Supplementary material

Supplement to: Dalene KE, Kolle E, Steene-Johannessen J, et al. Device-measured sedentary time in Norwegian children and adolescents in the era of ubiquitous internet access: Secular changes between 2005, 2011 and 2018

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Supplemental Figure 1. Analysis of sedentary time and sedentary bouts using different Actigraph monitors and filtering

Bout Duration	Device	Mean (SD)		Difference from CSA (95% CI)
	CSA7164	425 (73)		
Total Sedentary	GT3X+	459 (71)		33.7 (-22.0, 89.5)
,	GT3X+ LFE	425 (75)		-0.8 (-56.5, 55.0)
	CSA7164	118 (22)		
0-1	GT3X+	116 (23)		-1.9 (-18.9, 15.2)
	GT3X+ LFE	116 (22)		-1.7 (-18.7, 15.4)
	CSA7164	177 (33)		
1-5	GT3X+	182 (31)		4.9 (-20.6, 30.5)
	GT3X+ LFE	176 (36)		-0.9 (-26.4, 24.7)
	CSA7164	92 (43)		
5-15	GT3X+	118 (46)		26.3 (-7.1, 59.7)
	GT3X+ LFE	92 (42)		0.0 (-33.4, 33.4)
	CSA7164	22 (22)		
15-30	GT3X+	28 (23)	_	5.7 (-10.7, 22.1)
	GT3X+ LFE	24 (20)		2.0 (-14.4, 18.4)
	CSA7164	16 (16)		
+30	GT3X+	15 (19)	_ _	-1.4 (-14.7, 11.9)
	GT3X+ LFE	16 (17)	-	-0.2 (-13.5, 13.1)
			-50 -25 0 25 50 Difference from CSA (Minutes per day (95% Cl))	

N = 14. Data was collected for three days in ten-year old Norwegian children as described in Grydeland et al. (2014).¹ Datareduction was performed as detailed in the present manuscript. Actigraph CSA7161 monitors were used in PANCS1. Versions of the GT3X+ were used in PANCS2 and PANCS3. Data from GT3X+ monitors were analysed with (GT3X+ LFE) and without (GT3X+) activating the low-frequency extension (LFE) filter option. Using the LFE results in almost complete attenuation of intergeneration differences in sedentary time.

	Time	Valid day/segment (% of day/segment)	Included if # of valid days/segments:
Weekdays	06:00:00- 00:00:00	≥480 minutes (44%)	≥1
Weekend days	06:00:00- 00:00:00	≥480 minutes (44%)	≥1
School day segments			
Morning	06:00:00- 08:59:50	≥90 minutes (50%)	≥1
School 9-year olds	09:00:00- 13:00:00	≥180 minutes (75%)	≥1
Afterschool 9-year olds	13:00:10- 22:00:00	≥270 minutes (50%)	≥1
School 15-year olds	09:00:00- 14:00:00	≥240 minutes (75%)	≥1
Afterschool 15-year olds	14:00:10- 23:00:00	≥270 minutes (50%)	≥1

Supplementary Table 1. Accelerometer data inclusion criteria



Supplemental Figure 2. Crude distribution of sedentary time on weekend days by age-group and sex

Data are normalized to total weekend wear-time. The distribution is not adjusted for age or minutes of daylight. Vertical lines are survey medians.

Supplemental Figure 3. Weekday sedentary time accumulation patterns in 9year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	134 (132, 137)		0 (ref.)
2011	0-1 min	129 (127, 131)	—	-5 (-8, -2)
2018	0-1 min	127 (125, 129)	—	-8 (-11, -4)
2005	1-5 min	205 (201, 210)	•	0 (ref.)
2011	1-5 min	206 (203, 209)	_	1 (-5, 6)
2018	1-5 min	199 (195, 203)		-6 (-12, -0)
2005	5-15 min	91 (86, 95)	•	0 (ref.)
2011	5-15 min	99 (95, 103)		9 (3, 15)
2018	5-15 min	102 (99, 106)		12 (6, 18)
2005	15-30 min	22 (19, 25)	•	0 (ref.)
2011	15-30 min	27 (25, 29)		5 (1, 8)
2018	15-30 min	27 (26, 29)		5 (2, 9)
2005	>30 min	20 (17, 24)	•	0 (ref.)
2011	>30 min	23 (21, 26)		3 (-1, 7)
2018	>30 min	25 (22, 27)		4 (0, 8)
2005	0-1 min	127 (125, 129)		0 (ref.)
2011	0-1 min	124 (122, 126)		-3 (-6, -0)
2018	0-1 min	119 (117, 121)	—	-8 (-11, -5)
2005	1-5 min	191 (186, 196)	•	0 (ref.)
2011	1-5 min	196 (192, 199)	+	4 (-2, 10)
2018	1-5 min	198 (195, 202)		7 (1, 13)
2005	5-15 min	86 (82, 90)	•	0 (ref.)
2011	5-15 min	94 (90, 98)		8 (2, 14)
2018	5-15 min	105 (100, 109)		19 (13, 25)
2005	15-30 min	20 (18, 23)	•	0 (ref.)
2011	15-30 min	25 (23, 27)		5 (2, 7)
2018	15-30 min	28 (26, 30)		8 (5, 11)
2005	>30 min	19 (17, 22)	•	0 (ref.)
2011	>30 min	22 (20, 25)	+	3 (-1, 7)
2018	>30 min	25 (23, 27)		5 (2, 9)
		-25 -20	-15 -10 -5 0 5 10 15 2	20 25
			Difference from 2005	

Adjusted for age, minutes of daylight, and weekday wear-time.

Supplemental Figure 4. Weekday sedentary time accumulation patterns in 15year old boys and girls

Year	Bout length	Minutes/day (95% CI)			Difference (95% CI)
2005	0-1 min	111 (106, 115)			0 (ref.)
2011	0-1 min	95 (92, 98)			-15 (-21, -10)
2018	0-1 min	94 (92, 97)			-16 (-21, -11)
2005	1-5 min	244 (239, 248)		•	0 (ref.)
2011	1-5 min	225 (220, 231)	—		-18 (-25, -11)
2018	1-5 min	226 (221, 231)			-18 (-24, -11)
2005	5-15 min	163 (156, 170)		•	0 (ref.)
2011	5-15 min	184 (179, 189)			21 (12, 30)
2018	5-15 min	189 (184, 194)			26 (17, 34)
2005	15-30 min	55 (49, 62)		•	0 (ref.)
2011	15-30 min	78 (73, 83)			22 (14, 31)
2018	15-30 min	77 (73, 82)			22 (14, 30)
2005	>30 min	32 (27, 37)		•	0 (ref.)
2011	>30 min	52 (47, 58)			20 (13, 28)
2018	>30 min	46 (42, 50)			14 (8, 20)
2005	0-1 min	108 (105, 111)			0 (ref.)
2011	0-1 min	105 (101, 108)		╺╌┼╴	-3 (-8, 2)
2018	0-1 min	99 (95, 103)			-9 (-13, -4)
2005	1-5 min	232 (227, 237)		•	0 (ref.)
2011	1-5 min	239 (235, 244)			8 (1, 15)
2018	1-5 min	238 (233, 243)		—	6 (-1, 13)
2005	5-15 min	151 (145, 157)		•	0 (ref.)
2011	5-15 min	163 (156, 169)			11 (2, 21)
2018	5-15 min	173 (166, 180)			22 (13, 31)
2005	15-30 min	50 (45, 54)		•	0 (ref.)
2011	15-30 min	52 (48, 57)	-		3 (-4, 9)
2018	15-30 min	59 (54, 64)			9 (3, 16)
2005	>30 min	35 (30, 39)		+	0 (ref.)
2011	>30 min	34 (27, 40)		-•	-1 (-10, 8)
2018	>30 min	38 (35, 41)		+	3 (-2, 8)
			-25 -20 -15 -10 -5	0 5 10 15 20 25	
			Differe	nce from 2005	

Adjusted for age, minutes of daylight, and weekday wear-time.

Supplemental Figure 5. Weekend sedentary time accumulation patterns in 9year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	120 (118, 122)	Ļ	0 (ref.)
2011	0-1 min	116 (114, 119)		-4 (-7, -1)
2018	0-1 min	112 (109, 114)	—	-8 (-11, -5)
2005	1-5 min	179 (175, 183)	•	0 (ref.)
2011	1-5 min	176 (172, 180)		-3 (-8, 3)
2018	1-5 min	175 (171, 180)		-4 (-10, 3)
2005	5-15 min	84 (80, 88)	•	0 (ref.)
2011	5-15 min	85 (81, 88)	_ _	1 (-4, 7)
2018	5-15 min	93 (88, 98)		10 (3, 16)
2005	15-30 min	25 (23, 27)	•	0 (ref.)
2011	15-30 min	29 (23, 34)		4 (-2, 9)
2018	15-30 min	30 (27, 33)	—	5 (1, 9)
2005	>30 min	21 (18, 24)	•	0 (ref.)
2011	>30 min	25 (22, 29)	_ _	4 (-0, 9)
2018	>30 min	28 (24, 32)		7 (2, 13)
2005	0-1 min	113 (111, 116)		0 (ref.)
2011	0-1 min	113 (110, 115)		-0 (-4, 3)
2018	0-1 min	105 (102, 108)	—	-8 (-12, -4)
2005	1-5 min	177 (173, 181)	Ļ	0 (ref.)
2011	1-5 min	176 (171, 181)		-1 (-7, 5)
2018	1-5 min	185 (180, 190)		8 (2, 15)
2005	5-15 min	86 (81, 91)	Ļ	0 (ref.)
2011	5-15 min	90 (86, 94)		4 (-3, 10)
2018	5-15 min	103 (97, 109)		17 (10, 25)
2005	15-30 min	22 (20, 24)	Ļ	0 (ref.)
2011	15-30 min	26 (24, 29)	 → -	4 (1, 7)
2018	15-30 min	31 (28, 35)		9 (6, 13)
2005	>30 min	21 (18, 24)	4	0 (ref.)
2011	>30 min	21 (19, 24)	_	0 (-4, 4)
2018	>30 min	25 (21, 29)	+	4 (-1, 9)
		-25 -2	0 -15 -10 -5 0 5 10 15 20	25
			Difference from 2005	

Adjusted for age, minutes of daylight, and weekend wear-time.

Supplemental Figure 6. Weekend sedentary time accumulation patterns in 15year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Differenc (95% Cl)
2005	0-1 min	93 (90, 96)		0 (ref.)
2011	0-1 min	82 (80, 84)	—	-11 (-15, -7)
2018	0-1 min	82 (79, 85)	—	-11 (-15, -7)
2005	1-5 min	198 (194, 203)	+	0 (ref.)
2011	1-5 min	189 (185, 193)	—	-10 (-16, -4)
2018	1-5 min	188 (184, 193)		-10 (-17, -3)
2005	5-15 min	136 (131, 141)	•	0 (ref.)
2011	5-15 min	159 (153, 164)		23 (15, 31)
2018	5-15 min	156 (150, 163)		20 (12, 29)
2005	15-30 min	53 (50, 57)	•	0 (ref.)
2011	15-30 min	64 (60, 69)		11 (5, 17)
2018	15-30 min	65 (61, 70)		12 (6, 18)
2005	>30 min	34 (31, 38)	•	0 (ref.)
2011	>30 min	40 (36, 44)	_	6 (0, 11)
2018	>30 min	44 (38, 49)		9 (3, 16)
2005	0-1 min	83 (80, 87)	•	0 (ref.)
2011	0-1 min	83 (81, 86)		0 (-5, 5)
2018	0-1 min	79 (76, 82)		-4 (-9, 1)
2005	1-5 min	194 (189, 199)	•	0 (ref.)
2011	1-5 min	196 (190, 201)		2 (-6, 10)
2018	1-5 min	192 (187, 198)		-2 (-9, 6)
2005	5-15 min	141 (135, 146)	•	0 (ref.)
2011	5-15 min	148 (142, 154)	+	7 (-1, 16)
2018	5-15 min	154 (147, 161)		• 13 (5, 22)
2005	15-30 min	54 (50, 59)	+	0 (ref.)
2011	15-30 min	50 (45, 55)		-4 (-11, 3)
2018	15-30 min	54 (50, 59)		-0 (-7, 6)
2005	>30 min	36 (30, 42)	+	0 (ref.)
2011	>30 min	30 (26, 33)		-6 (-14, 1)
2018	>30 min	40 (34, 46)		4 (-5, 12)
		-25	-20 -15 -10 -5 0 5 10	15 20 25
			Difference from 200	05

Adjusted for age, minutes of daylight, and weekend wear-time.

Supplemental Figure 7. Morning sedentary time accumulation patterns in 9year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	18 (17, 19)		0 (ref.)
2011	0-1 min	17 (17, 18)	•	-1 (-2, 0)
2018	0-1 min	17 (16, 18)	•	-1 (-2, 0)
2005	1-5 min	29 (28, 31)	•	0 (ref.)
2011	1-5 min	30 (28, 31)	-	0 (-2, 2)
2018	1-5 min	28 (27, 29)		-1 (-3, 1)
2005	5-15 min	13 (12, 14)	•	0 (ref.)
2011	5-15 min	16 (15, 17)	-	3 (1, 5)
2018	5-15 min	17 (15, 18)	+	4 (2, 6)
2005	15-30 min	6 (4, 7)	•	0 (ref.)
2011	15-30 min	6 (5, 7)	+	0 (-2, 2)
2018	15-30 min	6 (5, 7)	+	1 (-1, 3)
2005	>30 min	12 (10, 14)	•	0 (ref.)
2011	>30 min	11 (8, 13)		-2 (-5, 1)
2018	>30 min	10 (8, 12)	-	-2 (-5, 0)
2005	0-1 min	17 (16, 18)		0 (ref.)
2011	0-1 min	17 (16, 18)	4	-0 (-2, 1)
2018	0-1 min	16 (16, 17)	•	-1 (-2, 0)
2005	1-5 min	27 (26, 28)	•	0 (ref.)
2011	1-5 min	29 (28, 30)		2 (0, 4)
2018	1-5 min	29 (28, 30)	•	2 (-0, 4)
2005	5-15 min	12 (11, 13)	•	0 (ref.)
2011	5-15 min	16 (14, 17)	-	4 (2, 5)
2018	5-15 min	17 (15, 18)	+	5 (3, 6)
2005	15-30 min	5 (4, 5)	•	0 (ref.)
2011	15-30 min	6 (5, 6)	+	1 (-0, 2)
2018	15-30 min	6 (5, 6)	+	1 (0, 2)
2005	>30 min	14 (11, 16)	+	0 (ref.)
2011	>30 min	10 (8, 12)	→-	-4 (-7, -1)
2018	>30 min	10 (8, 12)		-4 (-7, -1)
		-25 -20	-15 -10 -5 0 5 10 15 20	25

Girls; n = 1253, boys; n = 1224. Adjusted for age, minutes of daylight, and wear-time during mornings. Inclusion criteria shown in Supplemental Table 1.

Supplemental Figure 8. Morning sedentary time accumulation patterns in 15year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	16 (15, 17)		0 (ref.)
2011	0-1 min	14 (13, 15)	+	-2 (-3, -1)
2018	0-1 min	13 (12, 14)	+	-3 (-4, -2)
2005	1-5 min	32 (29, 35)	•	0 (ref.)
2011	1-5 min	30 (28, 31)		-2 (-5, 1)
2018	1-5 min	29 (28, 30)		-3 (-6, 0)
2005	5-15 min	22 (20, 24)	•	0 (ref.)
2011	5-15 min	22 (20, 24)	_ + _	0 (-3, 3)
2018	5-15 min	23 (21, 25)		1 (-1, 4)
2005	15-30 min	7 (5, 8)	•	0 (ref.)
2011	15-30 min	10 (9, 12)	-	4 (2, 6)
2018	15-30 min	12 (10, 14)	-	5 (3, 8)
2005	>30 min	10 (7, 12)	•	0 (ref.)
2011	>30 min	13 (11, 15)	_	3 (-0, 6)
2018	>30 min	13 (11, 15)		3 (-0, 6)
2005	0-1 min	15 (14, 16)	ļ	0 (ref.)
2011	0-1 min	14 (13, 15)	-	-1 (-2, 1)
2018	0-1 min	13 (12, 14)	+	-2 (-4, -1)
2005	1-5 min	30 (28, 32)	•	0 (ref.)
2011	1-5 min	31 (29, 33)	_ _	0 (-3, 3)
2018	1-5 min	29 (27, 31)		-1 (-4, 2)
2005	5-15 min	17 (15, 19)	•	0 (ref.)
2011	5-15 min	21 (19, 23)		4 (1, 6)
2018	5-15 min	23 (21, 25)	-	6 (3, 8)
2005	15-30 min	7 (5, 8)	•	0 (ref.)
2011	15-30 min	8 (7, 10)	 ←	2 (-1, 4)
2018	15-30 min	8 (6, 10)		1 (-1, 4)
2005	>30 min	12 (10, 14)	•	0 (ref.)
2011	>30 min	10 (7, 13)	-+	-2 (-6, 1)
2018	>30 min	14 (11, 16)		1 (-2, 5)
		-25 -20 -	15 -10 -5 0 5 10 15 20	25
			Difference from 2005	

Girls; n = 787, boys; n = 607. Adjusted for age, minutes of daylight, and wear-time during mornings. Inclusion criteria shown in Supplemental Table 1.

Supplemental Figure 9. School sedentary time accumulation patterns in 9-year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	41 (39, 42)		0 (ref.)
2011	0-1 min	39 (38, 40)	-	-2 (-3, -0)
2018	0-1 min	39 (38, 40)	-	-2 (-3, -0)
2005	1-5 min	64 (61, 67)	•	0 (ref.)
2011	1-5 min	65 (63, 66)		1 (-3, 4)
2018	1-5 min	63 (61, 64)		-1 (-5, 2)
2005	5-15 min	25 (22, 27)	•	0 (ref.)
2011	5-15 min	28 (26, 30)		3 (-0, 6)
2018	5-15 min	27 (26, 29)	-	3 (-0, 5)
2005	15-30 min	4 (3, 5)	•	0 (ref.)
2011	15-30 min	4 (4, 5)	+	1 (-1, 2)
2018	15-30 min	5 (4, 5)	•	1 (-0, 2)
2005	>30 min	1 (1, 2)	•	0 (ref.)
2011	>30 min	2 (1, 3)	~	1 (-0, 2)
2018	>30 min	2 (1, 2)	•	1 (-0, 1)
2005	0-1 min	40 (39, 41)		0 (ref.)
2011	0-1 min	39 (38, 40)	-+	-2 (-3, 0)
2018	0-1 min	38 (37, 39)	+	-2 (-3, -0)
2005	1-5 min	56 (53, 59)	•	0 (ref.)
2011	1-5 min	59 (57, 61)		3 (-0, 6)
2018	1-5 min	58 (56, 60)		2 (-1, 5)
2005	5-15 min	19 (17, 20)	•	0 (ref.)
2011	5-15 min	22 (20, 24)		3 (1, 6)
2018	5-15 min	22 (21, 24)		4 (1, 6)
2005	15-30 min	3 (2, 3)	•	0 (ref.)
2011	15-30 min	3 (3, 4)	•	1 (-0, 2)
2018	15-30 min	3 (3, 4)	•	1 (-0, 2)
2005	>30 min	1 (0, 1)	•	0 (ref.)
2011	>30 min	1 (1, 2)	+	1 (-0, 2)
2018	>30 min	2 (1, 2)	•	1 (-0, 2)
		-25 -20	-15 -10 -5 0 5 10 15 2	20 25
			Difference from 2005	

Girls; n = 1557, boys; n = 1589. Adjusted for age, minutes of daylight, and wear-time during school. Inclusion criteria shown in Supplemental Table 1.

Supplemental Figure 10. School sedentary time accumulation patterns in 15year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	40 (37, 42)		0 (ref.)
2011	0-1 min	33 (31, 34)	—	-7 (-10, -4)
2018	0-1 min	31 (30, 32)		-8 (-11, -6)
2005	1-5 min	93 (91, 96)	•	0 (ref.)
2011	1-5 min	87 (84, 89)	—	-6 (-10, -3)
2018	1-5 min	85 (83, 88)		-8 (-12, -4)
2005	5-15 min	56 (51, 62)	•	0 (ref.)
2011	5-15 min	67 (64, 70)		11 (5, 17)
2018	5-15 min	70 (68, 73)		14 (8, 20)
2005	15-30 min	16 (12, 21)	•	0 (ref.)
2011	15-30 min	25 (23, 27)	_	9 (4, 13)
2018	15-30 min	26 (24, 29)		10 (5, 15)
2005	>30 min	4 (3, 6)	•	0 (ref.)
2011	>30 min	11 (9, 13)		7 (4, 9)
2018	>30 min	11 (9, 14)		7 (3, 10)
2005	0-1 min	44 (43, 46)	•	0 (ref.)
2011	0-1 min	41 (39, 43)	—	-3 (-6, -1)
2018	0-1 min	39 (37, 40)	-	-6 (-8, -3)
2005	1-5 min	91 (88, 94)	•	0 (ref.)
2011	1-5 min	92 (90, 95)	_	1 (-3, 5)
2018	1-5 min	94 (91, 96)	+	2 (-2, 6)
2005	5-15 min	43 (40, 47)	•	0 (ref.)
2011	5-15 min	51 (47, 54)		7 (3, 12)
2018	5-15 min	57 (53, 60)		13 (9, 18)
2005	15-30 min	9 (8, 11)	•	0 (ref.)
2011	15-30 min	12 (10, 13)		2 (0, 5)
2018	15-30 min	13 (11, 16)	-	4 (1, 7)
2005	>30 min	3 (2, 5)	•	0 (ref.)
2011	>30 min	4 (3, 5)	+	1 (-1, 2)
2018	>30 min	4 (3, 5)	•-	1 (-1, 3)
		-25 -	20 -15 -10 -5 0 5 10 15	20 25
			Difference from 2005	

Girls; n = 1051, boys; n = 937. Adjusted for age, minutes of daylight, and wear-time during school. Inclusion criteria shown in Supplemental Table 1.

Supplemental Figure 11. Afterschool sedentary time accumulation patterns in 9-year old boys and girls

Year	Bout length	Minutes/day (95% Cl)		Difference (95% CI)
2005	0-1 min	79 (78, 81)		0 (ref.)
2011	0-1 min	77 (76, 78)	-	-2 (-4, -0)
2018	0-1 min	75 (73, 76)	-	-5 (-7, -3)
2005	1-5 min	117 (114, 120)	•	0 (ref.)
2011	1-5 min	118 (117, 120)		1 (-2, 5)
2018	1-5 min	114 (111, 116)		-3 (-7, 0)
2005	5-15 min	54 (51, 57)	•	0 (ref.)
5 2011	5-15 min	58 (56, 61)	—	5 (1, 8)
2018	5-15 min	62 (59, 64)		8 (4, 12)
2005	15-30 min	14 (12, 15)	•	0 (ref.)
2011	15-30 min	15 (14, 17)	-	2 (-0, 4)
2018	15-30 min	17 (15, 18)	-	3 (1, 5)
2005	>30 min	9 (7, 10)	•	0 (ref.)
2011	>30 min	9 (8, 11)		1 (-1, 3)
2018	>30 min	11 (9, 12)	-	2 (-0, 4)
2005	0-1 min	73 (71, 74)	•	0 (ref.)
2011	0-1 min	72 (71, 73)		-0 (-2, 2)
2018	0-1 min	68 (67, 69)	+	-4 (-6, -3)
2005	1-5 min	112 (109, 115)	•	0 (ref.)
2011	1-5 min	114 (112, 117)		2 (-2, 6)
2018	1-5 min	118 (116, 121)		6 (2, 10)
2005	5-15 min	56 (53, 60)	•	0 (ref.)
n 2011	5-15 min	59 (56, 61)	+	2 (-2, 7)
2018	5-15 min	67 (64, 70)		11 (7, 16)
2005	15-30 min	14 (12, 15)	+	0 (ref.)
2011	15-30 min	15 (14, 16)	↓	1 (-1, 3)
2018	15-30 min	19 (17, 21)	-	5 (3, 7)
2005	>30 min	8 (7, 9)	•	0 (ref.)
2011	>30 min	9 (8, 10)	-	1 (-0, 3)
2018	>30 min	10 (9, 11)	+	3 (1, 4)
		-25 -20 -1	5 -10 -5 0 5 10 15 20 2	25

Girls; n = 1562, boys; n = 1594. Adjusted for age, minutes of daylight, and wear-time after school. Inclusion criteria shown in Supplemental Table 1.

Supplemental Figure 12. Afterschool sedentary time accumulation patterns in 15-year old boys and girls

Year	Bout length	Minutes/day (95% Cl)			Difference (95% CI)
2005	0-1 min	62 (59, 64)			0 (ref.)
2011	0-1 min	54 (52, 56)			-8 (-11, -4)
2018	0-1 min	55 (53, 56)			-7 (-10, -4)
2005	1-5 min	131 (128, 135)	•		0 (ref.)
2011	1-5 min	122 (119, 126)			-9 (-14, -4)
2018	1-5 min	124 (121, 126)			-8 (-12, -4)
2005	5-15 min	93 (89, 97)			0 (ref.)
2011	5-15 min	105 (101, 108)			12 (7, 18)
2018	5-15 min	105 (102, 109)			13 (7, 18)
2005	15-30 min	34 (30, 38)			0 (ref.)
2011	15-30 min	44 (40, 49)		—	10 (3, 17)
2018	15-30 min	43 (40, 45)		—	8 (4, 13)
2005	>30 min	17 (15, 20)			0 (ref.)
2011	>30 min	27 (24, 31)		—	10 (5, 14)
2018	>30 min	23 (20, 26)			6 (2, 10)
2005	0-1 min	56 (54, 58)			0 (ref.)
2011	0-1 min	57 (55, 59)	-		1 (-2, 4)
2018	0-1 min	54 (52, 56)		-	-2 (-5, 1)
2005	1-5 min	126 (122, 130)	•		0 (ref.)
2011	1-5 min	132 (129, 136)			6 (1, 11)
2018	1-5 min	130 (127, 133)	-		4 (-1, 9)
2005	5-15 min	100 (94, 105)			0 (ref.)
2011	5-15 min	99 (95, 103)			-0 (-7, 7)
2018	5-15 min	103 (98, 108)			3 (-4, 10)
2005	15-30 min	35 (31, 39)	•		0 (ref.)
2011	15-30 min	35 (32, 37)	•	—	-1 (-6, 4)
2018	15-30 min	40 (36, 43)	-		4 (-1, 10)
2005	>30 min	20 (17, 23)	•		0 (ref.)
2011	>30 min	19 (15, 24)	•		-1 (-7, 5)
2018	>30 min	23 (20, 25)	_	••••	3 (-1, 6)
		-25	-20 -15 -10 -5 (5 10 15 20 25	
			Differenc	e from 2005	

Girls; n = 1054, boys; n = 933. Adjusted for age, minutes of daylight, and wear-time after school. Inclusion criteria shown in Supplemental Table 1.

References

1. Grydeland M, Hansen BH, Ried-Larsen M, Kolle E, Anderssen SA. Comparison of three generations of ActiGraph activity monitors under free-living conditions: do they provide comparable assessments of overall physical activity in 9-year old children? *BMC Sports Sci Med Rehabil* 2014; **6**: 26.