

Supplementary Table S1. Comparison of results before and after missing data interpolation

Characteristics	Non- interpolation		Interpolation	
	OR	95% CI	OR	95% CI
Insecticide				
Rarely or never	1		1	
Seldom	1.16	0.98–1.37	1.13	0.96–1.32
Sometimes	1.01	0.82–1.26	1.02	0.84–1.26
Often	0.95	0.68–1.33	0.95	0.69–1.31
Repellents				
Rarely or never	1		1	
Seldom	0.88	0.74–1.04	0.9	0.77–1.06
Sometimes	1.08	0.91–1.29	1.12	0.95–1.32
Often	1.32*	1.08–1.61	1.28*	1.06–1.55
Anti-caries agent				
Rarely or never	1		1	
Seldom	1.13	0.90–1.40	1.03	0.84–1.27
Sometimes	1.11	0.82–1.50	0.97	0.72–1.31
Often	0.99	0.65–1.50	1.00	0.67–1.48
Air freshener				
Rarely or never	1		1	
Seldom	0.82	0.59–1.15	0.82	0.61–1.12
Sometimes	0.77	0.47–1.26	0.74	0.45–1.21
Often	1.58	0.83–2.98	1.34	0.73–2.44
Air purifier				
Rarely or never	1		1	
Seldom	1.49	1.01–2.19	1.44	0.99–2.08
Sometimes	1.19	0.64–2.19	1.14	0.63–2.06
Often	0.91	0.39–2.12	1.18	0.56–2.5
Disinfectant				
Rarely or never	1		1	
Seldom	1.06	0.85–1.31	1.10	0.9–1.35
Sometimes	1.22	0.92–1.62	1.19	0.91–1.56
Often	0.89	0.60–1.30	1.01	0.72–1.41
Toilet cleaner				
Rarely or never	1		1	
Seldom	1.08	0.88–1.33	1.10	0.91–1.34
Sometimes	0.88	0.70–1.11	0.95	0.77–1.18
Often	0.97	0.76–1.23	1.02	0.81–1.28
Oil remover				
Rarely or never	1		1	
Seldom	0.98	0.79–1.23	1.02	0.83–1.26
Sometimes	1.07	0.85–1.36	1.07	0.85–1.34

Continued

Characteristics	Non- interpolation		Interpolation	
	OR	95% CI	OR	95% CI
Often	1.28*	1.02–1.60	1.28*	1.03–1.58
Age	1.01***	1.01–1.02	1.01***	1.01–1.02
Sex(male)	0.73***	0.63–0.84	0.74***	0.65–0.85
Residence(city)				
Town	0.69***	0.58–0.81	0.69***	0.58–0.81
Rural	0.65***	0.55–0.77	0.65***	0.56–0.77
Smoking(no)	1.70***	1.49–1.96	1.70***	1.48–1.96
Drinking(yes)	1.09	0.94–1.26	1.11	0.97–1.28
Musty smell(no)	0.79**	0.67–0.94	0.78**	0.67–0.91
Distance from the traffic artery(<50m)	0.87*	0.75–1.01	0.85*	0.74–0.97
Kitchen ventilation(no)	1.04	0.83–1.30	1.12	0.91–1.39
Ventilation Winter(no)	0.96	0.83–1.12	0.91	0.79–1.05

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$;

Supplementary Table S2. Logical regression after deleting participants older than 105 years old

Characteristics	Before deletion		After deletion	
	OR	95% CI	OR	95% CI
Insecticide				
Rarely or never	1		1	
Seldom	1.13	0.96–1.32	1.15	0.98–1.35
Sometimes	1.02	0.84–1.26	1.01	0.82–1.24
Often	0.95	0.69–1.31	0.95	0.68–1.30
Repellents				
Rarely or never	1		1	
Seldom	0.90	0.77–1.06	0.91	0.77–1.07
Sometimes	1.12	0.95–1.32	1.14	0.97–1.35
Often	1.28*	1.06–1.55	1.29**	1.07–1.57
Anti-caries agent				
Rarely or never	1		1	
Seldom	1.03	0.84–1.27	1.00	0.80–1.23
Sometimes	0.97	0.72–1.31	0.96	0.71–1.29
Often	1.00	0.67–1.48	0.97	0.64–1.43
Air freshener				
Rarely or never	1		1	
Seldom	0.82	0.61–1.12	0.84	0.61–1.13
Sometimes	0.74	0.45–1.21	0.75	0.45–1.20
Often	1.34	0.73–2.44	1.4	0.74–2.52
Air purifier				
Rarely or never	1		1	
Seldom	1.44	0.99–2.08	1.42	0.97–2.05

Continued

Characteristics	Before deletion		After deletion	
	OR	95% CI	OR	95% CI
Sometimes	1.14	0.63–2.06	1.15	0.62–2.04
Often	1.18	0.56–2.5	1.08	0.48–2.28
Disinfectant				
Rarely or never	1		1	
Seldom	1.10	0.9–1.35	1.09	0.89–1.34
Sometimes	1.19	0.91–1.56	1.18	0.89–1.54
Often	1.01	0.72–1.41	0.99	0.69–1.38
Toilet cleaner				
Rarely or never	1		1	
Seldom	1.10	0.91–1.34	1.11	0.91–1.35
Sometimes	0.95	0.77–1.18	0.95	0.77–1.18
Often	1.02	0.81–1.28	1.02	0.81–1.27
Oil remover				
Rarely or never	1		1	
Seldom	1.02	0.83–1.26	1.03	0.83–1.26
Sometimes	1.07	0.85–1.34	1.08	0.86–1.35
Often	1.28*	1.03–1.58	1.28*	1.03–1.58

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$; Model was adjusted for age, sex, residency, smoking, drinking, musty smell, distance from the traffic artery, kitchen ventilation and ventilation Winter.

Supplementary Table S3. Logical regression after deleting participants older than 105 years old

Characteristics	Before deletion		After deletion	
	OR	95% CI	OR	95% CI
Total score	1.03***	1.02–1.05	1.03***	1.02–1.05
Age	1.01***	1.01–1.02	1.01***	1.01–1.02
Sex (male)	0.74***	0.65–0.85	0.75***	0.65–0.86
Residence (city)				
Town	0.69***	0.60–0.80	0.70***	0.60–0.81
Rural	0.65***	0.57–0.75	0.66***	0.57–0.77
Smoking (no)	1.70***	1.48–1.95	1.70***	1.47–1.95
Drinking (yes)	1.11	0.97–1.28	1.12	0.97–1.28
Musty smell (no)	0.77**	0.66–0.90	0.75**	0.65–0.88
Distance from the traffic artery (< 50 m)	0.85*	0.74–0.98	0.87	0.76–1.00
Kitchen ventilation (no)	1.12	0.91–1.39	1.11	0.90–1.37
Ventilation Winter (no)	0.91	0.79–1.05	0.92	0.80–1.06

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$;

Supplementary Table S4. Logistic regression analysis of household chemicals and RD

Characteristics	OR	95% CI
Insecticide		
Low	1	
Medium	1.09	0.95– 1.26
High	0.96	0.69– 1.31
Repellents		
Low	1	
Medium	1.00	0.87– 1.14
High	1.26*	1.04– 1.52
Anti-caries agent		
Low	1	
Medium	1.00	0.84– 1.20
High	1.01	0.67– 1.48
Air freshener		
Low	1	
Medium	0.80	0.60– 1.05
High	1.35	0.72– 2.41
Air purifier		
Low	1	
Medium	1.33	0.95– 1.85
High	1.18	0.54– 2.43
Disinfectant		
Low	1	
Medium	1.13	0.95– 1.35
High	0.99	0.70– 1.38
Toilet cleaner		
Low	1	
Medium	1.03	0.87– 1.22
High	1.03	0.82– 1.28
Oil remover		
Low	1	
Medium	1.04	0.87– 1.23
High	1.27*	1.02– 1.57

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$; Model was adjusted for age, sex, residency, smoking, drinking, musty smell, distance from the traffic artery, kitchen ventilation and ventilation Winter.

Supplementary Table S5. E-value

Characteristics	Model 1		E-value	
	OR	95% CI	Point	CI
Insecticide				
Rarely or never	1			
Seldom	1.13	0.96–1.32		
Sometimes	1.02	0.84–1.26		
Often	0.95	0.69–1.31		
Repellents				
Rarely or never	1			
Seldom	0.9	0.77–1.06		
Uometimes	1.12	0.95–1.32		
Often	1.28*	1.06–1.55	1.88	1.31
Anti-caries agent				
Rarely or never	1			
Seldom	1.03	0.84–1.27		
Sometimes	0.97	0.72–1.31		
Often	1.00	0.67–1.48		
Air freshener				
Rarely or never	1			
Seldom	0.82	0.61–1.12		
Sometimes	0.74	0.45–1.21		
Often	1.34	0.73–2.44		
Air purifier				
Rarely or never	1			
Seldom	1.44	0.99–2.08		
Sometimes	1.14	0.63–2.06		
Often	1.18	0.56–2.5		
Disinfectant				
Rarely or never	1			
Seldom	1.10	0.9–1.35		
Sometimes	1.19	0.91–1.56		
Often	1.01	0.72–1.41		
Toilet cleaner				
Rarely or never	1			
Seldom	1.10	0.91–1.34		
Sometimes	0.95	0.77–1.18		
Often	1.02	0.81–1.28		
Oil remover				
Rarely or never	1			
Seldom	1.02	0.83–1.26		
Sometimes	1.07	0.85–1.34		
Often	1.28*	1.03–1.58	1.88	1.21

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$; Model 1 was adjusted for age, sex, residency, somking, drinking, musty smell, distance from the traffic artery, kitchen ventilation and ventilation Winter.

Supplementary Table S6. E-value

Characteristics	Model 1		E-value	
	OR	95% CI	Point	CI
Total score	1.04***	1.03–1.06	1.24	1.21

Note. OR, odds ratio; CI, confidence interval; *, $P < 0.05$; **, $P < 0.01$; ***, $P < 0.001$; Model 1 was adjusted for age, sex, residency, smoking, drinking, musty smell, distance from the traffic artery, kitchen ventilation and ventilation Winter.