

## Progress ICAD approved analysis proposals (updated Sep 23)

Note: Shaded proposals have been completed (published), proposals in italics have been discontinued.

**Summary: 65 proposals approved** (34 published/in press; 3 in submission; 0 in circulation; 2 in progress; 13 discontinued)

Proposal No	Lead applicant	On behalf of partner	Title	Approval date	Data release date	Expire date protected access	Status
1	L Sherar	Steering Committee	International children's accelerometry database (ICAD): Design and methods.	NA (core)	NA	NA	<b>Published</b> <i>BMC PH 2011</i>
2	U Ekelund	SPEEDY	Combined Associations of Moderate-to-Vigorous Physical Activity and Sedentary Time with Cardio-Metabolic Risk Factors in Youth (ICAD)	NA (core)	NA	NA	<b>Published</b> <i>JAMA 2013</i>
3	L Sherar	Steering Committee	The association between parental education, weight status and objectively assessed physical activity and sedentary behaviour in youth: A cross country comparison	NA (core)	NA	NA	<b>Published</b> J Epi Comm Health 2016
4	A Cooper	PEACH	A cross country comparison of body mass index, accelerometer assessed physical activity and sedentary behaviour of children and adolescents	NA (core)	NA	NA	<b>Published</b> IJBNA 2015
5	S Kwon	Iowa Bone Dev Study	Tracking of accelerometry-measured physical activity during childhood: ICAD pooled analysis	Mar-11	Sep-11	NA	<b>Published</b> <i>IJBNA 2012</i>
6	<i>G Cardon</i>	<i>Belgium Pre-school Study</i>	<i>Are patterns of sedentary behaviours and physical activity associated with weight status in preschool aged children?</i>	<i>Mar-11</i>	<i>Sep-11</i>	<i>Sep-12</i>	<i>Discontinued</i>
7	K Wijndaele	PEACH	Breaks in sedentary time and cardiovascular risk in children and youth.	May-11	Apr-13*	Jul-17 <sup>#</sup>	<b>Published</b> <i>IJBNA 2019</i>
8	<i>A Timperio</i>	<i>CLAN/HEAPS</i>	<i>Independent associations between TV viewing and weight status and cardio-metabolic health among children.</i>	<i>Feb-12</i>	<i>Apr-13*</i>	<i>Apr-18<sup>#</sup></i>	<i>Discontinued</i>
9	<i>N Ridgers</i>	<i>CLAN/HEAPS</i>	<i>Physical activity levels according to different cut-point thresholds and associations with health outcomes.</i>	<i>Feb-12</i>	<i>Apr-13*</i>	<i>Apr-18<sup>#</sup></i>	<i>Discontinued</i>

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<del>10</del>	J Salmon	CLAN/HEAPS	Is children's TV viewing and computer use more strongly associated with light-intensity than moderate- to vigorous-intensity physical activity? (Brief report)	Feb-12	Apr-13*	Apr-18 <sup>#</sup>	Discontinued
<del>11</del>	U Ekelund	SPEEDY	Does physical activity moderate or modify the association between birth weight and cardio-metabolic health outcomes.	Feb-12	May-13	Aug-16 <sup>#</sup>	Discontinued – re-applied for ICAD2 data (#35)
12	R Pate / J Mitchell	TAAG	Physical Activity and Pediatric Obesity: a Quantile Regression Analysis.	Feb-12	Apr-13*	Jan-15 <sup>#</sup>	<b>Published</b> MSSE 2016
13	U Ekelund / M Hildebrand	Open access	Associations between birth weight, waist circumference and sedentary time – a mediation analysis.	Mar-12	May-13	May-14	<b>Published</b> AJCN 2015
14	A Atkin	Open access	TV viewing and computer use in children and adolescents: A descriptive epidemiology using the International Children's Accelerometry Database	Jan-13	May-13	May-14	<b>Published</b> AJPM 2014
15	R Pate / J Moore	Open access	Associations of Vigorous-intensity Physical Activity with Biomarkers in Youth	Jun-13	Jul-13	May-15 <sup>#</sup>	<b>Published</b> MSSE 2017
16	A Cooper / A Goodman	Open access	Seasonal variation in physical activity and day length	Jun-13	Jul-13	Jul-14	<b>Published</b> IJBPA 2014
17	K Corder	Open access	Characterising age-related differences in the ratios of vigorous physical activity and moderate physical activity	Oct-13	Oct-13	Apr-15 <sup>#</sup>	<b>Published</b> PMR 2016
18	B Hansen	Open access	Cross-sectional associations of reallocating time between sedentary and active behaviours on cardiometabolic risk factors in young people: an International Children's Accelerometry Database (ICAD) analysis	Jan-14	Jan-14	May-17 <sup>#</sup>	<b>Published</b> Sports Med 2018
<del>19</del>	B Hansen	Open access	Does age affect the magnitude of associations between sporadic and bouts time spent in moderate-to-vigorous intensity physical activity and adiposity and markers of cardio-metabolic risk factors in children and adolescents?	Jan-14	Jan-14	Mar-16 <sup>#</sup>	Discontinued – re-applied for ICAD2 data (#37)
20	K Brazendale	Open access	Not all minutes are created equal: Rosetta Stone Part 2	Mar-14	Mar-14	Mar-15	<b>Published</b> JSAMS 2015

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21	F Harrison	Open access	Weather and physical activity; how and why do relationships vary between countries?	Sep-14	Oct-14	Mar-16 <sup>#</sup>	<b>Published</b> <i>IJBNPA 2017</i>
<del>22</del>	<i>E Murtagh</i>	<i>Open Access</i>	<i>The relationship between inverse BMI, physical activity and cardiometabolic risk in children and young people</i>	<i>Mar-15</i>	<i>Apr-15</i>	<i>Apr-16</i>	<i>Discontinued</i>
<del>23</del>	<i>E Murtagh</i>	<i>Open Access</i>	<i>The relationship between inverse BMI and physical activity in children and young people</i>	<i>Mar-15</i>	<i>Apr-15</i>	<i>Apr-16</i>	<i>Discontinued</i>
24	J Tarp / S Brage	Open Access	Physical activity patterns and metabolic health in youth	May-15	May-15	Jul-17 <sup>#</sup>	<b>Published</b> <i>IJO 2018</i>
25	J Tarp	Open Access	Assessing mediation by adiposity in the association between physical activity and cardiometabolic risk factors in youth – A cross-sectional mediation analysis	Nov-15	Feb-16	Feb-17	<b>Published</b> <i>IJO 2017</i>
26	N Kuzik	Open Access	The role of physical activity and sedentary behaviour in metabolic health of children across different weight statuses	Feb-16	Mar-16	Mar-17	<b>Published</b> <i>Obesity 2017</i>
<del>27</del>	<i>S Kriemler</i>	<i>KISS</i>	<i>ICAD preschool data for comparison to establish Swiss physical activity guidelines for preschool children (from birth to the fifth year of life)</i>	<i>Apr-16</i>	<i>May-16</i>	<i>May-17</i>	<i>Discontinued</i>
28	J Steene-Johannessen	Open Access	Variation in objectively measured physical activity and sedentary behaviors across European youth	Apr-16	Oct-16	Oct-18 <sup>#</sup>	<b>Published</b> <i>IJBNPA 2020</i>
29	E van Ekris	Open Access	Tracking of total sedentary time and prolonged uninterrupted sedentary time during childhood and adolescence	Jul-16	Oct-16	Oct-18 <sup>#</sup>	<b>Published</b> <i>IJBNPA 2020</i>
<b>ICAD2 proposals (release from Mar 2017)**</b>							
30	S Kwon	IBDS	A closer look at the relationship among accelerometer-based physical activity metrics	Jan-17	Jun-18 <sup>**</sup>	Jun-19	<b>Published</b> <i>IJBNPA 2019</i>
31	A Atkin	SPEEDY	Age related change in physical activity during childhood and adolescence	Jan-17	Apr-18 <sup>**</sup>	May-23 <sup>*</sup>	In progress
32	U Ekelund/ J Tarp	Open access	Independent prospective associations between sedentary time, light, moderate and vigorous intensity physical activity with cardio-metabolic risk factors and adiposity in young people	Jan-17	Apr-18 <sup>**</sup>	Jun-23 <sup>*</sup>	In progress (new release Sept 20)

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<del>33</del>	J Tarp	EYHS Denmark	<i>Prospective associations between PA and anthropometrical indices of adiposity – examining sources of heterogeneity in population and study characteristics</i>	Jan-17	Sep-18	Sep-19	<i>Discontinued (combined with #32)</i>
34	E Aadland	CoSCIS	Uncovering relationships between physical activity and metabolic health in children and adolescents by means of multivariate pattern analyses	Jan-17	Apr-18**	Apr-19	<b>Published</b> <i>Prev Med 2020</i>
35	GP Bernhardsen	Open Access	Birth weight and cardio-metabolic risk factors in youth- does physical activity matter? (update of #11)	Jan-17	May-17	Oct-19*	<b>Published</b> <i>IJO 2020</i>
36	E van Sluijs	SPEEDY	Is ubiquitous car ownership driving physical inactivity in young people?	Jan-17	Apr-18**	Apr-19	In submission
<del>37</del>	BH Hansen	Open access	<i>Does age affect the magnitude of associations between sporadic and bouts time spent in moderate-to-vigorous intensity physical activity and adiposity and markers of cardio-metabolic risk factors in children and adolescents? (update of #19)</i>	Jan-17	Apr-18**	Apr-19	<i>Discontinued</i>
38	P Collings	Open access	Sleep dimensions and cardiometabolic risk markers: analysis of mediation by physical activity and sedentary time in the International Children's Accelerometry Database	Jan-17	Apr-20	Apr-21	<b>Published</b> <i>Ped Obes 2021</i>
39	M Renninger/ U Ekelund	Open access	Is objectively measured sedentary time and physical activity associated with the metabolic syndrome in children and adolescents?	Apr-17	May-17	May-18	<b>Published</b> <i>Ped Obes 2019</i>
40	A Atkin	No data	Harmonising data on the correlates of physical activity and sedentary behaviour in young people: Methods and lessons learnt from the International Children's Accelerometry Database (ICAD)	Nov-16	NA	NA	<b>Published</b> <i>IJBPA 2017</i>
<del>41</del>	H Hussein	Open access	<i>Estimating the existence and direction of a causal relationship between activity levels and obesity in children</i>	Jul-17	Aug-17	Aug-18	<i>Discontinued</i>
42	L Sherar	Open access	Reactivity to accelerometer measurement of children and adolescents: The International Children's Accelerometry Database	Oct-17	May-18**	Mar-24*	In progress

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43	N Pearson	Open access	The relationship between physical activity, sedentary time, and weight in preschool aged children: Analysis from the International Children's Accelerometry Database	Oct-17	May-18**	Mar-24*	In progress
44	K Dias	Open access	Levels and determinants of sedentary, light and moderate to vigorous physical activity levels in pre-school aged children	Nov-17	May-18**	May-19	<b>Published</b> <i>IJERPH 2019</i>
45	DR Pereira da Silva	Open access	To examine the joint associations of different intensities (light, moderate and vigorous) of physical activity and obesity status with metabolic risk in youth	Jan-18	May-18**	May-19	<b>Published</b> <i>IJO 2020</i>
46	PB Júdice	Open access	Can physical activity offset the harmful effects of specific sedentary patterns? A trans-national prospective study from childhood to adulthood (ICAD 2)	Jan-18	May-18**	May-19	<b>Published</b> <i>J Pediatrics 2020</i>
47	C Gammon	Open Access	Interpretation of the youth physical activity guidelines: implications for compliance estimates and associations with health indicators	Jun-18	Jun-18	Jun-19	<b>Published</b> <i>MSSE 2022</i>
48	R Love	Open Access	Socio-economic patterning of physical activity intensities: are the current global recommendations of physical activity appropriate?	Aug-18	Sep-18	Sep-19	In submission
49	M Chinapaw	Open access	Development and validation of an analysis method for sophisticated PA and SB sequence maps using accelerometer data pooled into an international database	Sep-18	In progress		Further harmonisation planned
50	M McNarry	Open access	Patterns of objectively measured sedentary time and physical activity during and after primary and secondary school	Jan-19	Feb-19	Jun-23*	In progress
51	M McNarry	Open access	Determining clustered cardiometabolic risk variables in youth using principal component analysis	Jan-19	Feb-19	Jun-23*	In progress
52	N Pearson	Open access	Investigating the home environmental and behavioural pathways between maternal education and changes in children's objective physical activity and sedentary time: a structural equation modelling analysis	May-19	Jul-20	Dec-23*	In progress

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53	K Brazendale	Open access	Children's Physical Activity During Weekdays versus Weekend Days: Testing the Structured Days Hypothesis (SDH)	May-19	Jun-19	Jun-20	<b>Published</b> <i>IJBNA 2020</i>
54	P Collings	Open access	Screen type and time associations with cardiometabolic risk markers in a large international sample of children	Sep-19	Apr-20	Apr-21	<i>Discontinued</i>
55	L Sherar	Open access	Investigating the physical activity, sleep, sedentary behaviour and dietary behavioural pathways between breakfast consumption and BMI: a structural equation modelling analysis	Sep-19	Jul-20	Jul-21	In submission
56	E Ikeda	Open access	Assessing the contribution of active travel, organised physical activity and physical education to moderate-to-vigorous physical activity in children and adolescents: A cross-sectional and prospective analysis	Dec-19	Feb-21	Feb-22	<b>Published</b> <i>IJBNA 2022</i>
57	M Standage	Open access	Cross-sectional and prospective associations between the daily composition of children's movement behaviours and markers of metabolic risk: A compositional isotemporal substitution analysis	Apr-20	Sep-20	Jun-23*	In progress
58	Y Al-Ajlouni	Open access	Prospective associations between active school travel and objectively-measured physical activity patterns in children and adolescents	Apr-20	Apr-20	Apr-22*	In progress
59	A Werneck	Open access	Association of active commuting to school with changes in different physical activity intensities and sedentary time: The ICAD Multi-country Study	Apr-20	Apr-20	Apr-21	<b>Published</b> <i>Prev Med 2021</i>
60	H Arnott	Open access	Using Compositional Data Analysis to Investigate Children's Patterns of Movement Behaviour and Association with Cardio-metabolic Outcomes in the International Children's Accelerometry Dataset (ICAD)	Aug-20	Feb-21	Feb-22	In progress
61	M Stavnsbo	Open access	Latent Profile Analysis of Physical Activity and Cardiometabolic Risk Markers in a Large International Sample of Children	Apr-21	May-21	Dec-23*	In progress
62	J Westra	Open access	Age- and behaviour-specific correlations between sedentary behaviour and physical activity	May-21	Jun-21	May-23*	In progress

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63	E Murtagh	Open access	24-hour movement behaviours and associations with metabolic health, parental and family support in children.	Mar-22	Jun-22	Jun-23	In progress
64	L Kretschmer	Open access	Investigating factors related to the variation of objectively measured physical activity in a large international sample of children.	Mar-22	May-22	May-23	<b>Published</b> <i>IJBNPA 2023</i>
65	R Salway	Open access	School-level correlations for children's physical activity to inform the design of stepped wedge and cluster randomized controlled trials	Aug-23	Aug-23	Aug-24	In progress

\*: Due to reprocessing of accelerometry data, all data releases were renewed in April 2013.

\*\*: Due to updating of the ICAD2, all ICAD2 data releases were re-released Apr/May 2018.

#: Extension approved