

Additional Table 1. Posterior estimates including covariates and random effects for hierarchical model predicting the log odds of walking for transport. Estimates are on the log-odds scale to facilitate comparing the magnitude of effect between measured covariates and random effects. The exponentiated log odds estimates are presented as adjusted odds ratios in Additional Table 5.

Covariates	mean	sd	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI	0.13	0.01	0.11	0.12	0.13	0.13	0.14
Age group							
18 – 29 year old			reference				
30 – 49 year old	-0.15	0.09	-0.33	-0.22	-0.15	-0.09	0.03
50 – 64 year old	-0.27	0.09	-0.44	-0.33	-0.27	-0.21	-0.09
65 or older	-0.26	0.12	-0.48	-0.34	-0.26	-0.18	-0.04
Sex							
Male			reference				
Female	0.16	0.05	0.05	0.12	0.16	0.20	0.27
Day of week							
1			reference				
2	-0.08	0.11	-0.30	-0.15	-0.08	0.00	0.15
3	-0.05	0.11	-0.27	-0.13	-0.05	0.03	0.17
4	-0.26	0.12	-0.49	-0.34	-0.25	-0.18	-0.03
5	-0.26	0.11	-0.48	-0.34	-0.26	-0.18	-0.04
6	-0.28	0.13	-0.53	-0.37	-0.28	-0.20	-0.04
7	-0.29	0.13	-0.53	-0.37	-0.29	-0.20	-0.04
Employment							
Any work			reference				
No work	0.58	0.08	0.44	0.53	0.58	0.63	0.73
Household							
Single person			reference				
household with children	-0.41	0.12	-0.63	-0.49	-0.41	-0.33	-0.18
household without children	-0.31	0.10	-0.51	-0.38	-0.31	-0.25	-0.12
Vehicle ownership							
No vehicle			reference				
One or more vehicles	-2.66	0.19	-3.04	-2.78	-2.66	-2.53	-2.31
Weekly household income, equivalised							
0 – 500			reference				
501 – 817	0.03	0.11	-0.18	-0.05	0.02	0.10	0.24
817 – 1,157	0.16	0.11	-0.05	0.08	0.16	0.23	0.37
1,158 – 1,667	0.34	0.11	0.13	0.27	0.34	0.41	0.55
1,668 – 5,263	0.44	0.11	0.23	0.36	0.44	0.51	0.65
Random effects							
sd(u_household)	2.10	0.21	1.69	1.96	2.10	2.24	2.53
sd(u_meshblock)	0.41	0.07	0.29	0.36	0.41	0.46	0.55

Additional Table 2. Posterior estimates including covariates and random effects for hierarchical model predicting the log odds of driving for transport. Estimates are on the log-odds scale to facilitate comparing the magnitude of effect between measured covariates and random effects. The exponentiated log odds estimates are presented as adjusted odds ratios in Additional Table 6.

Covariates	mean	sd	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI	-0.16	0.01	-0.19	-0.17	-0.16	-0.15	-0.14
Age group							
18 – 29 year old			reference				
30 – 49 year old	0.48	0.12	0.25	0.40	0.48	0.56	0.70
50 – 64 year old	0.91	0.12	0.67	0.83	0.91	0.99	1.15
65 or older	0.76	0.15	0.47	0.66	0.76	0.86	1.05
Sex							
Male			reference				
Female	0.30	0.08	0.15	0.25	0.30	0.35	0.45
Day of week							
1			reference				
2	0.07	0.15	-0.23	-0.03	0.07	0.18	0.37
3	-0.01	0.15	-0.31	-0.11	-0.01	0.10	0.29
4	0.18	0.16	-0.13	0.07	0.18	0.28	0.47
5	0.19	0.16	-0.11	0.09	0.19	0.30	0.50
6	0.68	0.17	0.34	0.56	0.68	0.79	1.03
7	0.23	0.17	-0.09	0.12	0.23	0.35	0.57
Employment							
Any work			reference				
No work	-0.81	0.10	-1.01	-0.88	-0.81	-0.74	-0.62
Household							
Single person			reference				
household with children	0.06	0.16	-0.25	-0.05	0.06	0.17	0.38
household without children	-0.16	0.14	-0.43	-0.25	-0.16	-0.06	0.11
Vehicle ownership							
No vehicle			reference				
One or more vehicles	3.64	0.22	3.21	3.49	3.64	3.78	4.10
Weekly household income, equivalised							
0 – 500			reference				
501 – 817	0.16	0.14	-0.11	0.06	0.16	0.25	0.43
817 – 1,157	0.15	0.14	-0.13	0.05	0.15	0.25	0.43
1,158 – 1,667	0.21	0.14	-0.08	0.11	0.21	0.30	0.49
1,668 – 5,263	0.11	0.15	-0.18	0.01	0.11	0.21	0.40
Random effects							
sd(u_household)	2.77	0.35	2.15	2.53	2.76	3.00	3.49
sd(u_meshblock)	0.84	0.14	0.60	0.75	0.84	0.93	1.13

Additional Table 3. Posterior estimates including covariates and random effects for hierarchical model predicting the log odds of cycling for transport. Estimates are on the log-odds scale to facilitate comparing the magnitude of effect between measured covariates and random effects. The exponentiated log odds estimates are presented as adjusted odds ratios in Additional Table 7.

Covariates	mean	sd	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI	0.14	0.02	0.10	0.13	0.14	0.15	0.19
Age group							
18 – 29 year old			reference				
30 – 49 year old	0.35	0.23	-0.10	0.19	0.35	0.51	0.82
50 – 64 year old	0.22	0.24	-0.24	0.06	0.22	0.38	0.70
65 or older	-0.54	0.36	-1.25	-0.77	-0.54	-0.30	0.15
Sex							
Male			reference				
Female	-1.39	0.17	-1.73	-1.50	-1.39	-1.28	-1.08
Day of week							
1			reference				
2	-0.19	0.30	-0.79	-0.38	-0.19	0.02	0.39
3	-0.17	0.30	-0.76	-0.37	-0.18	0.03	0.41
4	0.05	0.29	-0.50	-0.15	0.05	0.24	0.62
5	-0.52	0.30	-1.12	-0.73	-0.52	-0.31	0.07
6	-0.87	0.35	-1.57	-1.10	-0.86	-0.63	-0.18
7	-0.38	0.34	-1.06	-0.60	-0.37	-0.15	0.28
Employment							
Any work			reference				
No work	-0.38	0.23	-0.84	-0.53	-0.38	-0.22	0.07
Household							
Single person			reference				
household with children	0.25	0.32	-0.38	0.03	0.25	0.46	0.90
household without children	0.51	0.29	-0.04	0.31	0.50	0.70	1.07
Vehicle ownership							
No vehicle			reference				
One or more vehicles	-1.05	0.39	-1.81	-1.32	-1.05	-0.79	-0.28
Weekly household income, equivalised							
0 – 500			reference				
501 – 817	0.17	0.33	-0.46	-0.04	0.17	0.39	0.83
817 – 1,157	0.53	0.32	-0.07	0.32	0.53	0.74	1.18
1,158 – 1,667	0.82	0.31	0.23	0.61	0.81	1.02	1.44
1,668 – 5,263	0.88	0.31	0.31	0.67	0.87	1.08	1.50
Random effects							
sd(u_household)	4.83	0.99	3.16	4.12	4.76	5.43	7.00
sd(u_meshblock)	1.81	0.44	1.03	1.50	1.77	2.08	2.76

Additional Table 4. Posterior estimates including covariates and random effects for hierarchical model predicting the log odds of public transport usage. Estimates are on the log-odds scale to facilitate comparing the magnitude of effect between measured covariates and random effects. The exponentiated log odds estimates are presented as adjusted odds ratios in Additional Table 8.

		mean	sd	Posterior distribution percentiles				
				2.5%	25%	50%	75%	97.5%
ULI		0.17	0.01	0.14	0.16	0.17	0.18	0.20
Age group								
	18 – 29 year old			reference				
	30 – 49 year old	-0.80	0.12	-1.05	-0.87	-0.79	-0.71	-0.55
	50 – 64 year old	-1.37	0.13	-1.64	-1.46	-1.37	-1.28	-1.12
	65 or older	-1.51	0.18	-1.86	-1.63	-1.51	-1.38	-1.17
Sex								
	Male			reference				
	Female	-0.19	0.08	-0.35	-0.24	-0.19	-0.13	-0.03
Day of week								
	1			reference				
	2	0.36	0.16	0.04	0.25	0.37	0.48	0.68
	3	0.35	0.16	0.04	0.24	0.35	0.46	0.67
	4	0.19	0.17	-0.14	0.08	0.19	0.30	0.51
	5	0.12	0.17	-0.21	0.01	0.12	0.23	0.45
	6	-0.87	0.20	-1.27	-1.00	-0.87	-0.73	-0.48
	7	-1.21	0.22	-1.65	-1.36	-1.21	-1.06	-0.79
Employment								
	Any work			reference				
	No work	-0.05	0.11	-0.27	-0.12	-0.05	0.03	0.18
Household								
	Single person			reference				
	household with children	-0.32	0.17	-0.65	-0.43	-0.32	-0.21	0.01
	household without children	0.07	0.14	-0.21	-0.03	0.07	0.17	0.36
Vehicle ownership								
	No vehicle			reference				
	One or more vehicles	-3.01	0.21	-3.43	-3.15	-3.01	-2.87	-2.61
Weekly household income, equivalised								
	0 – 500			reference				
	501 – 817	-0.13	0.16	-0.45	-0.24	-0.13	-0.02	0.19
	817 – 1,157	0.09	0.16	-0.22	-0.02	0.09	0.19	0.40
	1,158 – 1,667	0.16	0.16	-0.15	0.05	0.16	0.27	0.46
	1,668 – 5,263	0.25	0.16	-0.05	0.14	0.25	0.36	0.56
Random effects								
	sd(u_household)	2.20	0.33	1.62	1.97	2.19	2.41	2.91
	sd(u_meshblock)	1.01	0.16	0.72	0.90	1.00	1.11	1.35

Additional Table 5. Adjusted odds ratios (AOR) including covariates for the hierarchical model predicting walking for transport. These are the exponentiated posterior estimates, corresponding to the log odds presented in Additional Table 1.

		AOR	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI		1.13	1.12	1.13	1.13	1.14	1.15
Age group							
	<i>18 – 29 year old</i>		<i>reference</i>				
	<i>30 – 49 year old</i>	0.86	0.72	0.81	0.86	0.91	1.03
	<i>50 – 64 year old</i>	0.76	0.64	0.72	0.76	0.81	0.91
	<i>65 or older</i>	0.77	0.62	0.71	0.77	0.83	0.97
Sex							
	<i>Male</i>		<i>reference</i>				
	<i>Female</i>	1.17	1.05	1.13	1.17	1.22	1.30
Day of week							
	<i>1</i>		<i>reference</i>				
	<i>2</i>	0.93	0.74	0.86	0.93	1.00	1.16
	<i>3</i>	0.95	0.76	0.88	0.95	1.03	1.19
	<i>4</i>	0.77	0.61	0.71	0.78	0.84	0.97
	<i>5</i>	0.77	0.62	0.72	0.77	0.83	0.96
	<i>6</i>	0.76	0.59	0.69	0.76	0.82	0.96
	<i>7</i>	0.75	0.59	0.69	0.75	0.82	0.96
Employment							
	<i>Any work</i>		<i>reference</i>				
	<i>No work</i>	1.79	1.55	1.70	1.79	1.89	2.08
Household							
	<i>Single person</i>		<i>reference</i>				
	<i>household with children</i>	0.67	0.53	0.61	0.67	0.72	0.83
	<i>household without children</i>	0.73	0.60	0.69	0.73	0.78	0.88
Vehicle ownership							
	<i>No vehicle</i>		<i>reference</i>				
	<i>One or more vehicles</i>	0.07	0.05	0.06	0.07	0.08	0.10
Weekly household income, equivalised							
	<i>0 – 500</i>		<i>reference</i>				
	<i>501 – 817</i>	1.03	0.84	0.96	1.02	1.10	1.27
	<i>817 – 1,157</i>	1.17	0.95	1.09	1.17	1.26	1.44
	<i>1,158 – 1,667</i>	1.40	1.14	1.31	1.40	1.51	1.74
	<i>1,668 – 5,263</i>	1.54	1.25	1.43	1.55	1.66	1.92

Table 6. Adjusted odds ratios (AOR) including covariates for the hierarchical model predicting driving for transport. These are the exponentiated posterior estimates, corresponding to the log odds presented in Additional Table 2.

		AOR	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI		0.85	0.83	0.84	0.85	0.86	0.87
Age group							
	<i>18 – 29 year old</i>						
	<i>30 – 49 year old</i>	1.61	1.28	1.49	1.61	1.75	2.02
	<i>50 – 64 year old</i>	2.49	1.95	2.29	2.48	2.70	3.16
	<i>65 or older</i>	2.13	1.60	1.93	2.13	2.36	2.85
Sex							
	<i>Male</i>						
	<i>Female</i>	1.35	1.16	1.28	1.35	1.42	1.56
Day of week							
	<i>1</i>						
	<i>2</i>	1.07	0.80	0.97	1.07	1.19	1.45
	<i>3</i>	0.99	0.73	0.90	1.00	1.11	1.34
	<i>4</i>	1.19	0.87	1.07	1.19	1.33	1.61
	<i>5</i>	1.21	0.89	1.09	1.21	1.35	1.64
	<i>6</i>	1.97	1.41	1.75	1.97	2.21	2.80
	<i>7</i>	1.26	0.91	1.13	1.26	1.42	1.77
Employment							
	<i>Any work</i>						
	<i>No work</i>	0.44	0.36	0.42	0.44	0.48	0.54
Household							
	<i>Single person</i>						
	<i>household with children</i>	1.07	0.78	0.95	1.06	1.19	1.46
	<i>household without children</i>	0.86	0.65	0.78	0.86	0.94	1.11
Vehicle ownership							
	<i>No vehicle</i>						
	<i>One or more vehicles</i>	38.09	24.83	32.88	37.94	43.99	60.22
Weekly household income, equivalised							
	<i>0 – 500</i>						
	<i>501 – 817</i>	1.17	0.90	1.06	1.17	1.29	1.53
	<i>817 – 1,157</i>	1.16	0.88	1.06	1.16	1.28	1.54
	<i>1,158 – 1,667</i>	1.23	0.92	1.12	1.23	1.36	1.63
	<i>1,668 – 5,263</i>	1.11	0.83	1.01	1.12	1.23	1.49

Additional Table 7. Adjusted odds ratios (AOR) including covariates for the hierarchical model predicting cycling for transport. These are the exponentiated posterior estimates, corresponding to the log odds presented in Additional Table 3.

		AOR	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI		1.15	1.11	1.13	1.15	1.17	1.20
Age group							
	<i>18 – 29 year old</i>		<i>reference</i>				
	<i>30 – 49 year old</i>	1.42	0.91	1.21	1.42	1.67	2.27
	<i>50 – 64 year old</i>	1.25	0.79	1.06	1.25	1.46	2.00
	<i>65 or older</i>	0.58	0.29	0.46	0.58	0.74	1.16
Sex							
	<i>Male</i>		<i>reference</i>				
	<i>Female</i>	0.25	0.18	0.22	0.25	0.28	0.34
Day of week							
	<i>1</i>		<i>reference</i>				
	<i>2</i>	0.83	0.45	0.68	0.83	1.02	1.48
	<i>3</i>	0.84	0.47	0.69	0.84	1.03	1.50
	<i>4</i>	1.05	0.61	0.86	1.05	1.27	1.85
	<i>5</i>	0.59	0.33	0.48	0.59	0.73	1.07
	<i>6</i>	0.42	0.21	0.33	0.42	0.53	0.83
	<i>7</i>	0.69	0.35	0.55	0.69	0.86	1.32
Employment							
	<i>Any work</i>		<i>reference</i>				
	<i>No work</i>	0.69	0.43	0.59	0.69	0.81	1.07
Household							
	<i>Single person</i>		<i>reference</i>				
	<i>household with children</i>	1.28	0.68	1.03	1.28	1.59	2.45
	<i>household without children</i>	1.66	0.96	1.36	1.65	2.02	2.92
Vehicle ownership							
	<i>No vehicle</i>		<i>reference</i>				
	<i>One or more vehicles</i>	0.35	0.16	0.27	0.35	0.45	0.75
Weekly household income, equivalised							
	<i>0 – 500</i>		<i>reference</i>				
	<i>501 – 817</i>	1.19	0.63	0.96	1.18	1.48	2.29
	<i>817 – 1,157</i>	1.71	0.93	1.37	1.70	2.10	3.25
	<i>1,158 – 1,667</i>	2.26	1.26	1.83	2.25	2.76	4.22
	<i>1,668 – 5,263</i>	2.40	1.36	1.95	2.38	2.94	4.50

Additional Table 8. Adjusted odds ratios (AOR) including covariates for the hierarchical model predicting public transport usage. These are the exponentiated posterior estimates, corresponding to the log odds presented in Additional Table 4.

		AOR	Posterior distribution percentiles				
			2.5%	25%	50%	75%	97.5%
ULI		1.18	1.15	1.17	1.18	1.19	1.22
Age group							
	<i>18 – 29 year old</i>		<i>reference</i>				
	<i>30 – 49 year old</i>	0.45	0.35	0.42	0.45	0.49	0.57
	<i>50 – 64 year old</i>	0.25	0.19	0.23	0.25	0.28	0.33
	<i>65 or older</i>	0.22	0.16	0.20	0.22	0.25	0.31
Sex							
	<i>Male</i>		<i>reference</i>				
	<i>Female</i>	0.83	0.70	0.78	0.83	0.88	0.97
Day of week							
	<i>1</i>		<i>reference</i>				
	<i>2</i>	1.44	1.04	1.28	1.44	1.61	1.97
	<i>3</i>	1.42	1.04	1.28	1.42	1.58	1.95
	<i>4</i>	1.21	0.87	1.08	1.21	1.35	1.67
	<i>5</i>	1.13	0.81	1.01	1.13	1.26	1.56
	<i>6</i>	0.42	0.28	0.37	0.42	0.48	0.62
	<i>7</i>	0.30	0.19	0.26	0.30	0.35	0.45
Employment							
	<i>Any work</i>		<i>reference</i>				
	<i>No work</i>	0.96	0.76	0.89	0.96	1.03	1.20
Household							
	<i>Single person</i>		<i>reference</i>				
	<i>household with children</i>	0.73	0.52	0.65	0.72	0.81	1.01
	<i>household without children</i>	1.07	0.81	0.97	1.07	1.18	1.43
Vehicle ownership							
	<i>No vehicle</i>		<i>reference</i>				
	<i>One or more vehicles</i>	0.05	0.03	0.04	0.05	0.06	0.07
Weekly household income, equivalised							
	<i>0 – 500</i>		<i>reference</i>				
	<i>501 – 817</i>	0.88	0.64	0.79	0.88	0.98	1.21
	<i>817 – 1,157</i>	1.09	0.80	0.98	1.09	1.21	1.48
	<i>1,158 – 1,667</i>	1.17	0.87	1.05	1.17	1.31	1.58
	<i>1,668 – 5,263</i>	1.29	0.95	1.15	1.29	1.43	1.75