

Supplemental Material, Table 1: The baseline and modifying effects of influenza for effects of NO₂ on hospitalization by sex

Disease	Sex	Age	Modifying effect ^a			Baseline effect ^b			Effect at mean level of influenza intensity ^c		
			ER	(95%CI)	<i>p</i> ^d	ER	(95%CI)	<i>p</i>	ER	(95%CI)	<i>p</i>
RD											
	M	All	-0.26	(-0.53, 0.01)	NS	0.87	(0.48, 1.27)	***	0.61	(0.32, 0.90)	***
		65+	0.08	(-0.28, 0.43)	NS	0.96	(0.45, 1.48)	***	1.04	(0.65, 1.43)	***
	F	All	0.13	(-0.16, 0.43)	NS	0.63	(0.18, 1.08)	**	0.76	(0.43, 1.09)	***
		65+	0.36	(-0.03, 0.75)	NS	0.83	(0.25, 1.41)	**	1.19	(0.75, 1.63)	***
ARD											
	M	All	-0.14	(-0.53, 0.25)	NS	0.49	(-0.10, 1.09)	NS	0.35	(-0.10, 0.79)	NS
		0-14	-0.25	(-0.74, 0.25)	NS	0.32	(-0.43, 1.08)	NS	0.07	(-0.49, 0.63)	NS
	F	All	-0.21	(-0.64, 0.21)	NS	0.70	(0.04, 1.37)	*	0.49	(0.00, 0.98)	NS
		0-14	-0.27	(-0.83, 0.31)	NS	0.78	(-0.09, 1.66)	NS	0.51	(-0.13, 1.16)	NS
COPD											
	M	All	0.05	(-0.35, 0.44)	NS	1.29	(0.70, 1.87)	***	1.33	(0.89, 1.78)	***
		65+	0.47	(0.01, 0.94)	*	1.17	(0.49, 1.86)	***	1.65	(1.13, 2.17)	***
	F	All	0.48	(-0.03, 1.01)	NS	1.86	(1.09, 2.64)	***	2.36	(1.77, 2.95)	***
		65+	0.53	(-0.07, 1.14)	NS	1.97	(1.06, 2.90)	***	2.52	(1.82, 3.22)	***
CVD											
	M	All	0.15	(-0.17, 0.46)	NS	0.53	(0.09, 0.98)	*	0.68	(0.34, 1.02)	***
		65+	0.28	(-0.10, 0.67)	NS	0.82	(0.28, 1.36)	**	1.10	(0.69, 1.52)	***
	F	All	-0.08	(-0.39, 0.23)	NS	1.16	(0.72, 1.61)	***	1.08	(0.75, 1.42)	***
		65+	-0.04	(-0.40, 0.33)	NS	1.40	(0.89, 1.91)	***	1.36	(0.98, 1.75)	***

^a Change in excess risk % (ER) per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity changed from the baseline (0%) to the mean level (10%);

^b ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity is assumed equal to 0;

^c ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when intensity is assumed equal to 10% (mean level of influenza intensity);

^d *p*-values: NS: non-significant (*p*>0.05); *: 0.01 < *p* ≤ 0.05; **: 0.001 < *p* ≤ 0.01; ***: *p* ≤ 0.001.

Supplemental Material, Table 2: The baseline and modifying effects of influenza for effects of SO₂ on hospitalization by sex

Disease	Sex	Age	Modifying effect ^a			Baseline effect ^b			Effect at mean level of influenza intensity ^c		
			ER	(95%CI)	<i>p</i> ^d	ER	(95%CI)	<i>p</i>	ER	(95%CI)	<i>p</i>
RD											
	M	All	-0.13	(-0.61, 0.34)	NS	0.09	(-0.54, 0.72)	NS	-0.04	(-0.47, 0.39)	NS
		65+	-0.26	(-0.90, 0.38)	NS	0.31	(-0.53, 1.16)	NS	0.05	(-0.52, 0.62)	NS
	F	All	0.05	(-0.49, 0.60)	NS	-0.18	(-0.91, 0.55)	NS	-0.13	(-0.63, 0.37)	NS
		65+	0.10	(-0.59, 0.79)	NS	-0.17	(-1.11, 0.78)	NS	-0.07	(-0.71, 0.57)	NS
ARD											
	M	All	0.35	(-0.34, 1.04)	NS	-0.43	(-1.38, 0.53)	NS	-0.08	(-0.74, 0.58)	NS
		0-14	0.86	(0.00, 1.74)	NS	-0.87	(-2.06, 0.34)	NS	-0.01	(-0.84, 0.83)	NS
	F	All	-0.06	(-0.81, 0.70)	NS	-0.09	(-1.15, 0.98)	NS	-0.15	(-0.88, 0.58)	NS
		0-14	0.21	(-0.78, 1.20)	NS	-0.56	(-1.95, 0.85)	NS	-0.36	(-1.32, 0.61)	NS
COPD											
	M	All	0.18	(-0.55, 0.91)	NS	0.30	(-0.66, 1.27)	NS	0.47	(-0.20, 1.15)	NS
		65+	0.46	(-0.40, 1.32)	NS	0.40	(-0.73, 1.55)	NS	0.86	(0.08, 1.65)	*
	F	All	0.74	(-0.22, 1.72)	NS	-0.13	(-1.40, 1.16)	NS	0.62	(-0.30, 1.54)	NS
		65+	0.56	(-0.57, 1.71)	NS	0.33	(-1.20, 1.89)	NS	0.89	(-0.17, 1.98)	NS
CVD											
	M	All	0.09	(-0.49, 0.67)	NS	0.51	(-0.22, 1.25)	NS	0.61	(0.09, 1.12)	*
		65+	0.07	(-0.62, 0.76)	NS	0.83	(-0.05, 1.72)	NS	0.90	(0.28, 1.53)	**
	F	All	-0.45	(-1.01, 0.11)	NS	1.36	(0.64, 2.09)	***	0.90	(0.40, 1.41)	***
		65+	-0.44	(-1.07, 0.21)	NS	1.47	(0.64, 2.30)	***	1.03	(0.45, 1.61)	***

^a Change in excess risk % (ER) per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity changed from the baseline (0%) to the mean level (10%);

^b ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity is assumed equal to 0;

^c ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when intensity is assumed equal to 10% (mean level of influenza intensity);

^d *p*-values: NS: non-significant (*p*>0.05); *: 0.01 < *p* ≤ 0.05; **: 0.001 < *p* ≤ 0.01; ***: *p* ≤ 0.001.

Supplemental Material, Table 3: The baseline and modifying effects of influenza for effects of PM₁₀ on hospitalization by sex

Disease	Sex	Age	Modifying effect ^a			Baseline effect ^b			Effect at mean level of influenza intensity ^c		
			ER	(95%CI)	<i>p</i> ^d	ER	(95%CI)	<i>p</i>	ER	(95%CI)	<i>p</i>
RD											
	M	All	-0.31	(-0.51, -0.11)	**	0.99	(0.67, 1.31)	***	0.68	(0.44, 0.92)	***
		65+	-0.03	(-0.28, 0.23)	NS	0.98	(0.55, 1.40)	***	0.95	(0.63, 1.27)	***
	F	All	0.03	(-0.19, 0.25)	NS	0.59	(0.22, 0.95)	**	0.62	(0.34, 0.89)	***
		65+	0.14	(-0.15, 0.43)	NS	0.71	(0.23, 1.19)	**	0.85	(0.49, 1.21)	***
ARD											
	M	All	-0.14	(-0.43, 0.15)	NS	0.75	(0.27, 1.24)	**	0.61	(0.25, 0.98)	***
		0-14	-0.05	(-0.42, 0.32)	NS	0.48	(-0.13, 1.09)	NS	0.43	(-0.03, 0.89)	NS
	F	All	-0.23	(-0.55, 0.08)	NS	0.65	(0.11, 1.18)	*	0.41	(0.01, 0.81)	*
		0-14	-0.40	(-0.82, 0.02)	NS	0.95	(0.25, 1.66)	**	0.55	(0.02, 1.08)	*
COPD											
	M	All	-0.19	(-0.48, 0.11)	NS	1.23	(0.75, 1.71)	***	1.04	(0.67, 1.40)	***
		65+	0.14	(-0.19, 0.48)	NS	1.01	(0.45, 1.58)	***	1.16	(0.73, 1.59)	***
	F	All	0.04	(-0.34, 0.42)	NS	1.45	(0.82, 2.08)	***	1.48	(1.00, 1.97)	***
		65+	0.05	(-0.39, 0.50)	NS	1.41	(0.65, 2.17)	***	1.46	(0.89, 2.04)	***
CVD											
	M	All	0.00	(-0.24, 0.23)	NS	0.52	(0.15, 0.90)	**	0.52	(0.24, 0.81)	***
		65+	0.07	(-0.21, 0.35)	NS	0.65	(0.21, 1.10)	**	0.72	(0.38, 1.06)	***
	F	All	-0.08	(-0.31, 0.14)	NS	0.62	(0.26, 0.99)	***	0.54	(0.26, 0.82)	***
		65+	-0.16	(-0.43, 0.10)	NS	0.83	(0.41, 1.25)	***	0.66	(0.34, 0.98)	***

^a Change in excess risk % (ER) per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity changed from the baseline (0%) to the mean level (10%);

^b ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when influenza intensity is assumed equal to 0;

^c ER per 10 μ g/m³ increase in concentration of air pollutant averaged over the lag 0 and lag 1 days when intensity is assumed equal to 10% (mean level of influenza intensity);

^d *p*-values: NS: non-significant (*p*>0.05); *: 0.01 < *p* ≤ 0.05; **: 0.001 < *p* ≤ 0.01; ***: *p* ≤ 0.001.