

## Supplementary file 7\_SB results from RCTs associated with included PEs\_27.05.21

Study (Year) Number of participants randomised	Unit of outcome	Outcome measure(s) for SB	Intervention group Baseline	Control group Baseline	Intervention group End of intervention <sup>a</sup>	Control group End of intervention <sup>a</sup>
<b>Adams (2012)</b> I: 47 C: 28	1. Mean % of SB time per day (SD) 2. Mean sitting hours per week (SD)	1. Accelerometer 2. IPAQ	(n= 40) SB: 47.42% (10.77)  Sitting time: 57.99 (29.70)	(n= 24) SB: 50.7% (13.78)  Sitting time: 45.18 (34.88)	(n= 40) SB: 49.16% (10.23)  Sitting time: 46.00 (28.91)	(n= 24) SB: 50.39% (14.92)  Sitting time: 40.33 (40.68)
<b>Albright (2015)</b> I: 138 C:140	Mean sitting hours per day (SD)	Active Australia Survey	Traveling to/from work: 1.19 (0.71)* While at work: 2.02 (2.18) Watching TV: 2.05 (1.33) Using a computer at home: 1.27 (0.98) Other leisure time (movies, dining out): 1.38 (1.01) While holding/feeding baby: 2.93 (1.78)	Traveling to/from work: 1.41 (0.82)* While at work: 2.52 (2.5) Watching TV: 1.91 (1.36) Using a computer at home: 1.41 (1.18) Other leisure time (movies, dining out): 1.31 (1.05) While holding/feeding baby: 3.20 (2.08)	Not published	Not published
<b>Benedetti (2020)</b> BCG: 36 TEG: 52 C: 26	Baseline: Mean SB minutes per week (SD)  End of trial: Mean SB minutes per day (SE)	Accelerometer	BCG: 498.5 (113.6) TEG: 529.8 (107.3)	522.8 (86.7)	Change between baseline and end of intervention (3 months): BCG: -14.3 (56.3) <sup>c</sup> TEG: -4.1 (62.2) <sup>c</sup> Change between baseline and end of trial (12 months): BCG: -10.9 (59.9) <sup>c</sup> TEG: 4.2 (78.6) <sup>c</sup>	Change between baseline and end of intervention (3 months): -25.6 (77.9) <sup>c</sup> Change between baseline and end of trial (12 months): -26.7 (68.3) <sup>c</sup>
<b>Berendsen (2015)</b> I: 247 C: 164	Not published	Accelerometer	Not published	Not published	Not published	Not published

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<b>Biddle (2017)</b> I: 94 C:93	Mean SB hours per day (95% CI)	1. Actigraph (worn on waistband) 2. ActivPAL (worn on thigh)	Actigraph (n= 76): 10.83 (10.50, 11.17) <sup>c</sup> ActivPal (n= 60): 8.91 (8.59, 9.24) <sup>c</sup>	Actigraph (n= 80): 11.01 (10.76, 11.26) <sup>c</sup> ActivPal (n= 57): 9.02 (8.73, 9.30) <sup>c</sup>	Outcomes not measured at end of intervention (6 Weeks). <i>Change between baseline and end of trial (12 months)</i> Actigraph (n= 38): -0.29 (-0.75, 0.17) <sup>c</sup> ActivPal (time change, n=32): 0.64 (0.13, 1.16) <sup>c</sup>	Outcomes not measured at end of intervention (6 Weeks). <i>Change between baseline and end of trial (12 months)</i> Actigraph n= 49): -0.23 (-0.60, 0.14) <sup>c</sup> ActivPal (n=29): 0.58 (0.06, 1.09) <sup>c</sup>
<b>Blunt (2018)</b> I: 59 C:59	Mean sitting minutes per day (SD)	IPAQ	360 (315)	360 (240)	Mean difference between groups (only measured at end of active intervention phase – 6 months): -0.08 (-0.16, -0.006)* <sup>c</sup>	
<b>Eramli (2017)</b> I: 39 C: 37	Mean SB hours per day (SE)	1. ActivPal 2. IPAQ	ActivPal SB: 18.0 (0.27) <sup>c</sup> IPAQ weekday sitting: 5.3 (0.31) IPAQ weekend sitting: 5.3 (0.36)	ActivPal SB: 18.5 (0.2) <sup>c</sup> IPAQ weekday sitting: 4.7 (0.41) IPAQ weekend sitting: 4.6 (0.38)	ActivPal SB: 17.2 (0.3) <sup>c</sup> IPAQ weekday sitting: 4.2 (0.33)** IPAQ weekend sitting: 3.9 (0.33)	ActivPal SB: 18.7 (0.41) <sup>c</sup> IPAQ weekday sitting: 5.7 (0.53)** IPAQ weekend sitting: 5.1 (0.63)
<b>Harris (2018)</b> Postal: 339 Nurse: 346 C: 338	Mean SB minutes per day (SD, or 95% CI)	Accelerometer	Postal: 614 (71) Nurse: 619 (78)	613 (86)	Mean difference between groups at end of intervention (3 months) Postal versus control: -2 (-12, 7) <sup>c</sup> Nurse versus control: -7 (-16, 3) <sup>c</sup> Nurse versus Postal: -4 (-13, 5) <sup>c</sup> Mean difference between groups at <i>end of trial (12 months)</i> Postal versus control: 1 (-8, 10) <sup>c</sup> Nurse versus control: -0.2 (-9, 9) <sup>c</sup> Nurse versus Postal: -1 (-10, 8) <sup>c</sup>	
<b>Lakerveld (2012)</b> I: 314 C: 308	Mean SB minutes per day (SD)	A subscale of AQUAA	253.7 (146.9) <sup>c</sup>	255.4 (124.5) <sup>c</sup>	Outcomes not measured at end of intervention <i>End of trial (Month 24):</i> 231.5 (122.2) <sup>c</sup>	Outcomes not measured at end of intervention <i>End of trial (Month 24):</i> 233.0 (140.7) <sup>c</sup>

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<b>Lane (2010)</b> I: 85 C: 91	Mean sitting time minutes per week (SD)	Frequently used validated questions selected for the trial from other population-level PA interventions.	335.9 (194.9)	310.1 (224.7)	371.4 (170.1)	369.5 (152.6)
<b>Matson (2018)</b> I: 29 C: 31	Mean sitting time minutes over last 7 days (SD) <sup>b</sup>	ActivPAL	Not published	Not published	Change between baseline and end of intervention (n= 29): -70.1 (104) <sup>b</sup>	Change between baseline and end of intervention (n= 25): 6.5 (69) <sup>b</sup>
<b>Matthews (2016)</b> I: 54 C: 48	Mean% of time per day spent in SB (SD)	Accelerometer	64.2% (10.5)	66.9% (11.3)	(n= 42) 66.4% (10.0) <sup>c</sup>	(n= 40) 65.9% (12.0) <sup>c</sup>
<b>Poston (2013)</b> I: 94 C: 89	Mean SB time minutes per day (SD)	1. Accelerometer 2. RPAQ	Accelerometer (n= 68): 1165 (91) <sup>c</sup> RPAQ (n= 79): 1009 (187) <sup>c</sup>	Accelerometer (n= 72): 1172 (95) <sup>c</sup> RPAQ (n= 80): 1007 (207) <sup>c</sup>	Accelerometer (n= 36): 1197 (77) <sup>c</sup> RPAQ (n= 56): 1020 (226) <sup>c</sup>	Accelerometer (n= 39): 1175 (86) <sup>c</sup> RPAQ (n= 54): 1068 (177) <sup>c</sup>
<b>School of Public Health HKU (2017)</b> I: 357 C:316	Mean sitting hours in a working day (SD)	IPAQ-C	4.47 (2.47)*	4.11 (2.38)*	4.3	4.2
<b>Spittaels (2007)</b> I: Group 1 (tailored advice + email): 116 Group 2 (tailored advice): 122 C: 141	Mean sitting minutes per day (SD)	IPAQ	Group 1: Weekday: 482 (183) Weekend day: 308 (160) Group 2: Weekday: 492 (202) Weekend day: 296 (160)	Weekday: 470 (217) Weekend day: 309 (182)	Group 1: Weekday: 443 (168) Weekend day: 276 (131) Group 2: Weekday: 438 (172) Weekend day: 268 (141)	Weekday: 419 (181) Weekend day: 271 (139)
<b>Stathi (2019)</b> I: 22 C: 17	Mean SB minutes per day (SD, +/- 95% CI)	Accelerometer	681.5 (74.9)	616.2 (112.3)	Change between baseline and end of intervention:	Change between baseline and end of intervention:

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					13.1 (77.2) (-26.6, 52.8)	-8.7 (70.7) (-57.6, 75.1)
<b>Williams (2019)</b> I: 20 C: 20	Mean SB minutes per day (SE)	Accelerometer	577.2 (9.8)	549.2 (19.1)	End of intervention (17 weeks, n= 16): 520.9 (36.2)* <i>End of trial (6 months, n= 8): 508.2 (19.4)*</i>	End of intervention (17 weeks, n= 17): 637.9 (30.4)* <i>End of trial (6 months, n= 13): 661.2 (33.5)*</i>

**Supplementary file 3: Sedentary behaviour measured (at baseline and end of the trial) in the randomised controlled trials associated with the included process evaluation studies**

**Keys:** <sup>a</sup> = Results available from the assessment immediately after the intervention, unless otherwise specified; <sup>b</sup> = unclear if adjusted for covariates; <sup>c</sup> = data were adjusted for covariates; \* = p value <0.05 for comparison between intervention and control groups (where reported); \*\* = p value <0.025 for comparison between intervention and control groups reported as accepted statistical significance ; *Italic font* = End of trial results, if available from publications; AQuAA = Activity Questionnaire for Adolescents & Adults; BCG = Behaviour Change Group; C = Control group; FU = Follow-up; I = Intervention group; IPAQ = International Physical Activity Questionnaire; IPAQ-C = International Physical Activities Questionnaire-Chinese version; n = number of persons included in the analysis; RPAQ = Recent Physical Activity Questionnaire; SB = Sedentary behaviour; SD = Standard deviation; SE = Standard error; TEG = Traditional Exercise Group