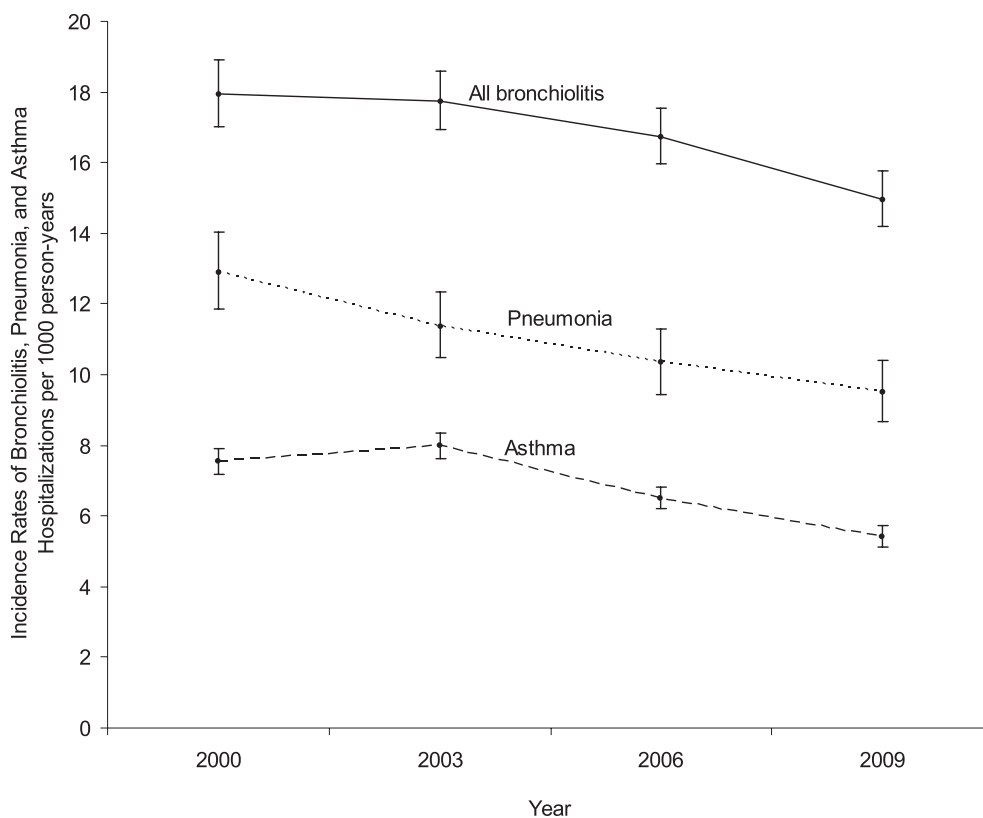


Supplemental Information



SUPPLEMENTAL FIGURE 3

Incidence rates of US bronchiolitis, pneumonia, and asthma hospitalizations per 1000 children, age <2 years; 2000–2009. We identified children aged <2 years with pneumonia by using CCS code 122 and those with asthma by using CCS code 128 in the primary or secondary diagnosis fields. For all disease groups, a decreasing trend in incidence of hospitalization was seen across all study years ($P_{\text{trend}} < .001$). I bars represent 95% CIs.

SUPPLEMENTAL TABLE 4 Use of Mechanical Ventilation in US Bronchiolitis Hospitalizations, According to Various Definitions, 2000–2009

	Weighted Sample, <i>n</i>	Use of Mechanical Ventilation, % (95% CI)				<i>P</i> for Trend
		2000	2003	2006	2009	
All bronchiolitis	544 828	1.9 (1.6–2.2)	2.0 (1.7–2.2)	2.1 (1.8–2.4)	2.3 (2.1–2.6)	.008
Sensitivity analyses						
Bronchiolitis as primary diagnosis	485 656	1.8 (1.5–2.1)	1.8 (1.6–2.0)	1.9 (1.7–2.2)	2.1 (1.8–2.3)	.04
Age 0–11 mo	461 506	2.1 (1.8–2.4)	2.1 (1.9–2.4)	2.3 (2.1–2.6)	2.6 (2.3–2.8)	.003
Age 12–23 mo	83 322	0.7 (0.5–1.0)	0.9 (0.7–1.1)	0.8 (0.6–1.0)	1.0 (0.8–1.3)	.09
No high-risk condition ^a	509 127	2.9 (2.7–3.1)	3.1 (2.9–3.2)	3.3 (3.1–3.4)	3.3 (3.2–3.5)	.69
Bronchiolitis as primary diagnosis, age 0–11 mo, no high-risk condition	388 559	1.5 (1.4–1.7)	1.5 (1.3–1.7)	1.6 (1.4–1.8)	1.6 (1.4–1.8)	.32

^aHigh-risk medical condition was defined as history of prematurity or at least 1 complex medical condition, previously defined by using ICD-9-CM codes in 9 categories of illness (ie, neuromuscular, cardiovascular, respiratory, renal, gastrointestinal, hematology or immunologic, metabolic, malignancy, and other congenital or genetic defect disorders).

SUPPLEMENTAL TABLE 5 Unadjusted and Multivariable Models of Use of Mechanical Ventilation in US Bronchiolitis Hospitalizations, 2000–2009

Variable	Use of Mechanical Ventilation	
	Unadjusted Model	Multivariable Model
Calendar year		
2000	Reference	Reference
2003	1.02 (0.89–1.08)	0.98 (0.85–1.13)
2006	1.10 (0.95–1.27)	0.97 (0.83–1.13)
2009	1.21 (1.04–1.41) ^a	0.98 (0.84–1.15)
Age, mo		
0–11	—	2.62 (2.31–2.96) ^a
12–23	—	Reference
Male gender (versus female)	—	1.01 (0.96–1.07)
Race or ethnic group		
White	—	1.37 (1.20–1.57) ^a
Black	—	Reference
Hispanic	—	1.04 (0.87–1.26)
Other	—	1.54 (1.29–1.83) ^a
Type of health insurance		
Public	—	1.26 (1.15–1.37) ^a
Private	—	Reference
Other	—	1.24 (1.03–1.49) ^a
Admission day		
Weekday	—	Reference
Weekend	—	1.10 (1.02–1.18) ^a
Any high-risk condition ^b	—	4.37 (3.99–4.79) ^a
Region		
Northeast	—	Reference
Midwest	—	0.76 (0.56–1.02)
South	—	0.82 (0.62–1.10)
West	—	0.85 (0.65–1.11)
Location/teaching status		
Rural	—	Reference
Urban nonteaching	—	2.33 (1.58–3.44) ^a
Urban teaching	—	5.74 (3.83–8.60) ^a
Hospital designation		
Children's hospital	—	2.57 (2.06–3.20) ^a
Non-children's hospital	—	Reference

Data are expressed as OR (95% CI).

^aStatistically significant.

^bHigh-risk medical condition was defined as ≥ 1 complex medical condition, previously defined by using ICD-9-CM codes in 9 categories of illness (ie, neuromuscular, cardiovascular, respiratory, renal, gastrointestinal, hematology or immunologic, metabolic, malignancy, and other congenital or genetic defect disorders).

SUPPLEMENTAL TABLE 6 Hospital Charges per Case of Bronchiolitis, According to Various Definitions, 2000–2009

	Weighted Sample, <i>n</i>	Hospital Charges, 2009 US Dollars				<i>P</i> for Trend
		2000	2003	2006	2009	
All bronchiolitis	544 828					
Geometric mean (95% CI)		6384 (6137–6632)	7102 (6835–7369)	7729 (7424–8035)	8534 (8180–8888)	<.001
Median (IQR)		5659 (3704–10 199)	6637 (4033–11 390)	7284 (4417–12 597)	8062 (4842–13 971)	
Sensitivity analyses						
Bronchiolitis as primary diagnosis	485 656					
Geometric mean (95% CI)		6291 (6047–6535)	7004 (6746–7261)	7580 (7282–7879)	8332 (7982–8683)	<.001
Median (IQR)		5900 (3666–10 063)	6565 (3998–11 226)	7168 (4347–12 325)	7894 (4745–13 624)	
Age 0–11 mo	461 506					
Geometric mean (95% CI)		6512 (6257–6767)	7224 (6963–7525)	7919 (7599–8240)	8766 (8399–9133)	<.001
Median (IQR)		6107 (3753–10 434)	6776 (4102–11 676)	7464 (4509–12 933)	8267 (4949–14 462)	
No high-risk condition ^a	509 127					
Geometric mean (95% CI)		6148 (5913–6383)	6816 (6571–7061)	7392 (7108–7675)	8099 (7774–8424)	<.001
Median (IQR)		5822 (3648–9781)	6446 (3958–10 883)	7059 (4324–11 998)	7779 (4723–13 191)	
Bronchiolitis as primary diagnosis, age 0–11 mo and no high risk condition	388 559					
Geometric mean (95% CI)		6176 (5936–6416)	6865 (6617–7114)	7411 (7121–7701)	8101 (7766–8436)	<.001
Median (IQR)		5877 (3652–9873)	6520 (3991–10 985)	7097 (4336–12 014)	7819 (4726–13 245)	

IQR, interquartile range.

^aHigh-risk medical condition was defined as history of prematurity or ≥ 1 complex medical condition, previously defined by using ICD-9-CM codes in 9 categories of illness (ie, neuromuscular, cardiovascular, respiratory, renal, gastrointestinal, hematology or immunologic, metabolic, malignancy, and other congenital or genetic defect disorders).