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Supporting Information

Supplementary tables

This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.

Appendix to: Willis GA, Chappell K, Williams S, et al. Respiratory and atopic conditions in children two to four years after the 2014 Hazelwood coalmine fire. *Med J Aust* 2020; doi: 10.5694/mja2.50719.

Table 1. Socio-demographic and exposure characteristics of children in the Latrobe Early Life Follow-up (ELF) Study who participated or did not participate in our study

	Monthly diary study			
	Participated	**Did not participate**	**Total**	*P*
Socio-demographic and medical characteristics				
Number of participants	289	282	571	
Age at baseline (years), mean (SD)	2.25 (1.03)	2.14 (0.93)	2.20 (0.98)	0.16
Sex				0.71
Boys	151 (48%)	143 (51%)	294 (52%)	
Girls	138 (52%)	139 (49%)	277 (48%)	
Aboriginal or Torres Strait Islander	15 (5%)	16 (6%)	31 (5%)	0.28
Born in Australia	287 (99%)	282 (100%)	569 (100%)	0.16
Languages spoken at home				
English	288 (100%)	276 (98%)	564 (99%)	0.15
Other	18 (6%)	21 (7%)	39 (7%)	0.56
Siblings	203 (70%)	184 (65%)	387 (68%)	0.27
In childcare	126 (44%)	117 (42%)	243 (43%)	0.72
Mother's education: beyond year 12	203 (70%)	133 (47%)	336 (59%)	< 0.001
Mother's age (years), mean (SD)	29.6 (5.0)	27.5 (5.7)	28.6 (5.7)	< 0.001
Breastfed	265 (92%)	227 (80%)	492 (86%)	0.001
Mother smoked during pregnancy	35 (12%)	67 (24%)	102 (18%)	< 0.001
Lives with a smoker	59 (20%)	92 (33%)	151 (26%)	0.001
Diagnosed with asthma	41 (14%)	35 (12%)	76 (13%)	0.57
Diagnosed with eczema/dermatitis	93 (32%)	79 (28%)	172 (30%)	0.36
Smoke exposure (exposed children only)				
Number of participants	208	183	391	
Mean daily $PM_{2.5}$ exposure ($\mu g/m^3$), median (IQR)	2.8 (1.6–9.0)	4.8 (2.0–12.8)	3.2 (1.8–11.5)	0.030
Peak daily $PM_{2.5}$ exposure ($\mu g/m^3$) , median (IQR)	76.4 (41.6–150)	104 (59.4–181)	83.1 (50.3–167)	0.028

SD = standard deviation; IQR = interquartile range.

Table 2. Health outcomes reported by parents in 4672 monthly diaries, by exposure group

	Exposure group			
	Unexposed	***In utero***	**Early childhood**	**All participants**
Number of diaries	1296	1382	1994	4672
Symptoms				
Runny nose or cough	815 (62.9%)	851 (61.6%)	1243 (62.3%)	2909 (62.3%)
Wheeze	95 (7.3%)	195 (14.1%)	189 (9.5%)	479 (10.2%)
Fever	268 (20.7%)	239 (17.3%)	262 (13.1%)	769 (16.5%)
Skin rash (not in nappy area)	240 (18.5%)	217 (15.7%)	261 (13.1%)	718 (15.4%)
Health care provider contact				
Any health care provider advice sought	453 (35.0%)	405 (29.3%)	533 (26.7%)	1391 (29.8%)
Seen by general practitioner or hospital doctor	351 (27.1%)	311 (22.5%)	428 (21.5%)	1090 (23.3%)
Other medical advice*	178 (13.7%)	145 (10.5%)	156 (7.8%)	479 (10.2%)
Medication use				
Antibiotics	89 (6.9%)	93 (6.7%)	114 (5.7%)	296 (6.3%)
Asthma inhalers	41 (3.2%)	109 (7.9%)	202 (10.1%)	352 (7.5%)
Steroid skin cream/ointment	124 (9.6%)	113 (8.2%)	118 (5.9%)	355 (7.6%)
Diagnosis of upper respiratory tract infection/cold/flu	170 (13.1%)	188 (13.6%)	176 (8.8%)	534 (11.4%)

* Seen by child health nurse/pharmacist advice/telephone medical advice.

Table 3. Sensitivity analysis excluding unexposed children*

	In utero exposure		Early childhood exposure	
	Relative risk (95% CI): per 10 µg/m^3 mean $PM_{2.5}$	Relative risk (95% CI): per 100 µg/m^3 peak $PM_{2.5}$	Relative risk (95% CI): per 10 µg/m^3 mean $PM_{2.5}$	Relative risk (95% CI): per 100 µg/m^3 peak $PM_{2.5}$
Monthly diaries	1382		1994	
Symptoms				
Runny nose or cough	1.10 (1.01–1.20)	1.06 (1.00–1.12)	1.02 (0.95–1.11)	1.03 (0.98–1.08)
Wheeze	1.22 (0.94–1.60)	1.10 (0.88–1.36)	0.81 (0.55–1.20)	0.92 (0.74–1.15)
Fever	1.02 (0.83–1.24)	1.04 (0.91–1.18)	1.09 (0.85–1.42)	1.06 (0.94–1.19)
Skin rash (not in nappy area)	0.76 (0.54–1.07)	0.91 (0.72–1.15)	0.87 (0.56–1.33)	1.11 (0.96–1.28)
Health care provider contact				
Any health care provider advice	1.19 (1.03–1.39)	1.11 (1.02–1.20)	0.92 (0.77–1.10)	0.97 (0.86–1.10)
Seen by GP or hospital doctor	1.15 (1.00–1.32)	1.08 (0.99–1.17)	0.80 (0.64–1.00)	0.91 (0.78–1.05)
Other health care provider advice†	1.39 (1.08–1.78)	1.19 (1.00–1.41)	1.14 (0.86–1.52)	1.06 (0.87–1.28)
Medication use				
Antibiotics	1.18 (0.86–1.62)	1.14 (0.95–1.36)	1.00 (0.70–1.44)	1.02 (0.81–1.27)
Asthma inhalers	0.72 (0.44–1.16)	0.85 (0.63–1.14)	0.87 (0.54–1.39)	0.91 (0.69–1.21)
Steroid skin cream/ointment	0.51 (0.24–1.12)	0.80 (0.52–1.22)	0.88 (0.42–1.84)	0.86 (0.51–1.44)
Medical diagnosis of upper respiratory tract infection/cold/flu	1.40 (1.08–1.80)	1.20 (1.04–1.40)	0.79 (0.54–1.15)	0.89 (0.70–1.14)

* Covariates: age, sex, tobacco smoke exposure, maternal level of education, unflued gas heating or gas stovetop exposure, background NO_2, Index of Relative Socioeconomic Disadvantage decile, season of diary report.

† Seen by child health nurse/pharmacist advice/telephone medical advice.

Table 4. Sensitivity analysis excluding children with mixed *in utero* and early childhood exposure: Multivariate model early childhood exposure*

	Relative risk (95% CI): per 10 µg/m^3 mean $PM_{2.5}$	Relative risk (95% CI): per 100 µg/m^3 peak $PM_{2.5}$
Monthly diaries	2948	
Symptoms		
Runny nose or cough	1.04 (0.98–1.12)	1.03 (0.99–1.08)
Wheeze	1.04 (0.77–1.41)	1.06 (0.90–1.26)
Fever	1.01 (0.88–1.28)	1.02 (0.91–1.15)
Skin rash (not in nappy area)	0.92 (0.66–126)	0.93 (0.74–1.16)
Health care provider contact		
Any health care provider advice	1.00 (0.84–1.19)	1.01 (0.90–1.13)
Seen by GP or hospital doctor	0.94 (0.76–1.16)	0.98 (0.86–1.13)
Other health care provider advice†	1.08 (0.84–1.38)	1.04 (0.88–1.23)
Medication use		
Antibiotics	0.93 (0.67–1.29)	0.94 (0.77–1.17)
Asthma inhalers	1.34 (0.93–1.93)	1.23 (0.98–1.54)
Steroid skin cream/ointment	0.75 (0.39–1.43)	0.82 (0.52–1.31)
Medical diagnosis of upper respiratory tract infection/cold/flu	0.94 (0.72–1.21)	0.98 (0.83–1.16)

* Covariates: age, sex, tobacco smoke exposure, maternal level of education, unflued gas heating or gas stovetop exposure, background NO_2, Index of Relative Socioeconomic Disadvantage decile, season of diary report.

† Seen by child health nurse/pharmacist advice/telephone medical advice.