

Figure 1: Children's average time spent outdoors (minutes/week) over five years, by sex & age cohort

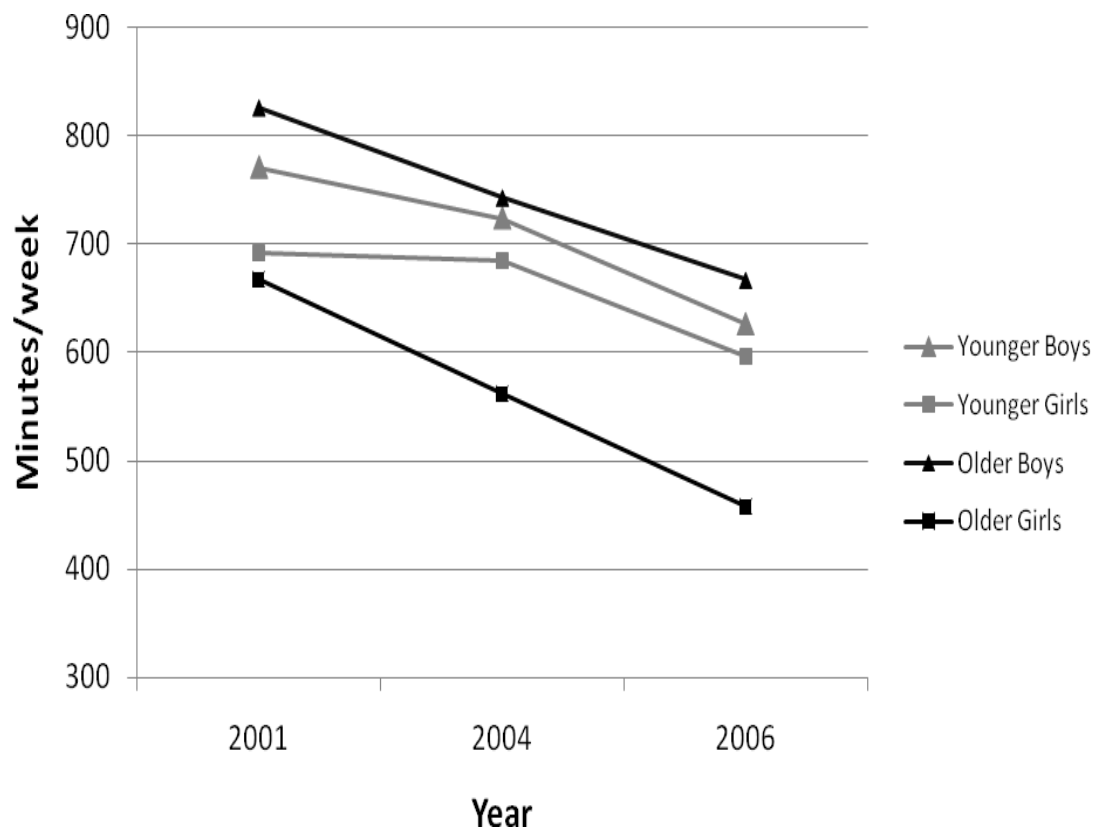


Table 1: Individual, social and physical environmental factors reported by parents at baseline (2001), by sex of child

Predictor Variable	Range	Mean (SD) or % ¹			
		Younger Children		Older Children	
		Boys	Girls	Boys	Girls
<u>Individual Factors</u>					
Outdoor tendencies, %					
Low	--	27.5	31.2	18.7	30.8
Medium		15.9	11.5	20.2	15.4
High		56.5	57.4	61.2	53.9
Indoor tendencies, %					
Low	--	79.7	72.1	67.9	64.5
Medium		10.1	14.8	21.6	16.1
High		10.1	13.1	10.5	19.4
<u>Social Factors</u>					
Parental encouragement, %					
Low	--	11.6	9.8	26.1	31.7*
Medium		39.1	36.1	26.9	31.4
High		49.3	54.1	47.0	32.1
Social opportunities, %					
None or one	--	21.7	23.0	42.1	40.3
Two		33.3	23.0	39.1	33.8
Three or four		44.9	54.1	18.8	26.0
Rules & restrictions, <i>M(SD)</i>	4-10	8.9 (1.3)	9.1 (1.0)	8.5 (1.5)	8.3 (1.7)
I don't allow my child to play outside after dark					
I don't allow my child to walk/ride a bike on the street after dark					
Supervision, <i>M(SD)</i>					
My child must be supervised while playing outside	1-5	3.4 (1.0)	3.6 (1.1)	2.6 (1.0)	2.6 (0.9)
There are no adults at home during daylight hours after school to supervise my child in active play outside	1-5	1.6 (0.9)	1.7 (0.9)	1.9 (1.0)	1.9 (1.1)

Dog ownership, (% yes)					
Do you own a dog?	--	47.1	52.5	60.5	62.2
Number of siblings, <i>M(SD)</i>					
How many other children aged under 18 years currently live in your house?	0-6	1.4 (0.7)	1.4 (0.9)	1.4 (0.9)	1.4 (0.8)
<u>Environmental Factors</u>					
Yard size, %	--				
Small		14.5	8.2	6.7	7.1
Medium		71.0	67.2	73.9	69.7
Large		14.5	24.6	19.4	23.2
Home physical activity opportunities, <i>M(SD)</i>	3-13	7.9 (2.3)	7.8 (1.8)	8.2 (2.0)	8.2 (2.1)
Which of the following do you have within or outside of your home/yard/garden? (swimming pool/spa, trampoline, basketball ring, sandpits/swings/play equipment)					
How often does your child use the following at home? (balls, bats/racquets, bikes, home gym equipment, rollerblades, skateboards, skipping rope, scooter, toys that encourage active play)					
Local destinations, <i>M(SD)</i>					
How often does your child walk/ride a bike to the following places? (bike/walking tracks, friends' houses, parks/ovals/playgrounds, <u>post box</u> , public transport, school, shops, sport venues)	0-8	6.5 (1.7)	6.2 (2.2)	7.0 (1.4)	6.7 (1.7)
Weather influence, <i>M(SD)</i>					
It is too dark/cold in the winter time for my child to play outside	1-5	2.8 (1.1)	3.0 (1.1)	2.7 (1.1)	2.7 (1.2)
It is too hot in the summer time for my child to play outside	1-5	2.1 (0.8)	2.2 (0.9)	2.1 (0.8)	2.1 (0.8)

¹ Values are mean (M) and standard deviation (SD) or percent (%)

** p<0.01, * p<0.05 from one-way analysis-of-variance or Kruskal-Wallis equality-of-populations rank test (continuous data) or chi-squared test (categorical data) comparing means/proportions between boys and girls within age groups

Table 2: Longitudinal association between individual, social & environmental factors & average weekly time (minutes/week) spent outdoors over 5 years among boys

Baseline Predictor Variables	Crude Model ¹		Fully Adjusted Model			
			Younger Boys ²		Older Boys ³	
Individual Factors	β	95% CI	β	95% CI	β	95% CI
Outdoor tendencies						
Low	1.0	(ref)			1.0	(ref)
Medium	132.5	31.2, 233.9*	#		30.5	-96.7, 157.7
High	280.1	230.7, 329.4**			123.2	39.6, 206.8**
Indoor tendencies						
Younger boys						
Low	1.0	(ref)	1.0	(ref)	--	
Medium	-90.7	-236.2, 54.7	-68.0	-200.4, 64.3		
High	-317.7	-435.2, -200.2**	-168.3	-323.5, -13.0*		
Older boys						
Low	1.0	(ref)	--		1.0	(ref)
Medium	-319.3	-386.0, -252.7**			-215.0	-310.6, -119.4**
High	-412.4	-508.8, -316.0**			-324.0	-471.7, -176.3**
<u>Social Factors</u>						
Parental encouragement						
Low	1.0	(ref)	1.0	(ref)	1.0	(ref)
Medium	68.8	-55.3, 192.9	38.1	-58.9, 135.1	7.3	-136.4, 151.1
High	189.9	111.8, 267.9**	52.2	-97.4, 201.9	101.7	-3.8, 207.2
Social opportunities						
Low	1.0	(ref)	1.0	(ref)	1.0	(ref)
Medium	111.3	60.6, 162.0**	14.6	-119.3, 148.5	-49.5	-129.5, 30.5
High	268.7	205.6, 331.7**	169.7	25.9, 313.6*	-16.5	-158.9, 126.0
Rules & restrictions	-21.6	-45.4, 2.17	--		--	
Supervision						

Child must be supervised while playing outside	-7.8	-49.1, 33.5	--		--	
No adults to supervise active play outside after school	-48.6	-78.2, -18.9**	-0.2	-61.3, 61.0	-46.9	-91.3, -2.6*
Dog ownership	77.9	-4.5, 151.4*	-15.9	-129.7, 97.9	36.9	-70.0, 143.7
Number of siblings	14.4	-14.6, 43.5	--		--	
<u>Environmental Factors</u>						
Yard size						
Younger boys	-60.8	-156.6, 34.9	--		67.8	-37.4, 173.0
Older boys	162.1	68.6, 255.6**				
Home physical activity opportunities	30.4	18.2, 42.5**	16.4	-8.5, 41.3	8.9	-11.0, 28.7
Local destinations	9.7	-12.4, 31.8	--		--	
Weather						
Dark/cold in winter influences outside play	-29.9	-60.2, 0.3	--		--	
Heat in summer influences outside play	-49.3	-89.6, -8.9*	-9.5	-55.9, 36.8	7.7	-40.1, 55.4

Standard errors adjusted for clustering by school; ** p<0.01, * p<0.05; # collinear ($r>0.5$) variables excluded from multivariable model

¹Crude Model: Adjusted for maternal education, parental marital status, and age cohort (except where stratified by age cohort)

²Fully Adjusted Model: Adjusted for maternal education, parental marital status, and all significant variables from the Crude Model within sex strata among younger boys

³Fully Adjusted Model: Adjusted for maternal education, parental marital status, and all significant variables from the Crude Model within sex strata among older boys

Table 3: Longitudinal association between individual, social & environmental factors & average weekly time (minutes/week) spent outdoors over 5 years among girls

Baseline Predictor Variables	Crude Model ¹		Fully Adjusted Model			
			Younger Girls ²		Older Girls ³	
	β	95% CI	β	95% CI	β	95% CI
<u>Individual Factors</u>						
Outdoor tendencies						
Low	1.0	(ref)	#		1.0	(ref)
Medium	199.6	94.3, 304.9**			200.4	26.5, 374.3*
High	185.9	137.6, 234.3**			103.4	-5.6, 212.8
Indoor tendencies						
Low	1.0	(ref)	1.0	(ref)	1.0	(ref)
Medium	-74.3	-158.4, 9.9	-188.3	-355.5, -21.2*	37.9	-40.1, 116.0
High	-171.7	-268.5, -74.8**	-246.9	-374.0, -119.7**	0.7	-139.2, 140.5
<u>Social Factors</u>						
Parental encouragement						
Low	1.0	(ref)	1.0	(ref)	1.0	(ref)
Medium	128.7	43.8, 213.5**	144.0	-58.9, 347.0	83.3	-8.2, 174.8
High	211.9	125.4, 298.4**	234.0	30.1, 437.8*	151.4	66.6, 236.2**
Social opportunities						
Low	1.0	(ref)	1.0	(ref)	1.0	(ref)
Medium	48.3	-36.7, 133.4	-44.1	-199.0, 110.9	-21.3	-94.5, 51.8
High	104.8	27.6, 181.9**	-89.1	-232.8, 54.6	46.5	-28.6, 121.5
Rules & restrictions	-7.8	-29.8, 14.2	--		--	
Supervision						
Child must be supervised while playing outside	5.8	-12.8, 24.4	--		--	
No adults to supervise active play outside after school	-43.3	-77.6, -9.0*	11.4	-78.1, 100.9	-34	-59.6, -9.1**
Dog ownership	3.5	-49.7, 56.7	--		--	

Number of siblings	9.1	-25.3, 43.4	--		--	
<u>Environmental Factors</u>						
Yard size	17.8	-52.0, 87.6	--		--	
Home physical activity opportunities						
Local destinations	6.5	-5.7, 18.7	--		--	
Weather	-8.0	-20.2, 4.2	--		--	
Dark/cold in winter influences outside play	-27.0	-53.0, -0.8*	39.9	-24.4, 104.3	-4.6	-33.9, 24.8
Heat in summer influences outside play						
Younger girls	-91.0	-169.8, -12.2*	-42.3	-105.1, 20.4	--	
Older girls	-13.6	-41.1, 13.9	--		--	

Standard errors adjusted for clustering by school; ** p<0.01, * p<0.05; # collinear ($r>0.5$) variables excluded from multivariable model

¹Crude Model: Adjusted for maternal education, parental marital status, and age cohort (except where stratified by age cohort)

²Fully Adjusted Model: Adjusted for maternal education, parental marital status, and all significant variables from the Crude Model within sex strata among younger girls

³Fully Adjusted Model: Adjusted for maternal education, parental marital status, and all significant variables from the Crude Model within sex strata among older girls