

Table 1. Incidence rates and adjusted hazard ratio of risk factors for Respiratory Syncytial Virus hospitalization in 5,200 Danish children born 23 – 32 weeks of gestation. January 1 st 1997 – June 30 th 2003			
	RSV rate ¹	Number of cases	Adjusted ² HR 95 % CI (P value ³)
Maternal age at delivery, years,			
<25	63.8	86	1.39 (0.90;2.16)
25;29	47.3	145	0.82 (0.58;1.17)
30;34	50.6	155	1 (ref.)
≥35	47.3	81	0.96 (0.65;1.43)
			0.084
Maternal history of asthma hospitalization ⁴			
No	50.3	424	1 (ref.)
Yes	56.4	43	1.06 (0.67; 1.68)
			0.810
Single parenthood at time of birth			
Yes	66.7	119	1.33 (0.94;1.88)
No	46.9	347	1 (ref.)
			0.104
Maternal smoking during pregnancy,			
No	43.4	252	1 (ref.)
Yes	61.7	141	1.17 (0.85;1.62)
Missing	67.5	74	1.20 (0.78;1.82)
			0.509
Plurality,			
Singleton	52.5	313	1 (ref.)
Multiple	47.7	154	0.56 (0.40;0.78)
			<0.001
Size for gestational age,			
SGA	60.5	124	1.03 (0.75;1.40)
AGA	48.6	326	1 (ref.)
LGA	39.3	17	0.74 (0.38;1.43)
			0.645
Mode of delivery,			
Vaginal	41.9	134	1 (ref.)
CD (all)	55.5	333	1.12 (0.82;1.53)
			0.477
Sex,			
Male	55.3	272	1.14 (0.88;1.47)
Female	45.7	195	1 (ref.)
			0.316
Chronic disease,			
Yes	77.1	317	1.63 (1.22 ;2.17)
No	43.7	150	1 (ref.)
			<0.001
Prior asthma hospitalization of the child ⁵ ,			
Yes	79.8	436	3.39 (1.63;7.04)
No	49.5	31	1 (ref.)
			<0.001
Number of children living in household ⁶			
1	33.7	115	1 (ref.)
2	56.0	207	1.77 (1.26;2.48)
≥3	70.3	142	3.01 (2.04;4.45)
			<0.001
Enrolment in daycare,			
Yes	59.7	374	1.32 (0.84;2.09)
No	31.8	93	1 (ref.)
			0.229

¹RSV rate per 1000 years at risk ²All analyses were adjusted for all risk factors presented. ³P-value for overall effect of variables. If the variable included a missing category, the missing category was excluded from the test. ⁴Asthma hospitalization defined by J45.0 - J45.9 and J46.0 - J46.9. ⁵ Only asthma hospitalization > 30 days before the RSV hospitalization was included. ⁶ Numbers does not sum up due to missing values.

Abbreviations: RSV: Respiratory Syncytial Virus, SGA: Small for Gestational Age, AGA: Accurate for Gestational Age, LGA: Large for Gestational Age, CD: Caesarean Delivery

Table 2. Incidence rates and adjusted hazard ratio of risk factors for Respiratory Syncytial Virus hospitalization in 11,193 Danish children born 33 – 35 weeks of gestation. January 1 st 1997 – June 30 th 2003			
	RSV rate ¹	Number of cases	Adjusted ² HR 95 % CI (P value ³)
Maternal age at delivery, years,			
<25	34.5	106	1.26 (0.94;1.69)
25;29	24.9	185	1.04 (0.81;1.34)
30;34	29.4	206	1 (ref.)
≥35	26.3	100	0.90 (0.67;1.20)
			0.258
Maternal history of asthma hospitalization ⁴			
No	27.2	535	1 (ref.)
Yes	38.0	62	1.15 (0.83; 1.61)
			0.397
Single parenthood at time of birth			
Yes	38.0	150	1.20 (0.94;1.52)
No	25.7	447	1 (ref.)
			0.143
Maternal smoking during pregnancy,			
No	25.1	356	1 (ref.)
Yes	37.5	203	1.26 (1.01;1.57)
Missing	22.4	38	0.89 (0.59;1.34)
			0.08
Plurality,			
Singleton	27.9	423	1 (ref.)
Multiple	28.1	174	0.74 (0.58;0.95)
			0.016
Size for gestational age,			
SGA	30.3	93	0.93 (0.71;1.22)
AGA	28.1	464	1 (ref.)
LGA	23.2	40	0.79 (0.54;1.15)
			0.441
Mode of delivery,			
Vaginal	26.7	315	1 (ref.)
CD (all)	29.7	282	1.16 (0.95;1.42)
			0.135
Sex,			
Male	29.1	335	1.12 (0.92;1.35)
Female	26.8	262	1 (ref.)
			0.251
Chronic disease,			
Yes	49.5	527	2.56 (1.83 ;3.57)
No	26.5	70	1 (ref.)
			<0.001
Prior asthma hospitalization of the child ⁵ ,			
Yes	44.8	573	2.53 (1.37;4.67)
No	27.6	24	1 (ref.)
			<0.001
Number of children living in household ⁶			
1	19.6	159	1 (ref.)
2	29.4	232	1.94 (1.51;2.49)
≥3	39.3	203	2.79 (2.09;3.74)
			<0.001
Enrolment in daycare,			
Yes	35.5	461	1.55 (1.13;2.12)
No	16.3	136	1 (ref.)
			0.006

¹RSV rate per 1000 years at risk ²All analyses were adjusted for all risk factors presented. ³P-value for overall effect of variables. If the variable included a missing category, the missing category was excluded from the test. ⁴Asthma hospitalization defined by J45.0 - J45.9 and J46.0 - J46.9. ⁵ Only asthma hospitalization > 30 days before the RSV hospitalization was included. ⁶ Numbers does not sum up due to missing values.

Abbreviations: RSV: Respiratory Syncytial Virus, SGA: Small for Gestational Age, AGA: Accurate for Gestational Age, LGA: Large for Gestational Age, CD: Caesarean Delivery

Table 3. Incidence rates and adjusted hazard ratio of risk factors for Respiratory Syncytial Virus hospitalization in 9,815 Danish children born 36 weeks of gestation. January 1 st 1997 – June 30 th 2003			
	RSV rate ¹	Number of cases	Adjusted ² HR 95 % CI (P value ³)
Maternal age at delivery, years,			
<25	22.5	64	1.21 (0.81;1.79)
25;29	22.1	144	1.18 (0.88;1.59)
30;34	22.6	142	1 (ref.)
≥35	23.4	76	0.85 (0.59;1.22)
			0.268
Maternal history of asthma hospitalization ⁴			
No	21.5	373	1 (ref.)
Yes	35.7	53	1.73 (1.16; 2.60)
			0.007
Single parenthood at time of birth			
Yes	33.6	112	1.59 (1.17;2.16)
No	20.3	314	1 (ref.)
			0.002
Maternal smoking during pregnancy,			
No	20.3	267	1 (ref.)
Yes	27.5	124	1.06 (0.80;1.41)
Missing	30.1	35	1.19 (0.73;1.94)
			0.744
Plurality,			
Singleton	22.1	322	1 (ref.)
Multiple	24.1	104	0.65 (0.47;0.90)
			0.009
Size for gestational age,			
SGA	16.1	29	0.63 (0.40;0.90)
AGA	22.7	347	1 (ref.)
LGA	27.8	50	1.12 (0.77;1.64)
			0.09
Mode of delivery,			
Vaginal	19.8	254	1 (ref.)
CD (all)	28.4	172	1.60 (1.23;2.08)
			<0.001
Sex,			
Male	24.6	249	1.12 (0.89;1.42)
Female	20.3	177	1 (ref.)
			0.329
Chronic disease,			
Yes	59.9	53	3.98 (2.57 ;6.14)
No	20.8	374	1 (ref.)
			<0.001
Prior asthma hospitalization of the child ⁵ ,			
Yes	55.2	404	4.59 (2.04;10.3)
No	21.8	22	1 (ref.)
			<0.001
Number of children living in household ⁶			
1	11.9	89	1 (ref.)
2	26.5	179	2.50 (1.82;3.4)
≥3	33.9	155	3.84(2.67;5.52)
			<0.001
Enrolment in daycare,			
Yes	29.2	100	1.95 (1.31;2.91)
No	13.0	326	1 (ref.)
			<0.001

¹RSV rate per 1000 years at risk ²All analyses were adjusted for all risk factors presented. ³P-value for overall effect of variables. If the variable included a missing category, the missing category was excluded from the test. ⁴Asthma hospitalization defined by J45.0 - J45.9 and J46.0 - J46.9. ⁵ Only asthma hospitalization > 30 days before the RSV hospitalization was included. ⁶ Numbers does not sum up due to missing values.

Abbreviations: RSV: Respiratory Syncytial Virus, SGA: Small for Gestational Age, AGA: Accurate for Gestational Age, LGA: Large for Gestational Age, CD: Caesarean Delivery

Table 4. Incidence rates and adjusted hazard ratio of risk factors for Respiratory Syncytial Virus hospitalization in 360,484 Danish children born 37 - 41 weeks of gestation. January 1 st 1997 – June 30 th 2003			
	RSV rate ¹	Number of cases	Adjusted ² HR 95 % CI (P value ³)
Maternal age at delivery, years,			
<25	16.8	1,738	1.46 (1.37;1.55)
25;29	13.9	3,560	1.17 (1.11;1.23)
30;34	13.8	3,327	1 (ref.)
≥35	12.8	1,336	0.85 (0.80;0.91)
Maternal history of asthma hospitalization ⁴			
No	13.5	8,908	1 (ref.)
Yes	22.3	1,053	1.48 (1.39; 1.58)
Single parenthood at time of birth			
Yes	18.9	2,176	1.17 (1.12;1.24)
No	13.2	7,777	1 (ref.)
Maternal smoking during pregnancy,			
No	12.2	6,452	1 (ref.)
Yes	20.8	3,102	1.48 (1.42;1.55)
Missing	14.9	407	1.11 (1.00;1.23)
Plurality,			
Singleton	14.0	9,630	1 (ref.)
Multiple	19.5	331	0.96 (0.86;1.08)
Size for gestational age,			
SGA	19.9	502	1.31 (1.19;1.43)
AGA	13.8	8,799	1 (ref.)
LGA	14.9	660	0.99 (0.01;1.07)
Mode of delivery,			
Vaginal	11.6	1,642	1 (ref.)
CD (all)	16.5	8,319	1.26 (1.19;1.33)
Sex,			
Male	15.9	5,685	1.26 (1.21;1.31)
Female	12.3	4,276	1 (ref.)
Chronic disease,			
Yes	34.4	566	2.39 (2.19 ;2.60)
No	13.7	9,395	1 (ref.)
Prior asthma hospitalization of the child ⁵ ,			
Yes	42.9	390	4.80 (4.31;5.53)
No	13.8	9,571	1 (ref.)
Number of children living in household ⁶			
1	8.9	2,548	1 (ref.)
2	17.3	4,738	2.41 (2.04;2.25)
≥3	18.5	2,644	2.44(2.30;2.59)
Enrolment in daycare,			
Yes	17.4	7,032	1.74 (1.64;1.85)
No	9.7	2,929	1 (ref.)

¹RSV rate per 1000 years at risk ²All analyses were adjusted for all risk factors presented. ³P-value for overall effect of variables. If the variable included a missing category, the missing category was excluded from the test. ⁴Asthma hospitalization defined by J45.0 - J45.9 and J46.0 - J46.9. ⁵ Only asthma hospitalization > 30 days before the RSV hospitalization was included. ⁶ Numbers does not sum up due to missing values.

Abbreviations: RSV: Respiratory Syncytial Virus, SGA: Small for Gestational Age, AGA: Accurate for Gestational Age, LGA: Large for Gestational Age, CD: Caesarean Delivery

Table 5. Incidence rates and adjusted hazard ratio of risk factors for Respiratory Syncytial Virus hospitalization in 33,250 Danish children born 42 - 45 weeks of gestation. January 1 st 1997 – June 30 th 2003			
	RSV rate ¹	Number of cases	Adjusted ² HR 95 % CI (P value ³)
Maternal age at delivery, years,			
<25	13.6	148	1.52 (1.21;1.92)
25;29	11.4	291	1.17 (0.98;1.41)
30;34	11.	258	1 (ref.)
≥35	9.9	94	0.88 (0.69;1.13) <0.001
Maternal history of asthma hospitalization ⁴			
No	11.3	729	1 (ref.)
Yes	13.5	62	1.11 (0.84; 1.46) 0.467
Single parenthood at time of birth			
Yes	14.8	173	1.08 (0.90;1.31)
No	10.8	618	1 (ref.) 0.398
Maternal smoking during pregnancy,			
No	10.1	532	1 (ref.)
Yes	16.6	227	1.42 (1.29;1.69)
Missing	10.2	32	0.91 (0.62;1.32) <0.005
Plurality,			
Singleton	11.5	791	1 (ref.)
Multiple	-	0	- -
Size for gestational age,			
SGA	14.0	51	1.39 (1.03;1.89)
AGA	11.2	727	1 (ref.)
LGA	14.5	13	1.07 (0.59;1.92) 0.009
Mode of delivery,			
Vaginal	670	11.6	1 (ref.)
CD (all)	121	10.6	1.09 (0.88;1.35) 0.416
Sex,			
Male	13.0	478	1.32 (1.14;1.54)
Female	9.7	313	1 (ref.) <0.001
Chronic disease,			
Yes	25.0	44	2.57(1.83 ;3.61)
No	11.1	747	1 (ref.) <0.001
Prior asthma hospitalization of the child ⁵ ,			
Yes	51.8	40	6.58 (4.36;9.92)
No	11.0	751	1 (ref.) <0.001
Number of children living in household ⁶			
1	7.8	265	1 (ref.)
2	15.3	344	2.17 (1.82;2.59)
≥3	14.7	180	2.32(1.87;2.8) <0.001
Enrolment in daycare,			
Yes	268	13.2	1.75 (1.42;2.17)
No	523	9.0	1 (ref.) <0.001

¹RSV rate per 1000 years at risk ²All analyses were adjusted for all risk factors presented. ³P-value for overall effect of variables. If the variable included a missing category, the missing category was excluded from the test. ⁴Asthma hospitalization defined by J45.0 - J45.9 and J46.0 - J46.9. ⁵ Only asthma hospitalization > 30 days before the RSV hospitalization was included. ⁶ Numbers does not sum up due to missing values.

Abbreviations: RSV: Respiratory Syncytial Virus, SGA: Small for Gestational Age, AGA: Accurate for Gestational Age, LGA: Large for Gestational Age, CD: Caesarean Delivery