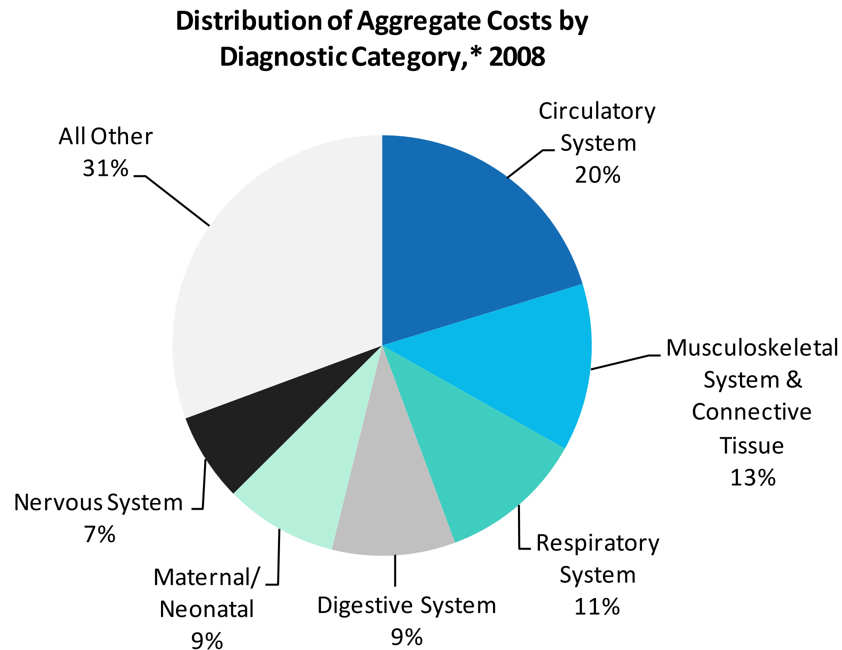
EXHIBIT 4.5 Cost by Diagnostic Category



* Based on principal diagnosis defined by Major Diagnostic Category (MDC).
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

- Circulatory conditions accounted for the largest share of hospital costs (20 percent) in 2008.
- Additional diagnostic categories responsible for large portions of hospital costs included:
  - Musculoskeletal system and connective tissue conditions (13 percent),
  - Respiratory conditions (11 percent),
  - Digestive conditions and maternal/neonatal stays (each 9 percent), and
  - Nervous system conditions (7 percent).

Aggregate Costs and Percent Distribution for each Payer by Diagnostic Category,† 2008

	MEDICARE		MEDICAID		PRIVATE INSURANCE		UNINSURED*		OTHER**	
	Cost (Billions)	Percent	Cost (Billions)	Percent	Cost (Billions)	Percent	Cost (Billions)	Percent	Cost (Billions)	Percent
Total	$167.9	100.0%	$51.1	100.0%	$117.1	100.0%	$15.5	100.0%	$12.6	100.0%
Circulatory System	43.3	25.8	5.9	11.5	19.8	16.9	2.9	18.5	1.9	14.8
Musculoskeletal System & Connective Tissue	22.8	13.6	3.0	5.8	17.3	14.8	1.2	7.6	2.8	22.5
Respiratory System	24.2	14.4	5.2	10.2	9.0	7.6	1.4	8.9	1.0	8.1
Digestive System	16.6	9.9	3.6	7.1	11.6	9.9	1.6	10.5	1.0	8.2
Maternal/Neonatal	0.2	0.1	13.6	26.7	15.8	13.5	1.1	6.8	0.9	6.8
Nervous System	11.5	6.8	3.4	6.6	7.7	6.6	1.3	8.5	0.9	7.5
All Other	49.3	29.3	16.4	32.1	35.8	30.6	6.1	39.3	4.0	32.0

† Based on principal diagnosis defined by Major Diagnostic Category (MDC).

* Includes discharges classified as self-pay or no charge.

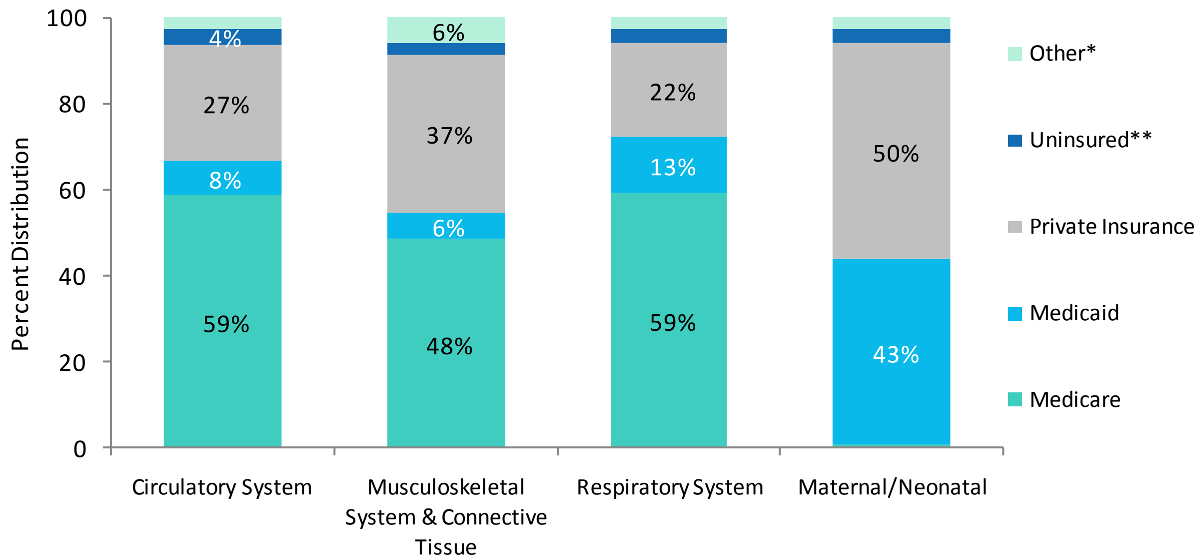
** Includes other payers such as Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

Costs by diagnostic category varied by payer, as did the distribution of costs.

- Stays for circulatory conditions accounted for the largest share of hospital costs for Medicare (26 percent), private insurance (17 percent), and the uninsured (19 percent).
- Maternal and neonatal stays were responsible for the greatest portion of Medicaid hospitalization costs (27 percent) compared to only 14 percent of private payer costs.
- Stays for musculoskeletal system and connective tissue conditions accounted for larger shares of hospital costs for Medicare (14 percent) and private insurance (15 percent) than for Medicaid (6 percent) and the uninsured (8 percent).

Distribution of Aggregate Costs by Payer for Selected Diagnostic Categories,† 2008



† Based on principal diagnosis defined by Major Diagnostic Category (MDC).
*Includes other payers such as Workers' Compensation, TRICARE, CHAMPUS, CHAMPVA, Title V, and other government programs.
**Includes discharges classified as self-pay or no charge.
Note: Each diagnostic category excludes a small percentage of discharges (0.1 - 0.2 percent) with missing payer that have a small percentage of missing costs (0.1 - 0.2 percent).
Note: Bar segments representing 3 percent or less have not been labeled.
Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

- The majority of costs for circulatory conditions (59 percent) were billed to Medicare. Just over one quarter of circulatory system costs (27 percent) were covered by private insurance.
- About half (48 percent) of the costs for musculoskeletal and connective tissue conditions were for discharges with Medicare as primary expected payer. Discharges covered by private insurance accounted for 37 percent of these costs.
- The majority of costs for respiratory conditions (59 percent) were billed to Medicare.
- Discharges covered by private insurance and Medicaid accounted for most of the costs associated with maternal and neonatal hospitalizations (50 and 43 percent, respectively).