### SECTION 2 INPATIENT HOSPITAL STAYS BY DIAGNOSIS

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### **HIGHLIGHTS**

- Conditions related to pregnancy and childbirth were the reason for more than 1 out of every 5 female hospitalizations in 2007. When combined with stays for newborn infants, these hospitalizations accounted for one-quarter of all male and female stays.
  - Maternal discharges increased to 5.0 million in 2007, a 16-percent increase since 1997.
  - Previous C-sections increased 107 percent between 1997 and 2007.
  - Stays with high blood pressure during pregnancy increased by 28 percent between 1997 and 2007.
  - Stays with umbilical cord complications declined by 15 percent.
  - Infant hospitalizations increased to 4.7 million in 2007, a 21-percent increase since 1997.
- Circulatory conditions were the most frequent major cause of hospital stays in 2007, accounting for 16
  percent of all discharges. Five circulatory conditions were among the top 10 most frequent principal
  diagnoses in 2007.
  - Stays for non-specific chest pain increased by 47 percent between 1997 and 2007 while those for irregular heart beat increased by 28 percent.
  - Stays for coronary artery disease declined 31 percent and for heart attack by 15 percent.
  - Stays for congestive heart failure changed very little from 1997 to 2007.
  - Ranking 6th in 1997, hospital stays for acute cerebrovascular disease dropped to 15th in 2007 as stays declined 14 percent.
- Several frequently occurring infections were among the most rapidly increasing reasons for hospitalizations between 1997 and 2007.
  - Stays for skin and subcutaneous tissue infections rose 90 percent for men and 75 percent for women.
  - Septicemia increased by 63 percent—up 77 percent among men and 53 percent among women.
  - Among adults 85 and over, septicemia (up 64 percent) and urinary tract infections (up 58 percent) increased at more than twice the rate of all hospitalizations for this age group.
- Several conditions were common among children and young adults.
  - Asthma, the most common reason for hospital admission among children 1–17, declined by 28 percent between 1997 and 2007.
  - Appendicitis, another common reason for hospital stays for children 1-17, accounted for 5 percent of discharges in this age group in 2007, increasing by 20 percent between 1997 and 2007.
  - Depression and bipolar disorders (mood disorders), among the most common diagnoses for children and young adults, increased 27 percent for children 1-17 and 15 percent for adults 18-44 between 1997 and 2007. Among all ages, mood disorders grew by 32 percent for men and by 13 percent for women over the same period.
- Degenerative joint disease (osteoarthritis) increased 95 percent over the 1997-2007 period. This
  condition caused many more hospitalizations for females (498,000 discharges) than for males (314,000
  discharges) in 2007.
- Hypertension was a comorbidity in 35 percent of all hospital stays in 2007, diabetes in 17 percent of stays, depression in 7 percent stays, and alcohol abuse, drug abuse, and/or psychoses each in 3 percent of stays.
- Chronic conditions were a principal or secondary diagnosis for 74 percent of all hospital stays in 2007.

# **EXHIBIT 2.1** Most Frequent Principal Diagnoses

Number of Discharges, Percent Distribution, Rank, and Growth of the Most Frequent Principal CCS Diagnoses for Inpatient Hospital Stays, 1997 and 2007

	NUMBER OF DISCHARGES IN THOUSANDS		PERCENT OF DISCHARGES		RANK <sup>1</sup>		CUMULATIVE GROWTH	
PRINCIPAL CCS DIAGNOSIS	1997	2007	1997	2007	1997	2007	1997-2007	
All discharges	34,679	39,542	100.0%	100.0%	_	_	14%	
Chronic conditions <sup>†</sup>	13,778	14,447‡	39.7	36.5	_	_	5	
Pregnancy, childbirth, and newborn infants	8,236	9,732	23.7	24.6	_	_	18	
All maternal discharges*	4,338	5,031	12.5	12.7	_	_	16	
Trauma to external female genitals (vulva) and								
area between anus and vagina (perineum) due								
to childbirth	713	868	2.1	2.2	_	_	22	
Previous C-section	271	562	0.8	1.4	_	_	107	
Normal pregnancy and/or delivery	544	312	1.6	0.8	_	_	-43	
Prolonged pregnancy	§	276	§	0.7	_	_	§	
Fetal distress and abnormal forces of labor	§	246	§	0.6	_	_	§	
Hypertension complicating pregnancy,								
childbirth and the puerperium (high blood								
pressure during pregnancy)	185	238	0.5	0.6	_	_	28	
Early or threatened labor	261	235‡	0.8	0.6	_	_	-10	
Umbilical cord complication	259	219	0.7	0.6	_	_	-15	
Polyhydramnios and other problems of								
amniotic cavity (excess amniotic fluid and other								
problems of amniotic cavity)	202	209‡	0.6	0.5	_	_	3	
All infant discharges	3,898	4,701	11.2	11.9	_	_	21	
Pneumonia	1,232	1,172	3.6	3.0	2	1	-5	
Congestive heart failure	991	1,025‡	2.9	2.6	3	2	3	
Coronary atherosclerosis (coronary artery disease)	1,407	964	4.1	2.4	1	3	-31	
Osteoarthritis (degenerative joint disease)	418	815	1.2	2.1	15	4	95	
Non-specific chest pain	538	788	1.6	2.0	9	5	47	
Mood disorders (depression and bipolar disorder)	641	774	1.8	2.0	5	6	21	
Cardiac dysrhythmias (irregular heart beat)	572	731	1.7	1.8	7	7	28	
Septicemia (blood infection)	413	675	1.2	1.7	16	8	63	
Disorders of intervertebral discs and bones in								
spinal column (back problems)	536	634	1.5	1.6	10	9	18	
Acute myocardial infarction (heart attack)	732	625	2.1	1.6	4	10	-15	
Acute cerebrovascular disease	616	527	1.8	1.3	6	15	-14	
Chronic obstructive pulmonary disease and								
bronchiectasis	551	593	1.6	1.5	8	13	8	

 $<sup>1\,</sup> Rankings \, for \, principal \, diagnoses \, other \, than \, pregnancy, \, child birth \, or \, newborn \, in fant.$ 

In 2007, there were 39.5 million hospital stays, an increase of 14 percent since 1997. Trends in these stays are displayed for chronic conditions, for pregnancy, childbirth and newborn infants, and for specific other conditions.

### Chronic conditions:

 Chronic conditions were the main reason for 40 percent of all hospitalizations in 1997 and for 37 percent in 2007.

Rank not applicable.

<sup>†</sup>Includes the number of discharges with a principal diagnosis that is considered to be a chronic condition.

<sup>‡2007</sup> discharges are <u>not</u> statistically different from 1997 discharges at p<0.05.

<sup>\*</sup> Includes additional maternal CCS diagnoses not shown on this table but listed in the Sources and Methods of this report.

 $<sup>\</sup>S \ Consistent \ data \ are \ not \ available \ for \ this \ diagnosis \ due \ to \ coding \ changes \ that \ took \ place \ between \ 1997 \ and \ 2007.$ 

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2007.

• The number of discharges with principal chronic condition diagnoses remained relatively stable between 1997 and 2007, despite the growth in discharges overall (up 14 percent).

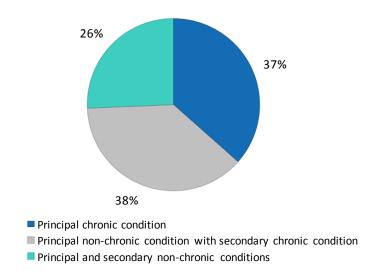
#### Pregnancy, childbirth, and newborn infants:

- Conditions related to pregnancy, childbirth, and newborn infants were by far the most frequent reasons for hospitalization, accounting for 25 percent of discharges (nearly one in four) in 2007.
- There were 5.0 million maternal discharges in 2007, a 16-percent increase since 1997. Not all of these maternal discharges involved the birth of an infant; some dealt with complications during pregnancy.
  - The most common principal diagnosis among maternal discharges was trauma to external female genitals during childbirth, which increased 22 percent between 1997 and 2007.
  - Stays for normal pregnancy declined by 43 percent from 1997 to 2007. More maternal stays in 2007 had a principal diagnosis that indicated some problem in pregnancy or delivery than in 1997.
  - In contrast, the principal diagnosis of previous C-section increased 107 percent between 1997 and 2007.
  - Stays with a principal diagnosis of high blood pressure during pregnancy increased by 28 percent between 1997 and 2007.
  - Stays with a principal diagnosis of umbilical cord complications declined by 15 percent.
- There were 4.7 million infant discharges in 2007, a 21-percent increase since 1997.

#### CCS principal diagnoses:

- The 10 most frequently occurring principal diagnoses outside of pregnancy, childbirth and newborn infants accounted for about one-fifth of all discharges in 2007.
  - Pneumonia (3.0 percent of all discharges) and congestive heart failure (2.6 percent) were the most common principal diagnoses.
  - Two of the 10 most frequent principal diagnoses in 2007 were not among the most frequent diagnoses in 1997, but were added to the list because of their rapid growth. Stays for treatment of osteoarthritis (degenerative joint disease) increased 95 percent over the 1997-2007 period. Similarly, septicemia discharges increased by 63 percent.
- Five circulatory diseases—congestive heart failure, coronary artery disease, non-specific chest pain, irregular heartbeat, and acute myocardial infarction (heart attack)—were among the top 10 most frequent principal diagnoses in 2007.
  - Stays for non-specific chest pain increased 47 percent between 1997 and 2007 while those for irregular heart beat increased 28 percent. Stays for coronary artery disease declined 31 percent and for heart attack by 15 percent. Stays for congestive heart failure changed very little from 1997 to 2007.
- Two conditions were among the top 10 in 1997, but were not among the top 10 conditions in 2007.
  - Hospital stays for acute cerebrovascular disease declined 14 percent. This condition ranked 6th in 1997, but dropped to 15th by 2007.
  - Chronic obstructive pulmonary disease ranked 8th among the most common conditions in 1997. Discharges with this diagnosis increased by 42,000 between 1997 and 2007, but still dropped in rank to 13th.

#### Distribution of Discharges by Type of Principal and Secondary Conditions, 2007



Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2007.

A chronic condition is defined as a condition that lasts 12 months or longer and limits an individual's self-care, independent living, and social interactions or results in the need for ongoing intervention with medical products, services, and special equipment.<sup>1</sup> More than 40 percent of the non-institutionalized population has at least one chronic condition—a share that has risen over time, particularly in the mid to older age population.<sup>2</sup> The incidence of chronic conditions and the ability to manage these conditions in an outpatient setting will determine the extent to which chronic conditions are the cause or contributing diagnosis for hospital stays.

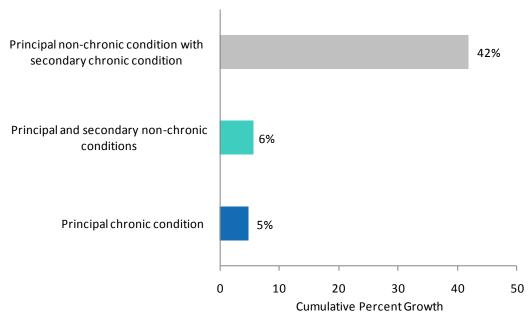
- Chronic conditions<sup>3</sup> were a principal or secondary diagnosis for 74 percent of all hospital stays in 2007.
  - Thirty-seven percent of all discharges had a principal chronic condition.
  - Another 38 percent of all discharges had a secondary chronic condition that could complicate treatment and recovery for an acute condition (the reason for the hospital stay).
- Hospital stays with no mention of a chronic condition on the discharge record accounted for just 26 percent of all stays.

<sup>&</sup>lt;sup>1</sup> Perrin EC, Newacheck P, Pless IB, Drotar D, Gortmaker SL, Leventhal J, Perrin JM, Stein RE, Walker DK, Weitzman M. Issues Involved in the Definition and Classification of Chronic Health Conditions. *Pediatrics* 91(4):787-793, 1993.

<sup>&</sup>lt;sup>2</sup> Paez KA, Zhao L, and Hwang W. Rising Out-Of-Pocket Spending For Chronic Conditions: A Ten-Year Trend. Health Affairs 28(1): 15-25, 2009.

<sup>&</sup>lt;sup>3</sup> For more information on the chronic condition tool, see <a href="http://www.hcup-us.ahrq.gov/toolssoftware/chronic/chronic.jsp">http://www.hcup-us.ahrq.gov/toolssoftware/chronic/chronic.jsp</a>.





Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2007.

Increasingly in recent years, persons with chronic conditions have difficulty paying for care, which can result in hospitalizations when care is delayed and medicines are not purchased because of concerns about cost.<sup>4</sup>

- Hospital stays for principal non-chronic conditions with a noted secondary chronic condition grew by 42 percent between 1997 and 2007.
- During the same period, hospital stays with a principal chronic condition or with no mention of chronic conditions remained relatively unchanged.
- There are a number of possible reasons why the growth in discharges with secondary chronic conditions is outpacing other discharge types, including increased reporting of secondary chronic conditions and a rise in the incidence of chronic conditions.

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<sup>&</sup>lt;sup>4</sup> Tu H, Cohen G. Financial and health burdens of chronic conditions grow. *Track Report* Apr;(24):1-6, 2009.

# **EXHIBIT 2.2** Most Frequent Principal Diagnoses by Age

Number of Discharges, Percent Distribution, and Growth of the Most Frequent Principal CCS Diagnoses for Inpatient Hospital Stays by Age, 1997 and 2007

AGE GROUP AND PRINCIPAL CCS DIAGNOSIS	NUMB DISCHAF THOUS 1997	RGES IN	PERCENT SPECIFIC DISCHA	TOTAL	CUMULATIVE GROWTH 1997-2007	
All ages, total discharges*	34,679	39,542	1337	2007	14%	
<1 year, total discharges	4,426	5,125	100.0%	100.0%	16	
Liveborn (newborn infant)	3,776	4,539	85.3	88.6	20	
Acute bronchitis	108	92‡	2.4	1.8	-15	
Hemolytic jaundice and perinatal jaundice (infant						
jaundice following birth)	33	43	0.7	0.8	31	
Pneumonia	55	34	1.3	0.7	-39	
Short gestation, low birth weight, and fetal growth						
retardation (premature birth and low birth weight)	22	25‡	0.5	0.5	12	
1-17 years, total discharges	1,821	1,658‡	100.0	100.0	-9	
Asthma	159	114	8.7	6.9	-28	
Pneumonia	135	109	7.4	6.6	-19	
Mood disorders (depression and bipolar disorder)	64	81‡	3.5	4.9	27	
Appendicitis and other appendiceal conditions	65	78	3.6	4.7	20	
Fluid and electrolyte disorders (primarily						
dehydration or fluid overload)	64	61‡	3.5	3.7	-5	
18-44 years, total discharges	9,444	10,354	100.0	100.0	10	
Trauma to external female genitals (vulva) and	•,					
area between anus and vagina (perineum) due to						
childbirth	676	833	7.2	8.0	23	
Previous C-section	270	558	2.9	5.4	107	
Mood disorders (depression and bipolar disorder)	335	386‡	3.5	3.7	15	
Normal pregnancy and/or delivery	511	299	5.4	2.9	-41	
Prolonged pregnancy	§	264	§	2.6	§	
45-64 years, total discharges	6,496	9,135	100.0	100.0	41	
Coronary atherosclerosis (coronary artery disease)	526	405	8.1	4.4	-23	
Non-specific chest pain	242	381	3.7	4.2	57	
Osteoarthritis (degenerative joint disease)	105	323	1.6	3.5	206	
Disorders of intervertebral discs and bones in						
spinal column (back problems)	190	269	2.9	2.9	42	
Pneumonia	199	261	3.1	2.9	31	
65-84 years, total discharges	10,121	10,277‡	100.0	100.0	2	
Congestive heart failure	581	515	5.7	5.0	-11	
Coronary atherosclerosis (coronary artery disease)	741	466	7.3	4.5	-37	
Pneumonia	514	465	5.1	4.5	-9	
Osteoarthritis (degenerative joint disease)	281	442	2.8	4.3	57	
Cardiac dysrhythmias (irregular heart beat)	333	379	3.3	3.7	14	
85+ years, total discharges	2,362	2,953	100.0	100.0	25	
Congestive heart failure	202	234	8.6	7.9	16	
Pneumonia	197	193‡	8.3	6.5	-2	
Septicemia (blood infection)	76	126	3.2	4.3	64	
Urinary tract infections	75	118	3.2	4.0	58	
Fracture of neck of femur (hip fracture)	125	117‡	5.3	4.0	-6	

<sup>\*</sup>Includes a small number of discharges (less than 41,000 or 0.1 percent) with missing age.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2007.

<sup>‡2007</sup> discharges are <u>not</u> statistically different from 1997 discharges at p<0.05.

 $<sup>\</sup>S \ Consistent \ data \ are \ not \ available \ for \ this \ diagnosis \ due \ to \ coding \ changes \ that \ took \ place \ between \ 1997 \ and \ 2007.$ 

The principal diagnoses for hospitalizations generally varied by age, although some conditions were frequent among all ages.

Infants, children and young adults:

- Pregnancy, childbirth, and newborns:
  - In 2007, most discharges for children under one year old (89 percent) were for liveborn infants, which increased 20 percent between 1997 and 2007.
  - Bronchitis accounted for another 1.8 percent and jaundice for another 0.8 percent of infant stays. Jaundice stays in infants increased 31 percent between 1997 and 2007.
  - Among 18-44 year olds, previous C-sections more than doubled between 1997 and 2007, while normal pregnancy and/or delivery fell 41 percent.
- Asthma among children 1-17 declined by 28 percent between 1997 and 2007.
- Appendicitis, also a common reason for hospital stays for children 1-17 in 2007, accounted for 5 percent of discharges in this age group, increasing 20 percent between 1997 and 2007.
- Depression and bipolar disorders (mood disorders) were the 3rd most common diagnoses for children 1– 17 and adults 18–44.

#### Older adults:

- Cardiovascular conditions were the most common diagnoses for adults over 44 years old. However, specific diagnoses differed somewhat between age groups for older adults:
  - Coronary atherosclerosis (coronary artery disease) accounted for 4 percent of all discharges for adults 45-64; these stays declined by 23 percent between 1997 and 2007. This condition also ranked 2nd for 65-84 year olds (4.5 percent of stays in 2007), with stays declining 37 percent between 1997 and 2007.
  - Hospitalizations for non-specific chest pain in 45-64 year olds increased 57 percent between 1997 and 2007 and comprised 4 percent of stays in 2007.
  - Congestive heart failure (CHF) was the most common condition for adults 65-84 and 85 and older. In 2007, CHF accounted for 5 percent of all stays among adults 65-84 and 8 percent of all stays among adults 85 and older.
  - Irregular heart beat was the reason for 379,000 hospitalizations (3.7 percent) in 2007 among 65-84 year olds, an increase of 14 percent since 1997.
- Among adults 85 and older, hospitalizations for septicemia (up 64 percent) and urinary tract infections (up 58 percent) increased at more than twice the rate of all hospitalizations for this age group between 1997 and 2007.
- Musculoskeletal conditions:
  - Degenerative joint disease (osteoarthritis) more than tripled among adults 45-64 and increased 57 percent among adults 65-84.
  - Back problems increased 42 percent for 45-64 year olds between 1997 and 2007.
  - Hospital stays for hip fractures changed very little between 1997 and 2007 for patients 85 and older.

#### All patients:

- Pneumonia was a top five condition for all age groups except 18-44 year olds:
  - Hospital stays for pneumonia declined among children (a drop of 39 percent for children less than one and a 19-percent decline for children 1-17 years).
  - Pneumonia stays rose among adults 45-64 years (31 percent), but fell among adults 65-84 years (down 9 percent).
  - Stays remained relatively stable for adults 85 years and older.

## **EXHIBIT 2.3** Most Frequent Principal Diagnoses by Gender

Number of Discharges, Percent Distribution, Rank and Growth of the Most Frequent Principal CCS Diagnoses for Inpatient Hospital Stays by Gender, 2007

	NUMBER OF DISCHARGES IN THOUSANDS		PERCENT OF GENDER-SPECIFIC DISCHARGES		MALE PERCENT OF DIAGNOSIS- SPECIFIC	CUMULATIVE GROWTH 1997-2007	
PRINCIPAL CCS DIAGNOSIS	MALES	FEMALES	MALES	<b>FEMALES</b>	DISCHARGES	MALES	<b>FEMALES</b>
All diagnoses*	16,231	23,203	100.0%	100.0%	41.0%	14%	13%
Chronic conditions †	6,914	7,501	42.6	32.3	47.9	5	4
Pregnancy and childbirth		5,022		21.6	0.0		16
Liveborn (newborn infant)	2,322	2,212‡	14.3	9.5	51.2	20	20
Coronary atherosclerosis (coronary							
artery disease)	601	362	3.7	1.6	62.4	-28	-37
Pneumonia	562	608	3.5	2.6	48.0	-6	-4
Congestive heart failure	500	524‡	3.1	2.3	48.8	11	-3
Acute myocardial infarction (heart							
attack)	373	252	2.3	1.1	59.6	-16	-13
Cardiac dysrhythmias (irregular heart							
beat)	360	370‡	2.2	1.6	49.3	31	25
Non-specific chest pain	352	435	2.2	1.9	44.7	43	50
Mood disorders (depression and							
bipolar disorder)	330	442	2.0	1.9	42.7	32	13
Septicemia (blood infection)	322	354	2.0	1.5	47.6	77	53
Skin and subcutaneous tissue							
infections	320	282	2.0	1.2	53.1	90	75
Osteoarthritis (degenerative joint							
disease)	314	498	1.9	2.1	38.7	96	94
Urinary tract infections	152	383	0.9	1.7	28.4	30	32

<sup>\*</sup> Excludes a small number of discharges (108,000 or 0.3 percent) with missing gender.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2007

This exhibit shows the top 10 conditions for men and women in the hospital in addition to conditions related to childbirth and newborn infants. Most diagnoses are common to both males and females, if those related to childbirth are excluded. However, some diagnoses were more frequent in one gender, in part because of differences between males and females in health-seeking behaviors and attitudes.

- Females accounted for almost 6 out of every 10 hospital stays—23.2 million stays in 2007. About 22 percent of all female hospitalizations were related to pregnancy and childbirth.
- Males accounted for 16.2 million hospitalizations in 2007.
- Five heart-related diagnoses—coronary artery disease, congestive heart failure, heart attacks, cardiac dysrhythmias, and non-specific chest pain—were among the ten most common principal diagnoses for both male and female hospitalizations.
  - Males accounted for 62 percent of hospital stays for coronary artery disease and 60 percent of stays for heart attack. Hospitalizations for these conditions decreased for both males (coronary artery disease by 28 percent and heart attacks by 16 percent) and females (coronary artery disease by 37 percent and heart attacks by 13 percent) between 1997 and 2007.

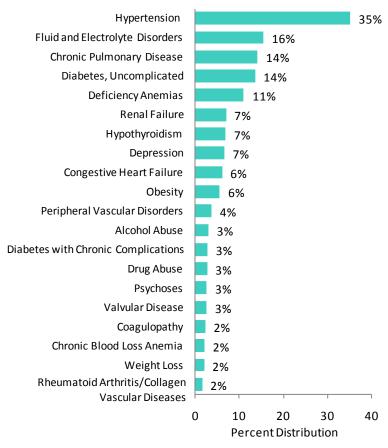
<sup>†</sup> Includes the number of discharges with a principal diagnosis that is considered to be a chronic condition.

<sup>‡</sup>Female discharges are <u>not</u> statistically different from male discharges at p<0.05.

- The number of hospital stays for irregular heart beat (360,000 stays for males and 370,000 for females) and congestive heart failure (500,000 stays for males and 524,000 for females) were similar for males and females.
- Women accounted for a greater share of hospitalizations for non-specific chest pain (55 percent of stays) than men (45 percent of stays).
- Women accounted for a greater number of hospital stays for mood disorders in 2007 than did men (442,000 female discharges versus 330,000 male discharges). The number of stays for mood disorders grew by 32 percent for men and by 13 percent for women between 1997 and 2007.
- Infections such as septicemia, skin and subcutaneous tissue infection, and urinary tract infection were common reasons for hospital stays among both men and women in 2007 and grew rapidly for both genders between 1997 and 2007.
  - Stays for septicemia rose 77 percent among men and 53 percent among women. In 2007, 2 percent of male hospital stays and 1.5 percent of female hospital stays were due to septicemia.
  - The number of stays for skin and subcutaneous tissue infections increased 90 percent for men and 75 percent for women. This condition accounted for 2 percent of male hospitalizations and 1.2 percent of female hospitalizations in 2007.
  - Growth was similar in stays for urinary tract infections for women (32 percent) and men (30 percent).
     In 2007, this condition was responsible for 1.7 percent of hospitalizations among women and 0.9 percent among men.
- Degenerative joint disease caused many more hospitalizations for females (498,000 discharges) than for males (314,000 discharges) in 2007. Over 61 percent of all discharges with this condition were for females. Hospital stays for degenerative joint disease grew at close to 100 percent for both males and females between 1997 and 2007.

## **EXHIBIT 2.4** Most Frequent Comorbidities





<sup>\*</sup>Comorbidities are based on a classification of ICD-9-CM codes which is distinct from the Clinical Classification System.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2007.

Comorbidities<sup>5</sup> are chronic disorders that are not the primary reason for hospitalization, but which may influence the course of hospitalization.

- Hypertension was a comorbidity in 35 percent of all hospital stays in 2007.
- Fluid and electrolyte disorders were comorbidities in 16 percent of hospital stays.
- Mental health conditions were among the top comorbidities in 2007, occurring singly or in combination
  with other mental health conditions. Depression occurred as a comorbid condition in 7 percent of stays in
  2007 and alcohol abuse, drug abuse, and/or psychoses were each present in 3 percent of stays.

<sup>&</sup>lt;sup>5</sup> Comorbidities are different from secondary conditions, as secondary conditions may be directly related to the principal reason for hospitalization while comorbidities are not. For example, retinopathy may be a secondary condition in a hospital stay in which the principal diagnosis is diabetes. However, retinopathy would not be considered a comorbidity of diabetes, as it is a related condition.

- Diabetes, both uncomplicated and with chronic complications, were comorbidities in 17 percent of all stays.
- Other notable comorbidities included chronic pulmonary disease, anemia, renal failure, hypothyroidism, congestive heart failure, and obesity.