

Hospitalization in Texas, 2001



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Texas Health Care
Information Council

Diagnoses	Charges	Length of Stay	Insurance Coverage	Discharge Status	In-hospital Deaths
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Foreword

There is no relief on the horizon from the ever-mounting costs of health care. At the time this report was published, the federal Centers for Medicare and Medicaid Services (CMS) had just projected increases in health care spending for the next decade. For the entire 2002-2012 period, health spending is expected to grow at an annual rate of 7.3 percent, compared to 6.5 percent experienced over the decade 1991-2001 (S. Heffler et al., 2003). Nationally, in 2002, the most important driver of total health spending is hospital spending.

The mission of the Texas Health Care Information Council (THCIC) is to provide public information on Texas' health care system—on quality, outcomes, access, charges, and utilization—that decision makers can use to improve health care in the state. Through its Hospital Discharge Database, THCIC has established a powerful tool for tracking, analyzing, and comparing statistics on hospital utilization, outcomes, and charges. Every quarter, an additional confidentiality-protected file is produced for public sale; researchers may apply for access to additional data for specific projects.

With *Hospitalization in Texas, 2001*, THCIC launches its first general overview of hospital care in Texas, and publishes charge data included in the Hospital Discharge Database for the first time. Designed as a fact book, it provides answers to some basic questions like: What are the most frequent reasons for hospitalization in Texas hospitals? What are the characteristics of the patients treated in Texas hospitals? What were the most expensive conditions treated in-hospital? Who is billed for hospital services? Answers to questions like these provide the public with a factual frame of reference for this most costly component in Texas' health care delivery system.

The data used in this report has been provided to the State of Texas by hospitals under statutory requirement, and has been subjected to numerous reviews and edits by both the hospitals and THCIC in order to minimize any errors. We invite you to tell us how you are using *Hospitalization in Texas, 2001* and other reports on THCIC's web site at www.thcic.state.tx.us. We welcome suggestions on how THCIC reports might be enhanced to further meet your needs. Please email us at thcichelp@thcic.state.tx.us or send a letter to the address below.

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Introduction

Hospitals represent a large concentration of health care investments, resources, and professional skills. This report provides an overview of hospitalizations in Texas during 2001. The information contained in this report is intended for anyone interested in a better understanding of services provided by hospitals and the characteristics of patients who received them.

This report summarizes information from the Texas Health Care Information Council's (THCIC's) hospital discharge database. THCIC, a state agency, gathers information from hospitals and health maintenance organizations in Texas and publishes reports to help consumers and businesses compare and choose their hospitals and health plans.

The THCIC hospital discharge data for 2001 contains patient information from 411 state licensed hospitals and covers about 95 percent of total hospitalizations in Texas, including both general and specialty hospitals such as pediatric, obstetrics-gynecology, rehabilitation, oncology, and psychiatric hospitals. Most of the hospitals located in rural counties are exempted from reporting their data to THCIC and are not included in this report. Patients discharged from a long-term care unit in a state licensed hospital are included in this report. More information on the criteria that determines a hospital's inclusion in this report is provided on page 32. However, it is important to note that this report provides information only on patients discharged from the hospital in calendar year 2001.

This report provides information on:

- [Age and gender of hospitalized patients](#) pages 5-6
- [Source of admission to the hospital](#) page 7
- [Emergency admissions to the hospital](#) pages 8-9
- [Most frequent reasons for hospitalization](#) pages 10-13
- [Types of coexisting conditions, seen in the hospital](#) pages 14-17
- [Charges for hospitalization by type of conditions](#) pages 18-19
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Executive Summary

AGE AND GENDER

- Women account for nearly 62 percent of all hospital stays. Among individuals 18-44 years of age, there are four times as many women in the hospital as men because the major cause of hospitalization in this age group is childbirth and related complications.
- People age 65 and older make up about 10 percent of the Texas population, but account for about 30 percent of all hospital stays.
- Children age 1-17 years make up about 27 percent of the Texas population and account for only about 6 percent of hospital stays.

ADMISSIONS THROUGH THE EMERGENCY DEPARTMENT (ED)

- More than a third (36%) of all hospital admissions are through the emergency department.
- Four of the top 10 conditions leading to ED admissions (congestive heart failure, coronary atherosclerosis, heart attack acute myocardial infarction, and cardiac arrhythmias) are related to heart problems.
- Over half (53%) of the hospitalizations for people 80 years and older start in the emergency department.
- Admissions through the ED are the lowest (32%) among the 18-44 years age group.

MOST FREQUENT REASONS FOR HOSPITALIZATION

- Childbirth is the most frequent reason for hospitalization in Texas. About 13 percent of all discharges are infants born in hospitals.
- Heart attack, congestive heart failure, and hardening of the heart arteries (coronary atherosclerosis) are among the 10 most frequent causes of hospitalization for people 45 years and older.

- Among infants (< 1 year) and children (1-17 years), 5 out of the top 10 reasons for hospitalization are infection related.
- Pneumonia appears as one of the 10 most frequent causes of hospitalization for all age groups.
- Diabetes mellitus and its complications are among the top 10 reasons for hospitalization for adults (18-64 years).

COEXISTING CONDITIONS (COMORBIDITIES)

- Comorbidities are coexisting conditions that are not the main reason for the hospital stay. Comorbidities can make a hospital stay more expensive and complicated.
- About 46 percent of hospitalized patients have at least one comorbidity.
- Diabetes mellitus is one of the 10 most common comorbidities observed among people 18 years and older.
- Among the 18-44 year age group, drug abuse and alcohol abuse are 2 of the top 10 comorbidities.

MOST EXPENSIVE AND LONGEST HOSPITAL STAYS

- For all conditions, the average length of hospital stay is 5 days, and the average charge* is over \$15,700.
- Infant respiratory distress syndrome is the most expensive condition treated in Texas hospitals, with an average charge of \$105,300 and an average length of hospitalization of 27 days.
- Three of the 10 most expensive conditions are related to diseases of the heart and blood vessels: heart defects, heart valve disorders, and aneurysms (abnormal swelling of the wall of an artery, caused by a weakening in the vessel wall).
- The fourth most expensive condition, spinal cord injury, is related to trauma. It has an average charge of \$68,600, and an average length of stay of 18 days.

* Charges are the amounts the hospital charged or billed for the entire hospital stay and do not necessarily reflect reimbursements or costs. Charges are generally higher than costs.

- Even though lengthy hospital stays can result in high expenses, 5 of the 10 most expensive conditions are NOT among the 10 longest stays: heart defects, leukemia, heart valve disorder, adult respiratory failure, and aneurysms.

INSURANCE AND HOSPITAL STAYS

- Government (Medicaid and Medicare) is billed for more than half (52%) of all hospital stays.
- About 10 percent of the Texas population is over 65 years of age, but more than 32 percent of all hospital stays are charged to Medicare, the most common insurer for the elderly.

DISCHARGES FROM THE HOSPITAL

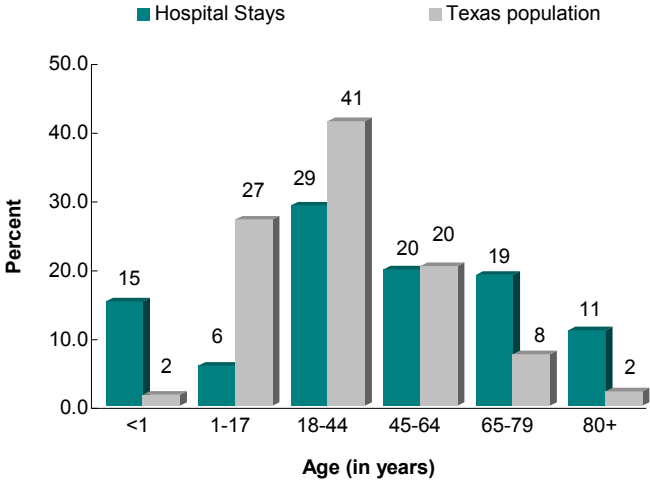
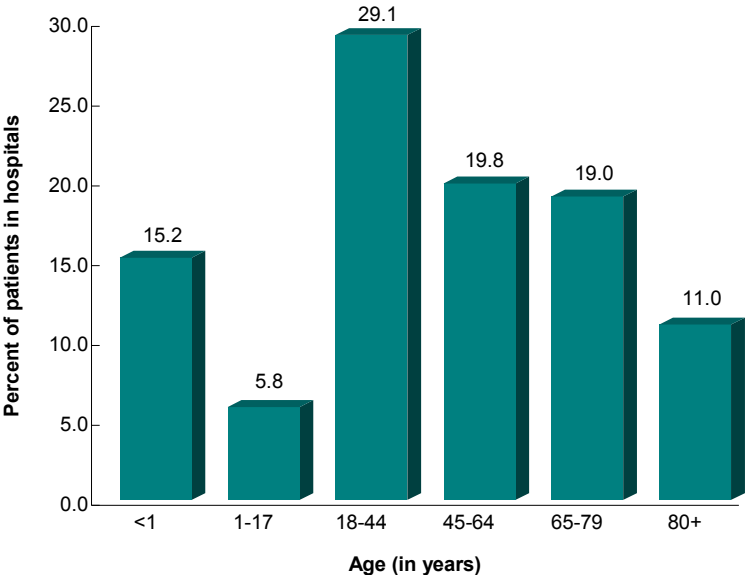
- About 10 percent of all patients discharged from hospitals go to some sort of long-term care facility, such as skilled nursing facility, intermediate care, or nursing home.
- Patients age 80 years and older are more frequently discharged to long-term care. About 35 percent of discharges in this age group are to long-term care facilities.
- One in every 10 patients hospitalized for depression is likely to leave the hospital against medical advice.

IN-HOSPITAL MORTALITY

- Only about 2 percent of all hospital encounters end in death.
- Heart events like cardiac arrest and ventricular fibrillation result in the highest mortality rates (62 percent). These life-threatening conditions often serve as the terminal event for many medical and surgical conditions, such as trauma, heart disease, and septicemia.
- Three of the top 10 conditions with the highest in-hospital mortality are related to cancer: cancer of liver, leukemias, and neoplasm (tumors) of unspecified sites.

How old are patients in Texas hospitals?

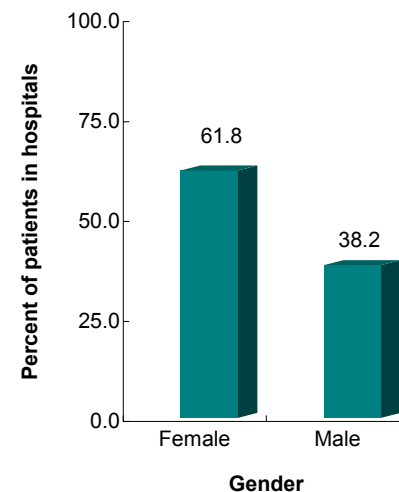
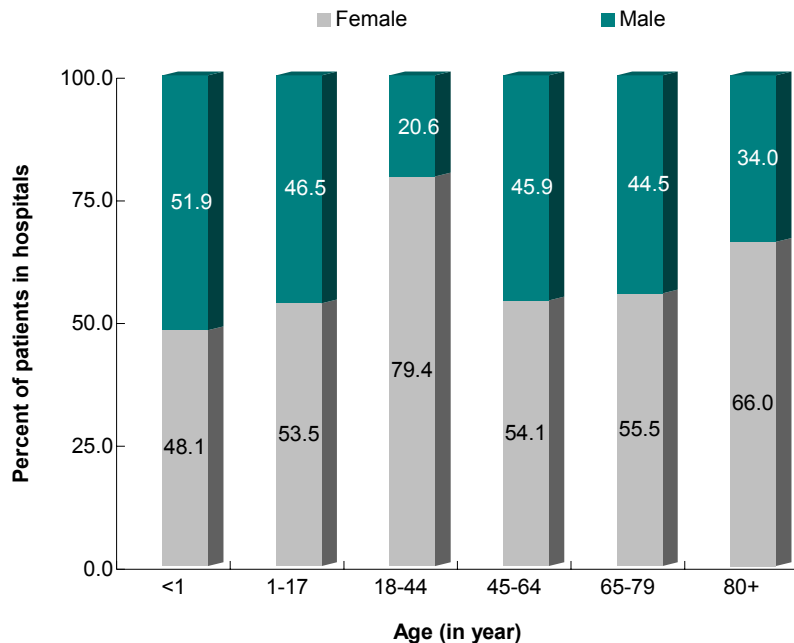
- In 2001, the average age of patients hospitalized in Texas was about 43 years.
- In proportion to their share of the population, people age 18-44 years accounted for more hospital stays than any other age group in 2001.
- Among the 18-44 year age group pregnancy, childbirth, and related conditions are the most common causes of hospitalization. They account for nearly 47 percent of the total hospital stays.
- The high percentage of hospitalizations observed among infants (less than 1 year) is for newborn infants. About 85 percent of all the hospitalizations in this age group are for newborn infants.



- People age 18-44 years make up about 41 percent of the Texas population but account for only 29 percent of all hospital stays.
- People 65 and older make up about 10 percent of the Texas population, but account for about 30 percent of all hospital stays.

What is the gender of patients in Texas hospitals?

- Nearly 62 percent of all hospital discharges are for women.
- Among hospital patients 17 years and younger, there are nearly equal numbers of males and females: 52% males and 48% females among less than one year olds and 47% males and 53% females among 1-17 year old children.

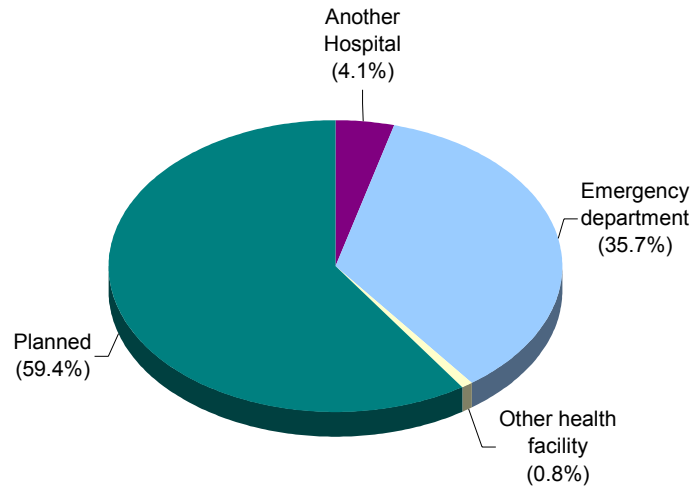


- For the age group 18 to 44 years, four times as many women as men are hospitalized. About 80 percent of the hospitalized patients in this age group are women and the major reason for hospitalization is childbirth and related complications.

How are patients admitted to the hospital?

- Over a third (36%) of all hospital admissions are through the emergency department (ED).

SOURCES OF ADMISSION



- Most admissions to the hospital are routine or planned admissions. Six out of ten patients are admitted using routine admission procedures.
- Patients transferred from other hospitals or health facilities constitute only 4 percent of the total admissions.

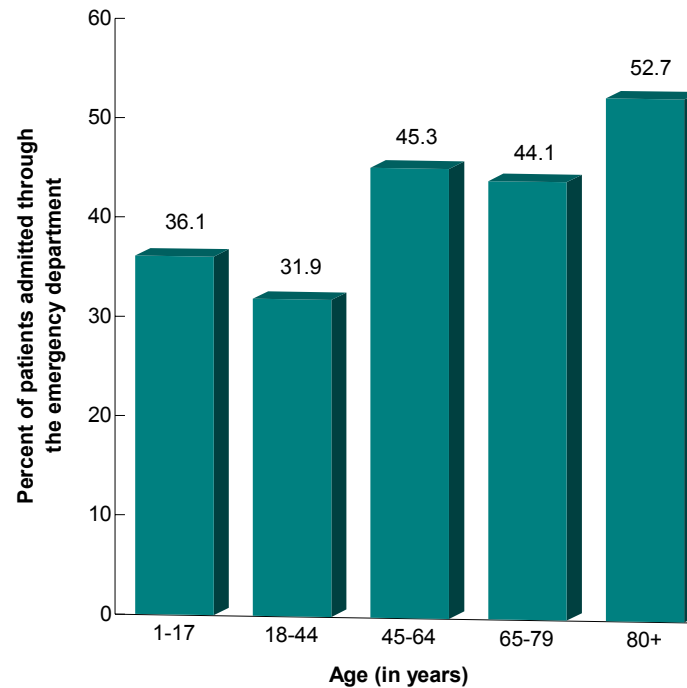
What are the most frequent reasons for being admitted to the hospital through the emergency department?

- Four of the top 10 conditions leading patients to be admitted to hospitals through the emergency department (ED) are related to heart problems.
- Two of the top 10 conditions, pneumonia, and chronic obstructive lung disease, are related to the respiratory system. Pneumonia tops the list, and accounts for more than 5 percent of all hospital admission through the ED.
- Two of the top 10 conditions (pneumonia and urinary tract infection) are related to infection.

Principal diagnoses	Total number of discharges	Percent of all hospital discharges admitted through ED
1. Pneumonia	51,141	5.4
2. Congestive heart failure	43,206	4.5
3. Hardening of the heart arteries (coronary atherosclerosis)	36,789	3.9
4. Chest pain	36,536	3.8
5. Heart attack (acute myocardial infarction)	28,471	3.0
6. Stroke (acute cerebrovascular diseases)	26,785	2.8
7. Fluid and electrolyte disorders	24,308	2.6
8. Urinary tract infections	24,149	2.5
9. Chronic obstructive lung diseases (emphysema or chronic bronchitis)	23,956	2.5
10. Irregular heartbeat (cardiac arrhythmias)	20,431	2.2

How do hospital admissions through the emergency department differ by age groups?

- For over one third (36%) of children (1-17 years), hospitalization begins in the emergency department.
- More than half (53%) of the people age 80 years or over are admitted through the emergency department.



- Admissions through the emergency department are lowest (32%) among the 18-44 year age group.

What are the most frequent reasons for hospitalization?

- The most common reason for hospitalization is childbirth. About 13 percent of all discharges from the hospitals are infants born in the hospital.
- Two of the top 10 conditions, coronary atherosclerosis, and congestive heart failure, are heart diseases and account for nearly 6 percent of all discharges.
- One of the top 10 conditions is depression, a mental health disorder.

Principal diagnoses	Total number of discharges	Percent of all discharges
1. Infants born in the hospital	345,967	12.9
2. Hardening of the heart arteries (coronary atherosclerosis)	88,937	3.3
3. Pneumonia	81,981	3.1
4. Depression (affective disorders)	67,520	2.5
5. Congestive heart failure	65,526	2.4
6. Rehabilitation	61,700	2.3
7. Childbirth with perineal trauma	59,177	2.2
8. Normal pregnancy and/or delivery	52,350	2.0
9. Other complications of birth	50,152	1.9
10. Back problems	49,265	1.8

Note: The number of maternal discharges for childbirth in this table does not equal the number of infants born. This is because the table presents the top 10 principal diagnoses and does not include all diagnosis categories related to maternal hospitalization for childbirth.

What are the most common reasons for hospitalization by body system?

- Diseases of the circulatory system constitute the most frequent reason (15%) for hospitalization by body system. This includes coronary atherosclerosis, congestive heart failure, heart attack, and cardiac arrhythmias (irregular heart beat).
- Pregnancy, childbirth, and puerperium¹ are the next most common reasons for hospitalization. They account for about 14 percent of all hospitalizations.
- Hospitalization for all mental illnesses combined make up about 4 percent of all hospital stays.

Reasons for hospital stay by body system	Total number of discharges	Percent of all discharges
1. Diseases of the circulatory system	394,712	14.7
2. Pregnancy, childbirth and the puerperium ¹	385,236	14.4
3. Newborns and perinatal conditions	357,015	13.3
4. Diseases of the respiratory system	232,619	8.7
5. Diseases of the digestive system	196,279	7.3
6. Diseases of the musculoskeletal system	192,620	7.2
7. Diseases of the nervous system	138,877	5.2
8. Mental disorders	114,379	4.3
9. Diseases of the kidney and urinary tract	89,682	3.3
10. Endocrine, nutritional, and metabolic diseases	83,228	3.1

¹The 6-8 weeks following delivery during which the anatomical and physiological changes of pregnancy regress.

What are the most common reasons for hospitalization for various age groups?

- Among infants (less than 1 year) and children (1-17 year), 5 out of the 10 most common reasons for hospitalization are infection related.
- Pneumonia is one of the top 10 reasons for hospitalization for all age groups.
- Depression constitutes one of the top 10 causes of hospitalization for each of the four age groups between 1 and 64 years.
- For people 45 years and older, heart disease is a common contributing cause for hospitalization. For this age group, heart attack, congestive heart failure, and hardening of the heart arteries (coronary atherosclerosis) are among the top 10 reasons for hospital admission.
- Diabetes mellitus and its complications are one of the top 10 reasons of hospitalization for adults (18-64 years).
- Stroke is one of the 10 most frequent causes of hospitalization for patients 65 years and older.
- Some conditions are unique to particular age groups. Hip fracture is one of the top 10 conditions for patients 80 years or older.

MOST COMMON REASONS FOR HOSPITALIZATION BY AGE GROUP

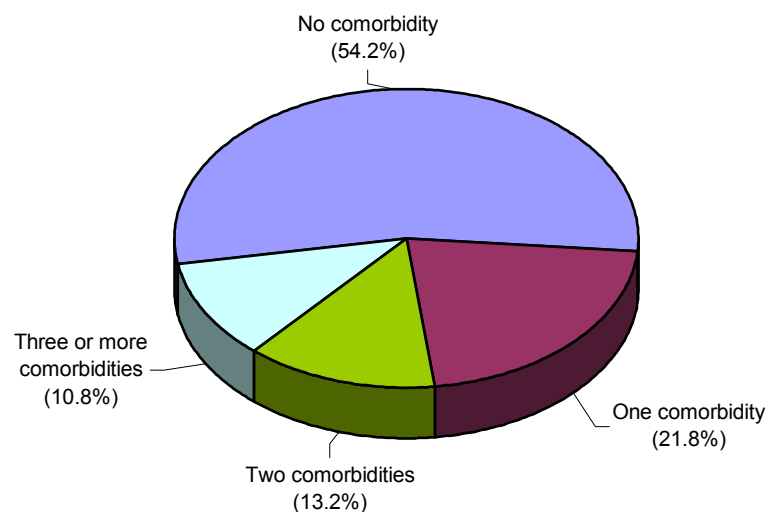
TOP 10 DIAGNOSES* BY AGE GROUP	<1 Yr	1-17 Yr	18-44 Yr	45-64 Yr	65-79 Yr	80+ Yr
	Number of discharges					
Infants born in the hospital	345,933					
Conditions originating in perinatal period	4,923					
Perinatal jaundice	2,526					
Urinary tract infection	2,344					10,567
Fever of unknown origin	1,947					
Low birth weight	1,916					
Viral infection	1,899					
Acute bronchitis	11,427	3,630				
Fluid and electrolyte disorders	3,736	7,356				9,514
Pneumonia	4,608	10,890	7,875	14,813	22,478	21,050
Asthma		5,426				
Chemotherapy		3,210				
Epilepsy		3,266				
Other upper respiratory infections		2,498				
Appendicitis		6,084	9,069			
Depression (affective disorders)		13,730	33,014	13,729		
Skin infection		3,713	9,831			
Benign neoplasm of the uterus			12,097			
Gall bladder (biliary tract) diseases			12,889			
Schizophrenia and related disorder			13,354			
Back problems			15,823	20,292		
Chest pain			10,200	23,024		
Diabetes mellitus with complications			9,067	12,354		
Chronic obstructive lung disease (emphysema or chronic bronchitis)					18,173	
Complications of device, implant or graft				14,646	12,622	
Heart attack (acute myocardial infarction)				16,352	15,466	9,049
Congestive heart failure				15,724	26,099	20,521
Hardening of the heart arteries (coronary atherosclerosis)				37,633	36,337	10,011
Osteoarthritis					15,620	
Arrhythmias (irregular heart beat)					16,236	9,566
Rehabilitation				10,921	27,912	19,296
Stroke (acute cerebrovascular disorder)					15,160	11,389
Hip fracture						11,720

*Excludes pregnancy-related conditions.

Do patients in the hospitals have coexisting conditions in addition to the main reason for admission?

- Comorbidities* are coexisting medical problems that are listed as secondary diagnoses (not principal diagnoses, or the main reason for admission).
- About 46 percent of hospitalized patients have at least one comorbidity.
- Nearly a quarter of all the patients have two or more comorbidities.

COMORBIDITIES AMONG HOSPITALIZED PATIENTS



* Comorbidities can make a hospital stay more expensive and complicated. Conditions are designated as comorbidities if they are not directly related to the principal diagnosis and are likely to have originated prior to the hospital stay. Source: Elixhauser A, Steiner C, Harris DR, Coffey RM. Comorbidity measures for use with administrative data. *Medical Care* 1998, 36(1): 8-27.

What are the most common coexisting conditions (comorbidities)?

- About one in five patients has hypertension in addition to the principal diagnosis.
- Diabetes mellitus is associated with about 10 percent of the principal diagnoses.
- Fluid and electrolyte disorders, the third most common comorbidity, is associated with many conditions and may be a marker for severity of the principal diagnosis.
- Cardiac disorders like irregular heartbeat and congestive heart failure constitute more than 10 percent of all comorbidities.

Top 10 comorbidities	Total number of cases with each comorbidity	Percent of all discharges
1. Hypertension	575,793	21.49
2. Diabetes	277,250	10.35
3. Fluid and electrolyte disorder	272,659	10.17
4. Chronic obstructive lung diseases	238,969	8.92
5. Anemias	186,909	6.97
6. Irregular heart beat (cardiac arrhythmias)	143,489	5.35
7. Congestive heart failure	135,630	5.06
8. Hypothyroidism	111,608	4.16
9. Solid tumor without metastasis	88,306	3.30
10. Renal failure	84,262	3.14

How do coexisting conditions (comorbidities) differ for various age groups?

- Three conditions rank among the top 10 comorbidities in each age group: chronic obstructive lung disease, fluid and electrolyte disorders, and anemias.
- Hypertension is one of the 10 most common comorbidities for all age groups except children age 1-17 years.
- Uncomplicated diabetes is one of the top 10 comorbidities seen among adults age 18 years and older.
- Irregular heartbeat is a common comorbidity among infants (less than 1year), children (1-17 years), and older adults (over 65 years of age).
- Hypothyroidism and congestive heart failure are among the top 10 comorbidities for patients in the 45 years and older age group.
- Drug and alcohol abuse are common comorbidities among adults (18-44 years of age).
- Some comorbidities are specific to particular age groups. Chronic complications of diabetes and renal failure are among the 10 most frequently observed comorbidities for adults 45 to 64 years.
- Mental conditions, like depression and psychoses, are two of the top 10 comorbidities seen among children (1-17 years), and adults (18-44 years).

TOP TEN COEXISTING CONDITIONS (COMORBIDITIES) BY AGE GROUP

Comorbidity	<1 yr	1-17 yr	18-44 yr	45-64 yr	65-79 yr	80+ yr
	Number of discharges					
Fluid and electrolyte disorders	7,807	15,044	40,839	62,842	80,607	65,520
Anemias	1,782	4,687	42,271	42,037	54,686	41,446
Irregular heart beat (cardiac arrhythmia)	1,409	1,074			57,366	56,353
Chronic obstructive lung disease	1,294	7,455	21,210	59,845	98,651	50,514
Blood clotting disorders (Coagulopathy)	856	1,320				
Weight loss	421					
Heart valve diseases	401					
Congestive heart failure	243			24,351	54,058	52,421
High blood pressure (hypertension)	207		45,964	177,289	224,799	126,608
Other neurological disorders	187					
Drug abuse		3,549	25,074			
Paralysis		2,852				
Psychoses		2,101	13,665			
Depression (affective disorder)		2,086	17,366			
Obesity		1,336	19,567	31,051		
Diabetes mellitus without complications			26,534	95,937	109,789	44,282
Alcohol abuse			21,584			
Kidney (renal) failure				29,025		
Hypothyroidism				26,811	41,597	31,271
Diabetes with chronic complications				24,540		
Solid tumor without metastasis					38,674	22,350
Hardening of the arteries (Peripheral vascular disease)					34,209	18,909

Which conditions have the highest charges on average?

- The conditions with the highest charges are relatively uncommon.
- Many of these expensive conditions involve invasive or high technology procedures. For example, infant respiratory distress syndrome can involve lengthy stays in intensive care units.
- Three of the 10 most expensive conditions in the hospital are related to care of infants with complications (respiratory distress, prematurity, and heart defects).
- One of the 10 most expensive conditions, spinal cord injury, is related to trauma.
- Two of the 10 most expensive conditions are related to diseases of the heart (heart defects, and heart valve disorders).
- Even though long stays in hospitals can result in high expense, five of the most expensive conditions are NOT among the ten longest stays: leukemias, heart defects, heart valve disorders, aneurysms, and adult respiratory failure.
- For all conditions, the average charge for a hospital stay is over \$15,700.

NOTE: Charges are the amounts the hospital charged or billed for the entire hospital stay and do not necessarily reflect reimbursements or costs. Charges are generally higher than costs.

CONDITIONS WITH THE HIGHEST AVERAGE CHARGES

Principal diagnoses	Average charges*	Average length of stay (in days)	Medicaid's share of all hospitalizations for this condition (%)
Respiratory distress syndrome (infant)	\$105,274	27.0	52.3
Prematurity (short gestation) and low birth weight	\$87,545	26.8	57.1
Lack of oxygen during birth (intrauterine hypoxia and birth asphyxia)	\$70,656	21.2	64.9
Spinal cord injury	\$68,600	18.2	10.9
Heart defects (cardiac and circulatory congenital anomalies)	\$68,030	9.1	39.0
Leukemias	\$67,778	13.9	13.5
Heart valve disorders	\$63,173	9.1	4.3
Adult respiratory failure	\$58,806	14.1	9.4
Aortic, peripheral, and visceral artery aneurysms	\$57,731	9.3	1.5
Central nervous system infections other than meningitis	\$57,716	16.4	16.1

* Charges shown reflect those only for hospital care and do not include professional fees, rehabilitation, follow-up care or home care costs.
 NOTE: Shaded diagnoses are also among the ten conditions leading to longest hospital stays.

What conditions lead to the longest hospital stays?

- Two of the conditions with the longest hospital stays, prematurity, and infant respiratory distress syndrome, are related to infants.
- The five most expensive conditions - respiratory distress syndrome (infant), prematurity and low birth weight, intrauterine asphyxia, spinal cord injury, and central nervous system infections - also have the longest hospital stays.
- Two mental disorders (pre-adult mental disorder and acute schizophrenia) are among the 10 conditions leading to the longest hospital stays.
- For all conditions, the overall average hospital stay is 5 days.

Principal diagnoses	Average length of stay (in days)	Average charges*	Medicaid's share of all hospitalizations for this condition (%)
Respiratory distress syndrome (infant)	27.0	\$105,274	52.3
Prematurity (short gestation) and low birth weight	26.8	\$87,545	57.1
Tuberculosis	25.8	\$30,064	13.6
Pre-adult mental disorder	23.0	\$10,301	50.9
Skin ulcer	22.4	\$41,481	6.8
Lack of oxygen during birth (intrauterine hypoxia and birth asphyxia)	21.2	\$70,656	52.3
Acute schizophrenia	21.1	\$10,839	19.6
Spinal cord injury	18.2	\$68,600	10.9
Central nervous system infections other than meningitis	16.4	\$55,716	16.1
Late effects of stroke (cerebrovascular disease)	15.4	\$24,279	2.8

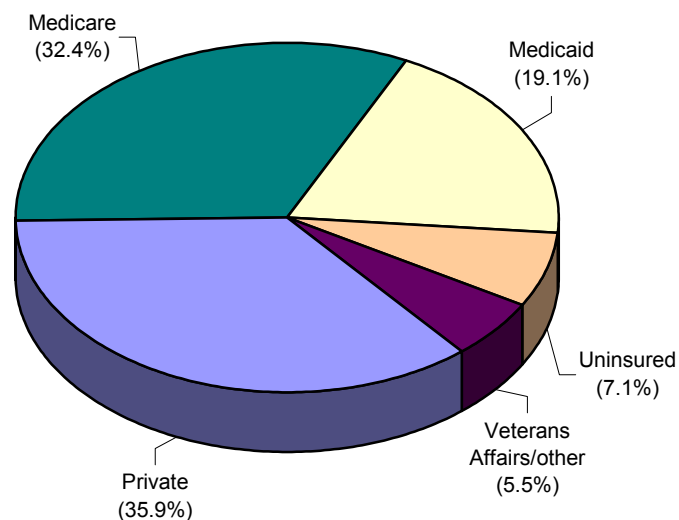
* Charges shown reflect those only for acute hospital care and do not include professional fees, rehabilitation, follow-up care or home care costs.

NOTE: Shaded diagnoses are also among the highest charges in the hospital.

Who is billed for the largest share of hospital stays?

- Private insurance is billed for 36 percent of all hospitalizations.
- Elderly people (65 years and older) constitute nearly 10 percent of Texas' population. However, more than 32 percent of all hospitalizations are covered by Medicare, the most common insurance for the elderly.
- Although nearly 22 percent² of Texas population are uninsured, only 7 percent of hospitalized patients are uninsured at discharge from the hospital.

PRIMARY PAY SOURCES



² Demographic Profile of the Texas Population Without Health Insurance in 2000, Texas Health and Human Services Commission (www.hhsc.state.tx.us/research/dssi/TXUNIN2000.html)

Most common hospital care billed to private insurers

- Five of the top 10 conditions billed to private insurers are related to infancy and childbirth: 1) infants born in the hospital, 2) childbirth with perineal trauma, 3) other complications of birth, 4) normal pregnancy and delivery, and 5) previous cesarean section.
- Private insurers are billed for about half of all the hospitalizations for complications of birth.
- Private insurers are billed for almost half (48%) of all hospital stays for back problems.

PRIVATELY INSURED

Principal diagnoses	Total number of discharges	Private insurers' share of all hospital stays for this condition (%)
1. Infants born in the hospital	153,161	44.3
2. Depression (affective disorders)	31,668	46.9
3. Hardening of the heart arteries (coronary atherosclerosis)	29,082	32.7
4. Childbirth with perineal trauma	25,511	43.1
5. Other complications of birth	24,822	49.5
6. Back problems	23,585	47.9
7. Chest pain	20,731	43.3
8. Normal pregnancy and/or delivery	19,562	37.4
9. Pneumonia	17,903	21.8
10. Previous cesarean section	17,540	45.7

Note: The number of maternal discharges for childbirth in this table does not equal the number of infants born. This is because the table presents the top 10 principal diagnoses and does not include all diagnosis categories related to maternal hospitalization for childbirth.

What types of hospital care are billed to Medicaid?

- Seven out of the top 10 conditions that are billed to Medicaid are related to infancy and childbirth.
- Nearly half (49%) of all the hospital stays for normal pregnancy and delivery are billed to Medicaid.
- Medicaid is billed for more than half (53 %) of all hospital stays for bronchitis.

MEDICAID

Principal diagnoses	Total number of discharges	Medicaid's share of all hospital stays for this condition (%)
1. Infants born in the hospital	150,178	43.4
2. Normal pregnancy and/or delivery	25,636	49.0
3. Childbirth with perineal trauma	25,053	42.3
4. Other complication of birth	19,948	39.8
5. Other complication of pregnancy	17,994	45.4
6. Previous cesarean section	16,439	42.8
7. Depression (affective disorders)	11,848	17.5
8. Pneumonia	11,793	14.4
9. Bronchitis	9,835	53.3
10. Early labor	9,467	49.1

Note: The number of maternal discharges for childbirth in this table does not equal the number of infants born. This is because the table presents the top 10 principal diagnoses and does not include all diagnosis categories related to maternal hospitalization for childbirth.

What types of hospital care are uninsured?

- Among the uninsured population, diabetes mellitus with complications is one of the top 10 conditions leading to hospitalization.
- More than 7 percent of infants born in the hospital are uninsured.
- About 5 percent of all the hospital stays for depression are uninsured.

UNINSURED

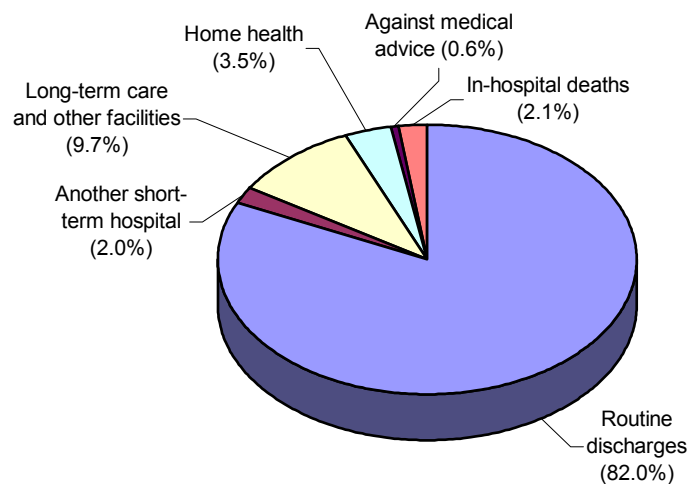
Principal diagnoses	Total number of discharges	Percent of all hospital stays for this condition that are uninsured
1. Infants born in the hospital	25,034	7.2
2. Childbirth with perineal trauma	5,404	5.0
3. Chest pain	5,124	10.7
4. Skin infection	4,880	15.3
5. Hardening of the heart arteries (coronary atherosclerosis)	4,835	5.4
6. Pneumonia	4,432	5.4
7. Diabetes mellitus with complications	4,049	11.6
8. Normal pregnancy and/or delivery	3,999	7.6
9. Biliary tract diseases	3,858	11.2
10. Depression (affective disorders)	3,611	5.3

Note: The number of maternal discharges for childbirth in this table does not equal the number of infants born. This is because the table presents the top 10 principal diagnoses and does not include all diagnosis categories related to maternal hospitalization for childbirth.

What happens to patients when they are discharged from the hospital?

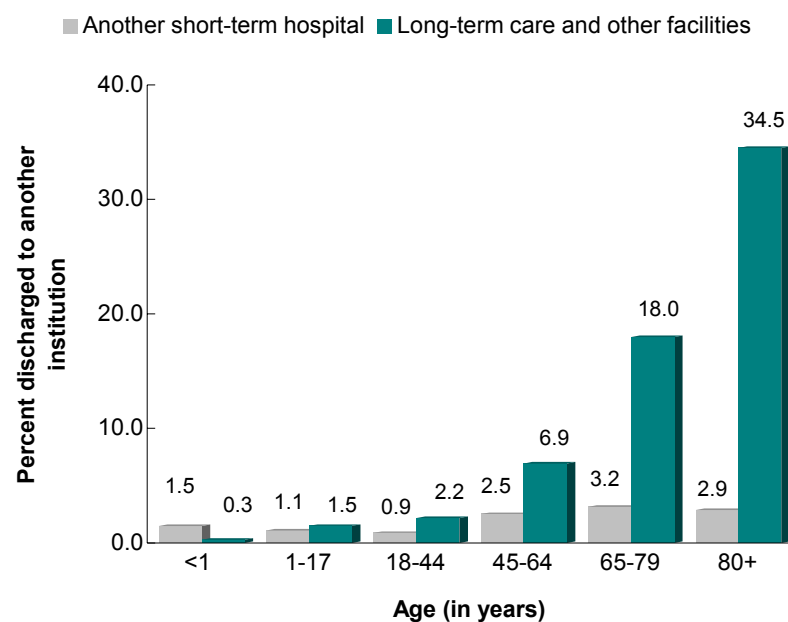
- Most discharges (82%) are routine; patients return home following completion of treatment in the hospital.
- Overall only 2 percent of all hospitalizations end in in-hospital death.
- Nearly 2 percent of patients are discharged to another short-term hospital.
- About 10 percent of patients discharged from hospitals go to some sort of long-term care: skilled nursing facilities, intermediate care, or nursing homes.
- Less than 1 percent of hospital patients leave the hospital against medical advice.

PATIENT STATUS ON DISCHARGE



How do discharges to other institutions vary by age?

- Older patients are more often discharged to other institutions than younger patients.
- About 35 percent of patients age 80 and older are discharged to long-term care and other facilities, including skilled nursing facilities, intermediate care facilities, and nursing homes.



What conditions are most common in patients who leave against medical advice or are discharged to another institution?

- Among the top 10 diagnoses for patients who leave the hospital against medical advice, 3 conditions – depression, alcohol related mental disorder, and substance related mental disorder, are mental health-related illnesses.
- One in every 10 patients hospitalized for depression is likely to leave the hospital against medical advice.
- Medical conditions like chest pain, coronary atherosclerosis (hardening of the heart arteries), pneumonia, and congestive heart failure are more commonly associated with patients leaving against medical advice than any surgical condition.
- Patients who need rehabilitation care or have impaired functional status such as stroke and hip fracture, are more likely to be discharged to other institutions.

LEFT AGAINST MEDICAL ADVICE

Principal diagnoses	Total number of discharges	Percent of all discharges who left against medical advice
1. Depression (affective disorders)	1,796	10.7
2. Chest pain	870	5.2
3. Alcohol related mental disorders	736	4.4
4. Substance-related mental disorders	639	3.8
5. Hardening of the heart arteries (coronary atherosclerosis)	574	3.4
6. Diabetes mellitus with complications	520	3.1
7. Pneumonia	484	2.9
8. Poisoning (by medications other than psychotropic agents)	467	2.8
9. Skin infection	460	2.7
10. Congestive heart failure	459	2.7

DISCHARGED TO OTHER INSTITUTIONS

Principal diagnoses	Total number of discharges	Percent of all discharges to other institutions
1. Rehabilitation care	29,769	7.5
2. Pneumonia	20,234	5.1
3. Stroke (Acute cerebrovascular disease)	18,799	4.7
4. Osteoarthritis	18,503	4.7
5. Congestive heart failure	16,545	4.2
6. Hip fracture	16,257	4.1
7. Heart attack (Acute myocardial infarction)	11,468	2.9
8. Urinary tract infection	11,003	2.8
9. Hardening of the heart arteries (coronary atherosclerosis)	10,958	2.8
10. Complication of device, implant or graft	9,561	2.4

Which conditions have the highest in-hospital mortality?

- Three of the top 10 causes of in-hospital mortality are related to cancer. These conditions include malignant neoplasm without specification of site, liver and intrahepatic bile duct cancer, and leukemias.
- Cardiac arrest and shock are the top two conditions that have the highest in-hospital mortality. However, these life-threatening conditions serve as the terminal events for many medical and surgical ailments such as trauma, heart diseases, septicemia etc.

Principal diagnoses	Total number of in-hospital deaths	In-hospital mortality (percent)
1. Cardiac arrest and ventricular fibrillation	1,108	61.7
2. Shock	223	43.9
3. Malignant neoplasm without specification of site	475	26.5
4. Lack of oxygen in infants (intrauterine hypoxia and birth asphyxia)	35	25.7
5. Adult respiratory failure, insufficiency, arrest	14,007	23.4
6. Septicemia	18,629	18.5
7. Coma, stupor, and brain damage	1,572	18.2
8. Aspiration pneumonitis (from food or vomit)	10,245	18.1
9. Cancer of liver and intrahepatic bile duct	1,239	16.9
10. Leukemias	3,043	16.3

Which conditions have the highest in-hospital mortality for various age groups?

- Newborn asphyxia (the inability of a newborn to initiate and sustain breathing at birth) and intrauterine hypoxia (decreased oxygen level in fetal blood) account for the highest number of in-hospital deaths among infants under one year old.
- Other major causes of in-hospital mortality among infants include congenital heart defects, prematurity, respiratory distress syndrome, and intracranial and external injury.
- The highest percentage of in-hospital deaths among children (1-17 years) are related to heart diseases.
- For people age 18-64 years, cancer and heart disease are the major causes of in-hospital mortality.
- Cancer, shock (circulatory failure), and brain damage are the major causes of in-hospital death among the 45-64 year olds.
- For people age 65-79 years, the major causes of in-hospital mortality include heart disease, cancer, shock, and adult respiratory failure.
- Among people age 80 years and more cardiac arrest and ventricular fibrillation is the leading causes of in-hospital deaths. Other major causes include cancer, adult respiratory failure, septicemia, peritonitis, and kidney failure.
- Cancer of different organs, blood forming tissues (leukemias), and malignant tumors of nonspecific sites emerge as the leading causes of death for the population 18 years and older.

CONDITIONS WITH THE HIGHEST IN-HOSPITAL MORTALITY³

Top 10 diagnoses by age group	<1 yr	1-17 yr	18-44 yr	45-64 yr	65-79 yr	80+ yr
	In-hospital mortality (percent)					
Newborn asphyxia (intrauterine hypoxia and birth asphyxia)	25.7					
Cardiac and circulatory congenital anomalies	7.8					
Other injuries and conditions due to external causes	6.5					
Short gestation (prematurity), low birth weight, and fetal growth retardation	5.7					
Respiratory distress syndrome (infant)	4.7					
Other nervous system disorders	3.8					
Other congenital anomalies	3.0					
Intracranial injury	7.3	7.1				
Other liver diseases	6.8	7.8				
Congestive heart failure	4.6	6.5				
Pulmonary heart disease		17.1				
Cancer of brain and nervous system		6.6				
Secondary malignancies		5.8				
Carditis		5.1				
Acute renal failure		5.1				
Acute cerebrovascular disease		11.0	11.7			
Coma, stupor, and brain damage		13.3	16.1	20.8	21.0	
Cancer of bronchus, lung			14.1	15.1		
Cancer of liver and intrahepatic bile duct			10.6	16.3	19.6	
Cardiac arrest and ventricular fibrillation			49.0	54.2	63.5	72.6
Malignant neoplasm without specification of site			31.8	24.4	23.9	35.1
Respiratory failure, insufficiency, arrest (adult)			14.8	17.4	24.4	37.2
Leukemias			13.0	15.7	23.7	26.5
Septicemia			10.0	17.5	19.4	25.3
Cancer of esophagus			12.9		17.1	
Shock				40.0	50.6	51.5
Hodgkin's disease				14.6		
Aspiration pneumonia					18.1	22.3
Meningitis						26.3
Chronic renal failure						22.7
Multiple myeloma						21.8

³ Conditions with less than 30 cases for any given age group are not included in this table.

Source of data for this report

The data used for this report are drawn from Texas Health Care Information Council's (THCIC's) hospital discharge public use data file, 2001. As required by the state legislative mandate (Chapter 108 of Texas Health and Safety Code), over 400 state licensed hospitals reported patient level discharge data to THCIC. Hospitals that are legally exempted from the reporting include those either located in a county with a population less than 35,000, or a county with a population more than 35,000 but with fewer than 100 licensed beds and not located in an area that delineated as an urbanized area by the United States Bureau of the Census (Section 108.0025). Exempt hospitals also include hospitals that do not seek insurance payment or government reimbursement (Section 108.009). This report includes all the reporting hospitals representing 94 percent of the staffed/set up beds and 95 percent of total inpatients in Texas state licensed hospitals.

All reporting hospitals submit discharged inpatient claims data through the uniform billing (UB-92) format. Although the individual hospital is responsible for the accuracy and completeness of its data, each record reported by the hospital is audited by THCIC to check for consistency and conformity with specified technical standards. Records failing an audit check are returned to the hospital for correction and resubmission. The THCIC creates encounter files where one encounter contains the final discharge and all related interim claims information for a patient. Each submitting hospital is provided with an opportunity to review, make additional corrections, and to certify the encounter data. Finally, the THCIC builds a final encounter file that includes all corrections submitted by hospitals and reflects comments submitted by the hospitals regarding the data. Appropriate safeguards to protect physician and patient confidentiality have been ensured while creating the public use data file.

The data for year 2001 contains over 2.6 million (2,679,784) discharges. It includes not only the information on patient demography, diagnoses and/or procedures performed, but also the admission source, payer source, and discharge status of each patient. This makes the database an ideal source for comparative studies on health care services and the use of and charges for inpatient care in Texas hospitals, including:

- variations in medical practice and quality,
- the effectiveness of medical technology and treatments, and
- the use of services by special populations.

Readers who are interested in the THCIC data may get detailed information on data collection and dissemination from the THCIC Website: www.thcic.state.tx.us.

Methods

Diagnoses and procedures recorded on hospital discharge records are coded using the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM). The procedures and diagnostic groupings used in this report are based on the Clinical Classification Software (CCS). The CCS is a tool for grouping diagnosis and procedure codes into clinically meaningful categories that aggregate or cluster similar conditions and procedures. It is developed by the Agency for Healthcare Research and Quality (AHRQ). The CCS compresses the 12,000 diagnosis codes of the ICD-9-CM into 259 mutually exclusive categories. The 3,500 procedure codes of the ICD-9-CM are similarly compacted into 231 groups. This "clinical grouper" makes it easier to quickly understand patterns of diagnoses and procedures so that health plans, policymakers, and researchers can analyze charges, utilization, and outcomes associated with particular illnesses and procedures. Further information on the clinical classification, as well as the list of diagnoses and procedures utilized by CCS, can be found at <http://www.ahcpr.gov/data/hcup/ccs.htm>.

Frequencies and rankings of diagnoses are based on the principal diagnosis. The principal diagnosis is the primary disease or condition for which the patient was hospitalized or treated. The unit of analysis for this report is the inpatient stay rather than the patient.

The classification used for ranking hospitalizations by "body system" (page 11) employed a methodology that divides all principal diagnoses into 25 mutually exclusive diagnosis areas (based on organ systems) called the major diagnostic categories (MDCs). This methodology was developed at the Yale University School of Organization and Management for the Health Care Financing Administration (HCFA).

In some instances, certain data values in the patient record are missing or miscoded. The discharges with the missing data values are not included in this report.

Total charges in this report are the amounts the hospital charged or billed for the entire hospital stay and do not necessarily reflect reimbursements or costs. As health care facilities frequently negotiate discounts with insurance companies or other large purchasers of health care services, costs are generally lower than charges. Charges do not include professional (physician) fees.

Because this database is limited to inpatient hospital data, conditions treated in outpatient settings are not reflected here. Many medical terms are used throughout this report. For help in understanding these terms, refer to the Glossary.

Glossary

Acute—Describes a condition or illness that begins suddenly and is short-lasting.

Affective disorder—A mental disorder involving abnormal moods and emotions; affective disorders primarily consist of depression for the data reported here.

Anemia—A condition in which the blood does not contain enough hemoglobin, the compound that carries oxygen from the lungs to other parts of the body.

Aneurysm—An abnormal swelling of the wall of an artery, caused by a weakening in the vessel wall.

Anomaly—Deviation from the normal standard, especially as a result of congenital defects.

Arrhythmias—Abnormal heart rhythms.

Artery—A large blood vessel that carries oxygen in the blood from the heart to tissues and organs in the body.

Asphyxia—Suffocation, which can be caused by choking on an object, by lack of oxygen in the air, or by chemicals such as carbon monoxide, which reduce the amount of oxygen in the blood.

Asthma—A disorder characterized by inflamed airways and difficulty breathing.

Atherosclerosis—The progressive narrowing and hardening of the arteries over time, known to occur to some degree with aging; but other risk factors (such as high cholesterol, high blood pressure, smoking, diabetes and family history for atherosclerotic disease) that accelerate this process have been identified.

Biliary tract—The system of organs and ducts through which bile is made and transported from the liver. Bile is a liquid produced in the liver whose function is to remove waste from the liver and break down fats as food is digested.

Cancer—A group of diseases in which cells grow unrestrained in an organ or tissue in the body. It can spread to tissues around it and destroy them or be transported through blood or lymph pathways to other parts of the body.

Cardiac arrest—The sudden cessation of the heart's pumping action, possibly due to a heart attack, respiratory arrest, electrical shock, extreme cold, blood loss, drug overdose, or a severe allergic reaction.

Central nervous system—This includes the brain and the spinal cord.

Cerebrovascular disease—A disease affecting any artery supplying blood to the brain; may cause blockage or rupture of a blood vessel, leading to a stroke. An artery is a large blood vessel that carries oxygen in the blood from the heart to tissues and organs in the body. Stroke is damage to part of the brain because of a lack of blood supply (due to a blockage in an artery or the rupturing of a blood vessel). Stroke can lead to complete or partial loss of function in the area of the body that is controlled by the damaged part of the brain.

Chest pain—There are many causes of chest pain, principally angina (which results from inadequate oxygen supply to the heart muscle, also caused by coronary artery disease or spasm of the coronary arteries) and heart attack (coronary occlusion). A diagnosis of chest pain upon discharge from the hospital can indicate that the underlying cause of the pain was not discovered during the hospital stay.

Chronic obstructive lung (pulmonary) disease (COPD)—A combination of lung diseases including emphysema and bronchitis. Emphysema is a chronic disease in which the small air sacs in the lungs (the alveoli) become damaged, resulting in difficulty breathing. Bronchitis is an inflammation of the bronchial tubes (which connect the trachea to the lungs), characterized by blockage of airflow in and out of the lungs.

Circulatory system—Cardiovascular system consisting of the heart, blood vessels, and lymphatics. Common diseases of the circulatory system include coronary atherosclerosis, congestive heart failure, heart attack, and cardiac dysrhythmia.

Coagulopathy—Coagulation is a process that plays a large role in the hardening and thickening of blood to form a clot; coagulopathy is a disorder of this clotting mechanism.

Congenital—Present or existing at the time of birth.

Congestive heart failure—Inability of the heart to efficiently pump blood through the body, causing buildup of blood in the veins and of other body fluids in tissue.

Coronary—Structures that encircle another structure (such as the coronary arteries, which encircle the heart); commonly used to refer to a coronary thrombosis or a heart attack.

Coronary thrombosis—The blockage of a coronary artery by a blood clot.

Diabetes—General term usually referring to diabetes mellitus, a state of inadequate insulin production.

Electrolyte—Substance that dissociates into ions when fused or in solution and thus becomes capable of conducting electricity, an ionic solute. Fluid and electrolyte disorders have many causes including water deficit, gastrointestinal losses (such as diarrhea), and excessive diuretic therapy (treatments to decrease urine secretion).

Epilepsy—A disorder of the nervous system in which abnormal electrical activity in the brain causes seizures (sudden uncontrolled waves of electrical activity in the brain, causing involuntary movement or loss of consciousness).

Fetal distress—Physical distress experienced by a fetus because of lack of oxygen.

Gestation—The period of time between fertilization of an egg by a sperm and birth of a baby.

Heart valve—The structure at each exit of the four chambers of the heart that allows blood to exit but not to flow back in.

Hodgkin's disease—A cancer of lymphoid tissue (found in lymph nodes and the spleen) that causes the lymph nodes to enlarge and function improperly; may cause illness, fever, loss of appetite, and weight loss.

Human immunodeficiency virus (HIV)—A retrovirus that attacks helper T cells of the immune system and causes acquired immunodeficiency syndrome (AIDS); transmitted through sexual intercourse or contact with infected blood.

Hypertension—Blood pressure elevated above what might be considered "normal" for one's age and weight.

Hypothyroidism—Under activity of the thyroid gland, causing tiredness, cramps, a slowed heart rate, and possibly weight gain.

Hypoxia—A reduced level of oxygen in tissues.

Infection—Disease-causing microorganisms that enter the body, multiply, and damage cells or release toxins (poisonous substances). Microorganisms are tiny, single-celled organisms (such as a bacterium, virus, or fungus).

Intracranial—Within the skull.

Intrauterine—In the uterus (womb).

Leukemia—Bone marrow cancers in which white blood cells divide uncontrollably, affecting the production of normal white blood cells, red blood cells, and platelets.

Malignant—A word used to describe a condition that is characterized by uncontrolled growth and/or that can be fatal, such as a cancerous tumor.

Metastasis—The spreading of a cancerous tumor to another part of the body through the lymph, blood, or across a cavity; also sometimes refers to a tumor that has been produced in this way.

Myeloma—A cancer affecting cells in the bone marrow; sometimes used as an abbreviation for multiple myeloma.

Myocardial infarction—The death of an area of heart muscle as a result of being deprived of its blood supply; characterized by severe pain in the chest; commonly called a heart attack.

Neoplasm—Another term for a tumor (may be benign or malignant).

Obstetrics—Branch of medicine dealing with the care of women during pregnancy, childbirth, and the period during which they recover from childbirth.

Osteoarthritis—A disease that breaks down the cartilage that lines joints, especially weight-bearing or misaligned joints; leads to pain, stiffness, and inflammation (redness, pain, and swelling in an injured or infected tissue produced as a result of the body's healing response).

Paralysis—The inability to use a muscle because of injury to or disease of the nerves leading to the muscle.

Perinatal—Occurring just before or just after birth.

Perineum—Region between the thighs, in the female between the vulva and the anus; in males, between the scrotum and the anus.

Peripheral—Pertaining to or situated at or near the periphery, situated away from a center or central structure.

Pneumonia—Inflammation of the lungs due to a bacterial or viral infection, which causes fever, shortness of breath, and the coughing up of phlegm (mucus and other material produced by the lining of the respiratory tract; also called sputum).

Pneumonitis—Inflammation of the lung secondary to viral or bacterial infection; common symptoms include a productive cough, fever, chills, and shortness of breath.

Puerperium—The time period after childbirth (about 6 weeks) during which a woman's body returns to its normal physical state.

Rehabilitation—Treatment for an injury or illness aimed at restoring physical abilities.

Renal failure—Decline in kidney function over time; caused by a number of disorders, which include longstanding hypertension, diabetes, congestive heart failure, lupus, or sickle cell anemia.

Respiratory distress syndrome—A condition experienced after an illness or injury damages the lungs, causing severe breathing difficulty and resulting in a life-threatening lack of oxygen in the blood. In premature infants, it is caused by immaturity of the lungs.

Respiratory failure—The failure of the body to exchange gases properly, which leads to a buildup of carbon dioxide and a lack of oxygen in the blood.

Schizophrenia—A group of mental disorders characterized by abnormal thoughts, moods, and actions; sufferers have a distorted sense of reality and thoughts that do not logically fit together.

Septicemia—Systemic disease associated with the presence and persistence of pathogenic microorganisms or their toxins in the blood; blood poisoning.

Shock—A reduced flow of blood throughout the body, usually caused by severe bleeding or a weak heart; without treatment, can lead to a collapse, coma, and death.

Spinal cord—A long tube of nerve tissue inside the spinal column running from the brain down the length of the back inside of the spine.

Spinal cord injury—Any injury to the spinal cord via blunt or penetrating trauma. Extreme flexion or extension (particularly in the neck) of the spine can result in traction on the spinal cord with subsequent injury and the development of neurologic symptoms.

Spondylolysis—A disorder in which the lower part of the spine is weakened by an abnormally soft vertebra.

Trauma—Physical injury or emotional shock.

Tuberculosis—An infectious bacterial disease transmitted through the air that mainly affects the lungs.

Tumor—An abnormal mass that occurs when cells in a certain area reproduce unchecked; can be cancerous (malignant) or non-cancerous (benign).

Urinary tract—The structures in the body that are responsible for the production and release of urine, including the kidneys, ureters, bladder, and urethra.

Vascular—Pertaining to blood vessels.

Ventricular fibrillation—Rapid, irregular contractions of the heart.

Visceral—Pertaining to a viscus (one of the organs, as the brain, heart, or stomach, in the great cavities of the body; especially used in the plural, and applied to the organs contained in the abdomen).

Sources for Glossary:

Hospitalization in the United States, 1997. HCUP Fact Book No.1. AHRQ Publication No. 00-0031, May 2000. Agency for Healthcare Research and Quality, Rockville, MD.
<http://www.ahrq.gov/data/hcup/factbk1/fctbk5.htm>



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