4	54.6	9.6
Malignant neoplasm of breast	174–175	33.6	27.0	0.4	0.8	63.6	52.2
Malignant neoplasm of intestine, rectum, and anus	152–154	30.0	23.3	33.8	28.1	26.5	18.8
Malignant neoplasm of lip, oral cavity, and pharynx	140–149	8.3	28.5	12.5	54.3	4.4	3.9
Injury and poisoning	E800–E999	66.4	86.1	101.3	129.3	34.8	44.6
Accidents and adverse effects	E800–E949	39.0	51.9	59.5	79.6	20.4	25.4
Suicide and self-inflicted injury	E950–E958	16.2	28.7	23.7	42.0	9.4	16.0
Diseases of the digestive system	520–579	54.2	88.7	71.9	126.7	38.1	52.3
Alcoholic liver disease and other cirrhosis of the liver	571.0–571.3, 571.5	31.1	64.2	43.9	92.5	19.5	37.1
Diseases of the respiratory system	460–519	46.8	30.1	62.8	48.6	32.3	12.3
Chronic obstructive pulmonary diseases	490–492, 494, 496	24.3	9.8	33.2	16.5	16.2	3.4
Symptoms, signs, and ill-defined conditions	780–799	12.5	34.6	17.6	52.1	7.8	17.8
Unknown and unspecified cause	799.9	10.6	22.9	15.2	34.7	6.5	11.5

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. *Causes Médicales de Décès, Année 1981.* Paris; World Health Organization. 1984. *World Health Statistics Annual, 1984.* Geneva.

Table 14. Death rates for leading causes of death, by sex, for persons 65 years and over: United States and France, 1981

Cause of death and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 100,000 population					
All causes		5,109.5	5,573.1	6,207.5	6,599.8	4,370.1	4,918.5
Diseases of the circulatory system	390–459	2,980.9	2,374.7	3,424.2	2,582.2	2,682.4	2,242.3
Ischemic heart disease	410–414	1,668.8	562.6	2,047.4	717.7	1,413.8	463.7
Acute myocardial infarction	410	822.0	423.4	1,089.4	544.5	641.9	346.2
Cerebrovascular disease	430–438	533.9	810.5	513.2	823.3	547.8	802.4
Heart failure and ill-defined heart disease	428–429	332.7	504.6	359.0	490.8	315.0	513.4
Neoplasms	140–239	1,022.4	1,173.7	1,376.7	1,701.4	783.8	837.2
Malignant neoplasms	140–208	1,007.1	1,136.9	1,359.7	1,659.1	796.6	804.0
Malignant neoplasm of trachea, bronchus, and lung	162	232.5	142.5	425.4	316.6	102.6	31.5
Malignant neoplasm of intestine, rectum, and anus	152–154	149.9	159.2	174.1	200.0	133.5	133.1
Diseases of the respiratory system	460–519	397.6	438.3	579.1	586.7	275.4	343.7
Chronic obstructive pulmonary diseases	490–492, 494, 496	169.3	129.9	294.8	222.2	84.8	71.0
Pneumonia	480–486	161.2	76.9	195.3	85.3	138.2	71.6
Diseases of the digestive system	520–579	161.0	308.1	186.4	393.9	143.9	253.3
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	123.7	154.7	116.1	140.3	128.9	164.0
Injury and poisoning	E800–E999	114.3	301.4	162.0	328.8	82.2	283.9
Accidents and adverse effects	E800–E949	90.4	251.1	117.6	244.6	72.1	255.3
Accidental falls	E880–E888	34.3	144.5	35.8	104.5	33.3	170.0
Symptoms, signs, and ill-defined conditions	780–799	52.5	358.6	67.4	340.9	42.5	369.8
Senility without mention of psychosis	797	4.0	143.9	3.2	96.3	4.6	174.3

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

SOURCES: National Center for Health Statistics. 1984. Advance report of final mortality statistics, 1981. *Monthly Vital Statistics Report.* Vol. 33, No. 3, Supp. DHHS Pub. No. (PHS) 84–1120. Public Health Service. Hyattsville, Md.; National Center for Health Statistics, Division of Vital Statistics. Unpublished mortality data; Institut National de la Santé et de la Recherche Médicale. *Causes Médicales de Décès, Année 1981.* Paris; World Health Organization. 1984. *World Health Statistics Annual, 1984.* Geneva.

Table 15. Rates and percent distributions of patients discharged from short-stay hospitals or services by age, according to sex: United States and France, 1981

Age	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Rate per 1,000 population					
All ages	164.3	134.1	136.2	123.4	190.6	144.4
Under 1 year	247.7	128.5	273.2	*	221.0	*
1–14 years	55.8	65.4	61.0	80.1	50.3	50.1
15–24 years	131.5	123.0	72.0	97.7	190.2	149.3
25–34 years	160.2	146.8	87.3	79.7	230.5	216.7
35–44 years	134.3	113.9	110.4	108.2	157.0	119.9
45–54 years	173.6	108.3	163.4	125.6	183.1	91.1
55–64 years	210.2	164.6	219.6	166.7	201.8	162.6
65–74 years	325.3	210.9	357.2	253.9	301.0	178.4
75–84 years	467.9	273.0	510.5	280.7	442.9	268.7
85 years and over	576.9	279.9	649.7	*	545.8	251.6
	Percent distribution					
All ages	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 year	2.4	1.4	3.4	*	1.7	*
1–14 years	7.1	9.8	9.9	13.5	5.2	6.6
15–24 years	14.5	14.5	9.8	13.1	17.6	15.8
25–34 years	16.4	17.6	11.0	10.7	20.0	23.1
35–44 years	9.4	9.9	9.4	10.7	9.4	9.2
45–54 years	10.4	9.6	11.8	12.4	9.5	7.3
55–64 years	12.3	12.1	15.0	13.0	10.5	11.3
65–74 years	13.8	12.1	16.4	13.9	12.1	10.7
75–84 years	10.0	10.3	10.1	8.5	9.9	11.8
85 years and over	3.6	2.7	3.1	*	4.0	3.3

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 16. Rates and percent distributions of days of care for patients discharged from short-stay hospitals or services by age, according to sex: United States and France, 1981

Age	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Rate per 1,000 population					
All ages	1,212.8	1,501.9	1,068.0	1,419.1	1,348.0	1,574.0
Under 1 year	1,701.9	1,464.9	1,836.8	*	1,560.3	*
1–14 years	230.3	497.0	251.3	608.8	208.4	375.8
15–24 years	615.8	848.7	449.4	683.9	780.1	1,030.2
25–34 years	842.2	1,101.0	562.9	637.6	1,111.5	1,581.9
35–44 years	880.6	1,059.3	764.1	1,114.5	991.2	1,019.1
45–54 years	1,319.9	1,072.2	1,242.3	1,281.1	1,392.3	865.3
55–64 years	1,807.0	2,189.2	1,819.1	2,317.1	1,796.3	2,081.3
65–74 years	3,254.6	3,732.9	3,569.3	4,468.6	3,013.6	3,157.7
75–84 years	5,116.7	4,722.9	5,507.5	4,856.1	4,887.9	4,621.6
85 years and over	6,901.7	6,017.9	7,493.8	*	6,649.3	5,937.8
	Percent distribution					
All ages	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 year	2.2	1.4	2.9	*	1.7	*
1–14 years	4.0	6.6	5.2	8.9	3.1	4.5
15–24 years	9.2	9.0	7.8	7.9	10.2	9.9
25–34 years	11.7	11.7	9.0	7.4	13.7	15.3
35–44 years	8.4	8.2	8.3	9.6	8.4	7.1
45–54 years	10.8	8.5	11.5	10.9	10.2	6.3
55–64 years	14.4	14.3	15.9	15.5	13.2	13.2
65–74 years	18.7	19.2	21.0	21.2	17.1	17.1
75–84 years	14.8	15.9	13.9	12.7	15.5	18.4
85 years and over	5.9	5.1	4.5	*	6.9	7.0

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 17. Average lengths of stay for patients discharged from short-stay hospitals or services, by age and sex: United States and France, 1981

Age	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Average length of stay in days					
All ages	7.4	11.2	7.8	11.5	7.1	10.9
Under 1 year	6.9	11.4	6.7	*	7.1	*
1–14 years	4.1	7.6	4.1	7.6	4.1	7.5
15–24 years	4.7	6.9	6.2	7.0	4.1	6.9
25–34 years	5.3	7.5	6.4	8.0	4.8	7.3
35–44 years	6.6	9.3	6.9	10.3	6.3	8.5
45–54 years	7.6	9.9	7.6	10.2	7.6	9.4
55–64 years	8.6	13.3	8.3	13.9	8.9	12.8
65–74 years	10.0	17.7	10.0	17.6	10.0	17.7
75–84 years	10.9	17.3	10.8	17.3	11.0	17.2
85 years and over	12.0	21.5	11.5	*	12.2	23.6

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 18. Rates of patients discharged from short-stay hospitals or services by selected diagnostic category and sex: United States and France, 1981

Diagnostic category and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 1,000 population					
All conditions [2]		164.3	134.1	136.2	123.4	190.6	144.4
Infectious and parasitic diseases	001–139	2.9	3.3	2.8	4.1	3.0	2.6
Neoplasms	140–239	11.1	11.1	9.4	12.1	12.6	10.2
Malignant neoplasms	140–208, 230–234	8.6	8.2	8.1	9.6	9.1	7.0
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	210–229, 235–239	2.5	2.9	1.3	*	3.6	*
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	5.0	5.1	3.7	*	6.3	7.0
Mental disorders	290–319	7.5	6.4	8.2	5.0	6.8	7.7
Diseases of the nervous system and sense organs	320–389	7.8	6.6	7.0	7.1	8.5	6.4
Diseases of the central nervous system	320–336, 340–349	1.9	2.5	1.8	*	2.0	*
Diseases of the circulatory system	390–459	23.0	12.2	23.9	13.2	22.2	11.3
Heart disease	391–392.0, 393–398, 402, 404, 410–416, 420–429	14.4	3.2	15.8	3.8	13.1	*
Cerebrovascular disease	430–438	3.5	1.9	3.3	*	3.7	*
Diseases of the respiratory system	460–519	15.0	6.8	15.4	8.6	14.7	5.2
Diseases of the digestive system	520–579	20.3	13.5	19.4	14.1	21.1	13.4
Acute appendicitis	540–543	1.2	3.6	1.5	3.4	0.9	3.8
Diseases of the genitourinary system	580–629	14.8	8.4	9.6	6.9	19.6	10.3
Complications of pregnancy, childbirth, and the puerperium	630–676	20.6	14.6	...	...	39.8	28.9
Deliveries without complications	650	7.9	8.1	...	...	15.3	15.8
Diseases of the skin and subcutaneous tissue	680–709	2.5	2.4	2.5	*	2.5	*
Diseases of the musculoskeletal system and connective tissue	710–739	10.0	7.0	8.9	7.1	11.0	7.1
Arthropathies and related disorders	714–719	2.3	2.5	2.0	*	2.6	*
Congenital anomalies	740–759	1.4	3.8	1.6	4.5	1.3	*
Symptoms, signs, and ill-defined conditions	780–799	2.7	6.4	2.6	7.0	2.8	5.9
Injury and poisoning	800–999	15.2	16.0	17.7	21.0	12.9	11.6
Fractures	800–829	4.9	5.8	5.1	6.6	4.7	5.0
Supplementary classification	V01–V82	2.4	3.2	1.4	1.6	3.3	4.9

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 19. Percent distributions of patients discharged from short-stay hospitals or services by selected diagnostic category, according to sex: United States and France, 1981

Diagnostic category and ICD–9 code[1]	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Percent distribution					
All conditions	100.0	100.0	100.0	100.0	100.0	100.0
Infectious and parasitic diseases 001–139	1.8	2.5	1.9	3.3	1.6	1.8
Neoplasms 140–239	6.7	8.3	6.9	9.9	6.6	7.0
Malignant neoplasms 140–208, 230–234	5.2	6.2	5.9	7.9	4.8	4.8
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature 210–229, 235–239	1.5	2.2	1.0	*	1.9	*
Endocrine, nutritional and metabolic diseases, and immunity disorders 240–279	3.1	3.8	2.7	*	3.3	4.9
Mental disorders 290–319	4.5	4.8	6.0	4.1	3.6	5.3
Diseases of the nervous system and sense organs 320–389	4.7	5.0	5.1	5.8	4.5	4.4
Diseases of the central nervous system 320–336, 340–349	1.1	1.9	1.3	*	1.0	*
Diseases of the circulatory system 390–459	14.0	9.2	17.5	10.7	11.7	7.8
Heart disease 391–392.0, 393–398, 402, 404, 410–416, 420–429	8.8	2.4	11.6	3.1	6.9	*
Cerebrovascular disease 430–438	2.1	1.4	2.4	*	1.9	*
Diseases of the respiratory system 460–519	9.1	5.1	11.3	7.0	7.7	3.6
Diseases of the digestive system 520–579	12.3	10.2	14.2	11.5	11.1	9.2
Acute appendicitis 540–543	0.7	2.7	1.1	2.8	0.5	2.6
Diseases of the genitourinary system 580–629	9.0	6.3	7.1	5.6	10.3	7.1
Complications of pregnancy, childbirth, and the puerperium 630–676	12.5	11.0	...	...	20.9	19.9
Deliveries without complications 650	4.8	6.1	...	...	8.0	10.9
Diseases of the skin and subcutaneous tissue 680–709	1.5	1.8	1.8	*	1.3	*
Diseases of the musculoskeletal system and connective tissue 710–739	6.1	5.3	6.5	5.7	5.8	5.0
Arthropathies and related disorders 714–719	1.4	1.8	1.4	*	1.3	*
Congenital anomalies 740–759	0.9	2.8	1.2	3.7	0.7	*
Symptoms, signs, and ill-defined conditions 780–799	1.7	4.8	1.9	5.7	1.5	4.1
Injury and poisoning 800–999	9.2	12.1	13.0	17.1	6.8	8.0
Fractures 800–829	3.0	4.3	3.7	5.4	2.5	3.4
Supplementary classification V01–V82	1.5	2.5	1.1	1.3	1.8	3.5
Other conditions	1.3	4.5	1.6	4.1	0.8	4.6

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 20. Rates of days of care for patients discharged from short-stay hospitals or services, by selected diagnostic category and sex: United States and France, 1981

Diagnostic category and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Rate per 1,000 population					
All conditions[2]		1,212.8	1,501.9	1,068.0	1,419.1	1,348.0	1,574.0
Infectious and parasitic diseases	001–139	20.5	52.8	19.9	68.1	21.1	39.5
Neoplasms	140–239	116.6	153.2	105.9	176.7	126.7	130.6
Malignant neoplasms	140–208, 230–234	100.8	126.3	97.8	147.8	103.6	107.8
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	210–229, 235–239	15.8	26.7	8.0	*	23.1	*
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	46.1	59.2	33.5	*	57.8	80.5
Mental disorders	290–319	91.6	87.0	97.7	41.0	85.8	130.9
Diseases of the nervous system and sense organs	320–389	43.1	70.6	39.7	68.2	46.3	76.2
Diseases of the central nervous system	320–336, 340–349	20.2	33.0	19.7	*	20.7	*
Diseases of the circulatory system	390–459	225.8	197.6	225.1	217.8	226.4	180.8
Heart disease	391–392.0, 393–398, 402, 404, 410–416, 420–429	135.6	59.2	141.8	74.1	129.8	*
Cerebrovascular disease	430–438	43.9	35.4	39.8	*	47.8	*
Diseases of the respiratory system	460–519	98.3	100.6	103.0	133.3	93.8	71.8
Diseases of the digestive system	520–579	144.0	132.3	127.9	142.4	159.1	131.3
Acute appendicitis	540–543	6.9	32.8	8.7	33.0	5.3	32.3
Diseases of the genitourinary system	580–629	85.4	91.6	62.6	79.3	106.8	108.1
Complications of pregnancy, childbirth, and the puerperium	630–676	73.9	111.0	...	...	142.9	219.6
Deliveries without complications	650	23.4	67.2	...	...	45.3	131.1
Diseases of the skin and subcutaneous tissue	680–709	20.1	30.0	18.9	*	21.2	*
Diseases of the musculoskeletal system and connective tissue	710–739	79.5	91.7	65.7	81.6	92.4	102.9
Arthropathies and related disorders	714–719	20.0	41.7	15.0	*	24.8	*
Congenital anomalies	740–759	8.7	24.7	10.0	28.3	7.6	*
Symptoms, signs, and ill-defined conditions	780–799	12.0	65.9	11.2	57.4	12.8	73.7
Injury and poisoning	800–999	118.1	148.8	121.9	199.5	114.6	103.2
Fractures	800–829	53.0	78.9	45.7	103.6	59.7	55.5
Supplementary classification	V01–V82	9.3	14.7	6.3	8.6	12.1	20.1

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 21. Percent distributions of days of care for patients discharged from short-stay hospitals or services by selected diagnostic category, according to sex: United States and France, 1981

Diagnostic category and ICD–9 code[1]	Both sexes		Male		Female	
	United States	France	United States	France	United States	France
	Percent distribution					
All conditions	100.0	100.0	100.0	100.0	100.0	100.0
Infectious and parasitic diseases 001–139	1.7	3.6	1.9	4.8	1.6	2.5
Neoplasms 140–239	9.6	10.3	9.9	12.6	9.4	8.2
Malignant neoplasms 140–208, 230–234	8.3	8.6	9.2	10.6	7.7	6.8
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature 210–229, 235–239	1.3	1.8	0.8	*	1.7	*
Endocrine, nutritional and metabolic diseases, and immunity disorders 240–279	3.8	3.9	3.1	*	4.3	5.2
Mental disorders 290–319	7.6	5.8	9.2	2.9	6.4	8.3
Diseases of the nervous system and sense organs 320–389	3.6	4.8	3.7	4.8	3.4	4.8
Diseases of the central nervous system 320–336, 340–349	1.7	2.2	1.8	*	1.5	*
Diseases of the circulatory system 390–459	18.6	13.4	21.1	15.4	16.8	11.4
Heart disease 391–392.0, 393–398, 402, 404, 410–416, 420–429	11.2	4.0	13.3	5.3	9.6	*
Cerebrovascular disease 430–438	3.6	2.3	3.7	*	3.5	*
Diseases of the respiratory system 460–519	8.1	6.8	9.6	9.4	7.0	4.6
Diseases of the digestive system 520–579	11.9	9.0	12.0	10.1	11.8	8.3
Acute appendicitis 540–543	0.6	2.2	0.8	2.4	0.4	2.0
Diseases of the genitourinary system 580–629	7.0	6.2	5.9	5.6	7.9	6.8
Complications of pregnancy, childbirth, and the puerperium 630–676	6.1	7.5	...	...	10.6	13.9
Deliveries without complications 650	1.9	4.5	...	...	3.4	8.3
Diseases of the skin and subcutaneous tissue 680–709	1.7	2.0	1.8	*	1.8	*
Diseases of the musculoskeletal system and connective tissue 710–739	6.6	6.2	6.1	5.7	6.9	6.7
Arthropathies and related disorders 714–719	1.7	2.7	1.4	*	1.8	*
Congenital anomalies 740–759	0.7	1.6	0.9	2.0	0.6	*
Symptoms, signs, and ill-defined conditions 780–799	1.0	4.4	1.0	4.1	1.0	4.7
Injury and poisoning 800–999	9.7	10.1	11.4	14.1	8.5	6.5
Fractures 800–829	4.4	5.2	4.3	7.4	4.4	3.5
Supplementary classification V01–V82	0.8	1.0	0.6	0.6	0.9	1.3
Other conditions	1.5	3.4	1.8	---	1.3	---

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 22. Average lengths of stay for patients discharged from short-stay hospitals or services, by selected diagnostic category and sex: United States and France, 1981

Diagnostic category and ICD–9 code[1]		Both sexes		Male		Female	
		United States	France	United States	France	United States	France
		Average length of stay in days					
All conditions[2]		7.4	11.2	7.8	11.5	7.1	10.9
Infectious and parasitic diseases	001–139	7.1	16.0	7.1	16.6	7.1	15.2
Neoplasms	140–239	10.5	13.8	11.3	14.6	10.0	12.8
Malignant neoplasms	140–208, 230–234	11.7	15.4	12.1	15.4	11.4	15.4
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	210–229, 235–239	6.4	9.2	6.0	*	6.5	*
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	9.1	11.6	9.0	*	9.3	11.5
Mental disorders	290–319	12.3	13.6	12.0	8.2	12.7	17.0
Diseases of the nervous system and sense organs	320–389	5.5	10.7	5.7	9.6	5.5	11.9
Diseases of the central nervous system	320–336, 340–349	10.9	13.2	11.1	*	10.6	*
Diseases of the circulatory system	390–459	9.8	16.2	9.4	16.5	10.2	16.0
Heart disease	391–392.0, 393–398, 402, 404, 410–416, 420–429	9.4	18.5	9.0	19.5	9.9	*
Cerebrovascular disease	430–438	12.6	18.6	12.1	*	13.1	*
Diseases of the respiratory system	460–519	6.6	14.8	6.7	15.5	6.4	13.8
Diseases of the digestive system	520–579	7.1	9.8	6.6	10.1	7.5	9.8
Acute appendicitis	540–543	5.7	9.1	5.8	9.7	5.6	8.5
Diseases of the genitourinary system	580–629	5.8	10.9	6.5	11.5	5.4	10.5
Complications of pregnancy, childbirth, and the puerperium	630–676	3.6	7.6	...	...	3.6	7.6
Deliveries without complications	650	3.0	8.3	...	...	3.0	8.3
Diseases of the skin and subcutaneous tissue	680–709	8.1	12.5	7.7	*	8.4	*
Diseases of the musculoskeletal system and connective tissue	710–739	8.0	13.1	7.4	11.5	8.4	14.5
Arthropathies and related disorders	714–719	8.8	16.7	7.6	*	9.7	*
Congenital anomalies	740–759	6.1	6.5	6.3	6.3	5.8	*
Symptoms, signs, and ill-defined conditions	780–799	4.4	10.3	4.2	8.2	4.5	12.5
Injury and poisoning	800–999	7.8	9.3	6.9	9.5	8.9	8.9
Fractures	800–829	10.9	13.6	9.0	15.7	12.7	11.1
Supplementary classification	V01–V82	3.8	4.4	4.4	5.4	3.6	4.1

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 23. Rates of discharges and days of care, and average lengths of stay for patients 15–44 years of age discharged from short-stay hospitals or services, by selected diagnostic category: United States and France, 1981

Diagnostic category and ICD–9 code[1]		Discharges		Days of care		Average length of stay	
		United States	France	United States	France	United States	France
		Rate per 1,000 population				Days	
All conditions[2]		142.6	128.9	763.4	1,005.4	5.4	7.8
Neoplasms	140–239	4.5	4.7	33.3	46.5	7.5	9.9
Endocrine, nutritional and metabolic diseases, and immunity disorders	240–279	2.7	4.2	18.1	41.6	6.8	9.9
Mental disorders	290–319	9.0	6.1	107.9	39.6	12.0	6.5
Diseases of the respiratory system	460–519	7.1	4.5	30.7	46.8	4.3	10.4
Diseases of the digestive system	520–579	14.4	11.9	80.2	85.7	5.6	7.2
Acute appendicitis	540–543	1.6	5.0	8.3	*	5.2	*
Diseases of the genitourinary system	580–629	15.9	9.4	75.0	77.1	4.7	8.2
Complications of pregnancy, childbirth, and the puerperium	630–676	44.1	33.8	158.2	256.9	3.6	7.6
Abortion and pregnancy with abortive outcome	630–639	3.8	5.6	9.4	15.2	2.5	2.7
Deliveries without complications	650	17.0	18.7	50.2	151.5	3.0	8.1
Diseases of the musculoskeletal system and connective tissue	710–739	8.6	6.7	53.1	73.7	6.1	11.0
Symptoms, signs, and ill-defined conditions	780–799	2.5	4.1	9.2	24.2	3.7	5.9
Injury and poisoning	800–999	15.9	19.0	98.1	138.7	6.2	7.3
Fractures	800–829	3.8	5.4	30.7	53.5	8.0	9.9
Supplementary classification	V01–V82	3.5	5.6	11.1	27.4	3.2	4.9

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Patients admitted and discharged on the same date are excluded.

Table 24. Rates of discharges and days of care, and average lengths of stay for patients 45–64 years of age discharged from short-stay hospitals or services, by selected diagnostic category: United States and France, 1981

Diagnostic category and ICD–9 code[1]	Discharges		Days of care		Average length of stay	
	United States	France	United States	France	United States	France
	Rate per 1,000 population				Days	
All conditions[2]	191.6	133.4	1,560.4	1,574.1	8.1	11.8
Neoplasms 140–239	20.2	19.2	201.3	226.6	10.0	11.8
Malignant neoplasms 140–208, 230–234	16.0	11.1	173.7	142.1	10.8	12.8
Endocrine, nutritional and metabolic diseases, and immunity disorders 240–279	8.2	8.8	75.1	137.3	9.1	15.6
Mental disorders 290–319	9.9	9.0	117.2	148.5	11.9	16.5
Diseases of the circulatory system 390–459	39.3	15.2	339.8	249.3	8.6	16.4
Diseases of the digestive system 520–579	28.6	14.1	217.7	138.2	7.6	9.8
Diseases of the musculoskeletal system and connective tissue 710–739	16.4	11.4	131.7	117.4	8.0	10.3
Injury and poisoning 800–999	13.9	15.9	113.6	117.7	8.2	7.4

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Patients admitted and discharged on the same date are excluded.

Table 25. Rates of discharges and days of care, and average lengths of stay for patients 65 years of age and over discharged from short-stay hospitals or services, by selected diagnostic category: United States and France, 1981

Diagnostic category and ICD–9 code[1]	Discharges		Days of care		Average length of stay	
	United States	France	United States	France	United States	France
	Rate per 1,000 population				Days	
All conditions[2]	391.4	239.6	4,150.2	4,288.8	10.6	17.2
Neoplasms 140–239	41.5	29.4	518.9	523.3	12.5	17.8
Malignant neoplasms 140–208, 230–234	37.2	20.3	482.6	*	13.0	*
Mental disorders 290–319	9.8	12.4	137.9	270.3	14.1	21.8
Diseases of the nervous system and sense organs 320–389	27.2	17.8	160.5	254.5	5.9	14.3
Diseases of the circulatory system 390–459	111.9	52.7	1,238.7	901.2	11.1	17.1
Heart disease 391–392.0, 393–398, 402, 404, 410–416, 420–429	71.5	15.6	741.5	246.5	10.4	15.8
Diseases of the respiratory system 460–519	38.1	16.5	392.2	389.4	10.3	23.6
Diseases of the digestive system 520–579	50.5	21.1	482.1	327.0	9.5	15.5
Diseases of the genitourinary system 580–629	26.9	15.2	236.4	288.8	8.8	19.0
Symptoms, signs, and ill-defined conditions 780–799	3.7	15.1	25.8	252.2	7.0	16.7
Injury and poisoning 800–999	26.6	21.7	350.3	399.3	13.2	18.9
Fracture of neck of femur 820	6.7	12.8	140.1	180.5	20.8	14.1

[1] *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* (based on recommendations of the Ninth Revision Conference, 1975).
[2] Includes diagnostic conditions not shown in table.

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Patients admitted and discharged on the same date are excluded.

Table 26. Rates of discharges and days of care for patients 15 years of age and over discharged from short-stay hospitals or services, by age and marital status: United States and France, 1981

Marital status	15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France
	Discharges per 1,000 population					
Total	143.3	128.9	192.7	133.4	416.3	239.6
Married	157.3	138.9	170.7	112.5	348.8	238.6
Single	104.0	94.4	307.6	189.8	525.6	154.4
Widowed	176.9	*	206.8	124.4	443.9	231.8
Divorced or separated	133.1	*	169.1	*	310.3	*
	Days of care per 1,000 population					
Total	767.4	1,005.4	1,568.7	1,574.1	4,413.7	4,288.8
Married	765.1	1,069.5	1,308.6	1,260.0	3,371.5	4,008.5
Single	598.3	717.4	2,924.0	3,568.2	6,420.9	2,979.9
Widowed	1,128.2	*	1,927.2	1,716.7	5,045.3	4,381.0
Divorced or separated	867.6	*	1,557.7	*	3,452.5	*

NOTE: U.S. rates were computed using estimates of the civilian noninstitutionalized population and do not match the rates in the other tables in this report, which were computed using the civilian resident population. U.S. data are for short-stay non-Federal hospitals. French data are for short-stay hospital services. Patients admitted and discharged on the same date are excluded.

Table 27. Percent distributions of discharges and days of care for patients discharged from short-stay hospitals or services by marital status, according to age: United States and France, 1981

Marital status	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Percent distribution of discharges									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married	50.7	51.8	*0.3	-	56.0	58.8	68.3	67.4	45.9	49.3
Single	24.4	27.9	97.9	99.1	28.7	30.7	7.6	12.4	6.6	5.6
Widowed	12.6	11.0	*	-	0.6	*	8.5	6.7	37.9	37.8
Divorced or separated	6.3	2.2	*	-	8.3	*	9.0	*	3.4	*
Unknown	6.0	7.2	1.7	*	6.4	8.2	6.6	9.3	6.3	6.0
	Percent distribution of days of care									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married	47.5	50.2	*0.3	-	50.9	58.0	64.3	64.0	41.8	46.3
Single	20.3	23.5	97.7	99.7	30.8	29.9	8.9	19.8	7.6	6.0
Widowed	18.7	17.9	*	-	0.7	*	9.7	7.8	40.6	39.9
Divorced or separated	6.9	2.0	*	-	10.1	*	10.2	*	3.5	*
Unknown	6.6	6.4	1.9	*	7.5	8.9	6.9	4.9	6.5	6.3

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 28. Average lengths of stay for patients discharged from short-stay hospitals or services, by age and marital status: United States and France, 1981

Marital status	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Average length of stay in days									
Total	7.4	11.2	4.8	8.1	5.4	7.8	8.1	11.8	10.6	17.9
Married	6.9	10.8	*4.5	-	4.9	7.7	7.7	11.2	9.7	16.8
Single	6.1	9.4	4.8	8.1	5.8	7.6	9.5	18.8	12.2	19.3
Widowed	10.9	18.1	*	-	6.4	*	9.3	13.8	11.4	18.9
Divorced or separated	8.1	10.0	*	-	6.5	*	9.2	*	11.1	*
Unknown	8.1	9.9	5.4	*	6.2	8.5	8.5	6.2	10.9	18.7

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 29. Percent distributions and average lengths of stay for patients discharged from short-stay hospitals or services by disposition, according to age: United States and France, 1981

Disposition	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Percent distribution of discharges									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Home/routine	83.0	87.4	88.2	91.3	87.4	92.4	83.9	86.9	73.8	77.6
Transfer	4.1	8.5	1.5	*	1.3	5.0	2.8	8.8	10.0	14.6
Death	2.4	2.1	0.7	-	0.3	*	2.3	*	6.1	6.4
Other/not stated	10.6	2.1	9.5	*	10.9	*	11.0	*	10.0	*
	Average length of stay in days									
Total	7.4	11.2	4.8	8.1	5.4	7.8	8.1	11.8	10.6	17.9
Home/routine	6.9	10.4	4.7	7.9	5.3	7.5	7.9	11.2	9.7	16.6
Transfer	14.3	17.3	8.9	*	10.7	13.1	12.6	16.6	15.6	21.9
Death	14.5	22.7	12.7	-	15.5	*	14.9	*	14.4	23.8
Other/not stated	7.0	9.9	4.6	*	5.2	*	7.8	*	10.1	*

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 30. Percent distributions of discharges and days of care for patients discharged from short-stay hospitals or services by bed size of hospital, according to age of patient: United States and France, 1981

Hospital size	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Percent distribution of discharges									
All sizes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fewer than 50 beds	5.6	7.4	4.3	*	5.2	9.4	5.4	6.8	7.0	*
50–119 beds	15.5	17.6	20.2	*	14.5	20.3	14.2	22.7	16.4	11.9
120–399 beds	46.4	17.5	44.3	13.4	46.1	14.0	45.5	19.2	48.1	23.9
400–799 beds	27.8	18.7	26.2	20.9	29.0	17.8	29.9	16.0	24.8	22.0
800–1,399 beds	4.3	7.6	4.3	13.6	4.5	7.7	4.7	6.2	3.5	5.7
1,400 beds or more	0.5	31.2	0.6	34.9	0.7	30.8	0.4	29.1	0.2	32.3
	Percent distribution of days of care									
All sizes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fewer than 50 beds	4.4	5.7	3.0	*	4.0	6.0	3.9	3.7	5.3	*
50–119 beds	13.4	19.4	17.3	*	13.6	24.0	12.1	28.0	13.6	13.5
120–399 beds	46.1	21.5	40.5	14.8	43.8	15.1	44.8	20.3	49.4	28.3
400–799 beds	30.3	20.2	31.6	25.5	31.9	17.9	32.7	16.0	27.4	23.0
800–1,399 beds	5.2	5.6	6.6	11.5	5.8	7.1	6.0	4.2	4.1	4.0
1,400 beds or more	0.5	27.6	0.9	33.6	0.9	29.9	0.4	27.8	0.3	24.7

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 31. Average lengths of stay for patients discharged from short-stay hospitals or services, by age of patient and bed size of hospital: United States and France, 1981

Hospital size	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Average length of stay in days									
All sizes	7.4	11.2	4.8	8.1	5.4	7.8	8.1	11.8	10.6	17.9
Fewer than 50 beds	5.8	8.4	3.4	*	4.2	4.9	6.0	6.3	8.1	*
50–119 beds	6.4	12.2	4.1	*	5.0	9.2	6.9	14.2	8.7	19.8
120–399 beds	7.3	13.7	4.4	9.2	5.1	8.5	8.0	12.2	10.9	20.8
400–799 beds	8.0	12.1	5.8	10.0	5.9	7.7	8.9	12.1	11.7	19.3
800–1,399 beds	9.1	8.3	7.4	6.9	6.8	7.2	10.5	8.5	12.6	13.1
1,400 beds or more	8.2	9.2	7.1	7.6	7.1	7.6	8.9	11.4	13.5	13.6

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 32. Percent distributions of discharges and days of care, and average lengths of stay for patients discharged from short-stay hospitals or services by ownership of hospital, according to age of patient: United States and France, 1981

Ownership	All ages		Under 15 years		15–44 years		45–64 years		65 years and over	
	United States	France	United States	France	United States	France	United States	France	United States	France
	Percent distribution of discharges									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private nonprofit	70.6	10.1	71.1	12.2	69.3	6.4	72.1	13.6	71.3	12.5
Private for profit	7.9	27.7	5.2	19.6	7.7	32.4	8.6	31.6	8.5	19.1
Public	21.5	62.2	23.7	68.2	23.0	61.2	19.4	54.7	20.2	68.4
	Percent distribution of days of care									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private nonprofit	72.2	15.3	70.9	17.7	69.6	9.8	73.0	20.5	73.9	15.3
Private for profit	8.1	26.8	4.2	16.1	8.6	31.8	8.3	27.6	8.2	21.1
Public	19.7	57.9	25.0	66.2	21.8	58.4	18.7	51.9	17.9	63.6
	Average length of stay in days									
Total	7.4	11.2	4.8	8.1	5.4	7.8	8.1	11.8	10.6	17.9
Private nonprofit	7.5	16.7	4.8	11.7	5.4	11.9	8.3	17.8	11.0	21.8
Private for profit	7.6	10.7	3.8	6.6	6.0	7.6	7.9	10.3	10.2	19.7
Public	6.8	10.3	5.1	7.8	5.1	7.4	7.8	11.2	9.4	16.6

NOTE: Data are for short-stay non-Federal hospitals in the United States and for short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Table 33. Percent distributions of discharges and average lengths of stay for patients discharged from short-stay hospitals or services by source of payment: United States and France, 1981

Source of payment	Percent distribution of discharges	Average length of stay in days
	United States	
All sources	100.0	7.4
Private insurance	51.1	5.9
Medicare	29.8	10.5
Second source private insurance	13.7	10.2
Second source Medicaid	3.3	10.9
Medicaid	9.0	6.5
Workmen's Compensation	1.7	6.6
Self-pay	5.1	5.8
Other	3.4	6.4
	France	
All sources	100.0	11.2
Sick fund, 100-percent coverage:		
Maternity	9.2	8.7
Workmen's Compensation	2.2	7.8
Other	51.6	13.9
Sick fund, copayment required:		
With supplementary coverage	17.2	7.8
Without supplementary coverage	15.4	8.6
Other and not stated	4.7	8.6

NOTE: Data are for principal expected source of payment for discharges from short-stay non-Federal hospitals in the United States and for source of payment for discharges from short-stay hospital services in France. Newborn infants and patients admitted and discharged on the same date are excluded.

Appendixes

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List of appendix figures

Appendix I
Hospital discharge data systems

Characteristic	United States	France
Data system	The National Hospital Discharge Survey (NHDS) is conducted by the National Center for Health Statistics (NCHS).	The hospitalization survey was carried out by the Medical Economics Division of the Centre de Recherche pour L'Etude et L'Observation des Conditions de Vie (CREDOC), which is now the Centre de Recherche D'Étude et de Documentation en Économie de la Santé (CREDES).
Background	The survey has been in operation continuously since 1965. The original universe for the survey consisted of the 6,965 short-stay hospitals listed in the 1963 National Master Facility Inventory (NMFI). The NMFI is a comprehensive list of hospitals, nursing homes, and other inpatient facilities in the United States developed by NCHS. A detailed description of the NMFI has been published (NCHS, 1965). The universe was updated in 1972, 1975, 1977, 1979, and 1981. In 1981, in addition to the original hospitals, the universe included 1,115 new hospitals.	The survey was carried out in two stages. The first stage, a survey of hospital institutions, was conducted from October through December 1980. The second stage, a survey of hospital departments that were open to patients, was undertaken from February 1981 to January 1982. The universe of hospital institutions was the Repertoire des etablissements d'hospitalisation publics et prives (Directory of Public and Private Hospital Institutions), which was drawn up by the Health Ministry in 1977. The directory lists all short-term, medium-term, and long-term general and specialized hospitals, including psychiatric hospitals. A total of 3,615 hospital institutions, both public and private, were included.
Scope	Hospitals in the 50 States and the District of Columbia in which the average length of stay is less than 30 days are covered by the survey, with the following exceptions: institutional hospitals, such as prison hospitals and university student health centers; Federal hospitals, such as military and Veterans' Administration hospitals; and hospitals with fewer than six beds. Patients in long-term care units of hospitals covered by the survey are excluded if the units keep records separately from the rest of the hospital. Discharges of newborn infants are covered but are excluded from the totals in this report.	All hospital institutions in France were included in the universe with the exception of military hospitals. The universe did not include hospitals in overseas territories. Infirmaries within residential institutions, such as old people's homes, prisons, and convents, are not defined as hospital institutions and were not included. Hospice sections of general hospitals were not included. Hospice care is similar to the services provided in U.S. nursing homes. In this report, data on medium-term and long-term services were excluded, and only data on discharges from short-term services were compared with U.S. data.
Sample size	In 1981 the NHDS sample consisted of 550 hospitals. Of these, 71 refused to participate and 51 were out of scope either because the hospital had gone out of business or because it failed to meet the definition of a short-stay hospital. Thus, 428 hospitals participated in the survey during1981, and they provided approximately 227,000 abstracts of medical records.	The sample for the first stage of the survey consisted of 363 hospital institutions. Of these, 17 were out of scope because they had converted to other types of institutions or had closed, and 50 hospitals declined to take part in the survey. Because of differential sampling rates, the corrected overall refusal rate was 18.1 percent. The 296 responding hospitals included 3,178 departments that were open to patients (27.3 percent of all such departments) and 221,335 beds (35.5 percent of all hospital beds).

NOTE: A list of references follows the text.

Characteristic	United States	France
Sample size (continued)		In the second stage of the survey, a sample of 301 departments was obtained from the 3,178 surveyed in the first stage. To ensure that the necessary number of departments would be included in the survey, a total of 443 were drawn, and when a department refused to participate, it was replaced by another with similar characteristics. Data were obtained from the records of 4,140 hospitalized patients from the 301 departments. This sample was divided into two sub-samples: 1,911 patients occupying beds at the time of the survey (sampling ratio 1/266) and 2,229 discharges who left the department during the observation period (sampling ratio 1/4,512). A total of 1,665 discharges were from short-stay hospital services.
Sample design	A two-stage, stratified sampling design is used in the survey. The first stage is selection of a sample of hospitals. The primary stratification variables are bed size and geographic region. Hospitals are selected in direct proportion to size. Hospitals with 1,000 beds or more in the universe of short-stay hospitals have sampling probabilities of certainty, and the sampling probability decreases to 1 in 40 for the smallest hospitals. The second stage is a systematic sample of discharges from the sampled hospitals. The discharges are selected in inverse proportion to hospital size to compensate for the higher probability of selection of the larger hospitals. This ensures that the overall probability of selecting a discharge is approximately the same in each size class. The sampling frame in nearly all the hospitals is the daily listing of discharges. A systematic sampling technique is used, usually based on the terminal digit of the patient's medical record number.	A three-stage, stratified sampling design was used in the survey. In the first stage, selection of a sample of hospitals, the hospitals were drawn in direct proportion to size. Hospitals with 4,000 beds or more had a sampling probability of certainty, and the sampling probability decreased to approximately 1 in 40 for hospitals with less than 50 beds. For the second stage, selection of hospital departments, sampling probabilities were based on the size of the hospital and the size of the department. In the third stage, all patients discharged from a sampled department during a set observation period were included in the sample. The observation period was 1 day for the largest departments, but as long as 6 days for the smallest departments. The sampling rate at each stage was calculated so that each patient hospitalized in France during 1981 had the same likelihood of being included in the sample. In practice, because of refusals and technical constraints, the final sample was slightly distorted, and correction factors had to be introduced.
Data collection procedures	An abstract form is completed for each sample discharge, using information from the patient's medical record. In about half of the hospitals that participated in the survey during 1981, the sample selection and abstracting were done by the medical records staff of the hospital. In the other half of the hospitals, the work was performed by personnel of the U.S. Bureau of the Census, acting for NCHS. Completed abstracts, along with sample selection control sheets, are sent to a Census Regional Office, where the forms are checked for completeness. The abstracts are next sent to NCHS, where all abstract information, including diagnoses and surgical procedures, are coded. The data are then transferred to computer tapes, edited, and processed.	In the first stage of the survey, a hospital questionnaire was completed by staff of the 296 hospitals participating in the survey. In the second stage, completion of a departmental questionnaire was the responsibility of physicians in the 301 participating departments. In the third stage, the patient questionnaire was completed, or at least the medical information was recorded, by a department physician. A special telephone service was set up at CREDES (at the time the Medical Economic Division of CREDOC) to assist hospital management staff and physicians with the questionnaires and to answer any questions. CREDES had the responsibility for coding the data from the questionnaires. Sociodemographic data were coded by a team of three people working under the guidance of a demographer-sociologist. The coding was based on classification systems of the Institut National de la Statistique et des Études Économiques

Characteristic	United States	France
Data collection procedures (continued)		(INSEE). Medical data were coded by a team of physicians. The coding operation lasted approximately 1 year. The coded data were transferred to computer tapes and analyzed.
Items collected	The abstract form (figure I) used in the NHDS includes items for patient identification, such as hospital, survey, and medical record numbers; date of admission and discharge; and ZIP Code of residence. Patient characteristics recorded include sex, date of birth or age, race, ethnicity, marital status, expected source of payment, and the discharge status and disposition of the case. The medical information consists of discharge diagnoses, surgical and diagnostic procedures, and the dates of procedures. Diagnoses and procedures are listed, with the principal diagnosis (or the one listed first, if a principal one is not identified) followed by the other diagnoses as entered on the face sheet of the medical record.	Copies of the hospital, department, and patient questionnaires have been published (Lecomte et al., 1980). General information about the characteristics and facilities of the hospitals was collected with the hospital questionnaire. A detailed list of the departments with hospital beds was also obtained, which included the specialty practiced in the department and the number of beds. The questionnaire sent to the departments contained questions about the specialty, status, and size of the department, personnel, facilities, and activities, and a listing of beds. The patient questionnaire was approximately 40 pages long and contained detailed questions in four major areas: (1) Sociodemographic characteristics of the patient such as sex, date of birth, residence, nationality, marital status, health insurance coverage, principal activity, occupation, education, and housing conditions. (2) Information about admission, discharge, and hospital stay, including dates of admission and discharge, source of admission, type of hospital room, amenities available during hospital stay, disposition at discharge, and post-discharge treatments recommended. (3) Consumption of medical care, including surgery, radiology, laboratory tests, other clinical tests, care and treatments from physicians and ancillary medical personnel, nursing care, and consumption of pharmaceuticals. (4) Morbidity, including reason for admission, admission diagnosis, clinical status at time of the survey or discharge diagnosis, medical and surgical history, prognosis, and degree of disability.
Medical coding	Diagnoses and procedures listed on the NHDS abstract are coded using the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) (U.S. Public Health Service and Health Care Financing Administration, 1980).	The morbidity data was coded using the Manual of the *International Statistical Classification of Diseases, Injuries and Causes of Death,* based on the recommendations of the Ninth Revision Conference (ICD–9) (World Health Organization, 1977).
Missing data	In 1981, the age and sex were missing from the face sheet of the medical record in fewer than 0.25 percent of cases. When these items were missing, imputations were made by assigning the patient an age or sex consistent with the age or sex of other patients with the same diagnostic code. In the rare instances when dates of admission or discharge could not be obtained, a length of stay was imputed by assigning a length of stay characteristic of other patients of the same age.	Sex was reported for all the patients in the French survey. Age was reported on all but 18 of the patient questionnaires and diagnosis was missing from 65. Tabulations from the survey only include patients with known responses. Nonrespondents are assumed to be distributed the same as respondents.

NOTE: A list of references follows the text.

Form Approved: O.M.B. No. 0937-0004

CONFIDENTIAL – All information which would permit identification of an individual or of an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to other persons or used for any other purpose.

FORM **HDS-1** (8-5-82)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
U.S. PUBLIC HEALTH SERVICE
NATIONAL CENTER FOR HEALTH STATISTICS

MEDICAL ABSTRACT – NATIONAL HOSPITAL DISCHARGE SURVEY

A. PATIENT IDENTIFICATION

1. Hospital number ☐☐☐☐
2. HDS number ☐☐☐☐
3. Medical record number _____
4. Date of admission . . Month ☐☐ – Day ☐☐ – Year ☐☐
5. Date of discharge . . Month ☐☐ – Day ☐☐ – Year ☐☐
6. Residence ZIP code ☐☐☐☐☐

B. PATIENT CHARACTERISTICS

7. Date of birth Month ☐☐ – Day ☐☐ – Year ☐☐☐☐
8. Age *(Complete only if date of birth not given)* . . . . . Units ☐☐ 1☐ Years 2☐ Months 3☐ Days
9. Sex *(Mark (X) one)* 1☐ Male 2☐ Female 3☐ Not stated
10. Race 1☐ White 2☐ Black 3☐ American Indian/Alaskan Native 4☐ Asian/Pacific Islander 5☐ Other *(Specify)* _____ 6☐ Not stated
11. Ethnicity *(Mark (X) one)* 1☐ Hispanic origin 2☐ Non-Hispanic 3☐ Not stated
12. Marital status *(Mark (X) one)* 1☐ Married 2☐ Single 3☐ Widowed 4☐ Divorced 5☐ Separated 6☐ Not stated

13. Expected source(s) of payment

		Principal *(Mark one only)*	Other additional sources (Mark accordingly)
Government sources	1. Workmen's Compensation	☐	☐
	2. Medicare	☐	☐
	3. Medicaid	☐	☐
	4. Title V	☐	☐
	5. Other government payments	☐	☐
Private sources	6. Blue Cross	☐	☐
	7. Other private or commercial insurance	☐	☐
Other sources	8. Self pay	☐	☐
	9. No charge	☐	☐
	10. Other *(Specify)* _____	☐	☐

☐ **No source of payment indicated**

14. Status/Disposition of patient *(Mark (X) appropriate box(es))*

Status
1☐ Alive ➡ Disposition
a. ☐ Routine discharge/discharged home
b. ☐ Left against medical advice
c. ☐ Discharged, transferred to another short-term hospital
d. ☐ Discharged, transferred to long-term care institution
e. ☐ Disposition not stated

2☐ Died
3☐ Status not stated

C. FINAL DIAGNOSES

Principal: _____

Other/additional: _____

☐ See reverse side

D. SURGICAL AND DIAGNOSTIC PROCEDURES

Principal: _____ Date: Month ☐☐ – Day ☐☐ – Year ☐☐

Other/additional: _____ ☐☐ – ☐☐ – ☐☐

_____ ☐☐ – ☐☐ – ☐☐

_____ ☐☐ – ☐☐ – ☐☐

☐ NONE ☐ See reverse side

Completed by | Date

Figure I. Medical abstract for the National Hospital Discharge Survey

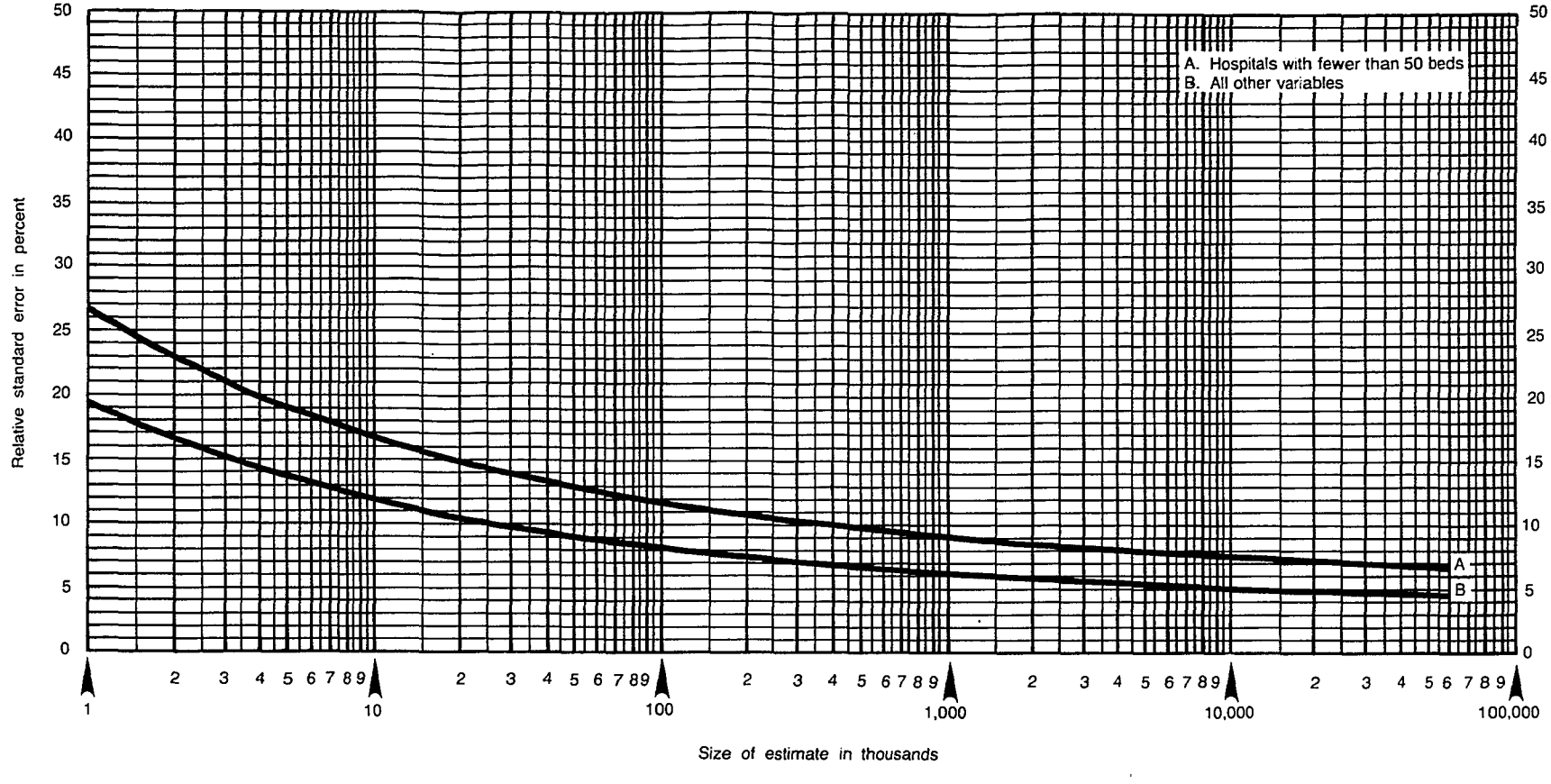
Characteristic	United States	France
Release of data	Annual reports of data from the survey are published by NCHS in *Advance Data* and in *Vital and Health Statistics*, Series 13. These reports update data on hospital utilization, diagnoses, and procedures, by characteristics of patients and hospitals. Special reports are also published on selected topics, such as expected source of payment, hospital use by children, and diagnosis-related groups (DRG's). Unpublished data from the survey are available on request from the NCHS Division of Health Care Statistics, and data for 1970 and subsequent years are available on public use tapes.	Data from the survey have been published in the following CREDOC publications: *Les Etablissements Hospitaliers en 1980: Premiere Phase de L'Enquete Hospitalisation* (Com-Ruelle et al., 1982). *Enquete sur les Hospitalises: Modalities et Realisation de L'Enquete (2ième Phase), Socio-Demographie de L'Echantillon* (Com-Ruelle et al., 1983), and *Enquete sur les Hospitalise: La Morbidite Hospitaliere* (Com-Ruelle, 1984).

NOTE: A list of references follows the text.

Appendix II
Technical notes on methods

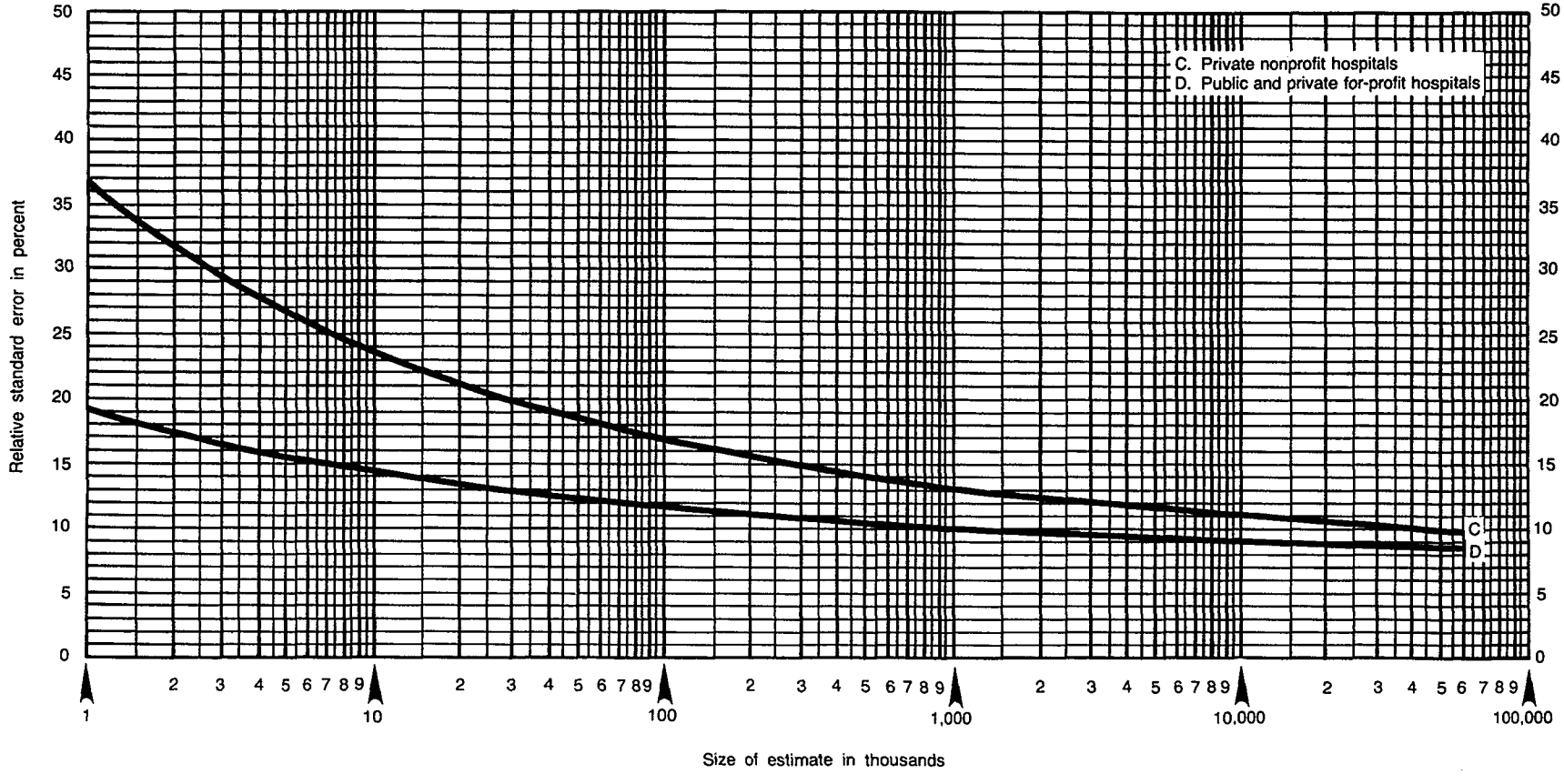
Characteristic	United States	France
Estimation	Statistics produced by the National Hospital Discharge Survey (NHDS) are derived using a complex estimating procedure. The basic unit of estimation is the sample inpatient discharge abstract. The estimating procedure used to produce essentially unbiased national estimates in NHDS has three principal components: inflation by reciprocals of the probabilities of sample selection, adjustment for nonresponse, and ratio adjustment to fixed totals. These components of estimation are described in appendix I of two earlier publications (NCHS, 1967a, 1967b).	National estimates for 1981 were obtained from the French survey by multiplying each discharge in the sample by the product of the reciprocals of the probabilities of sample selection at the three stages: (1) selection of the hospital establishment, (2) selection of hospital department, and (3) selection of discharge. In addition, the estimates for short-term services were multiplied by a correction factor (1.0682) to adjust for nonresponse and the undersampling that resulted from technical constraints.
Measurement error	As in any survey, NHDS data are subject to reporting and processing errors and errors due to nonresponse. The reliability of the abstracting and coding of NHDS data have been studied by the Institute of Medicine (IOM). The dates of admission and discharge, as well as patient's age, race, marital status, and disposition, were found to be highly reliable. The reliability of data on diagnoses and procedures was found to vary by level of coding specificity. Reliability increased when codes were condensed from four to three digits and was highest for codes grouped into the major diagnostic categories. A detailed account of these and other findings from the IOM study has been published (Institute of Medicine, 1980).	The main source of possible bias in the French hospital survey data is the different levels of response by different types of hospitals. Response rates varied from 84 percent for public hospitals to 56 percent for private for-profit hospitals. Hospitals with less than 120 beds, many of which were private for-profit hospitals, had lower response rates than larger hospitals. The hospitals in the areas around Paris and the Mediterranean, where private for-profit hospitals are most important, also had lower-than-average response rates. Adjustments were made for the differences in response rates, assuming that the nonresponding hospitals, in the aggregate, were similar to the responding hospitals.
Sampling error	The standard error is the sampling variability that occurs by chance because only a sample, rather than an entire universe, is surveyed. The relative standard error of an estimate is obtained by dividing the standard error by the estimate itself and is expressed as a percent of the estimate. The relative standard errors applicable to estimates of patients discharged or diagnoses are shown in figure II. Relative standard errors for estimates of days of care are shown in figure III. In these figures, several curves are shown because some variables have relative standard errors different from those in the curve for "All other variables" that is relevant to most estimates. For example, one curve in figure II is applicable only to estimates of discharges from hospitals with less than 50 beds.	Sampling variances for the data on use of short-term hospital services from the French survey were approximated by a balanced repeated replication (BRR) procedure based on 12 half samples. The procedure assumes a probability sample of discharges. However, the selection of substitute departments to replace nonresponding departments in the second stage of the survey may not have been random. Approximate variances for aggregated estimates of discharges and days of care were calculated for a variety of variables, including sex, age, bed size, ownership, disposition, marital status, and diagnostic categories. Separate relative standard error curves were fit to these points for discharges and days of care (figure IV).

NOTE: A list of references follows the text.



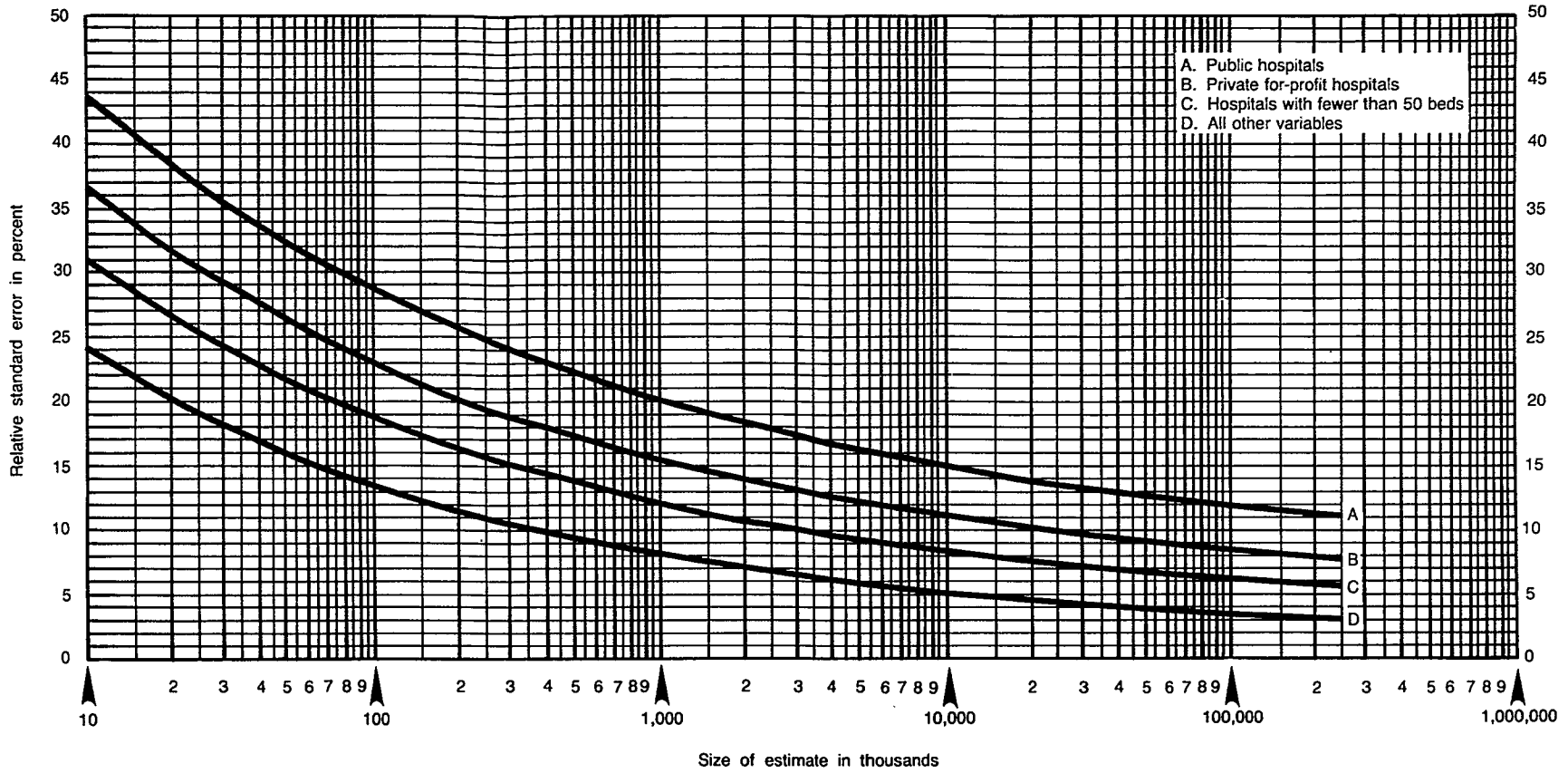
EXAMPLE: As shown in table 18, the U.S. discharge rate for malignant neoplasms was 8.6 per 1,000 population. The number of discharges for malignant neoplasms was approximately 1,958,000 (8.6 times the population in thousands, 227,659). The relative standard error of this estimate as read from the "All other variables" curve was approximately 5.9 percent. The standard error of the discharge rate was thus approximately 0.51 (5.9 percent of 8.6).

Figure II. Approximate relative standard errors for estimated numbers of patients discharged or for diagnoses, by selected hospital characteristics: United States, 1981



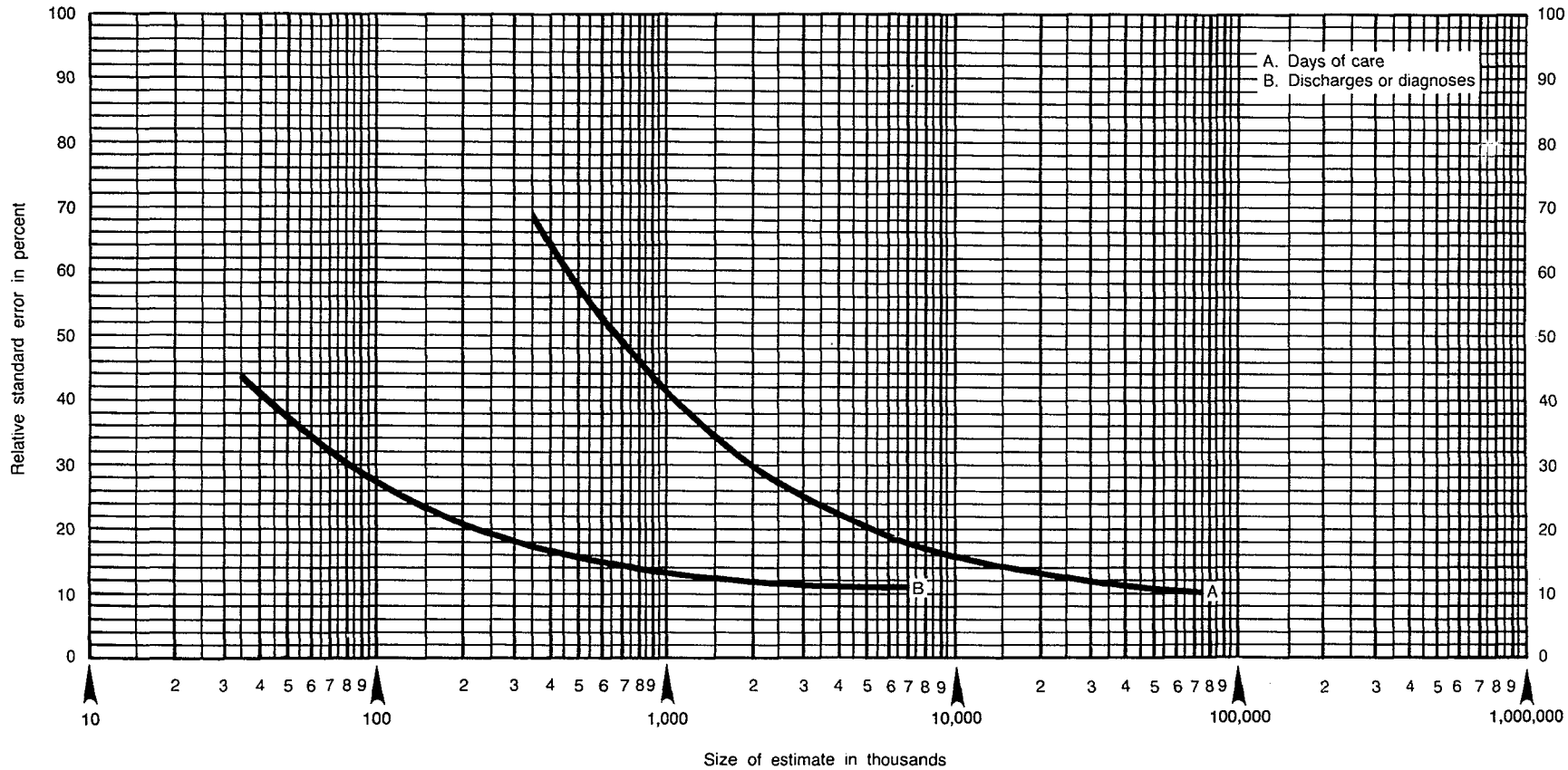
EXAMPLE: As shown in table 18, the U.S. discharge rate for malignant neoplasms was 8.6 per 1,000 population. The number of discharges for malignant neoplasms was approximately 1,958,000 (8.6 times the population in thousands, 227,659). The relative standard error of this estimate as read from the "All other variables" curve was approximately 5.9 percent. The standard error of the discharge rate was thus approximately 0.51 (5.9 percent of 8.6).

Figure II. Approximate relative standard errors for estimated numbers of patients discharged or for diagnoses, by selected hospital characteristics: United States, 1981—Con.



EXAMPLE: As shown in table 16, the U.S. rate of days of care for females 1–14 years of age was 208.4 per 1,000 population. The number of days of care for females 1–14 years of age was approximately 4,852,000 (208.4 times the female population 1–14 years of age in thousands, 23,282). The relative standard error of this estimate, as read from the "All other variables" curve was approximately 5.9 percent. The standard error of the rate of days of care was thus approximately 12.3 (5.9 percent of 208.4).

Figure III. Approximate relative standard errors for estimated numbers of days of care, by selected hospital characteristics: United States, 1981



EXAMPLE: As shown in table 23, the French discharge rate for patients 15–44 years of age with the diagnosis of deliveries without complications was 18.7 per 1,000 population. The number of discharges in this category was approximately 436,000 (18.7 times the population 15–44 years of age in thousands, 23,327). The relative standard error of this estimate as read from the "Discharges or diagnoses" curve was approximately 16.1 percent. The standard error of the rate was thus 3.0 (16.1 percent of 18.7).

Figure IV. Approximate relative standard errors for estimated numbers of patients discharged or diagnoses and for numbers of days of care: France, 1981

Characteristic	United States	France
Presentation of estimates	Based on consideration of the complex sample design of NHDS, estimates derived from a sample of fewer than 30 records are not reported. Such estimates are replaced in the tables by an asterisk (*). Estimates based on a sample of 30–59 abstracts are reported, but should be used with caution. These estimates are preceded by an asterisk (*) in the tables.	Estimates based on fewer than 20 cases are not reported. These estimates are replaced in the tables with an an asterisk (*).
Computation of rates	With one exception, the population estimates (table 1) used to compute rates of hospital use are for the U.S. civilian population on July 1, 1981. These estimates are from the U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 917. The rates of hospital use by marital status are based on estimates of the civilian noninstitutionalized population in March 1981 as reported in *Current Population Reports*, Series P-20, No. 372. Death rates were computed using the resident population on July 1, 1981, from *Current Population Reports*, Series P-25, No. 929.	The population estimates (table 1) used to compute French rates in this report are for the legal population of France at mid-year 1981. The legal population consists of all persons whose usual place of residence is France, including military personnel stationed within or outside the country. The estimates are from Institut National de la Statistique et des Études Économiques, *Les Collections de L'INSEE*, Series D, No. 90.
Tests of significance	The determination of statistical inference was based on the two-tailed *t*-test using the Bonferroni critical values for post-hoc multiple comparisons (0.05 level of significance). Terms relating to differences, such as "higher" and "less," indicate that differences were statistically significant. Terms such as "similar" and "no difference" mean that no statistically significant difference was found between the estimates compared. A lack of comment does not necessarily mean that the difference was tested and found not to be significant.	The same procedure was followed for comparison of French estimates and for comparison of French with U.S. estimates as is described for comparison of U.S. estimates.

NOTE: A list of references follows the text.

Appendix III
Definitions of terms

Term	United States	France
Age	Age refers to the age of the patient on the birthday prior to admission to the hospital inpatient service.	Age is estimated by the difference between 1982 and the year of birth.
Average length of stay	The average length of stay is the number of patient days accumulated at the time of discharge by patients discharged during the year divided by the number of patients discharged.	Length of stay is calculated individually for each discharge by calculating the difference between the date of discharge and the date of admission.
Bed size of hospital	Size is measured by the number of beds, cribs, and pediatric bassinets set up and staffed for use by inpatients; bassinets for newborn infants are not included. The classification of hospitals by bed size is based on the number of beds at or near midyear, as reported by the hospital.	Size is measured by the number of beds installed, as stated by the establishment personnel. Maternity bassinets for newborn infants are not counted in the number of beds.
Days of care	The total number of patient days accumulated at the time of discharge by patients discharged from short-stay hospitals during the year constitutes days of care. Stays of less than one day (patient admission and discharge on the same day) were excluded from this report. For patients admitted and discharged on different days, the number of days of care was computed by counting all days from (and including) the date of admission to (but not including) the date of discharge.	The total number of patient days accumulated at the time of discharge by patients discharged from short-stay hospital services constitutes days of care. Only patients hospitalized at least 1 night at midnight were included.
Diagnosis	A diagnosis is a disease or injury (or some factor that influences health status and contact with health services) listed by the attending physician on the patient's medical record. A maximum of seven diagnoses can be abstracted from the face sheet (summary sheet) of the medical record, but only the principal diagnosis (or the diagnosis listed first, if a principal diagnosis is not identified) is used in this report. The principal diagnosis is the condition established after study to have been chiefly responsible for occasioning the admission of the patient to the hospital for care.	A diagnosis is any chronic or acute condition that required an investigation, care, or treatment during the course of a hospital stay, as reported by the hospital physician. There was no predetermined limit on the number of illnesses or symptoms that could be reported. The first of the diagnoses that was known at admission or identified during the course of the stay was used in this comparison.
Discharge	A discharge is the formal release of a patient by a hospital: that is, the termination of a period of inpatient hospitalization. In this report, patients admitted and discharged on the same day are not counted as discharges. The term "discharge" and "patient discharged" are used synonymously.	The definition is the same as for the United States.

Term	United States	France
Disposition	The disposition of a patient upon the termination of a period of hospitalization is classified into one of four categories in this report. The home/routine category consists of patients who returned to their previous place of residence after discharge, including patients discharged to private homes and those discharged to nonmedical residential facilities, such as prisons, orphanages, and homes for the elderly. Transfers refer to patients transferred to other short-term hospitals or to long-term health care facilities (mainly nursing homes). Deaths are patients who died during an inpatient hospital stay, and the other/not stated category consists of patients who left the hospital against medical advice or whose dispositions were unknown.	The home/routine category includes patients discharged to private homes and those discharged to residential facilities, such as retirement homes and hospices. Transfers refer to patients transferred to other hospital institutions or to medium or long-stay services of the same institution. Deaths are patients who died during an inpatient hospital stay, and the other/not stated category consists of patients whose destinations were unknown or did not match the listed categories.
Marital status	The marital status categories used in this report are married (which excludes cohabitating persons and married persons living apart temporarily or permanently because of marital discord), single, widowed, divorced/separated, and unknown.	The marital status categories used in this report are married (persons legally married, 95.8 percent of the category; and cohabitating persons, 4.2 percent of the category), single, widowed, divorced/separated (persons with legal divorces or separations), and unknown.
Ownership	Hospital ownership is determined by the organization that controls and operates the hospital. Private nonprofit hospitals are operated by a church or another nonprofit organization. Public hospitals are operated by State or local governments. Private for-profit hospitals are operated by individuals, partnerships, or corporations for profit.	Ownership refers to the legal ownership status of the establishment. Private nonprofit hospitals may belong to mutual funds, retirement funds, nonprofit associations, and the like. Public hospitals are responsible to the State, but usually have their own management structures and budgetary autonomy. Private for-profit hospitals are owned by doctors and other investors and are operated for profit.
Population	The population estimate used to compute most of the rates in this report is the civilian population, which is the resident population, excluding members of the Armed Forces, on July 1, 1981 (table 1). The rates of discharges and days of care by marital status are computed using the civilian noninstitutionalized population 15 years of age and over in March 1981. The population estimates are based on the 1980 census and ongoing surveys of the U.S. Bureau of the Census.	The population estimate used to compute rates of discharges and days of care in this report is the population residing in metropolitan France (which excludes overseas territories) at midyear 1981 or born during 1981 (table 1). The population is estimated by Institut National de la Statistique et des Études Économiques (INSEE).
Short-stay hospitals/ services	Data in this report are for short-stay general and specialized hospitals that have six or more beds and an average length of stay of less than 30 days. Federal hospitals and hospital units of institutions are not included.	Data in this report are for short-stay hospital services, which are defined by discipline. Medicine and medical specialties, surgery and surgical specialties, and maternity are considered short-stay disciplines and are included regardless of the type of hospital establishment in which they are found.
Source of payment	The principal expected source of payment for a hospital stay is reported by the patient or the patient's representative at the time of admission. Private insurance is insurance provided by nongovernmental sources, including insurance companies, consumers, private industry, and philanthropic organizations. Medicare is a nationwide program providing health insurance protection to people 65 years of age and over, people eligible for social security disability payments for more than 2 years, and people with end-stage renal disease. Medicaid is a joint Federal-State program that provides benefits for people, including the elderly, who meet	The source of payment in France is the means of protection or insurance available to the hospitalized individual: obligatory health insurance from the Social Security system, which covers 80–100 percent of the cost of hospitalization, and complementary coverage, which in general is voluntary, a mutual or private insurance fund covering all or part of the portion of the hospitalization charges left to the individual. Medical assistance may ultimately cover the costs of hospitalizations of persons with very low income if they are not covered by the Social Security system or if out-of-pocket expenses are too high.

Term	United States	France
Source of payment (continued)	their State's definition of "low income." Workmen's Compensation is a government program in all States, under which employees injured on the job receive financial compensation without regard to fault. The self-pay category consists of patients who expect the costs of hospitalization to be paid for primarily by themselves, spouses, parents, or next of kin. Other sources include other government programs, such as CHAMPUS (for dependents of military personnel), other nonprofit sources, such as church welfare, and hospitalizations for which there were no charges.	

*U.S. GOVERNMENT PRINTING OFFICE:1988-241-259:81005

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