

Table 1. Severe maternal morbidity (SMM) rate in NYC in 2008-2014

Year	N SMM	SMM rate per 10,000 deliveries	N hospital deliveries
2008-2014	19,769	241.0	820,141
2008	2,340	195.4	119,745
2009	2,499	211.2	118,315
2010	3,014	253.4	118,928
2011	2,777	235.7	117,812
2012	3,006	253.9	118,379
2013	2,995	262.8	113,986
2014	3,138	277.8	112,976

Data source

Based on matching birth certificate data from the NYC DOHMH Bureau of Vital Statistics to hospital discharge records from the New York Statewide Planning and Research Cooperative System (SPARCS) for all NYC hospital deliveries in 2008-2014.

SMM

SMM are life-threatening complications during pregnancy and childbirth. Severe maternal morbidity (SMM) is identified during delivery hospitalizations based on the CDC definition [1], which includes 25 indicators of SMM representing either serious complications of pregnancy or delivery (e.g. eclampsia or acute renal failure) or procedures used to manage these serious conditions (e.g. blood transfusion). The detailed SMM definition is described in the recent DOHMH surveillance report [2].

References

- [1] Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. *Obstetrics and Gynecology* 2012;120:1029-36.
- [2] New York City Department of Health and Mental Hygiene. Severe maternal morbidity in New York City, 2008-2012. DOHMH; New York City, 2016.

Notes

Data were tabulated on July 3, 2018 by the NYC DOHMH, Division of Family and Child Health (DFCH), Bureau of Maternal Infant and Reproductive Health (BMIRH)



Table 2. Leading indicators of severe maternal morbidity (SMM), New York City, 2013-2014

		N	Rate per 10,000 deliveries	N hospital deliveries
		2013-2014		
Total SMM		6,133	270.2	226,962
Leading diagnosis-based SMM indicators	ICD-9-CM diagnosis codes			
Disseminated intravascular coagulation	286.6 286.9 666.3x	542	23.9	226,962
Complications during procedure or surgery	669.4x 997.1	406	17.9	226,962
Acute renal failure	584.x 669.3x	174	7.7	226,962
Adult respiratory distress syndrome	518.5x 518.81 518.82 518.84 799.1	160	7.0	226,962
Sepsis	038.xx 995.91 995.92 670.2	152	6.7	226,962
Shock	669.1x 785.5x 995.0 995.4 998.0	115	5.1	226,962
Eclampsia	642.6x	76	3.3	226,962
Leading procedure-based SMM indicators	ICD-9-CM procedure codes			
Blood transfusion	99.0x	4,783	210.7	226,962
Hysterectomy	68.3x-68.9	357	15.7	226,962
Ventilation	93.90 96.01-96.05 96.7x	336	14.8	226,962
Operations of the heart and pericardium	35.xx 36.xx 37.xx 39.xx	168	7.4	226,962

Data source

Based on matching birth certificate data from the NYC DOHMH Bureau of Vital Statistics to hospital discharge records from the New York Statewide Planning and Research Cooperative System (SPARCS) for all NYC hospital deliveries in 2008-2014.

SMM

SMM are life-threatening complications during pregnancy and childbirth. Severe maternal morbidity (SMM) is identified during delivery hospitalizations based on the CDC definition [1], which includes 25 indicators of SMM representing either serious complications of pregnancy or delivery (e.g. eclampsia or acute renal failure) or procedures used to manage these serious conditions (e.g. blood transfusion). The detailed SMM definition is described in the recent DOHMH surveillance report [2].

References

- [1] Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. *Obstetrics and Gynecology* 2012;120:1029-36.
- [2] New York City Department of Health and Mental Hygiene. Severe maternal morbidity in New York City, 2008-2012. DOHMH; New York City, 2016.

Notes

Data were tabulated on July 3, 2018 by the NYC DOHMH, Division of Family and Child Health (DFCH), Bureau of Maternal Infant and Reproductive Health (BMIRH)



Table 3. Severe maternal morbidity (SMM) in NYC in 2013-2014, by background characteristics			
	N SMM	SMM rate per 10,000 deliveries	N hospital deliveries
	2013-2014	2013-2014	2013-2014
NYC	6,133	270.2	226,962
Maternal age			
19 years or less	327	359.9	9,087
20-24 years	1,025	261.1	39,251
25-29 years	1,388	239.1	58,044
30-34 years	1,623	241.2	67,292
35-39 years	1,284	310.6	41,333
40 or more years	486	406.5	11,955
Maternal race/ethnicity			
White NH	1,233	167.0	73,829
Black NH	1,968	438.1	44,926
Latina	2,095	312.1	67,125
Asian or Pacific Islander	742	193.4	38,368
Other or multiple	83	322.1	2,577
Not reported	12	-	137
Maternal education			
Less than high school	1,416	314.0	45,101
High school graduation	1,423	287.2	49,554
Some college	1,468	293.1	50,080
College graduate or higher	1,780	218.4	81,488
Not reported	46	-	739
Medicaid insurance			
Medicaid	3,911	293.7	133,149
Other	2,222	236.9	93,813
Borough of residence			
Manhattan	745	221.5	33,638
Bronx	1,379	364.2	37,868
Brooklyn	2,136	281.4	75,914
Queens	1,197	235.9	50,752
Staten Island	210	210.4	9,981
NYS outside NYC	300	254.7	11,777
Outside NYS	166	236.8	7,011
Not reported	0	-	21
Nativity			
Foreign-born	3,156	271.1	116,431
US-born (incl. territories)	2,975	269.3	110,478
Not reported	2	-	53
Prenatal care entry			
First trimester	4,152	253.8	163,584
Second trimester	1,309	296.3	44,183
Third trimester	486	327.1	14,859
No prenatal care	70	501.1	1,397
Not reported	116	-	2,939
Pre-pregnancy BMI			
Underweight (<18.5)	301	239.0	12,592
Normal weight (18.5-24.9)	2,848	234.2	121,582
Overweight (25.0-29.9)	1,543	283.8	54,370

Obese I (30.0-34.9)	821	345.5	23,760
Obese II (35.0-39.9)	342	388.9	8,793
Obese III (40.0 or higher)	227	476.1	4,768
Not reported	51	-	1,097
Chronic conditions			
Diabetes (pre-existing)	109	669.5	1,628
No diabetes (pre-existing)	6,024	267.3	225,334
Hypertension (pre-existing)	246	774.3	3,177
No hypertension (pre-existing)	5,887	263.1	223,785
Heart disease	26	704.6	369
No heart disease	6,107	269.5	226,593
Plurality			
Single birth	5,732	257.6	222,556
Multiple birth	401	910.1	4,406
Pregnancy intention			
Wanted to be pregnant sooner	1,306	278.2	46,944
Wanted to be pregnant later	1,166	282.3	41,304
Wanted to be pregnant then	3,022	247.3	122,192
Did not want to be pregnant then or in the future	363	413.7	8,775
Not reported	276	-	7,747
Parity			
0 previous live births	2,650	262.3	101,043
1 previous live birth	1,655	238.2	69,494
2 or more previous live births	1,823	323.6	56,332
Not reported	5	-	93
Method of delivery			
Primary cesarian	2,441	567.0	43,050
Repeat cesarian	1,633	525.7	31,063
Vaginal	2,039	133.5	152,753
Not reported	20	-	96

Data source

Based on matching birth certificate data from the NYC DOHMH Bureau of Vital Statistics to hospital discharge records from the New York Statewide Planning and Research Cooperative System (SPARCS) for all NYC hospital deliveries in 2008-2014.

SMM

SMM are life-threatening complications during pregnancy and childbirth. Severe maternal morbidity (SMM) is identified during delivery hospitalizations based on the CDC definition [1], which includes 25 indicators of SMM representing either serious complications of pregnancy or delivery

(e.g. eclampsia or acute renal failure) or procedures used to manage these serious conditions (e.g. blood transfusion).

The detailed SMM definition is described in the recent DOHMH surveillance report [2].

References

[1] Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. *Obstetrics and Gynecology* 2012;120:1029-36.

[2] New York City Department of Health and Mental Hygiene. Severe maternal morbidity in New York City, 2008-2012. DOHMH; New York City, 2016.

Notes

Data were tabulated on July 3, 2018 by the NYC DOHMH, Division of Family and Child Health (DFCH), Bureau of Maternal Infant and Reproductive Health (BMIRH)

(-) Data are suppressed due to small numbers or where demographic/clinical information was not reported.

Table 4. Severe maternal morbidity (SMM) in NYC in 2013-2014, by Community District

		N SMM	SMM rate per 10,000 deliveries	N hospital deliveries
		2013-2014	2013-2014	2013-2014
	NYC	6,133	270.2	226,962
ID	Community District of Residence			
101	Battery Park, Tribeca	55	256.3	2,146
102	Greenwich Village, SOHO	25	-	1,435
103	Lower East Side	50	179.3	2,788
104	Chelsea, Clinton	31	172.8	1,794
105	Midtown Business District	15	-	1,051
106	Murray Hill	48	199.7	2,404
107	Upper West Side	87	188.0	4,627
108	Upper East Side	68	141.1	4,818
109	Manhattanville	58	280.6	2,067
110	Central Harlem	88	292.6	3,008
111	East Harlem	99	327.9	3,019
112	Washington Heights	117	265.4	4,408
201	Mott Haven	113	370.0	3,054
202	Hunts Point	56	326.3	1,716
203	Morrisania	102	374.4	2,724
204	Concourse, Highbridge	162	334.4	4,845
205	University/Morris Heights	139	323.2	4,301
206	East Tremont	107	422.1	2,535
207	Fordham	140	332.5	4,211
208	Riverdale	49	234.4	2,090
209	Unionport, Soundview	184	392.2	4,692
210	Throgs Neck	78	422.8	1,845
211	Pelham Parkway	96	364.2	2,636
212	Williamsbridge	158	478.1	3,305
301	Williamsburg, Greenpoint	129	190.5	6,773
302	Fort Greene, Brooklyn Heights	71	237.1	2,994
303	Bedford Stuyvesant	162	375.2	4,318
304	Bushwick	107	367.2	2,914
305	East New York	268	524.9	5,106
306	Park Slope	87	261.2	3,331
307	Sunset Park	81	154.6	5,238
308	Crown Heights North	82	347.0	2,363
309	Crown Heights South	91	319.2	2,851
310	Bay Ridge	62	176.4	3,514
311	Bensonhurst	109	226.3	4,816
312	Borough Park	94	92.4	10,177
313	Coney Island	67	299.6	2,236
314	Flatbush, Midwood	159	337.1	4,717
315	Sheepshead Bay	61	152.6	3,998
316	Brownsville	118	464.2	2,542
317	East Flatbush	215	567.7	3,787
318	Canarsie	173	408.7	4,233
401	Astoria, Long Island City	110	290.2	3,791
402	Sunnyside, Woodside	74	241.4	3,065

403	Jackson Heights	135	268.8	5,023
404	Elmhurst, Corona	124	244.4	5,073
405	Ridgewood, Glendale	84	221.9	3,786
406	Rego Park, Forest Hills	55	210.3	2,615
407	Flushing	86	152.9	5,625
408	Fresh Meadows, Briarwood	60	172.3	3,483
409	Woodhaven	89	247.6	3,594
410	Howard Beach	64	264.8	2,417
411	Bayside	18	-	1,285
412	Jamaica, St Albans	149	270.2	5,515
413	Queens Village	92	287.9	3,195
414	The Rockaways	57	249.8	2,282
501	Port Richmond	107	243.6	4,392
502	Willowbrook, South Beach	47	179.3	2,622
503	Tottenville	56	190.5	2,940
999	Outside NYC or not reported	465	246.9	18,832

Data source

Based on matching birth certificate data from the NYC DOHMH Bureau of Vital Statistics to hospital discharge records from the New York Statewide Planning and Research Cooperative System (SPARCS) for all NYC hospital deliveries in 2008-2014.

SMM

SMM are life-threatening complications during pregnancy and childbirth. Severe maternal morbidity (SMM) is identified during delivery hospitalizations based on the CDC definition [1], which includes 25 indicators of SMM representing either serious complications of pregnancy or delivery (e.g. eclampsia or acute renal failure) or procedures used to manage these serious conditions (e.g. blood transfusion). The detailed SMM definition is described in the recent DOHMH surveillance report [2].

References

- [1] Callaghan WM, Creanga AA, Kuklina EV. Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. *Obstetrics and Gynecology* 2012;120:1029-36.
- [2] New York City Department of Health and Mental Hygiene. Severe maternal morbidity in New York City, 2008-2012. DOHMH; New York City, 2016.

Notes

Data were tabulated on July 3, 2018 by the NYC DOHMH, Division of Family and Child Health (DFCH), Bureau of Maternal Infant and Reproductive Health (BMIRH)

(-) SMM rates are suppressed due to small counts and unstable rates.

