

Adolescent Brain Cognitive Development®
Teen Brains. Today's Science. Brighter Future.

ABCD Protocol Summary

One-year Follow-up

ABCDStudy.org

The Adolescent Brain Cognitive Development (ABCD) Study

The ABCD Study is the largest long-term study of brain development and child health in the United States. The ABCD Research Consortium consists of a Coordinating Center (CC), a Data Analysis and Informatics Center (DAIC), and 21 research sites across the country (see map), which will invite more than 10,000 children ages 9-10 to join the study. Researchers will track their biological and behavioral development through adolescence into young adulthood.



The ABCD CC, DAIC, and Consortium Workgroups have established standardized and harmonized assessments of physical and mental health, neurocognition, substance use, and culture and environment. They also have established multimodal structural and functional brain imaging and bioassay protocols. Brain imaging and biospecimen collection for genetic and epigenetic analyses will be done every other year, and the remaining assessments will be conducted semi-annually or annually.

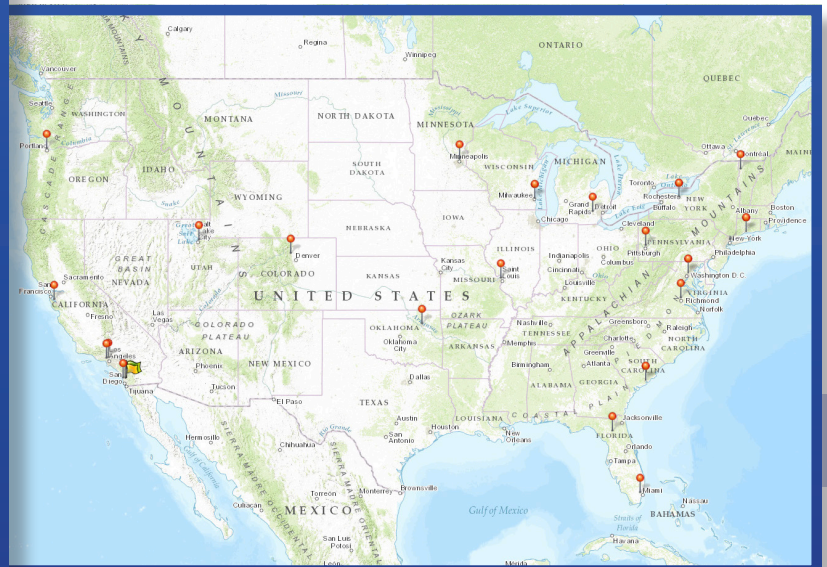
ABCD Open Science Model

One goal of the multisite longitudinal ABCD Study is to create a unique data resource for the entire scientific community by embracing an open science model. Curated data are released annually through the NIMH Data Archive (<https://data-archive.nimh.nih.gov/>), beginning in 2018 with an interim release that includes high quality baseline data from the first ~4500 participants. Information on how to access ABCD data is available on the website.

Sharing ABCD data in this way will allow scientists from all over the world to conduct analyses, pool resources, and enrich the value of this study by rapidly expanding the types of scientific questions answered.

Locations of ABCD Research Sites in the United States

	Coordinating Center	University of California, San Diego
	Data Analysis and Informatics Center	University of California, San Diego
	Research Sites	Children's Hospital of Los Angeles Florida International University Laureate Institute for Brain Research Oregon Health & Science University SRI International University of California, Los Angeles University of California, San Diego University of Colorado University of Florida University of Maryland University of Michigan University of Minnesota University of Pittsburgh University of Rochester Medical University of South Carolina University of Utah University of Vermont Virginia Commonwealth University Washington University in St. Louis University of Wisconsin-Milwaukee Yale University



Physical Health

ABCD 1-Year Follow-up	What it measures:	Youth (min)	Parent (min)
Anthropometrics*	Height, weight, waist circumference	4	
Pubertal Development Scale & Menstrual Cycle Survey	Pubertal stage and menstrual phase	2	3
Screen Time Survey	Screen time utilization	3	2
Gender Identity Questionnaire	Gender identity	1	2
Demographics Survey*	Demographics, race, gender, family structure, SES, education and occupation		4
Medical History Questionnaire	Medical history and health services utilization		4
Medications Survey*	Current and past medications		4
Sleep Disturbance Scale for Children	Sleep and sleep disorders		3
Sports and Activities Involvement Questionnaire	Involvement in sports, music, and hobbies, TBI risk		5
Ohio State TBI Screen - Short	Traumatic brain injury of youth		3
Child Nutrition Assessment	Child's diet and nutrition, and parent use of prenatal medications		2
Total Minutes		10	32

*Modified from PhenX

Mental Health

ABCD 1-Year Follow-up	What it measures:	Youth (min)	Parent (min)
Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS-5)			
Background Items Survey	Youth: School, sexual orientation	2	
	Parent: School, family, social relations		5
Diagnostic Interview for DSM-5	Youth: Suicide and AUD/DUD modules (if applicable)	5	
	Parent: Psychosis, Eating disorders, ADHD, ODD, & CD modules		20
Prodromal Psychosis Scale	Prodromal psychosis level	7	
7-Up Mania Items	Youth mania symptoms	1	
Self-Reported Delinquency Scale - Causes and Correlates of Delinquency Program	Youth delinquency behaviors	2	
NIH Toolbox Positive Affect Items	Self-reported activated (happiness, joy) and unactivated (serenity, peace) aspects of positive affect	1	
Brief Problem Monitor Scale	Attention, internalizing and externalizing functioning	2	
Life Events Scale	Lifetime and past year stressful and traumatic events	5	4
Child Behavior Checklist	Dimensional psychopathology, adaptive functioning		8
Parent General Behavior Inventory - Mania	Subsyndromal mania		4
Short Social Responsiveness Scale	Presence and severity of social impairment within the autism spectrum		2
Total Minutes		25	43

*Modified from PhenX

Substance Use

ABCD 1-Year Follow-up	What it measures:	Youth (min)	Parent (min)
Participant Last Use Survey	Tobacco/caffeine/medication usage in the last 24 hours	1	1
Parent Rules	Parental SU approval and rules		2
Community Risk & Protective Factors*	Perceived availability for youth		2
Heard of alcohol, tobacco/nicotine, marijuana, other:			
Peer Group Deviance*	Peer group deviance & influences	1	
PATH Intention to Use Tobacco Survey	Intention to use, susceptibility (if haven't used yet)	1	
Perceived Harm of Substance Use*	Youth perceptions of harm caused by use of substances	1	
Peer Tolerance of Use	Acceptability of peers' use of substances	2	
Alcohol Expectancies Questionnaire - Adolescent, Brief	Expectations of alcohol's effects if one used it	2	
Adolescent Smoking Consequences Questionnaire	Perceptions of tobacco use consequences	2	
Marijuana Effect Expectancy Questionnaire	Perceptions of marijuana use and consequences	2	
Having tried alcohol, tobacco/nicotine, marijuana (e.g., sip or puff) since last visit:			
Timeline Follow-back	Quantity/frequency of all substance use	3-20	
iSay II Q2 Sipping Items	Early alcohol use (if sipped alcohol)	1	
Tobacco Low-Level Use Measure	Early tobacco use (if puffed or chewed tobacco)	1	
Marijuana Low-Level Use Measure	Early marijuana use (if puffed or tasted MJ)	1	
Caffeine intake	Caffeine use, type & quantity (if used caffeine)	1	
Having used alcohol, tobacco/nicotine, marijuana (full drink, more than just a puff) since last visit:			
Acute Subjective Response to Alcohol*	Sensitivity to alcohol effects	1	
Acute Subjective Response to Tobacco*	Sensitivity to tobacco effects	1	
Acute Subjective Response to Marijuana	Sensitivity to marijuana effects	1	
Continued next page >			

Substance Use (cont.)

ABCD 1-Year Follow-up	What it measures:	Youth (min)	Parent (min)
Having 2 or more occasions of the respective substance use since last visit:			
Hangover Symptom Scale	Alcohol hangover experiences	2	
Rutgers Alcohol Problem Index	Alcohol use consequences	1	
Nicotine Dependence (from PATH)	Nicotine use consequences	2	
Marijuana Problem Index	Marijuana use consequences	1	
Drug Problem Index	Other drug use consequences	1	
Total Minutes		12-46	5

*Modified from PhenX

NeuroCognition

ABCD 1-Year Follow-up	What it measures:	Youth (min)
Delay Discounting Task	Discounting and valuation of proximal and distal rewards	3
Emotional Faces Stroop Task	Inhibition of prepotent responses, affective regulation	6
Total Minutes		9

Culture & Environment

ABCD 1-Year Follow-up	What it measures:	Youth (min)	Parent (min)
Parental Monitoring Survey	Parental monitoring/supervision	1	
Acceptance Subscale from Children's Report of Parental Behavior Inventory (CRPBI) - Short	Environment - Family & Religion	2	
School Risk & Protective Factors*	Risk and protective factors	1	
Perceived Discrimination Scale	Experiences and perception of discrimination	3	
Wills Problem Solving Scale	Self-control, planning	3	
Prosocial Behavior Survey	Resilience	1	1
Acculturation Survey*	Cultural factors	1	1
Family Environment Scale - Family Conflict Subscale*	Family dynamics, cohesion, expressiveness, conflict	2	2
Neighborhood Safety/Crime Survey*	Risk and protective factors, crime	1	1
Mexican American Cultural Values Scale	Familism, religion, independence, self-reliance		5
Total Minutes		15	10

*Modified from PhenX

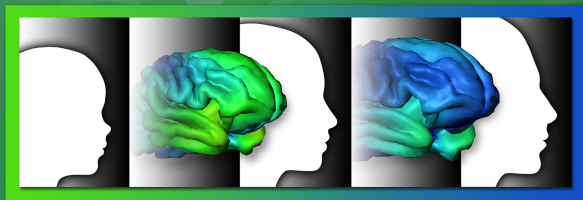
Biospecimens

ABCD 1-Year Follow-up Bioassay	What It Measures	Method	Youth (min)	Parent (min)
Alcohol Screen*	Past day alcohol use	Breathalyzer	1	
Drug Screen*	Past day drug use	Oral fluid -Drager	1	
NicAlert*	Past day nicotine use	Urine	1	
Substance Use History	Metabolites of past 3 month substance use	Hair (~100 strands)	4	
Pubertal Hormones	Estradiol, testosterone, and DHEA	Oral fluid	6	
Baby Teeth	Substance and environmental toxin exposure	Prior/newly shed baby teeth		1
Total Minutes			13	1

*Subset of participants

Other Data Sources

ABCD 1-Year Follow-up	What it measures:	Parent (min)	Teacher (min)
Geocoding from Residential History	Environmental risk	3	
School Records	Educational attainment	3	
Brief Problem Monitor-Teacher Form	Dimensional psychopathology, adaptive functioning		2
Total Minutes		6	2



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