



 Non-Imaging Domains > Physical Health

Physical Health

DOI: [10.15154/8873-zj65](#) (Release 5.0)

PUBLISHED
June 30, 2023

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General Information

An overview of the ABCD Study® can be found at abcdstudy.org and detailed descriptions of the assessment protocols are available at [ABCD Protocols](#). This page describes the contents of various instruments available for download. To understand the context of this information, refer to the release note [Start Page](#).

Detailed information about the instruments, the constructs they are intended to measure, and relevant citations for each measure are provided in the following:

Uban, K. A., Horton, M. K., Jacobus, J., Heyser, C., Thompson, W. K., Tapert, S. F., Madden, P., Sowell, E. R., & Adolescent Brain Cognitive Development Study (2018). Biospecimens and the ABCD study: Rationale, methods of collection, measurement and early data. *Developmental cognitive neuroscience*, 32, 97–106. [Find here](#)

Herting, M. M., Uban, K. A., Gonzalez, M. R., Baker, F. C., Kan, E. C., Thompson, W. K., Granger, D. A., Albaugh, M. D., Anokhin, A. P., Bagot, K. S., Banich, M. T., Barch, D. M., Baskin-Sommers, A., Breslin, F. J., Casey, B. J., Chaarani, B., Chang, L., Clark, D. B., Cloak, C. C., Constable, R. T., ... Sowell, E. R. (2021). Correspondence Between Perceived Pubertal Development and Hormone Levels in 9-10 Year-Olds From the Adolescent Brain Cognitive Development Study. *Frontiers in endocrinology*, 11, 549928. [Find here](#)

Palmer, C. E., Sheth, C., Marshall, A. T., Adise, S., Baker, F. C., Chang, L., Clark, D. B., Coronado, C., Dagher, R. K., Diaz, V., Dowling, G. J., Gonzalez, M. R., Haist, F., Herting, M. M., Huber, R. S., Jernigan, T. L., LeBlanc, K., Lee, K., Lisdahl, K. M., Neigh, G., ... Yurgelun-Todd, D. (2021). A Comprehensive Overview of the Physical Health of the Adolescent Brain Cognitive Development Study Cohort at Baseline. *Frontiers in pediatrics*, 9, 734184. [Find here](#)

Updates and Notes

COVID-19 and Biospecimen Collection

In response to COVID-19 restrictions beginning in March 2020, ABCD pivoted to remote testing when in-person testing was not possible or feasible, and a subsequent hybrid in-person/remote testing procedure as sites allowed. This affected the 2-, 3-year, and 4-year follow-up assessments conducted from March 2020 through December 2021. The switch to remote testing did not allow for biospecimen (i.e., blood, saliva) collection. For remote visits, estimates of height and weight were obtained from participant. Remote and hybrid testing (i.e., some on-site, some remote) required participants to complete some tasks and surveys on their own devices (i.e., phone, tablet, desktop, or laptop computer). Note that remote performance was monitored by research associates, when possible, using Zoom's screen sharing feature. The variety of devices, relative to the ABCD standard using Apple iPad devices exclusively, may affect responses and users should consider this when analyzing data spanning from the pre-COVID-19 and post-COVID-19 periods.

Determining In-person, remote, and Hybrid for Overall Visit Type

Refer to the release note [Start Page](#).

Instrument Descriptions

Youth Instruments

Anthropometrics

Release 5.0 Data Table: ph_y_anthro

Measure Description: Measurements of height, weight, waist circumference.

ABCD Subdomain: Examination

Number of Variables: 11

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: For remote visits, estimates of height and weight were obtained from the participant. However, those remote weight variables were discontinued and the data transferred to the standard height and weight variables. That is, there is now only one set of height and weight variables.

We discovered that the calculated weight variable is often empty (variable anthroweightcalc). We recommend the following formula be used to calculate this variable: If 3 measurements exist, take the mean of those 3.

If 2 measurements exist, take the mean of those 2.

If only 1 measurement exists, do not compute a mean. These were initially coded into separate height and weight variables specifically for remote visits (estimates).

Reference: Centers for Disease Control (CDC; Division of Nutrition). (2016). Anthropometry Procedures Manual. [Find here](#)

Block Kids Food Screener

Release 5.0 Data Table: ph_y_bkfs

Measure Description: This screener assesses children's intake by food group, with outcomes measured in number of servings.

ABCD Subdomain: Nutrition

Number of Variables: 290

Summary Score(s): Yes

Measurement Waves Administered: 3-year (for a subset) and 4-year follow-up

Modifications since initial administration: In the 2-year and 3-year follow-ups, the Block Kids Food Screener was given to the parent to report on the youth. The youth then confirmed the responses. Starting on 4/1/21, the youth completed the questionnaire themselves, regardless of visit time point.

Notes and special considerations: For participants whose 3-year follow-up visit occurred prior to 4/1/23, parents completed the questionnaire and youth confirmed the responses. For participants whose 3-year follow-up visit occurred after 4/1/23, youth completed the questionnaire. Starting with the 4-year follow-up visit, all youth completed the questionnaire themselves.

Reference: Hunsberger, M., O'Malley, J., Block, T., & Norris, J. C. (2015). Relative validation of Block Kids Food Screener for dietary assessment in children and adolescents. *Maternal & child nutrition*, 11(2), 260–270. [Find here](#)

Blood Analysis

Release 5.0 Data Table: ph_y_bld

Measure Description: This instrument summarizes results from blood panels. Purple top EDTA tubes were used to collect blood for CBC with differential (if ambient) and HbA1C. Red/tiger top SST tubes were used to collect blood for total cholesterol, HDL cholesterol, and ferritin. Collection sponsored by the [NIH National Heart, Lung, and Blood Institute](#).

ABCD Subdomain: Biospecimens

Number of Variables: 59

Summary Score(s): Yes

Measurement Waves Administered: 2-year follow-up, 4-year follow-up

Modifications since initial administration: None

Notes and special considerations:

For collections prior to September 2022:

- 10 mL purple top EDTA tube is used for CBC with differential (if ambient), HbA1c, DNA extraction, and aliquots for future use
- 10 mL red/tiger top SST tube (transferred into 6ml FluidX tube after processing) is used for the lipid panel (total and HDL cholesterol), ferritin, and aliquots for future use

For collections since September 2022:

- 2mL purple top EDTA is used for CBC with differential (if ambient) and HbA1c
- 10 mL purple top EDTA tube is used for DNA extraction and aliquots for future use
- 10 mL red/tiger top SST tube (transferred into 6ml FluidX tube after processing) is used for the lipid panel (total and HDL cholesterol), ferritin, and aliquots for future use

Blood is shipped and processed at either frozen or ambient temperature. CBC analysis is only performed on ambient temperature whole blood, while all other panels are performed on either ambient or frozen samples. Some ambient shipments have not been processed within 24-48 hours as would be recommended for CBC stability; thus, the integrity of the sample and subsequent results cannot be guaranteed. Researchers should be cautious when analyzing results in light of this variance.

Information on genetics results from blood can be found in the Genetics Release Notes.

Blood Pressure

Release 5.0 Data Table: ph_y_bp

Measure Description: We collected 3 consecutive blood pressure and pulse measurements, with a 1-minute interval between each reading. This instrument gives the mean of the 3 blood pressure readings.

ABCD Subdomain: Examination

Number of Variables: 13

Summary Score(s): Yes

Measurement Waves Administered: 2-year follow-up, 4-year follow-up. Expected future assessment at 6-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Annual COVID Survey (Youth)

Release 5.0 Data Table: ph_y_covid

Measure Description: Survey completed by youth about COVID impacts on school, academic work time, peer communication, and stress.

ABCD Subdomain: COVID

Number of Variables: 23

Summary Score(s): Yes

Measurement Waves Administered: 4-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Munich Chronotype Questionnaire (Youth)

Release 5.0 Data Table: ph_y_mctq

Measure Description: The MCTQ-C assesses chronotypes, which are diurnal preferences that manifest in personal sleep-wake rhythms, including sleep and wake schedules on school and free days.

ABCD Subdomain: Sleep

Number of Variables: 81

Summary Score(s): Yes

Measurement Waves Administered: Annually since 2-year follow-up

Modifications since initial administration: None

Notes and special considerations: We wish to point out some of the response anomalies in the MCTQ data and recommend solutions:

- `mctq_go_to_school`: Do you go to school on a regular basis?
 - *Responses:*
 - 1: YES
 - 0: NO

Since many of the MCTQ items reference "free days" and "school days," the responses of participants who are not attending school on a regular basis may be problematic. This may particularly have been the case during the pandemic. Therefore, for some analyses, excluding participants responding "No" to this item may be appropriate.

- `mctq_days_per_week`: I go to school on ___ day(s) per week.
 - *Response:*
 - days

For instances where the participant reports "7," interpretation of results could be problematic. Therefore, for some analyses, excluding participants responding "7" to this item may be appropriate.

- `mctq_sd_btime`: I go to bed at:
 - *Responses:*
 - 1 Morning (4:00 AM to 11:59 AM)
 - 2 Afternoon (12:00 PM Noon to 4:59 PM)
 - 3 Evening (5:00 PM to 8:59 PM)
 - 4 Nighttime (9:00 PM to 3:59 AM)

Participants responding "Morning" or "Afternoon" may be in error or highly unusual. Therefore, for some analyses, excluding participants responding "1" or "2" to this item may be appropriate.

- `mctq_sd_fall_asleep`: I go to bed at:
 - *Responses:*
 - 1 Morning (4:00 AM to 11:59 AM)
 - 2 Afternoon (12:00 PM Noon to 4:59 PM)
 - 3 Evening (5:00 PM to 8:59 PM)

- 4 Nighttime (9:00 PM to 3:59 AM)

Participants responding "Morning" or "Afternoon" may be in error or highly unusual. Therefore, for some analyses, excluding participants responding "1" or "2" to this item may be appropriate.

- `mctq_sd_wake_up_time`: I wake up at:
 - *Responses*:
 - 1 Morning (4:00 AM to 11:59 AM)
 - 2 Afternoon (12:00 PM Noon to 4:59 PM)
 - 3 Evening (5:00 PM to 8:59 PM)
 - 4 Nighttime (9:00 PM to 3:59 AM)

Participants responding "Evening" or "Nighttime" may be in error or highly unusual. Therefore, for some analyses, excluding participants responding "3" or "4" to this item may be appropriate.

- `mctq_fd_alarm_clock`: On free days, I wake up by using an alarm clock or my parents wake me up:
 - *Responses*:
 - 1: YES;
 - 0: NO

Participants responding "Yes" have constrained wake-up times and therefore such days are not "free" in terms of their wake-up time. Therefore, for some analyses, excluding participants responding "YES" to this item may be appropriate, particularly for Chronotype.

- `mctq_schedule_time`: My usual school schedule starts at:
 - *Responses*:
 - 1 Morning (4:00 AM to 11:59 AM)
 - 2 Afternoon (12:00 PM Noon to 4:59 PM)
 - 3 Evening (5:00 PM to 8:59 PM)
 - 4 Nighttime (9:00 PM to 3:59 AM)

Participants responding "Evening" or "Nighttime" may be in error or highly unusual. Therefore, for some analyses, excluding participants responding "3" or "4" to this item may be appropriate.

- `mctq_time_to_school`: I leave the house to go to school at:
 - *Responses*:
 - 1 Morning (4:00 AM to 11:59 AM)

- 2 Afternoon (12:00 PM Noon to 4:59 PM)
- 3 Evening (5:00 PM to 8:59 PM)
- 4 Nighttime (9:00 PM to 3:59 AM)
- 0 I don't regularly travel to school/ I am homeschooled

Participants responding "Evening" or "Nighttime" may be in error or highly unusual. Therefore, for some analyses, excluding participants responding "3" or "4" to this item may be appropriate. For participants responding "0," the response to this item should be excluded from time-based "time to leave for school" analyses.

Reference: Zavada, A., Gordijn, M. C., Beersma, D. G., Daan, S., & Roenneberg, T. (2005). Comparison of the Munich Chronotype Questionnaire with the Horne-Ostberg's Morningness-Eveningness Score. *Chronobiology international*, 22(2), 267–278. [Find here](#)

Pubertal Development Scale & Menstrual Cycle Survey History (Youth)

Release 5.0 Data Table: ph_y_pds

Measure Description: Pubertal stage and menstrual phase (for postmenarcheal girls).

ABCD Subdomain: Puberty

Number of Variables: 41

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: Five items on hormonal contraception and menstrual pain were added at 3-year follow-up for girls.

Notes and special considerations: None

Reference: Petersen, A. C., Crockett, L., Richards, M., & Boxer, A. (1988). A self-report measure of pubertal status: Reliability, validity, and initial norms. *Journal of youth and adolescence*, 17(2), 117–133. [Find here](#)

Pain Questionnaire

Release 5.0 Data Table: ph_y_pq

Measure Description: The CAPQ is based on the Seattle's Children's "Child and Adolescent Pain Questionnaire" and conforms to the NRS-11 standard for examining pain intensity over the past month, which is the recommended time-frame. The participant is first asked about pain and pain levels, and then asked to identify pain sites on a body map.

ABCD Subdomain: Medical

Number of Variables: 156

Summary Score(s): Yes

Measurement Waves Administered: Annually since 2-year follow-up.

Modifications since initial administration: None

Notes and special considerations: None

Reference: Luntamo, T., Sourander, A., Santalahti, P., Aromaa, M., & Helenius, H. (2012). Prevalence changes of pain, sleep problems and fatigue among 8-year-old children: years 1989, 1999, and 2005. *Journal of pediatric psychology*, 37(3), 307–318. [Find here](#)

Respiratory Functioning

Release 5.0 Data Table: ph_y_resp

Measure Description: This survey assesses respiratory issues including coughing/wheezing, allergies, and respiratory illness.

ABCD Subdomain: Medical

Number of Variables: 55

Summary Score(s): Yes

Measurement Waves Administered: 4-year follow-up

Modifications since initial administration: None

Notes and special considerations: Thanks to Sonia Arteaga, Ph.D., a program official at the Environmental influences on Child Health Outcomes Project (ECHO), for supplying the respiratory questions from the ECHO project.

References: Gillman, M. W., & Blaisdell, C. J. (2018). Environmental influences on Child Health Outcomes, a Research Program of the National Institutes of Health. *Current opinion in pediatrics*, 30(2), 260–262. [Find here](#)

Asher, M. I., Keil, U., Anderson, H. R., Beasley, R., Crane, J., Martinez, F., Mitchell, E. A., Pearce, N., Sibbald, B., & Stewart, A. W. (1995). International Study of Asthma and Allergies in Childhood (ISAAC): rationale and methods. *The European respiratory journal*, 8(3), 483–491. [Find here](#)

Sports and Activities Involvement Questionnaire—Reading & Music

Release 5.0 Data Table: ph_y_saiq

Measure Description: Youth report of participation in music and reading activities.

ABCD Subdomain: Physical Activity

Number of Variables: 8

Summary Score(s): No

Measurement Waves Administered: Annually since 3-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Saliva Analysis—Hormones

Release 5.0 Data Table: ph_y_sal_horm

Measure Description: Collection notes and pubertal hormone levels (Estradiol, testosterone, and DHEA) from saliva. Analyses conducted by [Salimetrics](#).

ABCD Subdomain: Biospecimens

Number of Variables: 43

Summary Score(s): No

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: There are two testing “repetitions” for each test. The first repetition evaluates the adequacy of the sample for testing and provides the first testing for the presence of hormone. The second repetition provides quantification metrics of the hormone.

The time the sample was taken is provided and may be useful in analyses.

Reference: Dolsen, E. A., Deardorff, J., & Harvey, A. G. (2019). Salivary Pubertal Hormones, Sleep Disturbance, and an Evening Circadian Preference in Adolescents: Risk Across Health Domains. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 64(4), 523–529. [Find here](#)

Youth Risk Behavior Survey—Physical Activity

Release 5.0 Data Table: ph_y_yrb

Measure Description: A brief assessment of physical exercise.

ABCD Subdomain: Physical Activity

Number of Variables: 4

Summary Score(s): No

Measurement Waves Administered: Baseline, then annually since 2-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Reference: ex: Dolsen, E. A., Deardorff, J., & Harvey, A. G. (2019). Salivary Pubertal Hormones, Sleep Disturbance, and an Evening Circadian Preference in Adolescents: Risk Across Health Domains. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*, 64(4), 523–529. [Find here](#)

Parent Instruments

Breastfeeding Questionnaire

Release 5.0 Data Table: ph_p_bfq

Measure Description: The Breastfeeding Questionnaire is a parent report survey of medication and substance use during breastfeeding of the participant. Based on Kessler et al. (2009).

ABCD Subdomain: Development

Number of Variables: 89

Summary Score(s): No

Measurement Waves Administered: 3-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Reference: Kessler, R. C., Avenevoli, S., Costello, E. J., Green, J. G., Gruber, M. J., Heeringa, S., Merikangas, K. R., Pennell, B. E., Sampson, N. A., & Zaslavsky, A. M. (2009). National comorbidity survey replication adolescent supplement (NCS-A): II. Overview and design. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(4), 380–385. [Find here](#)

Child Nutrition Assessment

Release 5.0 Data Table: ph_p_cna

Measure Description: The nutrition assessment (MIND) was a parent-report measure as a means of assessing the dietary patterns of participants during a typical week. It includes 13 questions on food categories eaten and 2 questions on vitamin and folic acid supplement use by the biological mother (Morris, et al., 2015).

ABCD Subdomain: Nutrition

Number of Variables: 20

Summary Score(s): Yes

Measurement Waves Administered: 1-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Reference: Morris, M. C., Tangney, C. C., Wang, Y., Sacks, F. M., Bennett, D. A., & Aggarwal, N. T. (2015). MIND diet associated with reduced incidence of Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 11(9), 1007–1014. [Find here](#)

Block Kids Food Screener

Release 5.0 Data Table: ph_p_bkfs

Measure Description: This screener assesses children's intake by food group, with outcomes measured in number of servings.

ABCD Subdomain: Nutrition

Number of Variables: 290

Summary Score(s): Yes

Measurement Waves Administered: 2-year and 3-year follow-up

Modifications since initial administration: In the 2-year and 3-year follow-ups, the Block Kids Food Screener was given to the parent to report on the youth. The youth then confirmed the responses. Starting on 4/1/21, the youth completed the questionnaire themselves, regardless of visit time point.

Notes and special considerations: For participants whose 3-year follow-up visit occurred prior to 4/1/23, parents completed the questionnaire and youth confirmed the responses. For participants whose 3-year follow-up visit occurred after 4/1/23, youth completed the questionnaire. Starting with the 4-year follow-up visit, all youth completed the questionnaire themselves.

Reference: Hunsberger, M., O'Malley, J., Block, T., & Norris, J. C. (2015). Relative validation of Block Kids Food Screener for dietary assessment in children and adolescents. *Maternal & child nutrition*, 11(2), 260–270. [Find here](#)

Annual COVID Survey (Parent)

Release 5.0 Data Table: ph_p_covid

Measure Description: This survey asks about the impacts on the family, school and academic work time, internet access, peer communication, vaccination, family infections, parent height and weight, and stress.

ABCD Subdomain: COVID

Number of Variables: 123

Summary Score(s): No

Measurement Waves Administered: 4-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Developmental History

Release 5.0 Data Table: ph_p_dhx

Measure Description: This questionnaire surveys basic birth information (e.g., birth weight) and prenatal exposure before and during pregnancy to medications, drugs, alcohol, and tobacco.

ABCD Subdomain: Development

Number of Variables: 269

Summary Score(s): Yes

Measurement Waves Administered: Baseline, 4-year follow-up

Modifications since initial administration: In the 4-year follow-up, responses from baseline were pre-populated into the questionnaire and the research associate asked the parent to update where necessary. The form was shortened to only re-ask some of the items (e.g. alcohol/tobacco/marijuana use, age of first word, etc.) Added new pre-eclampsia/eclampsia/toxemia follow-up questions.

Notes and special considerations: None

References: Kessler, R. C., Avenevoli, S., Costello, E. J., Green, J. G., Gruber, M. J., Heeringa, S., Merikangas, K. R., Pennell, B. E., Sampson, N. A., & Zaslavsky, A. M. (2009). National comorbidity survey replication adolescent supplement (NCS-A): II. Overview and design. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(4), 380–385. [Find here](#)

Merikangas, K. R., Avenevoli, S., Costello, E. J., Koretz, D., & Kessler, R. C. (2009). National comorbidity survey replication adolescent supplement (NCS-A): I. Background and measures. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(4), 367–379. [Find here](#)

International Physical Activity Questionnaire

Release 5.0 Data Table: ph_p_ipaq

Measure Description: The short form of the International Physical Activity Questionnaire is a parent report measure of the parent's level of physical activity.

ABCD Subdomain: Physical Activity

Number of Variables: 12

Summary Score(s): No

Measurement Waves Administered: 3-year follow-up

Modifications since initial administration: None

Notes and special considerations: None

Reference: Booth M. (2000). Assessment of physical activity: an international perspective. *Research quarterly for exercise and sport*, 71(2 Suppl), S114–S120. [Find here](#)

Medications Inventory

Release 5.0 Data Table: ph_p_meds

Measure Description: Medications youth participant has taken in the last two weeks.

ABCD Subdomain: Medications

Number of Variables: 357

Summary Score(s): Yes

Measurement Waves Administered: 3-year follow-up

Modifications since initial administration: Starting in 3-year follow-up, questions asked about medications in the past year. Also, questions about the use of cannabidiol (CBD) for medical purposes were added starting at the 3-year follow-up.

Notes and special considerations: The medication questionnaire was drawn from the [PhenX Toolkit](#). Drug names, dosage, etc. used the [RxNorm](#) database available from the NIH National Library of Medicine.

Medical History

Release 5.0 Data Table: ph_p_mhx

Measure Description: Medical history and health services utilization.

ABCD Subdomain: Medical

Number of Variables: 188

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: None

Reference: Todd, R. D., Joyner, C. A., Heath, A. C., Neuman, R. J., & Reich, W. (2003). Reliability and stability of a semistructured DSM-IV interview designed for family studies. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42(12), 1460–1468. [Find here](#)

Ohio State Traumatic Brain Injury Screen

Release 5.0 Data Table: ph_p_otbi

Measure Description: Surveys traumatic brain injury in the youth participant.

ABCD Subdomain: Medical

Number of Variables: 105

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: None

Reference: Bogner, J. A., Whiteneck, G. G., MacDonald, J., Juengst, S. B., Brown, A. W., Philippus, A. M., Marwitz, J. H., Lengenfelder, J., Mellick, D., Arenth, P., & Corrigan, J. D. (2017). Test-Retest Reliability of Traumatic Brain Injury Outcome Measures: A Traumatic Brain Injury Model Systems Study. *The Journal of head trauma rehabilitation*, 32(5), E1–E16. [Find here](#)

Pubertal Development Scale & Menstrual Cycle Survey History (Parent)

Release 5.0 Data Table: ph_p_pds

Measure Description: Parent survey of pubertal stage and menstrual phase (for postmenarcheal girls).

ABCD Subdomain: Puberty

Number of Variables: 30

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: None

Reference: Bogner, J. A., Whiteneck, G. G., MacDonald, J., Juengst, S. B., Brown, A. W., Philippus, A. M., Marwitz, J. H., Lengenfelder, J., Mellick, D., Arenth, P., & Corrigan, J. D. (2017). Test-Retest

Reliability of Traumatic Brain Injury Outcome Measures: A Traumatic Brain Injury Model Systems Study. *The Journal of head trauma rehabilitation*, 32(5), E1–E16. [Find here](#)

Sports and Activities Involvement Questionnaire

Release 5.0 Data Table: ph_p_saiq

Measure Description: Parent survey of youth involvement in sports, music, hobbies, and TBI risk.

ABCD Subdomain: Physical Activity

Number of Variables: 1046

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: Starting in the 4-year follow-up, five follow-up items were removed from each question for time considerations.

Notes and special considerations: None

Reference: Huppertz, C., Bartels, M., de Zeeuw, E. L., van Beijsterveldt, C., Hudziak, J. J., Willemsen, G., Boomsma, D. I., & de Geus, E. (2016). Individual Differences in Exercise Behavior: Stability and Change in Genetic and Environmental Determinants From Age 7 to 18. *Behavior genetics*, 46(5), 665–679. [Find here](#)

Sleep Disturbance Scale for Children

Release 5.0 Data Table: ph_p_sds

Measure Description: Parent survey of youth sleep and sleep disorders.

ABCD Subdomain: Sleep

Number of Variables: 48

Summary Score(s): Yes

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: None

Reference: Bruni, O., Ottaviano, S., Guidetti, V., Romoli, M., Innocenzi, M., Cortesi, F., & Giannotti, F. (1996). The Sleep Disturbance Scale for Children (SDSC). Construction and validation of an instrument to evaluate sleep disturbances in childhood and adolescence. *Journal of sleep research*, 5(4), 251–261. [Find here](#)

Ferreira, V. R., Carvalho, L. B., Ruotolo, F., de Moraes, J. F., Prado, L. B., & Prado, G. F. (2009). Sleep disturbance scale for children: translation, cultural adaptation, and validation. *Sleep medicine*, 10(4), 457–463. [Find here](#)

Teeth Collection

Release 5.0 Data Table: ph_p_teeth

Measure Description: The total number of teeth collected from caregivers for youth participants.

ABCD Subdomain: Biospecimens

Number of Variables: 1

Summary Score(s): No

Measurement Waves Administered: Annually since baseline

Modifications since initial administration: None

Notes and special considerations: Baby teeth are collected on an on-going basis at each annual event.

Reference: Cassidy-Bushrow, A. E., Wu, K. H., Sitarik, A. R., Park, S. K., Bielak, L. F., Austin, C., Gennings, C., Curtin, P., Johnson, C. C., & Arora, M. (2019). In utero metal exposures measured in deciduous teeth and birth outcomes in a racially-diverse urban cohort. *Environmental research*, 171, 444–451. [Find here](#)

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