

## About C3PNO

### Who Are We

The Collaborating Consortium of Cohorts Producing NIDA Opportunities (C3PNO) is the coordinating center for NIDA U01 longitudinal cohorts that represent a combined sample size of **12,000 active** and **20,000 historical** participants.

C3PNO links behavioral and biological data from cohorts spanning the United States and Canada that follow a diverse group of high-risk HIV-negative and HIV-positive persons. Some cohorts exclusively enroll PWID or HIV-positive persons; most utilize community not clinical care sites for enrollment and follow-up.

Principal Investigators: Dr. Pamina Gorbach (UCLA) and Suzanne Siminski (Frontier Science)

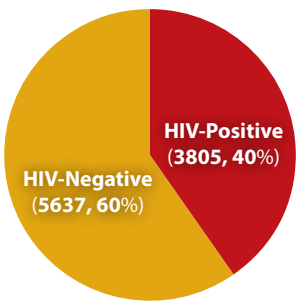
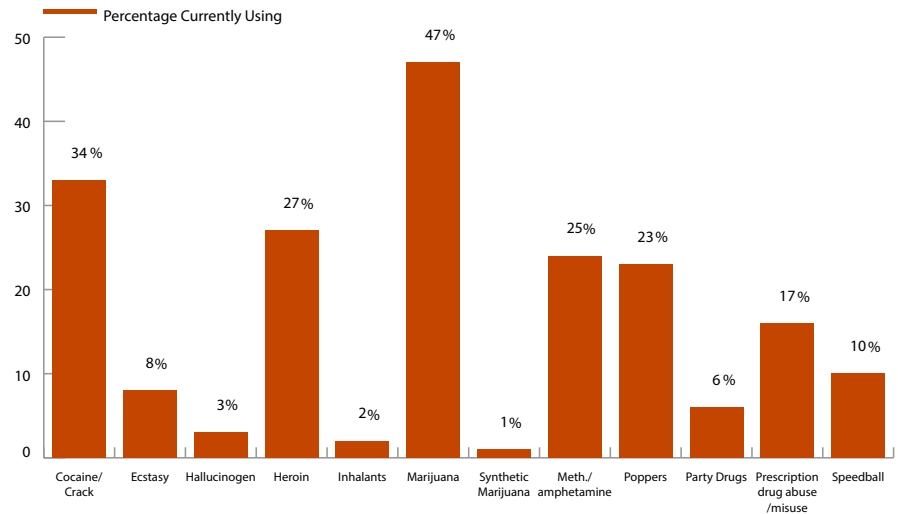
### The Cohorts



### Current Substance Use

Most participants are currently using at least one substance. Cohorts collect extensive substance use data to access typologies, patterns, frequencies, and volume.

This chart shows self-reported substance use. Most cohorts also collect biomarkers of substance use, such as urine toxicology screens.



### HIV Status

This graph includes participants both in and out of HIV care. Viral load data is available for 2,825 HIV-positive participants. Of those, 1,749 have HIV-1 RNA  $\leq$  20 copies/mL (62%). For HIV-negative participants, most cohorts also have PrEP use data.

### Biological specimens and behavioral data that is available through C3PNO include:

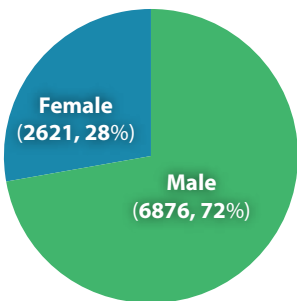
- ❖ 627 Seroconversions (ever)
- ❖ 66 Seroconversions within the last five years
- ❖ 4,866 People who inject drugs

### Sentinel Populations

The cohorts follow a diverse group of high-risk HIV positive and negative participants including:

- ❖ Substance-using individuals under 30 years of age
- ❖ People who inject drugs and stimulant users
- ❖ Racial/ethnic minorities
- ❖ Men who have sex with men and transgender individuals.
- ❖ HIV-positive with transmissible viral loads

Substance use patterns and transitions in these groups are of immense scientific interest. For example, incident use and initiation of injection opioids in these may be an early indicator for other at-risk populations, such as persons who engage in transactional sex.



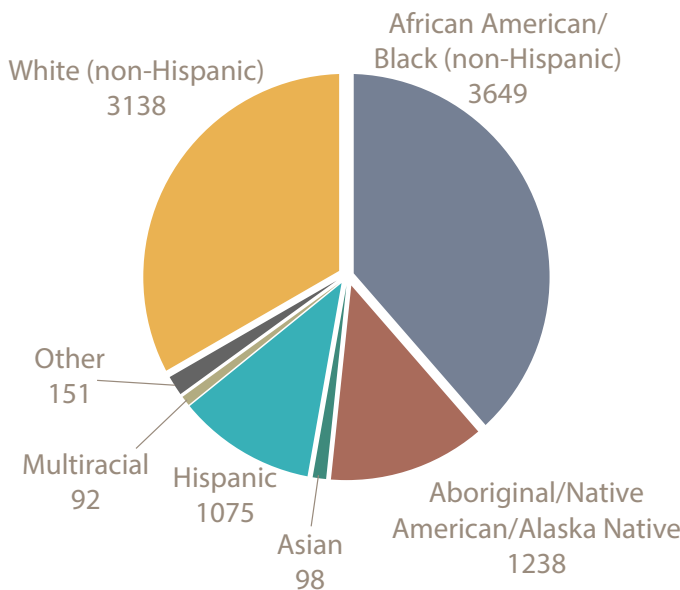
### Sex at Birth

Three of the cohorts recruit men who have sex with men and transgender individuals. These cohorts have more discrete gender identity data.

C3PNO provides a unique sentinel population to **detect real-time changes** in epidemics (such as the opioid crisis) based on contemporary data on substance use in populations affected by HIV.

With a combined sample size of approximately 12,000 participants, the C3PNO consortium pools an extensive bank of longitudinal behavioral and biological data. C3PNO's combined data includes diverse substance-using populations, covers an expansive geographical area, and has multiple data types of data. Together, the consortium provides comprehensive answers to questions on epidemics like the opioid crisis more than individual cohorts or R01s.

By coordinating efforts between cohorts, C3PNO is poised to provide a rapid response to emergent public health concerns and NIDA priorities.



- Benefits to C3PNO's existing infrastructure include:
- ❖ Efficiencies of scale
  - ❖ Existing services, resources, contracts
  - ❖ Access to high-risk populations
  - ❖ Linking of behavioral measures
  - ❖ Sharing and validating instruments
  - ❖ Combined sample size across diverse groups

### Repository Specimens

The repositories contain many specimens that have been collected and stored over time. Below are some details about specimens from the most recent participant visit. More data will soon be available through the virtual specimen repository at [www.c3pno.org](http://www.c3pno.org).

Specimen Type	Participants	Specimens
Buffy Coat	446	1403
Hair	187	187
Nail	412	413
Oral Rinse	452	2691
Passive Drool	490	490
PBMC, Viably Frozen	1830	6177
PBMC, Pelleted	183	927
Plasma	3899	25521
Rectal Sponge	123	246
Rectal Swabs	1414	1699
Serum	2744	10710
Whole Blood	862	862
<b>Total</b>	<b>4627</b>	<b>51326</b>

### Platforms for Research and Biorepositories

The longitudinal cohorts are platforms for additional high-impact research. Each cohort currently supports and has the capacity to support related projects (R01, K01, and pilot studies) by providing researchers access to data, specimens, and participants.

The virtual repository has a range of specimens such as PBMCs, plasma, serum, whole blood, hair, nails, and rectal swabs that can be combined across cohorts for large analytic studies.

The C3PNO consortium's virtual repository will expand this to studies that reach across the cohorts of clinical, behavioral, demographic, and biologic data to answer urgent research questions about the impact of substance use in key populations.

Learn more about the work we are doing, the cohorts, available data, and more at [www.c3pno.org](http://www.c3pno.org).

