

## Progress ICAD approved analysis proposals (updated Jun 19)

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

**Summary: 53 proposals approved** (20 published; 7 in submission; 0 in circulation; 11 in progress; 4 approved; 11 discontinued)

| Proposal No | Lead applicant    | On behalf of partner            | Title   | Approval date | Date release   | 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><br><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><br><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><br><i>J Epi Comm Health 2016</i> |
| 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><br><i>IJBNPA 2015</i>            |
| 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><br><i>IJBNPA 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>          | In submission                                     |
| 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><br>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><br>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><br>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><br>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><br>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><br>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><br>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><br>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><br>IJBNSA 2017         |
| <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>In press</b><br>(IJO 2018)           |
| 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><br>IJO 2017            |
| 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><br><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>          | In submission                           |
| 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>          | In submission                           |
| <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><br>IJBNSA 2019         |
| 31   | A Atkin              | SPEEDY               | Age related change in physical activity during childhood and adolescence   | Jan-17        | Apr-18 <sup>**</sup> | Oct-19 <sup>*</sup>          | In progress                             |
| 32   | U Ekelund            | Open access          | Independent prospective associations between sedentary time, light, moderate and vigorous intensity physical activity with cardio-metabolic risk factors in young people | Jan-17        | Apr-18 <sup>**</sup> | Oct-19 <sup>*</sup>          | In progress                             |
| 33   | J Tarp               | EYHS Denmark         | Prospective associations between PA and anthropometrical indices of adiposity – examining sources of heterogeneity in population and study characteristics               | Jan-17        | Sep-18               | Sep-19                       | In progress                             |

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| 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                       | In progress                            |
| 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*                      | In progress                            |
| 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> | <i>BH Hansen</i>          | <i>Open access</i>   | <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> | <i>Jan-17</i> | <i>Apr-18**</i> | <i>Apr-19</i>                | <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        | In progress     |                              | Further data harmonisation ongoing     |
| 39            | M Renninger/<br>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                       | In submission                          |
| 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><br><i>IJBNPA 2017</i> |
| <del>41</del> | <i>H Hussein</i>          | <i>Open access</i>   | <i>Estimating the existence and direction of a causal relationship between activity levels and obesity in children</i>   | <i>Jul-17</i> | <i>Aug-17</i>   | <i>Aug-18</i>                | <i>Discontinued</i>                    |
| 42            | M Orme                    | Open access          | Reactivity to accelerometer measurement of children and adolescents: The International Children's Accelerometry Database   | Oct-17        | May-18**        | Oct-19*                      | In progress                            |
| 43            | S Costa                   | 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**        | Oct-19*                      | 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><br><i>IJERPH 2019</i> |

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| 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                       | In submission                 |
| 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                       | In submission                 |
| 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                       | In progress                   |
| 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 progress                   |
| 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 ongoing |
| 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       | Feb-20                       | In progress                   |
| 51          | M McNarry           | Open access          | Determining clustered cardiometabolic risk variables in youth using principal component analysis  | Jan-19        | Feb-19       | Feb-20                       | 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        | In progress  |                              | Further harmonisation ongoing |
| 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                       | Ongoing                       |

\*: 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