STUDY00002534: Project Engage: A Wrist Biosensor-based mHealth Suite to Support Alcohol Intervention in Young People Living With HIV

NCT05431855

Statistical Analysis Plan

January 23, 2026

Engage project revised statistical analysis plan (Jan. 23, 2026)
For CT.gov

Aim 1 (Primary outcome): Explore the impact of engagement strategies implemented via the eWrapper Ranch app on alcohol sensor engagement by comparing the % of sensor wearing over 30 days between those who used eWrapper along with Skyn sensor vs. those who used Skyn sensor without eWrapper.

Analysis plan:

We will use our algorithm based on motion and temperature sensor readings from the Skyn biosensor to calculate % of sensor wearing for each participant over 30 days (i.e., total time deemed by the algorithm as wearing devided by maximum possible wearing time which is 24hours*30days) to see if those who receive eWrapper have higher engagement with the Skyn biosensor.

For CT.gov: upload mean and SD for % wearing time by group

Aim 2 (Secondary outcome 1): Explore the feasibility/acceptability of using the Skyn biosensor to monitor drinking among young adults with HIV (YAWH).

Analysis plan:

The overall acceptability and usability rating of the Skyn sensor will be calculated by summarizing all items using descriptive statistics (i.e., mean and SD). An average rating indicating “agree” or “strongly agree” will indicate good acceptability and usability.

For CT.gov: upload mean and SD of the scale mean score by group

Aim 3 (Secondary outcome 2): Assess the feasibility/acceptability of the eWrapper Ranch app.

Analysis plan:

The overall acceptability and usability rating of the eWrapper app will be calculated by summarizing all items using descriptive statistics (i.e., mean and SD). An average rating indicating “agree” or “strongly agree” will indicate good acceptability and usability.

For CT.gov: upload mean and SD of the scale mean score for those who used eWrapper.