## **EXHIBIT 2.4** Most Frequent Principal Diagnoses by Age

Number of Stays, Stays per 10,000 Population, and Growth of the Most Frequent Principal Diagnoses for Hospital Stays by Age, 1997 and 2009

					CUMULATIVE
	NUMBER OF STAYS IN THOUSANDS		STAYS PER 10,000 POPULATION		GROWTH IN RATE
AGE GROUP AND PRINCIPAL CCS DIAGNOSIS	1997	2009	1997	2009	1997-2009
All ages, total stays*	34,679	39,435	1,278	1,284	1%‡
< 1 year, total stays	4,426	4,678	11,799	10,977	- <b>7</b> %‡
Liveborn (newborn infant)	3,776	4,155	10,067	9,751	-3%‡
Acute bronchitis	108	85	288	201	-30%
Hemolytic jaundice and perinatal jaundice	33	44	88	102	16%
Pneumonia	55	33	148	77	-48%
Short gestation, low birth weight, and fetal					
growth retardation	22	21	59	49	-17%‡
1-17 years, total stays	1,821	1,611	271	229	-15%‡
Asthma	159	126	24	18	-24%
Pneumonia	135	125	20	18	-12%‡
Mood disorders	64	86	10	12	29%‡
Appendicitis and other appendiceal conditions	65	81	10	12	19%
Fluid and electrolyte disorders	64	63	10	9	-6%‡
18-44 years, total stays	9,444	9,922	860	874	2%‡
Trauma to vulva and perineum due to childbirth	676	721	62	64	3%‡
Maternal stay with previous C-section	270	539	25	47	93%
Mood disorders	335	436	30	38	26%
Prolonged pregnancy	99	265	9	23	159%
Normal pregnancy and/or delivery	511	256	47	23	-51%
45-64 years, total stays	6,496	9,629	1,155	1,213	5%‡
Osteoarthritis	105	372	19	47	151%
Coronary atherosclerosis	526	348	94	44	-53%
Non-specific chest pain	242	345	43	43	1%‡
Spondylosis, intervertebral disc disorders, and					
other back problems	190	286	34	36	6%‡
Pneumonia	199	271	35	34	-3%‡
65-84 years, total stays	10,121	10,468	3,319	3,084	-7%
Congestive heart failure	581	507	191	149	-22%
Osteoarthritis	281	494	92	146	58%
Pneumonia	514	432	168	127	-25%
Cardiac dysrhythmias	333	417	109	123	13%
Coronary atherosclerosis	741	405	243	119	-51%
85+ years, total stays	2,362	3,076	6,047	5,463	-10%
Congestive heart failure	202	244	517	433	-16%
Pneumonia	197	183	504	325	-36%
Septicemia	76	148	196	263	35%
Urinary tract infections	, ,				
offilary tract filections	75	137	191	243	27%

st Includes a small number of stays (50,000 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 2009.

 $<sup>\</sup>pm$  2009 stays per 10,000 population are  $\underline{not}$  statistically different from 1997 stays per 10,000 population at p<0.05.

## Infants, children and young adults:

- Overall, the rate of stays for infants, children 1-17, and adults 18-44 remained relatively stable from 1997 to 2009.
- Pregnancy, childbirth, and liveborn infants:
  - In 2009, most stays for children under one year old were for liveborn (newborn infants).
  - Among 18-44 year olds, previous C-sections increased 93 percent between 1997 and 2009, while normal pregnancy and/or delivery fell 51 percent.
- The rate of asthma stays declined 24 percent among children 1-17 years between 1997 and 2009, while the rate of stays for appendicitis increased 19 percent.
- Mood disorders was the third most common diagnosis for children 1-17 and adults 18-44 years.

## Older adults:

- Musculoskeletal conditions:
  - Osteoarthritis was the most common condition for adults 45-64 with an increase of 151 percent in the rate of stays per 10,000 population.
  - Between 1997 and 2009, osteoarthritis increased by 58 percent among adults aged 65-84 and was the second most common condition.
  - Spondylosis, intervertebral disc disorders, and other back problems—the fourth most common condition among 45-64 year olds—remained relatively stable from 1997 to 2009.
- Cardiovascular conditions were common diagnoses for adults 45 years and older. However, specific diagnoses differed between age groups for older adults:
  - Coronary atherosclerosis was the second most common condition for adults 45-64; the rate of these stays declined by 53 percent between 1997 and 2009. This condition ranked fifth for 65-84 year olds, with the rate of stays declining 51 percent between 1997 and 2009.
  - Congestive heart failure (CHF) was the most common condition for adults 65-84 and 85 and older. In 2009, CHF accounted for 149 hospital stays per 10,000 population among all adults in the U.S. aged 65-84 and 433 stays per 10,000 population among all adults 85 and older.
  - Congestive heart failure decreased per 10,000 population for both 65-84 year olds and those 85 and older, by 22 and 16 percent, respectively.
  - Cardiac dysrhythmias was the reason for 224 hospitalizations per 10,000 population in 2009 among adults age 85 years and older, an increase of 25 percent since 1997.
- Among adults 85 and older, hospitalizations for septicemia (up 35 percent) and urinary tract infections (up 27 percent) increased at more than twice the rate of all hospitalizations for this age group between 1997 and 2009.

## All patients:

- Pneumonia was a top five condition for all groups except 18-44 year olds and declined for most ages:
  - Hospital stays for pneumonia declined for infants (down 48 percent).
  - In 2009, stays for pneumonia remained relatively stable among children 1-17 years and adults 45-64 years old.
  - Stays for pneumonia fell among 65-84 year olds (down 25 percent) and for adults aged 85 and older (36 percent).