# **Inpatient Quality Indicators**

# **Technical Report**

# **Hospital Performance Dashboard**

# A Supplement to the

# Hospital Performance Report

# 2017 Data

# **Health Care Quality Assessment**

# Office of Population Health New Jersey Department of Health

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## **Executive Summary**

The Office of Health Care Quality Assessment (HCQA) of the New Jersey Department of Health assesses health care quality using qualitative and quantitative data reported by hospitals to support performance monitoring related to patient care and safety. Specifically, HCQA produces consumer reports on cardiac surgery, hospital performance, and hospital quality indicators; reviews confidential reports and root-cause analyses of reportable medical errors; and maintains several databases to support licensure requirements. In order to enhance information that the Department provides to the public regarding quality of hospital care, HCQA staff apply statistical tools developed by the Federal Agency for Healthcare Research and Quality (AHRQ) to the New Jersey hospital discharge data commonly known as Uniform Billing (UB) data. This report presents findings resulting from the application of a statistical tool known as the Inpatient Quality Indicator (IQI) module to the 2017 New Jersey hospital discharge data.

Inpatient Quality Indicators (IQIs) are a set of measures developed at the national level by the <u>Agency for Health Care Research and Quality (AHRQ)</u> to provide a perspective on the quality of patient care given by hospitals. Quality of care is measured using: 1) in-hospital mortality for certain procedures and medical conditions; 2) utilization of procedures for which there are questions of overuse, underuse, or misuse; and 3) volume of procedures for which there is some evidence that a higher volume of procedures is associated with lower mortality. AHRQ spent years of research and analysis to define these indicators as measures of healthcare quality.

Since 2009, the Department has been reporting on **heart attack, heart failure, pneumonia and stroke** mortality levels as part of the 'Outcome of Care Measurers'. These indicators were recommended by the "The Governor's Commission on Rationalizing Health Care Resources" to create the 'Hospital Performance Dashboard' as a supplement to the Hospital Performance Report.

The data in this report present mortality during hospitalization in each of the 71 licensed hospitals currently operating in the state. For each of the four selected IQIs, risk-adjusted rates are provided along with confidence intervals to help make a statistical assessment of patient care in the hospital. Statewide and national estimates are also provided to help compare hospital performance to the state or to the national rates.

Comparison of a hospital's rate to the statewide rate (presented in the top row of each of the IQIs tables) is one way to assess how well that hospital performed among its peers in the state. A hospital's peers could be defined at many levels (e.g., teaching hospitals, urban hospitals, suburban hospitals, etc.). It is suggested that a hospital's performance be assessed by looking at its performance across the four IQIs estimates presented in the tables.

The 2017 New Jersey data shows that there are substantial variations in risk-adjusted rates of outcome by hospital. Some hospitals exhibit significantly higher risk-adjusted rates than the corresponding statewide rates while others have significantly lower rates than the statewide rates.

## Some Highlights

- Statewide, in 2017, there were a total of 904 in-hospital deaths due to ACUTE MYOCARDIAL INFARCTION – AMI for a risk-adjusted mortality rate of 11.02 per 100 discharges (for patients ages 18 years and older) with a principal ICD-10-CM diagnosis code for AMI. Table 1 shows the distribution of these heart attack (AMI) deaths by hospital.
- Overall, there were 1,019 deaths from HEART FAILURE during hospitalization in 2017, for a risk-adjusted mortality rate of 3.55 per 100 discharges (for patients ages 18 years and older), with a principal ICD-10-CM diagnosis code for heart failure. Table 2 shows the distribution of these Heart Failure deaths by hospital.
- Statewide, there were 397 in-hospital deaths from PNEUMONIA in 2017, for a riskadjusted rate of 3.74 per 100 discharges (for patients ages 18 years and older) with a principal ICD-10-CM diagnosis code for pneumonia. Hospital-specific rates for this indicator ranged from a low of 0.0 to a high of 10.13 per 100 discharges with pneumonia.
- Statewide, there were 1,207 ACUTE STROKE in-hospital deaths in 2017, for a risk-adjusted rate of 5.93 per 100 discharges (for patients ages 18 years and older) and with a principal ICD-10-CM diagnosis code for subarachnoid hemorrhage or intracerebral hemorrhage or ischemic stroke. Hospital-specific rates for this indicator ranged from a low of 0.0 to a high of 11.53 per 100 patients with stroke diagnosis. Table 4 shows the distribution of these total acute stroke deaths by hospital, while Tables 4.A, 4.B and 4.C present the breakdown of these deaths by SUBARACHNOID HEMORRHAGE STROKE, INTRACEREBRAL HEMORRHAGIC STROKE, and ISCHEMIC HEMORRHAGIC STROKE, by hospital.
- Compared to the national estimates, New Jersey appeared to have rates that are higher than the national average for 3 of the 4 indicators that are selected for the Hospital Performance Dashboard.

## **References:**

Updated Technical Specifications for each of the 4 IQIs presented in this report can be accessed on the AHRQ site below:

 <u>https://www.qualityindicators.ahrq.gov/Modules/IQI\_TechSpec\_ICD10\_v2</u> 019.aspx

Detailed explanation about IQIs and their interpretations can be found on:

• https://web.doh.state.nj.us/apps2/hpr/usingiqi.aspx

#### Table 1: IN-HOSPITAL MORTALITY RATES FOR ACUTE MYOCARDIAL INFARCTION - AMI (Deaths per 100 conditions)

	# of	# of	Observed	Expected	Risk- Adjusted	Confidence Interval
Hospital	Deaths	Patients	Rate	Rate	Rate	LL - UL
National	28,927	567,685	5.1	NA	NA	NA - NA
Statewide	904	15,613	5.8	2.7	11.0	10.6 - 11.5
Atlantic City Medical Center-City Campus	3	63	4.8	2.3	10.3	2.6 - 18.1
Atlantic City Medical Center-Mainland Campus	33	729	4.5	2.1	11.2	8.8 - 13.6
Bayshore Community Hospital	10	122	8.2	3.1	13.5	8.7 - 18.2
Bergen Regional Medical Center	1	12	8.3	1.6	27.0 ^	4.3 - 49.7
Cape Regional Medical Center Inc	5	48	10.4	4.0	13.1	6.6 - 19.6
Capital Health Medical Center - Hopewell	6	82	7.3	2.9	13.0	7.0 - 19.0
Capital Health Regional Medical Center - Fuld	9	35	25.7	2.3	57.4 **	46.9 - 67.8
Carepoint Health - Bayonne Medical Center	10	181	5.5	2.9	9.7	5.7 - 13.8
Carepoint Health - Christ Hospital	14	140	10.0	3.2	15.8 **	11.5 - 20.2
Carepoint Health - Hoboken University MC	1	33	3.0	2.1	7.5	0.0 - 19.4
CentraState Medical Center	7	45	15.6	3.3	24.3 **	16.8 - 31.8
Chilton Memorial Center	10	136	7.4	2.8	13.2	8.5 - 17.9
Clara Maass Medical Center	12	246	4.9	2.3	10.8	6.9 - 14.7
Community Medical Center	30	517	5.8	2.7	11.0	8.5 - 13.5
Cooper Hospital/University Medical Center	17	598	2.8	4.1	3.5 *	1.8 - 5.3
Deborah Heart and Lung Center	7	405	1.7	2.0	4.4 *	1.1 - 7.6
East Orange General Hospital	0	35	0.0	2.4	0.0 *	0.0 - 10.4
Englewood Hospital and Medical Center	13	361	3.6	2.7	6.8 *	3.9 - 9.7
Hackensack Meridian Health Pascack Valley MC	0	11	0.0	5.7	0.0 *^	0.0 - 10.8
Hackensack University Medical Center	46	825	5.6	2.2	12.7	10.6 - 14.9
HackensackUMC - Mountainside	13	151	8.6	4.8	9.1	5.9 - 12.3
Hackettstown Community Hospital	4	28	14.3	3.2	22.8 **	12.9 - 32.6
Holy Name Medical Center	18	219	8.2	2.0	20.6 **	16.1 - 25.0
Hudson Regional Hospital	0	8	0.0	1.2	0.0 ^	0.0 - 31.7
Hunterdon Medical Center	4	59	6.8	2.5	13.6	6.0 - 21.2
Inspira Medical Center - Elmer	0	20	0.0	4.1	0.0 *^	0.0 - 10.0
Inspira Medical Center - Woodbury	9	151	6.0	2.0	15.1	9.6 - 20.6
Inspira Medical Centers, Inc	13	164	7.9	2.7	14.7	10.4 - 19.0
Jefferson Cherry Hill Hospital	6	33	18.2	4.9	18.7 **	11.9 - 25.6
Jefferson Stratford Hospital	4	30	13.3	2.1	32.4 **	20.1 - 44.8
Jefferson Washington Township Hospital	5	73	6.8	5.8	6.0 *	1.8 - 10.3
Jersey City Medical Center	15	302	5.0	2.4	10.5	7.1 - 13.9
Jersey Shore University Medical Center	46	1,034	4.4	2.0	11.6	9.5 - 13.7
JFK Medical CTR - Anthony M. Yelensics Community	13	341	3.8	1.9	10.0	6.4 - 13.7
Lourdes Medical Center of Burlington Cty.	2	46	4.3	3.7	6.0	0.0 - 13.0
Monmouth Medical Center	6	78	7.7	3.3	11.7	6.1 - 17.4
Monmouth Medical Center - Southern Campus	6	24	25.0	3.9	32.9 **^	23.4 - 42.4
Morristown Medical Center	32	1,071	3.0	2.9	5.3 *	3.6 - 6.9
Newark Beth Israel Medical Center	31	433	7.2	3.0	12.3	9.8 - 14.9
Newton Medical Center	3	65	4.6	4.2	5.6 *	0.2 - 10.9
Ocean Medical Center - Brick Division	15	200	7.5	3.7	10.3	7.0 - 13.6

#### Table 1: IN-HOSPITAL MORTALITY RATES FOR ACUTE MYOCARDIAL INFARCTION - AMI (Deaths per 100 conditions)

#### (Indicator Recommended for Hospital Performance Dashboard)

Hospital	# of Deaths	# of Patients	Observed Rate	Expected Rate	Risk- Adjusted Rate	Confidence Interval LL - UL
National	28,927	567,685	5.1	NA	NA	NA - NA
Statewide	904	15,613	5.8	2.7	11.0	10.6 - 11.5
Our Lady of Lourdes Medical Center	50	1,055	4.7	2.4	10.1	8.3 - 12.0
Overlook Medical Center	22	300	7.3	3.0	12.3	9.3 - 15.3
Palisades Medical Center	14	93	15.1	2.5	30.6 **	24.3 - 36.9
Penn Medicine Princeton Medical Center	8	78	10.3	2.7	19.7 **	13.1 - 26.2
Raritan Bay Medical Center-Old Bridge	4	51	7.8	3.3	11.9	4.9 - 19.0
Raritan Bay Medical Center-Perth Amboy	12	204	5.9	2.9	10.5	6.8 - 14.2
Riverview Medical Center	6	163	3.7	2.4	7.8	3.1 - 12.5
RWJ University Hospital	79	871	9.1	2.6	17.8 **	15.9 - 19.7
RWJ University Hospital at Hamilton	7	77	9.1	3.1	14.8	9.0 - 20.7
RWJ University Hospital at Rahway	21	121	17.4	2.5	35.7 **	30.5 - 41.0
RWJ University Hospital Somerset	22	356	6.2	2.5	12.8	9.6 - 16.0
Saint Clare's Hospital	3	31	9.7	5.6	8.7	2.2 - 15.3
Saint Clare's Hospital/Denville Campus	6	140	4.3	2.5	8.7	3.8 - 13.7
Saint Michael's Medical Center	6	188	3.2	3.7	4.4 *	0.9 - 7.8
Saint Peter's University Hospital	4	63	6.3	6.8	4.7 *	0.5 - 8.9
Shore Memorial Hospital	3	18	16.7	3.7	23.1 **^	12.0 - 34.2
Southern Ocean County Hospital	5	64	7.8	4.8	8.3	3.2 - 13.4
St. Barnabas Medical Center	12	305	3.9	2.7	7.5 *	4.3 - 10.7
St. Francis Medical Center-Trenton	12	344	3.5	1.9	9.3	5.6 - 13.0
St. Joseph's Hospital and Medical Center	36	561	6.4	2.8	11.8	9.4 - 14.1
St. Joseph's Wayne	6	53	11.3	2.7	21.8 **	13.7 - 29.8
St. Luke' Warren Hospital	0	13	0.0	1.3	0.0 ^	0.0 - 24.2
St. Mary's General Hospital	3	104	2.9	2.3	6.4	0.4 - 12.5
The Memorial Hospital of Salem County	4	21	19.0	2.2	45.0 **^	30.4 - 59.5
Trinitas Hospital	12	132	9.1	2.5	18.3 **	13.3 - 23.4
University Hospital	12	156	7.7	3.3	11.9	7.9 - 15.8
Valley Hospital	33	441	7.5	2.6	14.5 **	11.9 - 17.2
Virtua-Memorial Hospital Burlington Cty.	7	127	5.5	2.6	10.8	5.8 - 15.8
Virtua-West Jersey Hospital Marlton	13	264	4.9	2.2	11.4	7.6 - 15.3
Virtua-West Jersey Hospital Voorhees	3	64	4.7	2.1	11.5	3.2 - 19.8

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the **2017 NJ UB Data** using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

## Table 2: IN-HOSPITAL MORTALITY RATES FOR HEART FAILURE (Deaths per 100 conditions)

	# of	# of	Observed	Expected	Risk- Adjusted	95% Confidence Interval
Hospital	Deaths	Patients	Rate	Rate	Rate	LL - UL
National	27,643	987,464	2.8	NA	NA	NA - NA
Statewide	1,019	32,041	3.2	2.5	3.6	3.4 - 3.7
Atlantic City Medical Center-City Campus	8	251	3.2	2.1	4.2	1.9 - 6.5
Atlantic City Medical Center-Mainland Campus	20	666	3.0	2.6	3.2	1.9 - 4.5
Bayshore Community Hospital	13	366	3.6	2.6	3.8	2.1 - 5.6
Bergen Regional Medical Center	3	39	7.7	2.3	9.5 **	3.8 - 15.2
Cape Regional Medical Center Inc	8	388	2.1	2.5	2.3	0.6 - 4.1
Capital Health Medical Center - Hopewell	10	280	3.6	2.4	4.2	2.1 - 6.3
Capital Health Regional Medical Center - Fuld	1	227	0.4	1.9	0.6 *	0.0 - 3.2
Carepoint Health - Bayonne Medical Center	10	280	3.6	2.1	4.9	2.6 - 7.1
Carepoint Health - Christ Hospital	5	331	1.5	1.9	2.2	0.1 - 4.4
Carepoint Health - Hoboken University Medical Center	4	134	3.0	2.1	3.9	0.7 - 7.1
CentraState Medical Center	33	511	6.5	2.6	6.9 **	5.5 - 8.4
Chilton Memorial Center	15	337	4.5	2.9	4.2	2.5 - 5.9
Clara Maass Medical Center	20	649	3.1	2.2	4.0	2.5 - 5.4
Community Medical Center	47	1,085	4.3	2.6	4.7 **	3.7 - 5.7
Cooper Hospital/University Medical Center	15	769	2.0	2.6	2.1 *	0.9 - 3.3
Deborah Heart and Lung Center	11	493	2.2	3.5	1.8 *	0.5 - 3.1
East Orange General Hospital	1	209	0.5	1.7	0.8	0.0 - 3.6
Englewood Hospital and Medical Center	21	569	3.7	2.6	3.9	2.6 - 5.3
Hackensack Meridian Health Pascack Valley MC	10	109	9.2	3.4	7.5 **	4.8 - 10.2
Hackensack University Medical Center	38	944	4.0	2.6	4.4	3.3 - 5.5
HackensackUMC - Mountainside	17	409	4.2	2.8	4.1	2.6 - 5.7
Hackettstown Community Hospital	6	244	2.5	2.5	2.7	0.6 - 4.9
Holy Name Medical Center	13	585	2.2	2.4	2.6	1.2 - 4.0
Hudson Regional Hospital	2	32	6.3	2.1	8.3	1.7 - 14.9
Hunterdon Medical Center	5	259	1.9	2.6	2.0	0.0 - 4.1
Inspira Medical Center - Elmer	4	178	2.2	2.1	3.1	0.2 - 5.9
Inspira Medical Center - Woodbury	14	405	3.5	2.6	3.7	2.0 - 5.3
Inspira Medical Centers, Inc	26	787	3.3	2.1	4.4	3.1 - 5.7
Jefferson Cherry Hill Hospital	4	159	2.5	2.6	2.8	0.1 - 5.4
Jefferson Stratford Hospital	3	257	1.2	2.4	1.4 *	0.0 - 3.5
Jefferson Washington Township Hospital	21	590	3.6	2.4	4.1	2.7 - 5.5
Jersey City Medical Center	9	492	1.8	1.7	3.0	1.1 - 4.9
Jersey Shore University Medical Center	30	989	3.0	2.8	3.1	2.1 - 4.1
JFK Medical CTR - Anthony M. Yelensics Community	17	646	2.6	2.3	3.2	1.8 - 4.6
Lourdes Medical Center of Burlington Cty.	2	223	0.9	2.2	1.1	0.0 - 3.6
Monmouth Medical Center	4	274	1.5	2.7	1.5 *	0.0 - 3.5
Monmouth Medical Center - Southern Campus	9	214	4.0	2.6	4.3	2.1 - 6.6
Morristown Medical Center	40	1,071	3.7	3.0	3.5	2.6 - 4.5
Newark Beth Israel Medical Center	32	968	3.3	1.9	5.0 **	3.7 - 6.3
Newton Medical Center	10	310	3.2	2.8	3.2	1.4 - 5.0
Ocean Medical Center - Brick Division	21	772	2.7	2.8	2.7	1.6 - 3.9
Our Lady of Lourdes Medical Center	15	576	2.6	2.6	2.9	1.5 - 4.2

#### Table 2: IN-HOSPITAL MORTALITY RATES FOR HEART FAILURE (Deaths per 100 conditions)

#### (Indicator Recommended for Hospital Performance Dashboard)

	# of	# of	Observed	Expected	Risk- Adjusted	95% Confidence Interval
Hospital	Deaths	Patients	Rate	Rate	Rate	LL - UL
National	27,643	987,464	2.8	NA	NA	NA - NA
Statewide	1,019	32,041	3.2	2.5	3.6	3.4 - 3.7
Overlook Medical Center	37	733	5.0	3.1	4.6	3.5 - 5.7
Palisades Medical Center	13	272	4.8	2.7	5.0	3.0 - 6.9
Penn Medicine Princeton Medical Center	15	396	3.8	2.5	4.2	2.5 - 5.9
Raritan Bay Medical Center-Old Bridge	11	298	3.7	2.4	4.2	2.2 - 6.2
Raritan Bay Medical Center-Perth Amboy	1	290	0.3	2.3	0.4 *	0.0 - 2.5
Riverview Medical Center	12	368	3.3	2.8	3.2	1.6 - 4.8
RWJ University Hospital	55	1,122	4.9	2.5	5.4 **	4.4 - 6.4
RWJ University Hospital at Hamilton	10	467	2.1	2.4	2.5	0.9 - 4.1
RWJ University Hospital at Rahway	20	429	4.7	2.4	5.5 **	3.9 - 7.2
RWJ University Hospital Somerset	25	601	4.2	2.6	4.5	3.2 - 5.9
Saint Clare's Hospital	1	184	0.5	2.5	0.6 *	0.0 - 3.1
Saint Clare's Hospital/Denville Campus	5	300	1.7	2.8	1.7 *	0.0 - 3.5
Saint Michael's Medical Center	3	400	0.8	2.2	1.0 *	0.0 - 2.8
Saint Peter's University Hospital	7	297	2.4	2.5	2.6	0.7 - 4.6
Shore Memorial Hospital	6	320	1.9	2.2	2.4	0.4 - 4.4
Southern Ocean County Hospital	8	367	2.2	3.0	2.0	0.4 - 3.6
St. Barnabas Medical Center	24	870	2.8	2.5	3.1	2.0 - 4.3
St. Francis Medical Center-Trenton	5	208	2.4	2.1	3.2	0.6 - 5.7
St. Joseph's Hospital and Medical Center	24	912	2.6	2.2	3.3	2.1 - 4.5
St. Joseph's Wayne	11	212	5.2	2.4	6.1 **	3.7 - 8.5
St. Luke' Warren Hospital	5	235	2.1	2.7	2.2	0.1 - 4.3
St. Mary's General Hospital	1	278	0.4	2.3	0.4	0.0 - 2.6
The Memorial Hospital of Salem County	6	191	3.1	2.1	4.2	1.5 - 6.9
Trinitas Hospital	14	459	3.1	1.9	4.5	2.7 - 6.3
University Hospital	12	317	3.8	1.9	5.5	3.3 - 7.7
Valley Hospital	45	830	5.4	3.3	4.6	3.6 - 5.6
Virtua-Memorial Hospital Burlington Cty.	10	641	1.6	2.3	1.9 *	0.5 - 3.3
Virtua-West Jersey Hospital Marlton	14	372	3.8	2.9	3.7	2.0 - 5.3
Virtua-West Jersey Hospital Voorhees	22	582	3.8	2.6	4.1	2.7 - 5.5

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the 2017 NJ UB Data using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

## Table 3: IN-HOSPITAL MORTALITY RATES FOR PNEUMONIA (Deaths per 100 conditions)

	# of		Observed	Expected	Risk- Adjusted	95% Conf Interv	
Hospital	Deaths	# of Patients	Rate	Rate	Rate	LL	UL
National	18,157	669,082	2.7	NA	NA	NA	NA
Statewide	397	14,847	2.7	1.9	3.7	3.4 -	4.0
Atlantic City Medical Center-City Campus	1	133	0.8	1.6	1.2	0.0 -	4.8
Atlantic City Medical Center-Mainland Campus	2	212	0.9	2.1	1.2 *	0.0 -	3.6
Bayshore Community Hospital	3	211	1.4	2.1	1.9	0.0 -	4.4
Bergen Regional Medical Center	3	48	6.3	1.7	10.1 **	4.3 -	16.0
Cape Regional Medical Center Inc	7	261	2.7	1.9	3.9	1.6 -	6.2
Capital Health Medical Center - Hopewell	15	277	5.4	1.9	7.7 **	5.5 -	10.0
Capital Health Regional Medical Center - Fuld	4	163	2.5	1.6	4.1	0.9 -	7.3
Carepoint Health - Bayonne Medical Center	1	82	1.2	1.6	2.0	0.0 -	6.5
Carepoint Health - Christ Hospital	5	162	3.1	1.3	6.3	2.7 -	9.9
Carepoint Health - Hoboken University Medical Center	3	102	2.9	1.2	6.5	1.8 -	11.2
CentraState Medical Center	16	446	3.6	1.8	5.4	3.5 -	7.2
Chilton Memorial Center	10	250	4.0	2.3	4.7	2.6 -	6.9
Clara Maass Medical Center	7	296	2.4	1.5	4.3	1.8 -	6.8
Community Medical Center	17	391	4.3	2.1	5.7 **	3.8 -	7.5
Cooper Hospital/University Medical Center	2	223	0.9	2.0	1.2 *	0.0 -	3.6
Deborah Heart and Lung Center	2	55	3.6	2.8	3.5	0.0 -	7.7
East Orange General Hospital	3	148	2.0	1.3	4.2	0.4 -	8.0
Englewood Hospital and Medical Center	5	190	2.6	2.2	3.2	0.7 -	5.7
Hackensack Meridian Health Pascack Valley MC	1	79	1.3	2.9	1.2	0.0 -	4.6
Hackensack University Medical Center	18	406	4.4	2.2	5.6 **	3.9 -	7.3
HackensackUMC - Mountainside	2	198	1.0	2.0	1.3	0.0 -	3.9
Hackettstown Community Hospital	2	46	4.3	2.8	4.2	0.0 -	8.7
Holy Name Medical Center	6	285	2.1	1.8	3.1	0.8 -	5.4
Hudson Regional Hospital	1	66	1.5	1.5	2.8	0.0 -	8.1
Hunterdon Medical Center	2	168	1.2	2.1	1.6	0.0 -	4.3
Inspira Medical Center - Elmer	0	112	0.0	2.0	0.0 *	0.0 -	3.5
Inspira Medical Center - Woodbury	12	318	3.8	2.2	4.6	2.7 -	6.5
Inspira Medical Centers, Inc	18	495	3.6	2.0	4.9	3.2 -	6.5
Jefferson Cherry Hill Hospital	1	84	1.2	1.7	2.0	0.0 -	6.4
Jefferson Stratford Hospital	1	101	1.0	1.6	1.6	0.0 -	5.7
Jefferson Washington Township Hospital	1	143	0.7	2.0	1.0	0.0 -	4.0
Jersey City Medical Center	7	250	2.8	1.2	6.3	3.3 -	9.3
Jersey Shore University Medical Center	6	259	2.3	1.8	3.5	1.1 -	
JFK Medical CTR - Anthony M. Yelensics Community	13	575	2.3	2.0	3.0	1.6 -	
Lourdes Medical Center of Burlington Cty.	2	143	1.4	1.4	2.6	0.0 -	6.3
Monmouth Medical Center	2	132	1.5	1.6	2.5	0.0 -	6.0
Monmouth Medical Center - Southern Campus	3	91	3.3	2.5	3.6	0.2 -	
Morristown Medical Center	16	407	3.9	2.3	4.7	3.0 -	
Newark Beth Israel Medical Center	8	289	2.8	1.6	4.7	2.3 -	7.1
Newton Medical Center	4	203	2.0	1.9	2.8	0.2 -	5.4
Ocean Medical Center - Brick Division	4	200	1.4	2.1	1.8	0.0 -	3.9
Our Lady of Lourdes Medical Center	3	174	1.7	2.0	2.3	0.0 -	

#### Table 3: IN-HOSPITAL MORTALITY RATES FOR PNEUMONIA (Deaths per 100 conditions)

#### (Indicator Recommended for Hospital Performance Dashboard)

	# of		Observed	Expected	Risk- Adjusted	95% Confidence Interval
Hospital	Deaths	# of Patients	Rate	Rate	Rate	LL UL
National	18,157	669,082	2.7	NA	NA	NA NA
Statewide	397	14,847	2.7	1.9	3.7	3.4 - 4.0
Overlook Medical Center	13	356	3.7	2.2	4.5	2.7 - 6.3
Palisades Medical Center	9	169	5.3	2.1	7.0 **	4.2 - 9.8
Penn Medicine Princeton Medical Center	8	297	2.7	2.0	3.7	1.5 - 5.8
Raritan Bay Medical Center-Old Bridge	3	131	2.3	2.3	2.7	0.0 - 5.5
Raritan Bay Medical Center-Perth Amboy	1	113	0.9	1.6	1.5	0.0 - 5.5
Riverview Medical Center	6	175	3.4	2.5	3.7	1.3 - 6.2
RWJ University Hospital	18	443	4.1	1.8	6.2 **	4.3 - 8.0
RWJ University Hospital at Hamilton	0	177	0.0	2.0	0.0 *	0.0 - 2.8
RWJ University Hospital at Rahway	7	150	4.7	2.6	4.9	2.3 - 7.4
RWJ University Hospital Somerset	6	231	2.6	1.8	4.0	1.4 - 6.6
Saint Clare's Hospital	0	41	0.0	2.0	0.0	0.0 - 5.7
Saint Clare's Hospital/Denville Campus	3	116	2.6	2.4	2.9	0.0 - 6.0
Saint Michael's Medical Center	2	67	3.0	1.6	5.0	0.0 - 10.0
Saint Peter's University Hospital	3	187	1.6	1.9	2.3	0.0 - 4.9
Shore Memorial Hospital	5	191	2.6	1.4	5.2	1.9 - 8.4
Southern Ocean County Hospital	1	126	0.8	2.6	0.8 *	0.0 - 3.6
St. Barnabas Medical Center	13	444	2.9	1.9	4.1	2.4 - 5.9
St. Francis Medical Center-Trenton	1	44	2.3	1.3	4.6	0.0 - 11.5
St. Joseph's Hospital and Medical Center	13	361	3.6	1.7	5.8	3.7 - 7.9
St. Joseph's Wayne	2	139	1.4	1.9	2.0	0.0 - 5.2
St. Luke' Warren Hospital	0	78	0.0	2.4	0.0	0.0 - 3.8
St. Mary's General Hospital	0	56	0.0	1.8	0.0	0.0 - 5.3
The Memorial Hospital of Salem County	5	114	4.4	1.6	7.3	3.5 - 11.2
Trinitas Hospital	12	266	4.5	2.0	6.2 **	4.0 - 8.4
University Hospital	0	153	0.0	1.2	0.0	0.0 - 3.9
Valley Hospital	12	307	3.9	2.5	4.2	2.3 - 6.0
Virtua-Memorial Hospital Burlington Cty.	4	296	1.4	1.9	1.9	0.0 - 4.1
Virtua-West Jersey Hospital Marlton	5	190	2.6	2.2	3.3	0.7 - 5.8
Virtua-West Jersey Hospital Voorhees	6	461	1.3	1.9	1.9	0.1 - 3.7

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the 2017 NJ UB Data using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

## Table 4: IN-HOSPITAL MORTALITY RATES FOR ACUTE STROKE (Deaths per 100 conditions)

			Observed	Expected	Risk- Adjusted		nfidence erval
Hospital	# of Deaths	# of Patients	Rate	Rate	Rate	LL	UL
National	43,216	583,655	7.4	NA	NA	NA	NA
Statewide	1,207	16,357	7.4	9.2	5.9	5.6	6.3
Atlantic City Medical Center-City Campus	44	355	12.4	9.9	9.3 **	7.1	- 11.5
Atlantic City Medical Center-Mainland Campus	4	134	3.0	8.4	2.6	0.0	
Bayshore Community Hospital	3	124	2.4	9.5	1.9 *		- 5.6
Bergen Regional Medical Center	3	7	42.9	9.5	33.3 **^	16.5	
Cape Regional Medical Center Inc	7	138	5.1	7.6	5.0	0.7	- 9.2
Capital Health Medical Center - Hopewell	1	75	1.3	7.1	1.4		- 7.4
Capital Health Regional Medical Center - Fuld	48	417	11.5	10.7	8.0 **		- 9.9
Carepoint Health - Bayonne Medical Center	13	120	10.8	9.8	8.2		- 11.9
Carepoint Health - Christ Hospital	8	87	9.2	6.8	10.1		- 15.5
Carepoint Health - Hoboken University Medical Center	9	77	11.7	8.4	10.3		- 15.3
CentraState Medical Center	29	231	12.6	9.3	10.0 **		- 12.8
Chilton Memorial Center	17	223	7.6	10.6	5.3		- 8.0
Clara Maass Medical Center	11	261	4.2	8.4	3.7		- 6.5
Community Medical Center	29	475	6.1	9.0	5.0		- 7.0
Cooper Hospital/University Medical Center	47	543	8.7	11.1	5.8		- 7.3
Deborah Heart and Lung Center							·
East Orange General Hospital	0	49	0.0	6.9	0.0		- 7.6
Englewood Hospital and Medical Center	10	229	4.4	8.5	3.8		- 6.9
Hackensack Meridian Health Pascack Valley MC	5	55	9.1	11.0	6.1		- 11.4
Hackensack University Medical Center	57	652	8.7	9.2	7.0		- 8.7
HackensackUMC - Mountainside	15	207	7.2	10.2	5.3		- 8.1
Hackettstown Community Hospital	5	91	5.5	9.3	4.4		- 9.0
Holy Name Medical Center	13	225	5.8	9.3	4.6		- 7.5
Hudson Regional Hospital	1	10	10.0	9.1	8.1		- 22.5
Hunterdon Medical Center	10	170	5.9	9.0	4.9		- 8.3
Inspira Medical Center - Elmer	0	42	0.0	7.1	0.0		- 7.9
Inspira Medical Center - Woodbury	13	147	8.8	7.4	8.8		- 12.9
Inspira Medical Centers, Inc	15	246	6.1	7.4	6.1		- 9.3
Jefferson Cherry Hill Hospital	5	95	5.3	8.2	4.8		- 9.7
Jefferson Stratford Hospital	2	96	2.1	7.4	2.1		- 7.2
Jefferson Washington Township Hospital	32	446	7.2	9.1	5.8		- 7.9
Jersey City Medical Center	22	256	8.6	8.0	7.9		- 10.9
Jersey Shore University Medical Center	55	650	8.5	10.9	5.7		- 7.3
JFK Medical CTR - Anthony M. Yelensics Community	36	704	5.1	8.8	4.3		- 6.0
Lourdes Medical Center of Burlington Cty.	2	64	3.1	7.6	3.0		- 9.3
Monmouth Medical Center	3	126	2.4	9.2	1.9		- 5.7
Monmouth Medical Center - Southern Campus	2	57	3.5	10.6	2.5		- 7.6
Morristown Medical Center	52	530	9.8	9.1	8.0 **		- 9.9
Newark Beth Israel Medical Center	13	267	4.9	6.6	5.5		- 8.7
Newton Medical Center	9	194	4.6	8.8	3.9		- 7.1
Ocean Medical Center - Brick Division	6	327	1.8	8.7	1.6 *		- 4.1
Our Lady of Lourdes Medical Center	27	369	7.3	9.9	5.5		- 7.6
Overlook Medical Center	89	784	11.4	10.4	8.1 **		- 9.5

#### Table 4: IN-HOSPITAL MORTALITY RATES FOR ACUTE STROKE (Deaths per 100 conditions)

#### (Indicator Recommended for Hospital Performance Dashboard)

Hospital	# of Deaths	# of Patients	Observed Rate	Expected Rate	Risk- Adjusted Rate	95% Confidence Interval LL UL
National	43,216	583,655	7.4	NA	NA	NA NA
Statewide	1,207	16,357	7.4	9.2	5.9	5.6 - 6.3
Palisades Medical Center	12	166	7.2	9.9	5.4	2.2 - 8.6
Penn Medicine Princeton Medical Center	15	259	5.8	9.0	4.8	2.0 - 7.5
Raritan Bay Medical Center-Old Bridge	2	83	2.4	7.9	2.3	0.0 - 7.5
Raritan Bay Medical Center-Perth Amboy	4	63	6.3	7.5	6.2	0.0 - 12.6
Riverview Medical Center	12	193	6.2	9.7	4.7	1.7 - 7.8
RWJ University Hospital	82	709	11.6	10.0	8.6 **	7.1 - 10.1
RWJ University Hospital at Hamilton	2	142	1.4	7.4	1.4 *	0.0 - 5.7
RWJ University Hospital at Rahway	3	130	2.3	8.1	2.1	0.0 - 6.3
RWJ University Hospital Somerset	22	292	7.5	8.7	6.4	3.7 - 9.1
Saint Clare's Hospital	0	84	0.0	7.9	0.0 *	0.0 - 5.3
Saint Clare's Hospital/Denville Campus	3	145	2.1	10.0	1.5 *	0.0 - 4.9
Saint Michael's Medical Center	2	94	2.1	7.3	2.1	0.0 - 7.2
Saint Peter's University Hospital	3	131	2.3	7.2	2.3	0.0 - 6.7
Shore Memorial Hospital	2	129	1.6	7.7	1.5	0.0 - 5.8
Southern Ocean County Hospital	2	113	1.8	8.0	1.6	0.0 - 6.1
St. Barnabas Medical Center	45	580	7.8	9.6	6.0	4.3 - 7.7
St. Francis Medical Center-Trenton	1	43	2.3	7.5	2.3	0.0 - 9.8
St. Joseph's Hospital and Medical Center	65	589	11.0	9.1	9.0 **	7.2 - 10.8
St. Joseph's Wayne	1	89	1.1	7.0	1.2	0.0 - 6.7
St. Luke' Warren Hospital	3	95	3.2	9.0	2.6	0.0 - 7.2
St. Mary's General Hospital	3	97	3.1	9.1	2.5	0.0 - 7.1
The Memorial Hospital of Salem County	1	44	2.3	7.9	2.1	0.0 - 9.5
Trinitas Hospital	10	174	5.7	7.2	5.9	2.0 - 9.8
University Hospital	77	499	15.4	9.9	11.5 **	9.7 - 13.3
Valley Hospital	53	456	11.6	11.0	7.8 **	6.0 - 9.6
Virtua-Memorial Hospital Burlington Cty.	3	252	1.2	8.6	1.0 *	0.0 - 3.9
Virtua-West Jersey Hospital Marlton	2	142	1.4	8.2	1.3 *	0.0 - 5.3
Virtua-West Jersey Hospital Voorhees	5	209	2.4	7.8	2.3 *	0.0 - 5.7

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the 2017 NJ UB Data using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

Missing (.) = Hospital did not perform the procedure during the year in question; or it performed less than 3 procedures (rate is not computed when the denominator is less than 3).

# Table 4.A: IN-HOSPITAL MORTALITY RATES FOR SUBARACHNOID HEMORRHAGE STROKE (Deaths per 100 conditions)

	# of	# of	Observed	Expected	Risk- Adjusted		nfidence rval
Hospital	Deaths	Patients	Rate	Rate	Rate	LL	UL
National	4,571	22,476	20.3	NA	NA	NA	NA
Statewide	105	604	17.4	14.8	23.9	20.4	27.4
Atlantic City Medical Center-City Campus	6	21	28.6	10.9	53.6 **	29.7	• 77.4
Atlantic City Medical Center-Mainland Campus							• .
Bayshore Community Hospital	0	2	0.0				• .
Bergen Regional Medical Center							• .
Cape Regional Medical Center Inc					•		• .
Capital Health Medical Center - Hopewell							· .
Capital Health Regional Medical Center - Fuld	5	27	18.5	13.6	27.6 ^	9.8	45.5
Carepoint Health - Bayonne Medical Center	2	4	50.0	27.5	37.0 ^	10.6	- 63.5
Carepoint Health - Christ Hospital	0	1	0.0	-	•		
Carepoint Health - Hoboken University Medical Center	0	1	0.0	-	•		
CentraState Medical Center	1	3	33.3	11.4	59.4 ^	0.0	· 123.4
Chilton Memorial Center	1	5	20.0	12.4	32.8 ^	0.0	80.0
Clara Maass Medical Center	0	5	0.0	10.7	0.0 ^	0.0	50.8
Community Medical Center	2	9	22.2	8.6	52.6 ^	9.7	95.6
Cooper Hospital/University Medical Center	3	35	8.6	16.0	10.9	0.0	24.9
Deborah Heart and Lung Center							• .
East Orange General Hospital							· .
Englewood Hospital and Medical Center	0	2	0.0				· .
Hackensack Meridian Health Pascack Valley MC							· .
Hackensack University Medical Center	3	43	7.0	8.6	16.6		- 36.2
HackensackUMC - Mountainside	1	3	33.3	14.1	48.1 ^	1	• 104.8
Hackettstown Community Hospital							• .
Holy Name Medical Center	1	1	100.0				•
Hudson Regional Hospital							• .
Hunterdon Medical Center		· · ·					• .
Inspira Medical Center - Elmer	0	2	0.0				• .
Inspira Medical Center - Woodbury	2	2	100.0				• .
Inspira Medical Centers, Inc	1	2	50.0				• .
Jefferson Cherry Hill Hospital	1	1	100.0				• .
Jefferson Stratford Hospital	1	2	50.0		•		• .
Jefferson Washington Township Hospital	3	21	14.3	13.7	21.2 ^		· 40.9
Jersey City Medical Center	1	4	25.0	9.4	54.3 ^		116.2
Jersey Shore University Medical Center	4	29	13.8	19.5	14.4 ^		· 27.3
JFK Medical CTR - Anthony M. Yelensics Community	3	23	13.0	11.4	23.4 ^		44.3
Lourdes Medical Center of Burlington Cty.			10.0				
Monmouth Medical Center	•				•		<u>.</u>
Monmouth Medical Center - Southern Campus	. 1	. 1	. 100.0		•		· .
Morristown Medical Center	2	16	12.5	19.5	13.1 ^		· . · 31.3
Newark Beth Israel Medical Center							
	0	1	0.0	•			• .
Newton Medical Center				•	•		• •
Ocean Medical Center - Brick Division Our Lady of Lourdes Medical Center	0	2 19	0.0 31.6	15.3	42.0 ^		· . · 61.2

# Table 4.A: IN-HOSPITAL MORTALITY RATES FOR SUBARACHNOID HEMORRHAGE STROKE (Deaths per 100 conditions)

#### (Indicator Recommended for Hospital Performance Dashboard)

	# of	# of	Observed	Expected	Risk- Adjusted	95% Confidence Interval
Hospital National	Deaths 4,571	Patients 22,476	Rate 20.3	Rate NA	Rate NA	NA NA
Statewide	105	604	17.4	14.8	23.9	20.4 - 27.4
Overlook Medical Center	10	87	11.5	17.4	13.4 *	4.9 - 21.9
Palisades Medical Center						
Penn Medicine Princeton Medical Center	0	3	0.0	38.4	0.0 *^	0.0 - 23.1
Raritan Bay Medical Center-Old Bridge						
Raritan Bay Medical Center-Perth Amboy						
Riverview Medical Center	0	5	0.0	11.4	0.0 ^	0.0 - 49.5
RWJ University Hospital	8	54	14.8	13.1	23.0	10.6 - 35.4
RWJ University Hospital at Hamilton	0	1	0.0			
RWJ University Hospital at Rahway	0	1	0.0			
RWJ University Hospital Somerset	1	8	12.5	10.4	24.5 ^	0.0 - 65.5
Saint Clare's Hospital						
Saint Clare's Hospital/Denville Campus	0	2	0.0			
Saint Michael's Medical Center	1	1	100.0		•	
Saint Peter's University Hospital						
Shore Memorial Hospital	0	2	0.0			
Southern Ocean County Hospital					•	
St. Barnabas Medical Center	10	59	16.9	14.6	23.6	12.5 - 34.8
St. Francis Medical Center-Trenton					•	
St. Joseph's Hospital and Medical Center	8	28	28.6	15.4	37.7 ^	21.8 - 53.5
St. Joseph's Wayne					•	
St. Luke' Warren Hospital	0	1	0.0		•	
St. Mary's General Hospital					•	
The Memorial Hospital of Salem County					•	
Trinitas Hospital	0	1	0.0			
University Hospital	9	41	22.0	11.1	40.1 **	24.2 - 56.0
Valley Hospital	8	21	38.1	19.8	39.1 ^	24.5 - 53.7
Virtua-Memorial Hospital Burlington Cty.	0	2	0.0		•	
Virtua-West Jersey Hospital Marlton						
Virtua-West Jersey Hospital Voorhees						

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the 2017 NJ UB Data using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

Missing (.) = Hospital did not perform the procedure during the year in question; or it performed less than 3 procedures (rate is not computed when the denominator is less than 3).

## Table 4.B: IN-HOSPITAL MORTALITY RATES FOR INTRACEREBRAL HEMORRHAGIC STROKE (Deaths per 100)

	# of	# of	Observed	Expected	Risk- Adjusted		nfidence erval
Hospital	Deaths	Patients	Rate	Rate	Rate	LL	UL
National	19,225	95,272	20.2	NA	NA	NA	NA
Statewide	546	2,602	21.0	13.8	30.8	<b>29.0</b>	- 32.5
Atlantic City Medical Center-City Campus	18	61	29.5	14.5	41.2 *	30.3	- 52.1
Atlantic City Medical Center-Mainland Campus	2	7	28.6	16.5	35.0 ^	5.9	- 64.2
Bayshore Community Hospital	1	14	7.1	14.6	9.8 ^	0.0	- 32.6
Bergen Regional Medical Center	1	4	25.0	10.1	49.9 ^	0.0	- 108.3
Cape Regional Medical Center Inc	4	5	80.0	10.7	151.1 **^	100.1	- 202.1
Capital Health Medical Center - Hopewell	0	1	0.0				
Capital Health Regional Medical Center - Fuld	28	107	26.2	13.2	40.0	31.2	- 48.7
Carepoint Health - Bayonne Medical Center	8	34	23.5	14.5	32.8	18.4	- 47.2
Carepoint Health - Christ Hospital	3	23	13.0	11	23.8 ^	2.7	- 44.9
Carepoint Health - Hoboken University Medical Center	4	12	33.3	17	40.2 ^		- 62.3
CentraState Medical Center	14	26	53.8	15.5	70.0 **^	53.4	- 86.6
Chilton Memorial Center	8	30	26.7	18.8	28.7		- 41.4
Clara Maass Medical Center	2	36	5.6	13.3	8.4 *		- 23.5
Community Medical Center	12	62	19.4	14.9	26.3		- 36.8
Cooper Hospital/University Medical Center	22	127	17.3	21.8	16.0		- 21.6
Deborah Heart and Lung Center							· .
East Orange General Hospital	0	1	0				
Englewood Hospital and Medical Center	2	47	4.3	10	8.3		- 24.5
Hackensack Meridian Health Pascack Valley MC	3	6	50	20	50.7 ^	23.2	
Hackensack University Medical Center	25	139	18.0	10.4	34.8	25.6	
HackensackUMC - Mountainside	7	33	21.2	18.9	22.7		- 35.0
Hackettstown Community Hospital	3	8	38	13	58.4 ^		- 94.6
Holy Name Medical Center	3	27	11.1	10	22.7 ^		- 45.2
Hudson Regional Hospital	1	1	100				
Hunterdon Medical Center	4	25	16	11	28.1 ^		- 48.6
Inspira Medical Center - Elmer	0	2	0.0				
Inspira Medical Center - Woodbury	4	6	66.7	19	69.4 **^		- 97.5
Inspira Medical Centers, Inc	2	14	14.3	10	28.0 ^		- 59.1
Jefferson Cherry Hill Hospital	1	3	33.3	9	72.9 ^		- 144.3
Jefferson Stratford Hospital	0	2	0.0				
Jefferson Washington Township Hospital	13	92	14.1	13.0	22.0		- 31.9
Jersey City Medical Center	11	40	27.5	12.4	44.6		- 59.5
Jersey Shore University Medical Center	33	171	19.3	13.3	29.3		- 36.3
JFK Medical CTR - Anthony M. Yelensics Community	16	110	14.5	13.0	22.5		- 31.3
Lourdes Medical Center of Burlington Cty.	1	3	33	8	80.5 ^		- 155.9
Monmouth Medical Center	3	25	12	16	15.6 ^		- 31.9
Monmouth Medical Center - Southern Campus	0	5	0.0	21	0.0 ^		- 29.0
Morristown Medical Center	19	81	23.5	12.7	37.3		- 47.9
Newark Beth Israel Medical Center	5	26	19.2	12.7	36.1 ^		- 56.9
Newton Medical Center	4	12	33	24	28.1 ^		- 45.4
Ocean Medical Center - Brick Division	1	24	4.2	9	9.0 ^		- 34.2
Our Lady of Lourdes Medical Center	13	81	16.0	13.1	24.7		- <u>34.2</u> - 35.0

#### Table 4.B: IN-HOSPITAL MORTALITY RATES FOR INTRACEREBRAL HEMORRHAGIC STROKE (Deaths per 100)

Hoonital	# of	# of	Observed	Expected	Risk- Adjusted	95% Confidence Interval	
Hospital	Deaths	Patients	Rate	Rate	Rate	LL UL	
National	19,225	95,272	20.2	NA	NA	NA NA	
Statewide	546	2,602	21.0	13.8	30.8	29.0 - 32.5	
Overlook Medical Center	43	162	26.5	13.2	40.6 **	33.2 - 48.0	
Palisades Medical Center	5	12	42	23	37.0 ^	20.0 - 53.9	
Penn Medicine Princeton Medical Center	7	46	15.2	11.3	27.2	11.6 - 42.7	
Raritan Bay Medical Center-Old Bridge	2	5	40	22	36.2 ^	8.5 - 64.0	
Raritan Bay Medical Center-Perth Amboy	1	3	33	8	86.6 ^	7.9 - 165.2	
Riverview Medical Center	7	39	17.9	12.6	28.8	13.4 - 44.2	
RWJ University Hospital	41	146	28.1	14.4	39.3 **	32.2 - 46.4	
RWJ University Hospital at Hamilton	0	9	0.0	9	0.0 ^	0.0 - 42.7	
RWJ University Hospital at Rahway	0	8	0.0	10	0.0 ^	0.0 - 41.3	
RWJ University Hospital Somerset	15	48	31.3	11.3	55.6 **	40.6 - 70.5	
Saint Clare's Hospital	0	4	0.0	10.7	0.0 ^	0.0 - 57.1	
Saint Clare's Hospital/Denville Campus	2	29	6.9	15.4	9.0 *^	0.0 - 24.2	
Saint Michael's Medical Center							
Saint Peter's University Hospital	2	16	12.5	12.2	20.7 ^	0.0 - 45.2	
Shore Memorial Hospital	2	15	13.3	12.0	22.3 ^	0.0 - 48.1	
Southern Ocean County Hospital	0	1	0.0				
St. Barnabas Medical Center	16	121	13.2	12.8	20.8 *	12.5 - 29.1	
St. Francis Medical Center-Trenton							
St. Joseph's Hospital and Medical Center	30	110	27.3	14.4	38.2	30.1 - 46.4	
St. Joseph's Wayne	1	4	25.0	9.9	51.1 ^	0.0 - 110.6	
St. Luke' Warren Hospital	2	4	50.0	25.2	40.0 ^	13.2 - 66.7	
St. Mary's General Hospital	1	5	20.0	11.5	35.0 ^	0.0 - 83.8	
The Memorial Hospital of Salem County							
Trinitas Hospital	4	22	18.2	8.1	45.3 ^	17.0 - 73.7	
University Hospital	44	150	29.3	13.8	43.0 **	35.8 - 50.2	
Valley Hospital	18	73	24.7	17.7	28.1	19.5 - 36.7	
Virtua-Memorial Hospital Burlington Cty.	1	30	3.3	11.3	5.9 *	0.0 - 25.0	
Virtua-West Jersey Hospital Marlton							
Virtua-West Jersey Hospital Voorhees	1	7	14.3	10.6	27.1 ^	0.0 - 70.3	

Source: National numbers are derived from 2016 National Inpatient Sample (NIS) Data using the AHRQ SAS Software, Version 2019 while New Jersey's are calculated from the 2017 NJ UB Data using the same software version.

^ = Rate is based on a denominator less than 30 and should be taken with caution.

\* = Statistically significantly below state average, \*\* = Statistically significantly above state average.

Missing (.) = Hospital did not perform the procedure during the year in question; or it performed less than 3 procedures (rate is not computed when the denominator is less than 3).

## Table 4.C: IN-HOSPITAL MORTALITY RATES FOR ISCHEMIC HEMORRHAGIC STROKE (Deaths per 100)

Hospital	# of	# of	Observed	Expected Rate	Risk- Adjusted Rate	95% Confidence Interval	
	Deaths	Patients	Rate			LL	UL
National	19,420	465,907	4.2	NA	NA	NA	NA
Statewide	556	13,151	4.2	8.1	2.2	2.0 -	2.4
Atlantic City Medical Center-City Campus	20	273	7.3	8.8	3.5	1.9 -	5.0
Atlantic City Medical Center-Mainland Campus	2	127	1.6	8.0	0.8	0.0 -	3.3
Bayshore Community Hospital	2	108	1.9	8.1	1.0	0.0 -	3.5
Bergen Regional Medical Center	2	3	66.7	8.7	31.8 **^	16.6 -	47.0
Cape Regional Medical Center Inc	3	133	2.3	7.5	1.3	0.0 -	3.7
Capital Health Medical Center - Hopewell	1	74	1.4	7.0	0.8	0.0 -	4.2
Capital Health Regional Medical Center - Fuld	15	283	5.3	9.4	2.3	0.9 -	3.8
Carepoint Health - Bayonne Medical Center	3	82	3.7	6.9	2.2	0.0 -	5.4
Carepoint Health - Christ Hospital	5	63	7.9	5	6.5	2.2 -	10.7
Carepoint Health - Hoboken University Medical Center	5	64	7.8	7	4.9	1.2 -	8.5
CentraState Medical Center	14	202	6.9	8.5	3.4	1.6 -	5.2
Chilton Memorial Center	8	188	4.3	9.3	1.9	0.1 -	3.7
Clara Maass Medical Center	9	220	4.1	7.6	2.3	0.4 -	4.1
Community Medical Center	15	404	3.7	8.1	1.9	0.6 -	3.2
Cooper Hospital/University Medical Center	22	381	5.8	7.0	3.4	2.0 -	4.8
Deborah Heart and Lung Center							•
East Orange General Hospital	0	48	0	7	0.0	0.0 -	4.3
Englewood Hospital and Medical Center	8	180	4.4	8	2.3	0.3 -	4.3
Hackensack Meridian Health Pascack Valley MC	2	49	4	10	1.7	0.0 -	5.1
Hackensack University Medical Center	29	470	6.2	8.9	2.9	1.7 -	4.1
HackensackUMC - Mountainside	7	171	4.1	8.5	2.0	0.0 -	4.0
Hackettstown Community Hospital	2	83	2	9	1.1	0.0 -	3.9
Holy Name Medical Center	9	197	4.6	9	2.1	0.3 -	3.9
Hudson Regional Hospital	0	9	0	9	0.0 ^	0.0 -	8.5
Hunterdon Medical Center	6	145	4	9	2.0	0.0 -	4.2
Inspira Medical Center - Elmer	0	38	0.0	7	0.0	0.0 -	4.8
Inspira Medical Center - Woodbury	7	139	5.0	7	3.1	0.6 -	5.6
Inspira Medical Centers, Inc	12	230	5.2	7	3.0	1.1 -	4.9
Jefferson Cherry Hill Hospital	3	91	3.3	8	1.7	0.0 -	4.5
Jefferson Stratford Hospital	1	92	1.1	7	0.6	0.0 -	3.6
Jefferson Washington Township Hospital	16	333	4.8	7.7	2.6	1.1 -	4.1
Jersey City Medical Center	10	212	4.7	7.2	2.7	0.8 -	4.7
Jersey Shore University Medical Center	18	450	4.0	9.5	1.8	0.6 -	2.9
JFK Medical CTR - Anthony M. Yelensics Community	17	571	3.0	7.9	1.6	0.4 -	2.7
Lourdes Medical Center of Burlington Cty.	1	61	2	8	0.9	0.0 -	4.5
Monmouth Medical Center	0	101	0	8	0.0	0.0 -	2.7
Monmouth Medical Center - Southern Campus	1	51	2.0	8	1.0	0.0 -	
Morristown Medical Center	31	433	7.2	8.0	3.7 **	2.4 -	5.0
Newark Beth Israel Medical Center	8	240	3.3	6	2.3	0.2 -	4.3
Newton Medical Center	5	182	3	8	1.5	0.0 -	
Ocean Medical Center - Brick Division	5	301	1.7	9	0.8	0.0 -	
Our Lady of Lourdes Medical Center	8	269	3.0	8.5	1.5	0.0 -	

#### Table 4.C: IN-HOSPITAL MORTALITY RATES FOR ISCHEMIC HEMORRHAGIC STROKE (Deaths per 100)

Hospital	# of Deaths	# of Patients	Observed Rate	Expected Rate	Risk- Adjusted Rate	95% Confidence Interval LL UL
National	19,420	465,907	4.2	NA	NA	NA NA
Statewide	556	13,151	4.2	8.1	2.2	2.0 - 2.4
Overlook Medical Center	36	535	6.7	8.5	3.3	2.2 - 4.4
Palisades Medical Center	7	154	5	9	2.1	0.1 - 4.2
Penn Medicine Princeton Medical Center	8	210	3.8	8.1	2.0	0.1 - 3.8
Raritan Bay Medical Center-Old Bridge	0	78	0	7	0.0	0.0 - 3.3
Raritan Bay Medical Center-Perth Amboy	3	60	5	8	2.8	0.0 - 6.4
Riverview Medical Center	5	149	3.4	8.9	1.6	0.0 - 3.7
RWJ University Hospital	33	509	6.5	8.3	3.2	2.1 - 4.4
RWJ University Hospital at Hamilton	2	132	1.5	7	0.9	0.0 - 3.4
RWJ University Hospital at Rahway	3	121	2.5	8	1.3	0.0 - 3.8
RWJ University Hospital Somerset	6	236	2.5	8.1	1.3	0.0 - 3.1
Saint Clare's Hospital	0	80	0.0	7.8	0.0	0.0 - 3.1
Saint Clare's Hospital/Denville Campus	1	114	0.9	8.7	0.4	0.0 - 2.9
Saint Michael's Medical Center	1	93	1.1	6.7	0.7	0.0 - 3.8
Saint Peter's University Hospital	1	115	0.9	6.6	0.6	0.0 - 3.4
Shore Memorial Hospital	0	112	0.0	7.0	0.0	0.0 - 2.7
Southern Ocean County Hospital	2	112	1.8	8.0	0.9	0.0 - 3.5
St. Barnabas Medical Center	19	400	4.8	7.9	2.5	1.2 - 3.9
St. Francis Medical Center-Trenton	1	43	2.3	7.5	1.3	0.0 - 5.5
St. Joseph's Hospital and Medical Center	27	451	6.0	7.4	3.4	2.1 - 4.7
St. Joseph's Wayne	0	85	0.0	6.9	0.0	0.0 - 3.2
St. Luke' Warren Hospital	1	90	1.1	8.2	0.6	0.0 - 3.4
St. Mary's General Hospital	2	92	2.2	9.0	1.0	0.0 - 3.7
The Memorial Hospital of Salem County	1	44	2.3	7.9	1.2	0.0 - 5.3
Trinitas Hospital	6	151	4.0	7.0	2.4	0.0 - 4.8
University Hospital	24	308	7.8	7.9	4.1 **	2.6 - 5.7
Valley Hospital	27	362	7.5	9.1	3.4	2.1 - 4.7
Virtua-Memorial Hospital Burlington Cty.	2	220	0.9	8.2	0.5	0.0 - 2.3
Virtua-West Jersey Hospital Marlton	2	142	1.4	8.2	0.7	0.0 - 3.0
Virtua-West Jersey Hospital Voorhees	4	202	2.0	7.7	1.1	0.0 - 3.0

#### (Indicator Recommended for Hospital Performance Dashboard)

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