

## 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 participants** ever enrolled to the cohorts with 58% having a visit captured since the inception of C3PNO.

C3PNO links behavioral and biological data from cohorts spanning the United States and Canada that follow a diverse group of people living with HIV (PLWH) and HIV-negative persons. Some cohorts exclusively enroll persons who inject drugs (PWID) or PLWH; most are based in community sites for enrollment and follow-up.

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

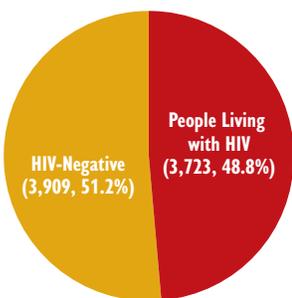
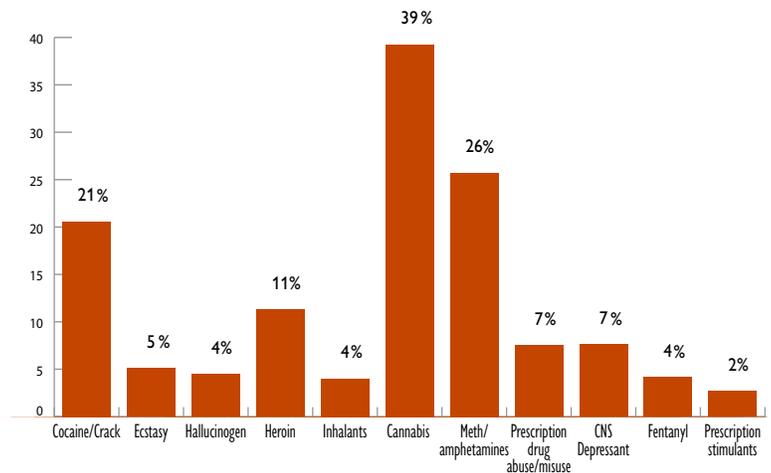
### The Cohorts



### Recent Substance Use

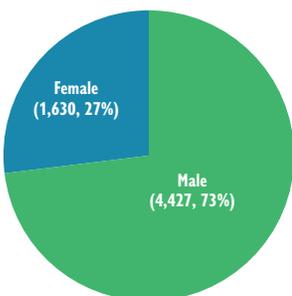
Most participants report recent use of at least one substance. Cohorts collect extensive details of substance use, such as modalities of use, frequency patterns, quantity use, context of use, and overdose experiences. Details vary by cohort.\*

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



### HIV Status

The graph includes participants both in and out of HIV care. Viral load data is available for 2,833 PLWH. Of those 2,000 have HIV-1 RNA below the limit of detection for the assay performed (70%). For HIV-negative participants, most cohorts also collect reports on PrEP use and experiences.



### 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.

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

- ❖ 627 seroconversions (ever)
- ❖ 66 seroconversions between 2014 and 2019
- ❖ 4,866 people who inject drugs

### Sentinel Populations

The cohorts follow a diverse group of people living with HIV and HIV-negative participants including:

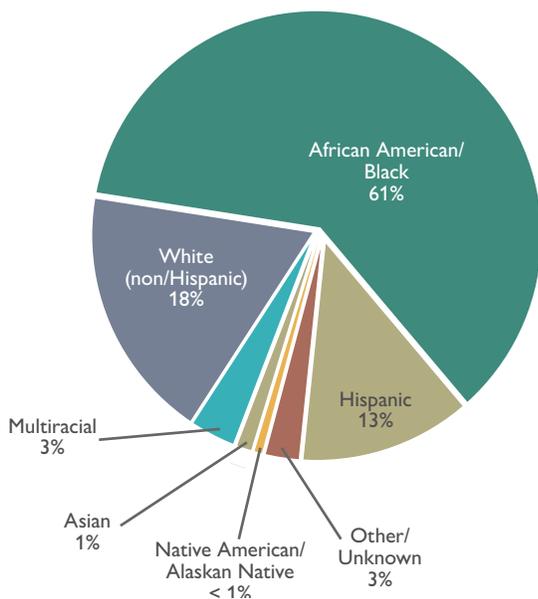
- ❖ Substance-using individuals under 30 years of age
- ❖ People who inject drugs (opioids and stimulants)
- ❖ Young men who use stimulants
- ❖ Diverse populations of PWUD
- ❖ Men who have sex with men and transgender individuals
- ❖ PLWH in and out of care
- ❖ PWUD in and out of treatment

Substance use patterns and transitions in these groups are of immense scientific interest. The cohorts provide opportunities to follow patterns of modes and types of substance use as well as examine biological and behavioral impacts of substance use over time.

C3PNO provides a unique sentinel population to **detect real-time changes** in epidemics based on contemporary data on substance use in populations affected by HIV.

The C3PNO consortium pools an extensive bank of longitudinal behavioral and biological data, covering many domains. C3PNO's combined cohort includes diverse substance-using populations covering an expansive geographical area. Unlike single cohort studies, the combined consortium allows investigators to provide comprehensive answers to questions of how co-occurring epidemics affect PWUD and PLWH.

Utilizing the established collaborative infrastructure for the consortium, C3PNO can provide a rapid response to emergent public health concerns and NIDA priorities.



C3PNO's existing infrastructure enables:

- ❖ Access to key populations for ending the HIV epidemic
- ❖ Linking of behavioral measures to laboratory assessments, clinical markers, and stored specimens of substance use and HIV
- ❖ Sharing validated assessment approaches
- ❖ Large 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 is available through the virtual specimen repository at [www.c3pno.org](http://www.c3pno.org).

Specimen Type	Specimens
Buffy coats	74,960
Hair	8,529
Nail	12,302
Oral Rinse	2,642
Passive drool	7,083
PBMC, viably frozen	136,835
PBMC, pelleted	20,878
Plasma	84,488
Plasma heparin	122,828
Rectal swabs	7,788
Rectal sponges	1,909
Serum	291,044
Whole blood	73
<b>Total</b>	<b>771,359</b>

As of September 2022

### 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 shows the 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 welcomes research concepts 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 for ending the HIV epidemic.

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

