Physical Health Pre-Meeting
June 3, 2025

Participants

External Experts
Abbi Lane – University of Michigan
Holly Gooding – Emory University
Sara Vasilenko – Syracuse University

ABCD Expert
Kay Rhee – University of California – San Diego

Planning Team
Gaya Dowling – National Institute on Drug Abuse (NIDA)
Joe Ciccolo – National Cancer Institute
Kim LeBlanc – NIDA
Lindsay Pool – National Heart Lung and Blood Institute
Michael Charness – US Department of Veterans Affairs
Paul Burns – National Institute of Minority Health and Health Disparities
Traci Murray – NIDA

Summary

The discussion around physical health focused on refining developmental milestone tracking, leveraging longitudinal data for early detection of chronic conditions, optimizing biosample protocols, and addressing health disparities. Participants provided recommendations for innovative measures and approaches to ensure the study remains comprehensive, cost-effective, and impactful.

Measures to continue tracking

Physical Health: Participants emphasized the importance of tracking changes in physical activity, diet, sleep, and sexual health as youth transition into adulthood, noting physical activity decreases during this period.

Sexual and Reproductive Health: Continued collection of menstrual cycle history, pregnancy status, and contraceptive use was recommended. The group highlighted the value of assessing pregnancy outcomes, lactation, and adverse events related to pregnancy.

Lifestyle Considerations: Diet quality, nutrition, and sleep patterns were identified as critical, with suggestions to use validated questionnaires for more accurate longitudinal tracking.

Leveraging Longitudinal Design for Early Predictors *(Note: the group noted importance of maintaining measures across adolescence and young adulthood to ensure consistency of data outcomes).*

Early Predictors of Chronic Disease: The group discussed incorporating subclinical measures such as arterial stiffness, carotid intima-media thickness, and pulse pressure to identify early cardiovascular risk.

Body Composition: Routine measurements like waist circumference and bioelectrical impedance (e.g. DEXA scans) were suggested as cost-effective ways to track changes in adiposity.

Wearables and Objective Measures: Use of devices like Fitbits was discussed, though concerns about data access and validity were raised. Objective measures of heart rate variability and sleep were also considered valuable.

Biosample Protocol and Additional Assays:
Potential Additions: Suggestions included expanding biospecimen collection to include urine (for renal function), additional blood markers (e.g., C-reactive protein for inflammation), and possibly breast milk for participants who become parents.

Assay Expansion: Participants recommended considering omics approaches (proteomics, metabolomics) and additional metabolic and renal markers, balancing scientific value with cost and participant burden.

Addressing Health Disparities and Resilience:
Disparities and Intervention Points: The group stressed the need to capture data on social determinants, health literacy, and resilience factors such as youth sport participation and social support.

Frameworks and Collaboration: Positive youth development frameworks and cross-cohort harmonization were suggested to better understand and mitigate disparities.

Objective and Subjective Measures: Both types of data were seen as important for identifying intervention points and resilience factors that could inform future policy and practice.