

Statistical Brief #6

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New York State All-Payer Hospital Mortality, 2009-2012

Mingzeng Sun, MS, PhD, Thomas O'Grady, MPH, PhD, Tatiana Ledneva, MS, Mary Beth Conroy, MPH

Introduction

Health care experts have highlighted the importance of tracking measures of health care value and building a national healthcare data infrastructure. This will allow for the targeting of measures, such as mortality, that can be leveraged for the promotion of optimal health outcomes and allow for interventions to be compared based on their costs and health benefits¹. Of the approximately 2.5 million deaths in the United States each year² a third will occur in short-stay inpatient hospitals³; despite growing evidence that Americans would prefer to die at home^{4,5}. This statistical brief provides a summary of hospital-based crude mortality in New York State based on hospital inpatient discharges reported through the New York Statewide Planning and Research Cooperative System (SPARCS) by Article 28 hospitals for the four year period of January 1, 2009 through December 31, 2012.

Methods

Crude (or observed) mortality was defined as the ratio of deaths to total discharges and was calculated for calendar years (CY) 2009, 2010, 2011, and 2012 overall for New York State and by age, gender, 3M All Patient Refined Diagnosis Related Group (APR-DRG), and whether the admission came through the emergency department. Mortality for APR-DRGs is also provided stratified by medical and surgical groupings.

¹ Institute of Medicine. Future Directions for the National Healthcare Quality and Disparities Reports. April 2010. Washington, D.C.: The National Academies Press

² Miniño AM, Arias E, Kochanek KD, et al. Deaths: Final data for 2000. National vital statistics reports; vol 50 no 15. Hyattsville, MD: National Center for Health Statistics. 2002. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_15.pdf

³ National Center for Health Statistics. Unpublished data from annual National Hospital Discharge Survey data files, 2000 and 2010.

⁴ National Center for Health Statistics. Health, United States, 2010: Chartbook with special feature on death and dying. Hyattsville, MD. 2011.

⁵ Grunier A, Mor V, Weitzen S, Truchil R, Teno J, Roy J. Where people die: A multilevel approach to understanding influences on site of death in America. *Med Care Res Rev* 64(4):351-78. 2007.

Highlights

- There was a decrease in the number of deaths and discharges for New York State hospitals from CY2009 to CY2012.
- Between CY2009 and CY2012 in-hospital mortality decreased marginally from 2.17% to 2.14% while post-discharge mortality increased: within 7-days of discharge from 2.86% to 2.91% and within 30-days of discharge from 4.22% to 4.35%.
- After infancy (ages <1) in-hospital, 7-day, and 30-day mortality increased with each decade of life to a maximum at age 80+ of 6.33%, 9.07%, and 13.71% respectively.
- Mortality was higher for men consistently. In-hospital mortality decreased among women and men while mortality among women and men within 7- and 30-days of discharge increased.
- Septicemia had the highest in-hospital mortality each year and was one of two APR-DRGs to increase by greater than 20% (18.05% to 21.71%) from CY2009 to CY2012
- In-hospital mortality was higher for medical APR-DRGs and for emergency status than for surgical APR-DRGs and for non-emergency status.

The study population consists of all patients discharged from New York State Article 28 hospital facilities from January 1, 2009 through December 31, 2012. All deaths that occurred in-hospital or within 30 days of discharge were verified by a multi-level iterative linkage with New York State Vital Statistics data based on unique identifier, date of birth, gender, and address and were identified based on the following criteria: mortality within 7 days of discharge was defined as in-hospital mortality + (death date – discharge date \leq 7 days) while mortality within 30 days of discharge was defined as in-hospital mortality + (death date – discharge date \leq 30 days).

Proprietary 3M™ software was used to assign All Patient Refined Diagnosis Related Groups (APR-DRG). This classification system evaluates patient discharge information on principle diagnosis, procedures, age, and co-morbidities to categorize inpatient discharges into mutually exclusive and clinically meaningful groups, also providing information on severity of illness (SOI) and risk of mortality (ROM).

Data Source

These analyses were based on all-payer hospital inpatient discharge data from New York Statewide Planning and Research Cooperative Systems (SPARCS) and statewide Vital Statistics Records. SPARCS comprehensively collects patient level data on demographics, diagnoses, treatments, services, and charges for every Article 28 (acute care) hospital discharge, emergency department visit, and hospital-based ambulatory surgery and outpatient clinic visit in New York State. From January 1, 2009 through December 31, 2012 there were over 2.5 million inpatient discharges per year from all New York State hospitals. Statewide Vital Statistics Records collects certificates of death that occur in New York State. Information on Vital Statistics mortality may be found on the DOH public website at the following link: http://www.health.ny.gov/statistics/vital_statistics/.

Findings

New York State Hospital Mortality Overall, CY2009-CY2012

Table 1 presents a summary of hospital mortality in New York State for CY2009-CY2012. Inpatient hospital deaths decreased among those occurring in-hospital from 57,940 in CY2009 to 54,087 in CY2012, for those occurring within 7 days of discharge from 76,272 in CY2009 to 73,668 in CY2012, and for those occurring within 30 days of discharge from 112,389 in CY2009 to 109,974 in CY2012. This decrease in number of deaths was paralleled by a decrease in number of discharges; resulting in only a small decrease in the ratio of in-hospital mortality from 2.17% in CY2009 to 2.14% in CY2012 and increases from CY2009 to CY2012 in both the mortality within in seven days of discharge (2.86% to 2.91%) and mortality within thirty days of discharge (4.22% to 4.35%).

New York State Hospital Mortality by Age and Gender, CY2009-CY2012

Table 2 presents hospital mortality by age in New York State for CY2009-CY2012. Absolute numbers of deaths decreased among all age groups from CY2009 to CY2012 except for in-hospital deaths among 21-30 year olds, deaths within seven days of discharge among those ages 21-30 and 61-70, and deaths within thirty days of discharge among those ages 21-30 and 61-70. Mortality was below 1% for individuals ages 50 and under for in-hospital deaths, and for individuals ages 40 and under for deaths within seven and thirty days of discharge. Mortality was lowest for individuals ages 1-20 across all years. After the age of 20 mortality increased with each decade of life to a maximum for individuals ages 80 and older. In-hospital mortality, as well as mortality within seven and thirty days of discharge decreased for individuals under the age of 60 and increased for individuals ages 60 and over from CY2009-CY2012.

Table 3 presents hospital mortality by gender for CY2009-CY2013. Women had a higher absolute number of deaths occurring in-hospital, and within seven and thirty days of discharge across each year. The higher number of deaths was offset by a higher number of discharges among women; resulting in a higher mortality for men. For CY2012 in-hospital mortality among men was 2.41% and 1.92% among women, while CY2012

mortality among men and women within seven days of discharge was 3.28% and 2.63% respectively and mortality within thirty days of discharge was 4.85% and 3.96% respectively.

New York State Hospital Mortality by APR-DRG, CY2009-CY2012

Deaths by the top 10 APR-DRGs in CY2012 are presented in [Table 4](#). The top three APR-DRGs remained the same for each year with the greatest number of in-hospital deaths occurring from septicemia and disseminated infections. Among the top 10 APR-DRGs the number of in-hospital deaths increased for three APR-DRGs (septicemia and disseminated infections, acute myocardial infarction, and CVA and precerebral occlusion with infarction) and decreased for the remaining seven APR-DRGs (heart failure, pulmonary edema & respiratory failure, other pneumonia, respiratory malignancy, respiratory system diagnosis with ventilator support 96+ hours, renal failure, and intracranial hemorrhage). Two APR-DRGs had a percent change greater than 10% from CY2009 to CY2012 (CVA & Precerebral Occlusion with Infarction, + 11.89%; Other Pneumonia, - 10.64%) and two had a percent change greater than 20% from CY2009 to CY2012 (Septicemia & Disseminated Infections, +20.24%; Respiratory System Diagnosis with Ventilator Support 96+ hours, -21.04%).

New York State Hospital Mortality by Medical and Surgical APR-DRG and Emergency Indicator, CY2009-CY2012

In-hospital mortality for medical and surgical APR-DRGs are presented by age for CY2009-CY2012 in [Table 5](#). The overall mortality for medical APR-DRGs remained constant at 2.37% between CY2009 and CY2012 while mortality for surgical APR-DRGs decreased from 1.52% to 1.38% respectively. For CY2012 mortality for medical APR-DRGs was higher than mortality for surgical APR-DRGs (2.37% compared to 1.38%). Mortality in CY2012 for individuals with medical APR-DRGs was below 0.50% for individuals ages 40 and younger while mortality increased with each decade of life for medical APR-DRGs from 1.00% (ages 41-50) to 6.75% (ages 80+). Mortality in CY2012 for surgical APR-DRGs was second highest among infants (ages < 1) at 2.86%. Mortality then gradually increased with each decade of life from 0.36% for ages 1-10 to 4.17% for ages 80+. Mortality trends by age for medical and surgical APR-DRGs for CY2009-CY2011 were consistent with CY2012.

In-hospital mortality for admissions through the emergency department (ED) and admissions directly to the hospital (non-ED) are presented by age for CY2009-CY2012 in [Table 6](#). Overall in-hospital mortality was higher for individuals with an ED admission (2.70%) than for a non-ED admission (1.34%). There was little change among in-hospital mortality for non-ED admission related deaths from CY2009 (1.35%) to CY2012 (1.34%) but a noticeable decrease among in-hospital mortality for ED admission related deaths from CY2009 (2.86%) to CY2012 (2.70%).

Conclusions

The overall number of deaths among inpatient hospital discharges decreased from CY2009 to CY2012, as did the in-hospital mortality. There was a slight increase in inpatient hospital mortality within seven and thirty days of discharge that resulted in a slight increase in overall mortality from 9.25% in CY2009 to 9.40% in CY2012. While an overall increase in mortality is not desirable; the increase resulted primarily from the substantial drop in the total number of yearly hospital discharges occurring between CY2009 and CY2012, as the crude number of deaths occurring in-hospital and within seven and thirty days of discharged decreased. Additionally there was a slight decrease in the proportion of mortality occurring in-hospital between CY2009 and CY2012 from 23.5% to 22.8% respectively. Investigating hospital mortality further by risk adjustment and hospital-level characteristics could improve our understanding of the observed death and mortality trends from CY2009 through CY2012.

Tables

Table 1: New York State Hospital Mortality, CY2009-CY2012

	CY2012			CY2011			CY2010			CY2009		
	Disch*, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%
In-hospital**		54,087	2.14		56,246	2.18		56,159	2.14		57,940	2.17
Within 7 days	2,529,359	73,668	2.91	2,584,715	75,367	2.92	2,622,070	74,548	2.84	2,665,368	76,272	2.86
Within 30 days		109,974	4.35		111,966	4.33		110,887	4.23		112,389	4.22

*Disch – Discharges.

** In-hospital: Died in hospital. Within 7 days: Died within 7 days of discharge, including died in hospital. Within 30 days: Died within 30 days of discharge, including died in hospital.

Table 2: In-Hospital, 7-Day Post-Discharge, and 30-Day Post-Discharge Mortality by Age, CY2009-CY2012

Age Group	CY2012			CY2011			CY2010			CY2009		
	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%
In Hospital												
0	264,834	926	0.35	268,129	942	0.35	272,915	990	0.36	279,238	1,008	0.36
1-10	61,177	131	0.21	63,502	130	0.20	63,949	135	0.21	69,356	156	0.22
11-20	94,965	189	0.20	99,705	217	0.22	104,635	258	0.25	108,746	246	0.23
21-30	254,328	533	0.21	255,643	540	0.21	257,895	494	0.19	261,455	533	0.20
31-40	249,791	807	0.32	255,103	868	0.34	259,959	823	0.32	266,807	956	0.36
41-50	266,557	2,429	0.91	279,590	2,583	0.92	291,281	2,695	0.93	302,386	2,937	0.97
51-60	335,304	5,881	1.75	338,977	5,988	1.77	337,989	5,993	1.77	339,367	6,240	1.84
61-70	340,388	8,995	2.64	340,316	9,070	2.67	340,642	9,002	2.64	336,062	9,133	2.72
71-80	313,459	12,147	3.88	323,090	12,635	3.91	331,621	12,764	3.85	338,683	13,326	3.93
>80	348,556	22,049	6.33	360,660	23,273	6.45	361,184	23,005	6.37	363,268	23,405	6.44
Total	2,529,359	54,087	2.14	2,584,715	56,246	2.18	2,622,070	56,159	2.14	2,665,368	57,940	2.17
Within 7 Days												
0	264,834	975	0.37	268,129	993	0.37	272,915	1,043	0.38	279,238	1,063	0.38
1-10	61,177	152	0.25	63,502	144	0.23	63,949	147	0.23	69,356	175	0.25
11-20	94,965	216	0.23	99,705	244	0.24	104,635	294	0.28	108,746	284	0.26
21-30	254,328	623	0.24	255,643	626	0.24	257,895	571	0.22	261,455	620	0.24
31-40	249,791	982	0.39	255,103	1,044	0.41	259,959	996	0.38	266,807	1,131	0.42
41-50	266,557	3,034	1.14	279,590	3,215	1.15	291,281	3,353	1.15	302,386	3,641	1.20

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Age Group	CY2012			CY2011			CY2010			CY2009		
	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%
51-60	335,304	7,578	2.26	338,977	7,684	2.27	337,989	7,587	2.24	339,367	7,883	2.32
61-70	340,388	11,877	3.49	340,316	11,832	3.48	340,642	11,637	3.42	336,062	11,851	3.53
71-80	313,459	16,615	5.30	323,090	16,877	5.22	331,621	16,909	5.10	338,683	17,499	5.17
>80	348,556	31,616	9.07	360,660	32,708	9.07	361,184	32,011	8.86	363,268	32,125	8.84
Total	2,529,359	73,668	2.91	2,584,715	75,367	2.92	2,622,070	74,548	2.84	2,665,368	76,272	2.86
Within 30 Days												
0	264,834	1,043	0.39	268,129	1,056	0.39	272,915	1,116	0.41	279,238	1,131	0.41
1-10	61,177	189	0.31	63,502	187	0.29	63,949	192	0.30	69,356	222	0.32
11-20	94,965	259	0.27	99,705	302	0.30	104,635	372	0.36	108,746	346	0.32
21-30	254,328	828	0.33	255,643	837	0.33	257,895	730	0.28	261,455	817	0.31
31-40	249,791	1,389	0.56	255,103	1,472	0.58	259,959	1,395	0.54	266,807	1,593	0.60
41-50	266,557	4,461	1.67	279,590	4,688	1.68	291,281	4,990	1.71	302,386	5,225	1.73
51-60	335,304	11,291	3.37	338,977	11,321	3.34	337,989	11,181	3.31	339,367	11,480	3.38
61-70	340,388	17,861	5.25	340,316	17,637	5.18	340,642	17,310	5.08	336,062	17,393	5.18
71-80	313,459	24,854	7.93	323,090	25,166	7.79	331,621	25,271	7.62	338,683	25,894	7.65
>80	348,556	47,799	13.71	360,660	49,300	13.67	361,184	48,330	13.38	363,268	48,288	13.29
Total	2,529,359	109,974	4.35	2,584,715	111,966	4.33	2,622,070	110,887	4.23	2,665,368	112,389	4.22

Table 3: In-Hospital, 7-Day Post-Discharge, and 30-Day Post-Discharge Mortality by Gender, CY2009-CY2012

Gender	CY2012			CY2011			CY2010			CY2009		
	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%	Disch, N	Died, N	%
In Hospital												
F	1,423,536	27,393	1.92	1,455,818	28,670	1.97	1,477,671	28,802	1.95	1,502,290	29,729	1.98
M	1,105,823	26,694	2.41	1,128,897	27,576	2.44	1,144,399	27,357	2.39	1,163,078	28,211	2.43
Total	2,529,359	54,087	2.14	2,584,715	56,246	2.18	2,622,070	56,159	2.14	2,665,368	57,940	2.17
Within 7 Days												
F	1,423,536	37,446	2.63	1,455,818	38,601	2.65	1,477,671	38,495	2.61	1,502,290	39,362	2.62
M	1,105,823	36,222	3.28	1,128,897	36,766	3.26	1,144,399	36,053	3.15	1,163,078	36,910	3.17
Total	2,529,359	73,668	2.91	2,584,715	75,367	2.92	2,622,070	74,548	2.84	2,665,368	76,272	2.86
Within 30 Days												
F	1,423,536	56,368	3.96	1,455,818	57,585	3.96	1,477,671	57,519	3.89	1,502,290	58,231	3.88
M	1,105,823	53,606	4.85	1,128,897	54,381	4.82	1,144,399	53,368	4.66	1,163,078	54,158	4.66
Total	2,529,359	109,974	4.35	2,584,715	111,966	4.33	2,622,070	110,887	4.23	2,665,368	112,389	4.22

Table 4: Top Ten APR-DRGs Contributing Most to the In-Hospital Mortality, CY2009-CY2012

APR-DRG, Description	CY2012			CY2011			CY2010			CY2009			% Change**
	Died, N	% of Total Deaths*	Rank	Died, N	% of Total Deaths*	Rank	Died, N	% of Total Deaths*	Rank	Died, N	% of Total Deaths*	Rank	
720: Septicemia & Disseminated Infections	11,741	21.71	1	11,792	20.97	1	10,645	18.96	1	10,460	18.05	1	20.24
194: Heart Failure	2,292	4.24	2	2,467	4.39	2	2,490	4.43	2	2,634	4.55	2	-6.79
133: Pulmonary Edema & Respiratory Failure	1,846	3.41	3	1,968	3.50	3	1,891	3.37	4	2,122	3.66	3	-6.81
139: Other Pneumonia	1,645	3.04	4	1,826	3.25	4	1,900	3.38	3	1,972	3.40	5	-10.64
190: Acute Myocardial Infarction	1,632	3.02	5	1,614	2.87	6	1,724	3.07	6	1,712	2.95	6	2.12
136: Respiratory Malignancy	1,530	2.83	6	1,573	2.80	7	1,678	2.99	7	1,663	2.87	7	-1.44
130: Respiratory System Diagn. W Ventilator Support 96+ Hours	1,522	2.81	7	1,645	2.92	5	1,737	3.09	5	2,065	3.56	4	-21.04
045: CVA & Precerebral Occlusion W Infarct	1,432	2.65	8	1,541	2.74	8	1,467	2.61	8	1,371	2.37	11	11.89
460: Renal Failure	1,319	2.44	9	1,431	2.54	9	1,466	2.61	9	1,449	2.50	8	-2.49
044: Intracranial Hemorrhage	1,230	2.27	10	1,297	2.31	10	1,354	2.41	10	1,416	2.44	9	-6.95

* Percent is of the Total in-hospital deaths, not of the deaths within a specific APR-DRG;

For Denominator refer to the Table 3: in-hospital total deaths numbers by year (example: CY2012: 54,087).

**Percent change = (% CY2012 Death - % CY 2009 Death)/ % CY 2009 Death

Table 5: In-Hospital Mortality by Medical APR-DRG and Surgical APR-DRG By Age, CY2009-CY2012

Age	CY2012			CY2011			CY2010			CY2009		
	N	% of Disch	% of Died	N	% of Disch	% of Died	N	% of Disch	% of Died	N	% of Disch	% of Died
Medical APR-DRG												
0	260,560	0.30	1.73	263,622	0.31	1.69	268,402	0.31	1.77	274,541	0.31	1.75
1 - 10	51,725	0.19	0.21	53,714	0.18	0.20	53,787	0.17	0.19	59,334	0.18	0.22
11 - 20	74,318	0.16	0.25	77,698	0.19	0.31	81,030	0.19	0.32	83,899	0.19	0.32
21-30	190,960	0.20	0.83	191,329	0.19	0.77	192,504	0.17	0.71	194,202	0.19	0.76
31-40	172,998	0.35	1.31	176,819	0.38	1.41	179,517	0.34	1.29	183,683	0.39	1.50
41-50	195,193	1.00	4.24	205,089	1.00	4.28	212,578	1.00	4.52	222,533	1.04	4.79
51-60	239,821	1.99	10.36	241,655	2.02	10.21	240,043	2.02	10.27	240,895	2.07	10.33
61-70	233,784	3.16	16.08	233,097	3.19	15.58	232,595	3.11	15.34	229,362	3.23	15.32
71-80	230,494	4.43	22.20	237,116	4.45	22.07	241,491	4.34	22.21	246,522	4.42	22.54
>80	291,239	6.75	42.79	301,527	6.89	43.47	300,339	6.81	43.37	300,812	6.82	42.47
Total	1,941,092	2.37	100.00	1,981,666	2.41	100.00	2,002,286	2.36	100.00	2,035,783	2.37	100.00
Surgical APR-DRG												
0	4,234	2.86	1.49	4,465	2.64	1.39	4,423	2.96	1.46	4,576	2.93	1.40
1 - 10	9,452	0.36	0.42	9,788	0.36	0.41	10,162	0.43	0.49	10,022	0.49	0.51
11 - 20	20,647	0.35	0.89	22,007	0.32	0.84	23,604	0.45	1.19	24,847	0.36	0.93
21-30	63,368	0.24	1.85	64,314	0.26	2.01	65,390	0.24	1.77	67,253	0.25	1.74
31-40	76,792	0.27	2.55	78,284	0.25	2.28	80,436	0.27	2.39	83,124	0.28	2.41
41-50	71,364	0.67	5.89	74,501	0.72	6.35	78,691	0.72	6.31	79,852	0.78	6.49
51-60	95,483	1.17	13.78	97,322	1.14	13.11	97,930	1.17	12.79	98,472	1.27	13.04
61-70	106,604	1.51	19.79	107,219	1.52	19.26	108,023	1.64	19.72	106,700	1.62	18.06
71-80	82,965	2.35	23.95	85,974	2.43	24.73	90,116	2.54	25.50	92,161	2.64	25.38
>80	57,317	4.17	29.40	59,133	4.24	29.62	60,815	4.18	28.37	62,456	4.61	30.04
Total	588,226	1.38	100.00	603,007	1.40	100.00	619,590	1.45	100.00	629,463	1.52	100.00

Table 6: Distribution of In-hospital Mortality by Age and Emergency Indicator, CY2009-CY2013

Age	CY2012			CY2011			CY2010			CY2009		
	N	% of Disch	% of Died	N	% of Disch	% of Died	N	% of Disch	% of Died	N	% of Disch	% of Died
Non-Emergency Admission												
0	245,900	0.36	6.32	248,393	0.36	6.02	254,350	0.37	6.03	259,407	0.38	5.97
1 - 10	19,458	0.35	0.48	20,096	0.33	0.44	21,891	0.31	0.42	24,571	0.31	0.47
11 - 20	39,433	0.15	0.43	40,423	0.17	0.45	43,428	0.24	0.67	46,984	0.18	0.53
21-30	121,545	0.11	0.96	122,220	0.12	1.01	127,776	0.11	0.88	137,118	0.11	0.96
31-40	119,430	0.19	1.58	122,486	0.20	1.66	128,339	0.17	1.37	137,889	0.23	1.98
41-50	95,201	0.69	4.65	102,918	0.74	5.12	112,438	0.75	5.34	121,815	0.78	5.82
51-60	116,026	1.44	11.87	121,968	1.44	11.78	128,361	1.50	12.24	134,682	1.51	12.44
61-70	123,629	2.11	18.58	128,191	2.13	18.36	134,266	2.14	18.18	137,935	2.12	17.96
71-80	97,085	3.34	23.09	102,982	3.20	22.13	113,844	3.07	22.16	120,707	3.01	22.31
>80	66,394	6.77	32.03	72,942	6.74	33.03	81,101	6.36	32.71	86,228	5.97	31.57
Total	1,044,101	1.34	100.00	1,082,619	1.38	100.00	1,145,794	1.38	100.00	1,207,336	1.35	100.00
Emergency Admission												
0	18,934	0.21	0.10	19,736	0.23	0.11	18,565	0.21	0.10	19,831	0.18	0.08
1 - 10	41,719	0.15	0.16	43,406	0.15	0.15	42,058	0.16	0.17	44,785	0.18	0.19
11 - 20	55,532	0.23	0.32	59,282	0.25	0.36	61,207	0.25	0.38	61,762	0.26	0.38
21-30	132,783	0.30	0.99	133,423	0.29	0.94	130,119	0.27	0.88	124,337	0.30	0.91
31-40	130,361	0.45	1.46	132,617	0.47	1.50	131,620	0.46	1.50	128,918	0.49	1.52
41-50	171,356	1.04	4.43	176,672	1.03	4.40	178,843	1.04	4.59	180,571	1.10	4.78
51-60	219,278	1.92	10.52	217,009	1.95	10.24	209,628	1.94	10.06	204,685	2.06	10.12
61-70	216,759	2.95	15.95	212,125	2.99	15.32	206,376	2.97	15.19	198,127	3.13	14.90
71-80	216,374	4.12	22.24	220,108	4.24	22.58	217,777	4.26	22.95	217,976	4.45	23.27
>80	282,162	6.22	43.83	287,718	6.38	44.38	280,083	6.37	44.19	277,040	6.59	43.85
Total	1,485,258	2.70	100.00	1,502,096	2.75	100.00	1,476,276	2.74	100.00	1,458,032	2.86	100.00

Definitions:

- **SPARCS:** The Statewide Planning and Research Cooperative System (SPARCS) is a comprehensive data reporting system established in 1979 as a result of cooperation between the health care industry and government. Initially created to collect information on discharges from hospitals, SPARCS currently collects patient level detail on patient characteristics, diagnoses and treatments, services, and charges for every Article 28 (acute care) hospital discharge, ambulatory surgery, emergency room visits, and visits to hospital-based outpatient clinics in New York State. More information on SPARCS may be found at the following direct link: <http://www.health.ny.gov/statistics/sparcs/>.
- **Vital Statistics:** New York State collects and publishes information on an annual basis of the following areas of vital statistics : The Annual Vital Statistics Tables includes the following tables: Live Births; Spontaneous Fetal Deaths; Induced Abortion; Pregnancies; Mortality; Marriages and Dissolutions of Marriage. More information may be found at the following direct link: http://www.health.ny.gov/statistics/vital_statistics/.
- **Unit of Analysis:** The unit of analysis for this report is the hospital inpatient discharge, not the patient. Therefore, if a single person was admitted to the hospital multiple times in a single year they would be counted as multiple hospital inpatient discharges.

Contact Information

We welcome questions, comments and feedback on this Statistical Brief.

Please contact us at:

Bureau of Health Informatics
Office of Quality and Patient Safety
New York State Department of Health
Corning Tower, Room 878
Albany, New York 12237

Phone: (518) 474-3189

Fax: (518) 486-3518

Email: BHI@health.ny.gov