

The data presented in the following reports reflect the NNTC central database as of July 7, 2022

Usage Statement

Distribution of the data contained in this report through publication or presentation should be reported to the Data Coordinating Center. Reporting usage of the NNTC resources helps to ensure continuation of this valuable resource!

The NNTC is directly funded by the NIMH and NINDS.

Questions regarding these data should be directed to the Data Coordinating Center
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Suppressed Cohort Overview: HIV+

Cohort Enrollment & Study Status

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Fluids Available (%)

Demographics

cART Era Demographics

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Cognitive Diagnosis (%)

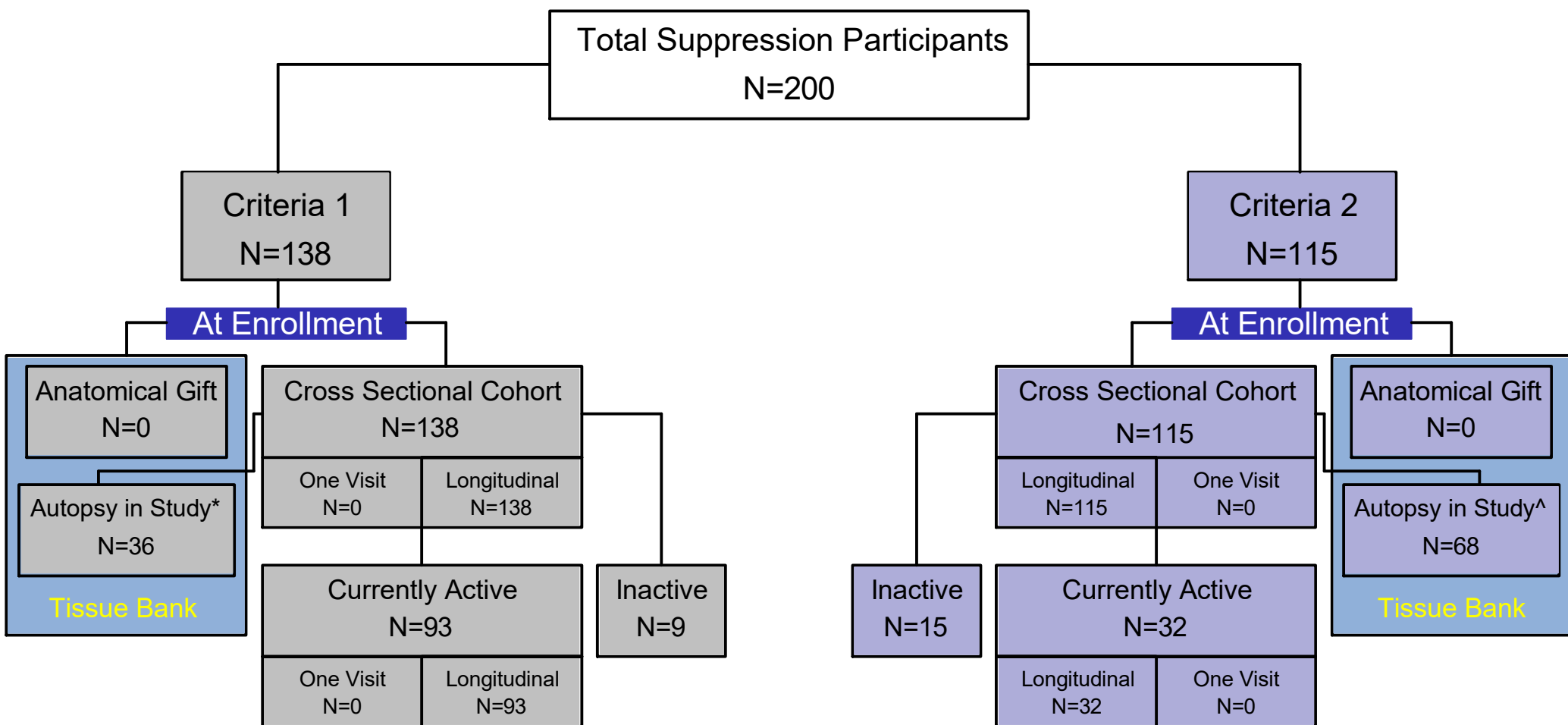
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Suppression Cohort Overview



Criteria 1: Participants have been followed for at least 5 years. There must be at least 1 undetectable viral load within last 1 year, or 2 undetectable viral loads within last 2. Over last 5 year period, there must be at least 4 undetectable viral loads. Note that “blips” of detectable virus are allowed, however these must be <1000 copies/mL during this 5 year period.

Criteria 2: Participants have been followed for at least 2 years. There must be at least 1 undetectable viral load within last 6 months. Note that “blips” of detectable virus are allowed, however these must be <1000 copies/mL during this 2 year period.

Longitudinal Cohort: Participants enrolled with 2 or more study visits.

Tissue Bank: Participants deceased with autopsy.

53 cases meet both criteria.

Inactive cases are either lost to follow-up/administratively censored/withdrawn (N=0) or deceased without autopsy (N=21).

* 0 autopsy cases included in Cross Sectional Cohort; 36 autopsy cases included in Longitudinal Cohort.

^ 0 autopsy cases included in Cross Sectional Cohort; 68 autopsy cases included in Longitudinal Cohort.

CNS Specimens Available

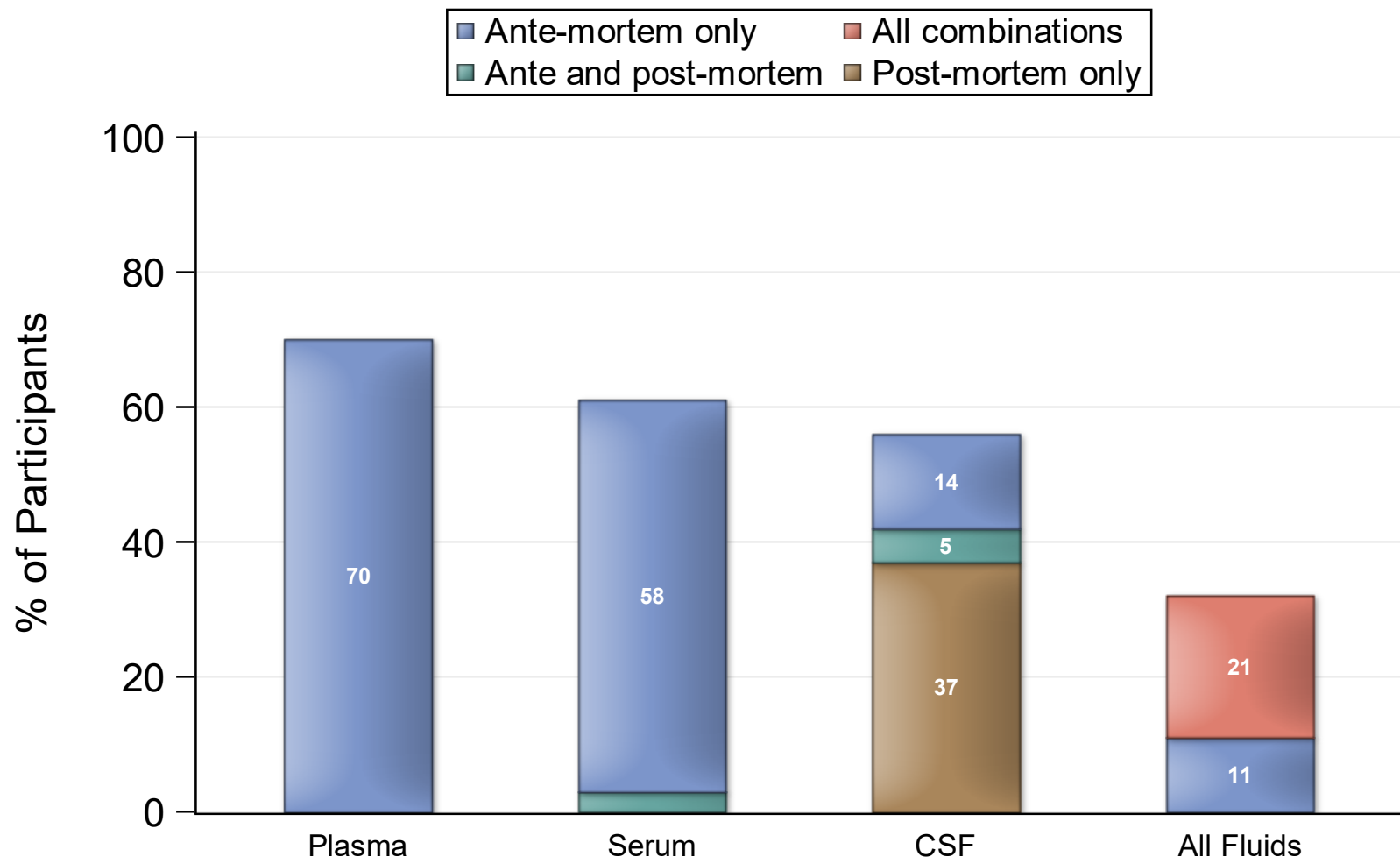
Type:	HIV +
Fixed Brain	76
Frozen Brain	72
Spinal Cord	69
Dorsal Root Ganglia	42
Frontal Lobe*	33
Parietal Lobe*	33
Occipital Lobe*	33
Temporal Lobe*	33
Thalamus*	33
Cerebellum*	32
Brain Stem*	31
Basal Ganglia*	30
Hippocampus*	29
Trigeminal Ganglia	26

*Several of the smaller brain categories listed were approved by the Steering Committee on 27JUN2017 to be reported centrally, and thus are currently underreported in the central inventory as sites work towards retrospectively updating specimen records. It is expected that the central inventory, including availability of these specimens, will continue to be updated prospectively.

Peripheral Organ Specimens Available

Type:	HIV +
Heart	62
Kidney	62
Liver	61
Spleen	58
Lung	54
Peripheral Nerve	53
Adipose Tissue	48
Muscle	47
Bone Marrow	46
Lymph Node	43
Bowel	36
Pituitary Gland	31
Testes	23
Hair	4
Thymus	1

Available Fluids



*All-combinations (e.g., one specimen might be available ante-mortem while the other two might be ante- and post-mortem or any of the other 23 combinations where all 3 specimen availabilities are not the same).

Please note the totals listed above reflect only those cases who have a fixed brain specimen available and fluids collected within 1 year of death. Percentage labels not shown are 2% or less.

Demographics*

<u>N</u>	<u>76</u>
<u>Age</u>	
Mean	59.3
SD	8.8
25th Percentile	53
Median	59
75th Percentile	64.5

*Cases with a fixed brain specimen available with a measurement at baseline and within 1 year of death.

Demographics cont.*

	<u>N</u>	<u>%</u>
<u>Gender</u>		
Male	58	76
Female	18	24
<u>Ethnicity</u>		
Hispanic origin	20	26
<u>Race</u>		
White	38	50
Black	30	39
Other	8	11

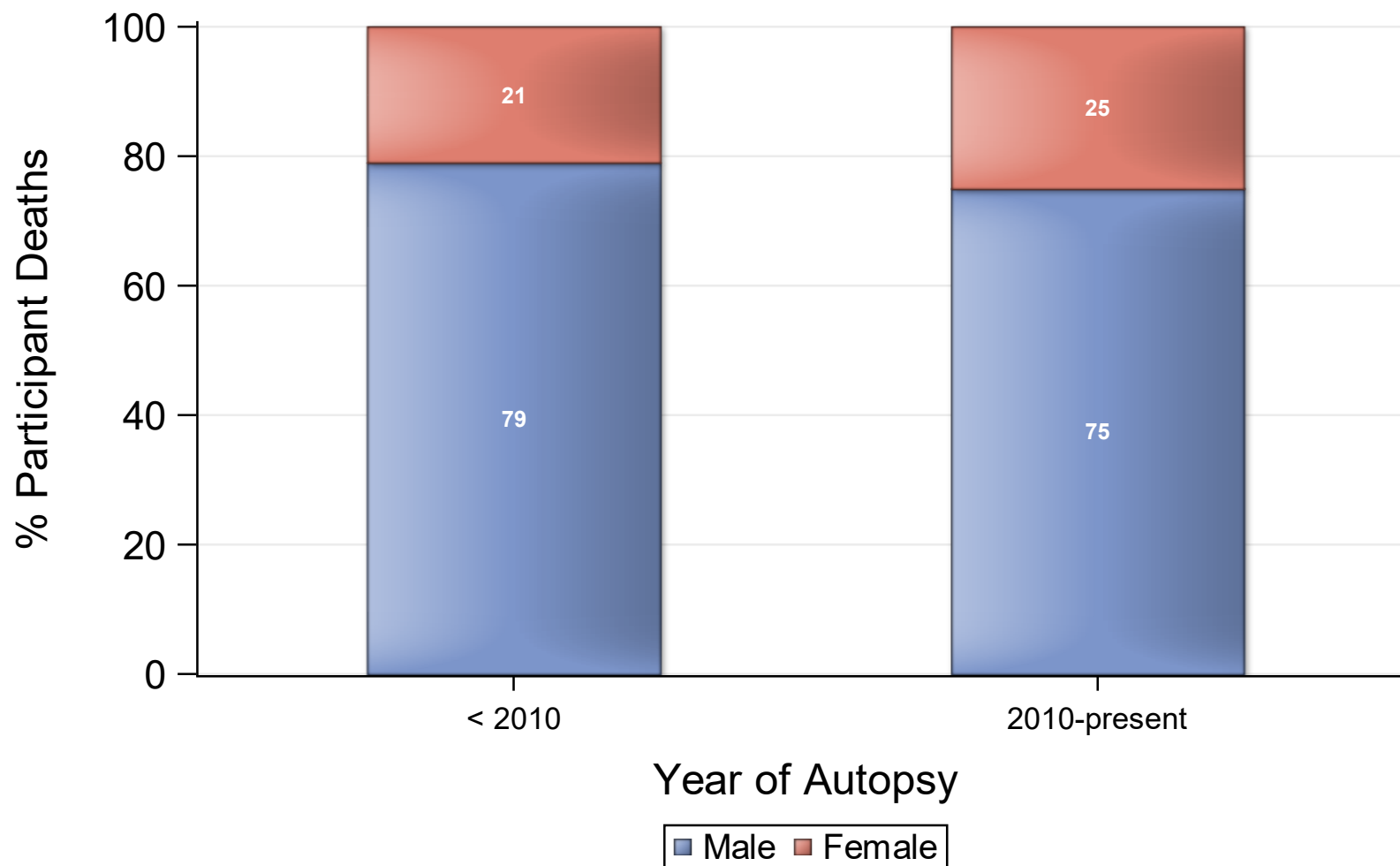
*Cases with a fixed brain specimen available.

Demographics cont.*

	<u>N</u>	<u>%</u>
<u>Furthest Education</u>		
8th grade or less	5	7
Some High School	18	24
High School Gradudate	16	21
Some College/Associate's Degree	24	32
College Graduate	5	7
Advanced Degree work	8	11

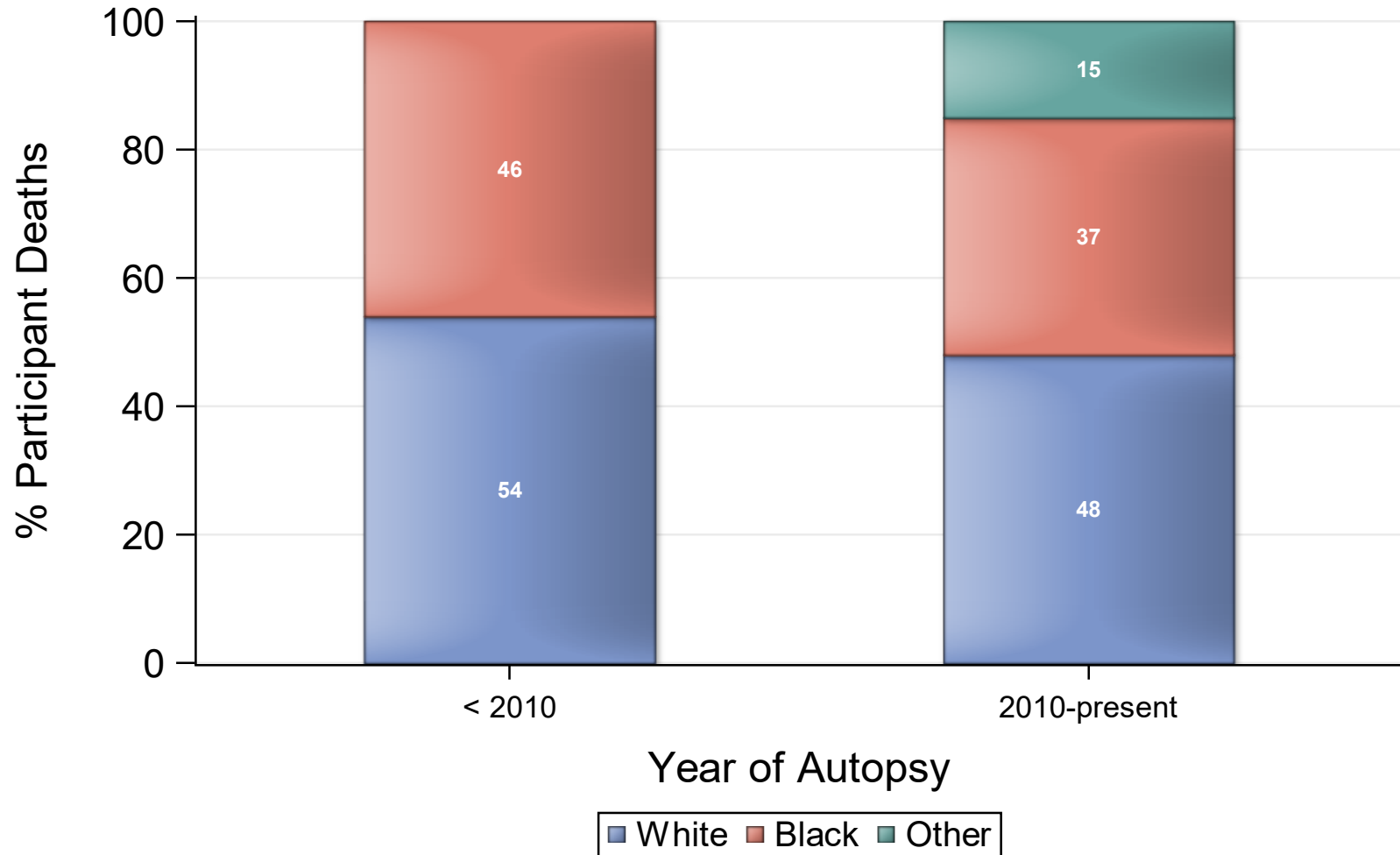
*Cases with a fixed brain specimen available.

cART Era Demographics - Gender



*The NNTC did not collect data before 1998.

cART Era Demographics - Race



*The NNTC did not collect data before 1998.

HIV Characteristics of autopsy cases*

	<u>N</u>	<u>%</u>
<u>Baseline HIV risk</u>		
IV drug use	25	33
Male to male sex	35	46
Heterosexual sex	16	21
<u>On ART</u>		
at baseline	74	97
at last visit	66	87

*Cases with a fixed brain specimen available.

*HIV Characteristics at time of death**

CD4 Count (N=70)

25th Percentile	197
Median	382
75th Percentile	580

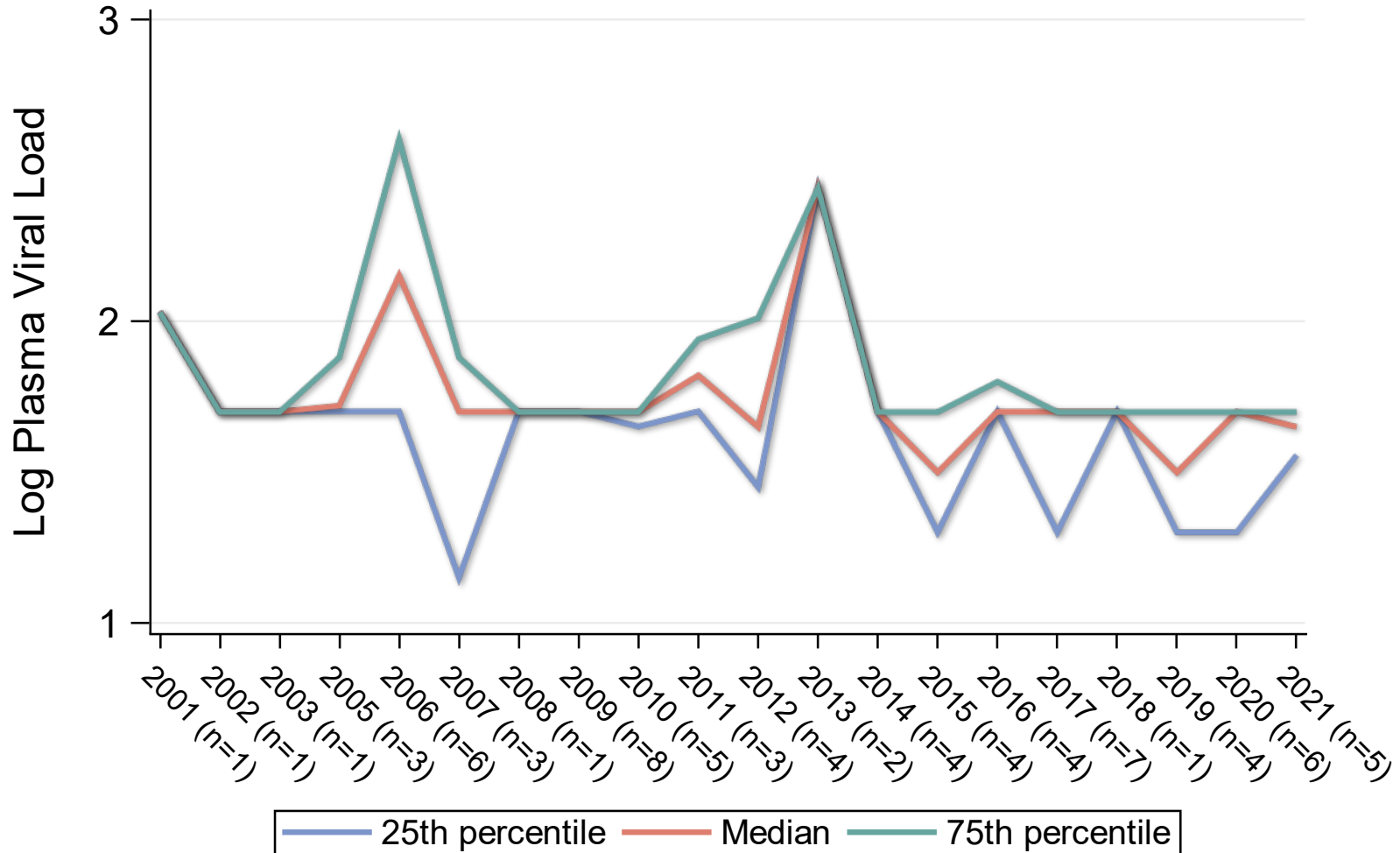
Log Plasma Viral Load** (N=67)

25th Percentile	1.70
Median	1.70
75th Percentile	1.70

*Cases with a fixed brain specimen available with a measurement at baseline and within 1 year of death.

**Among those with known ARV medication status. 7 participants had detectable VL values of 0 where a viral log could not otherwise be calculated.

cART Era Viral Load

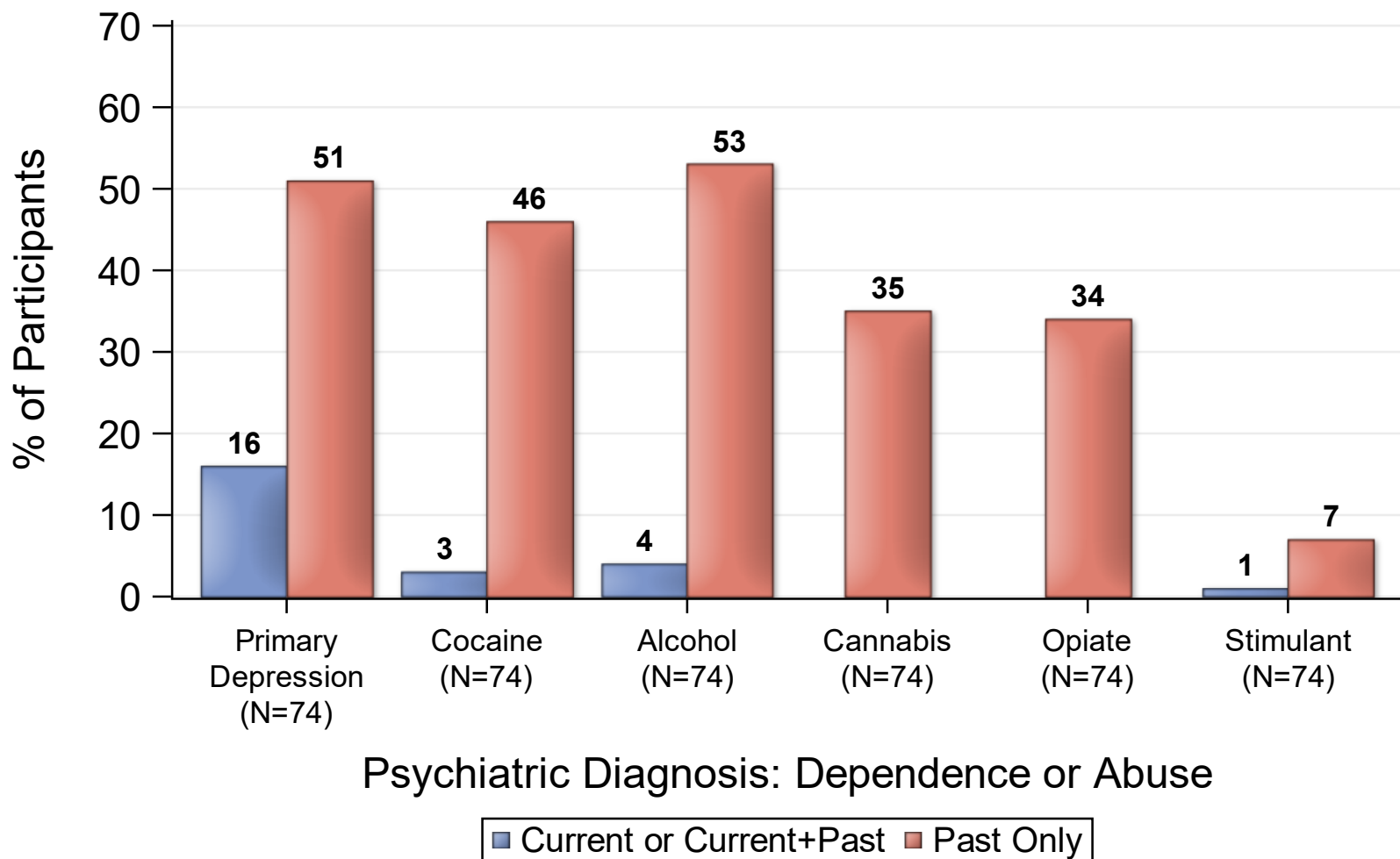


*Among those who have died during the cART era.

Pathological Conditions: Year of Autopsy

Type:	Year of Autopsy		
	< 2010	2010-present	Total Cases
<i>Total Fixed Specimens</i>	24	52	76
Normal/minor neuropath changes	7 (29)	6 (12)	13 (17)
Other non-infectious pathology	8 (33)	27 (53)	35 (46)
Alzheimer's type 2 gliosis	1 (4)	9 (18)	10 (13)
Focal infarct	7 (29)	17 (33)	24 (32)
HIV encephalitis	1 (4)	0	1 (1)
Hypoxic/ischemic damage	4 (17)	15 (29)	19 (25)
Aseptic Leptomeningitis	2 (8)	9 (18)	11 (14)
Microglial nodule encephalitis	0	1 (2)	1 (1)
Hemorrhage-parenchymal	0	6 (12)	6 (8)
Progressive Multifocal Leukoencephalopathy	0	1 (2)	1 (1)
Other infections	0	3 (6)	3 (4)

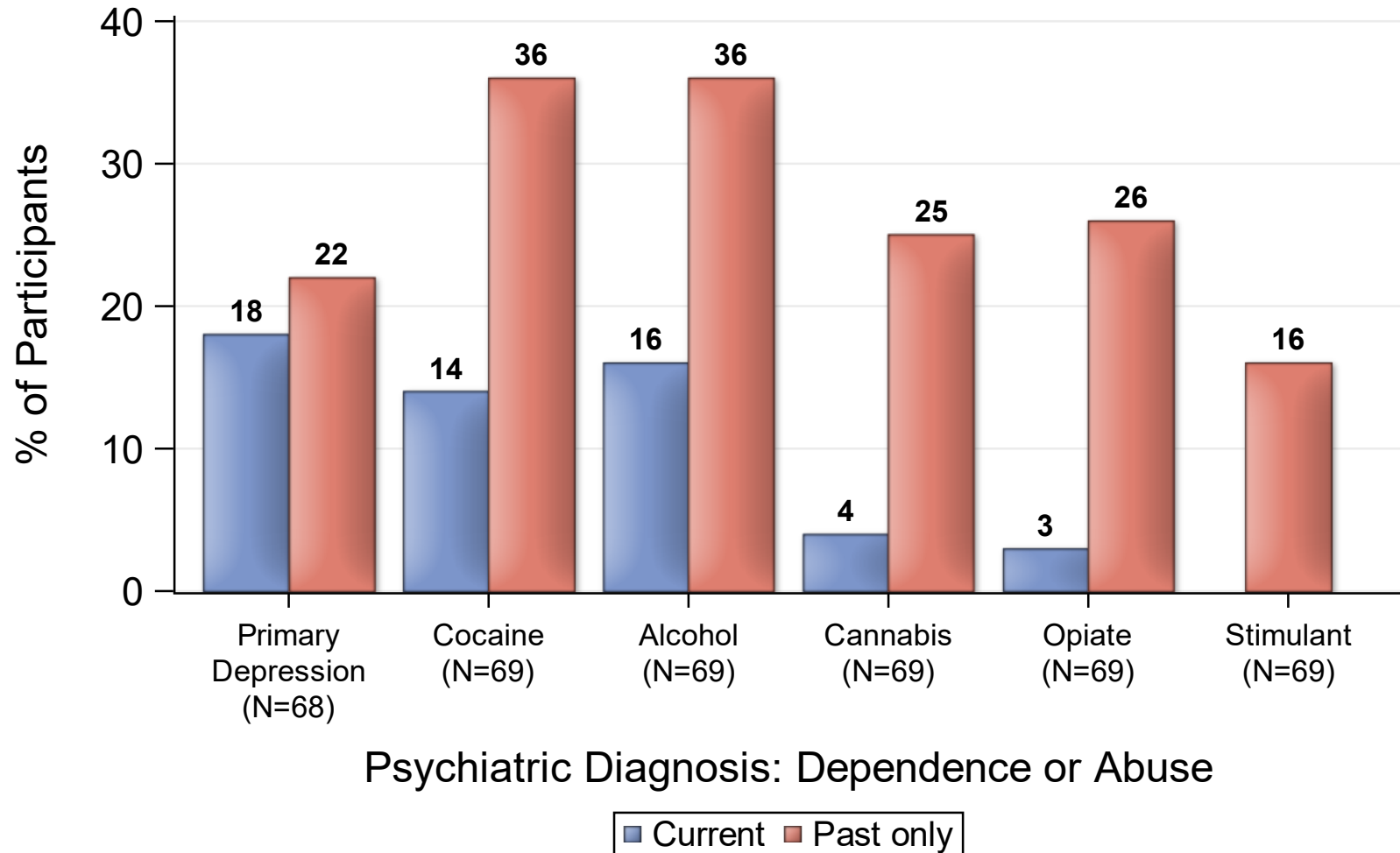
Last Psychiatric Diagnosis



63% are Normal/Test Not Administered

*Please note the totals listed above reflect only those cases who have a fixed brain specimen available and data from the PRISM/CIDI evaluation before death.

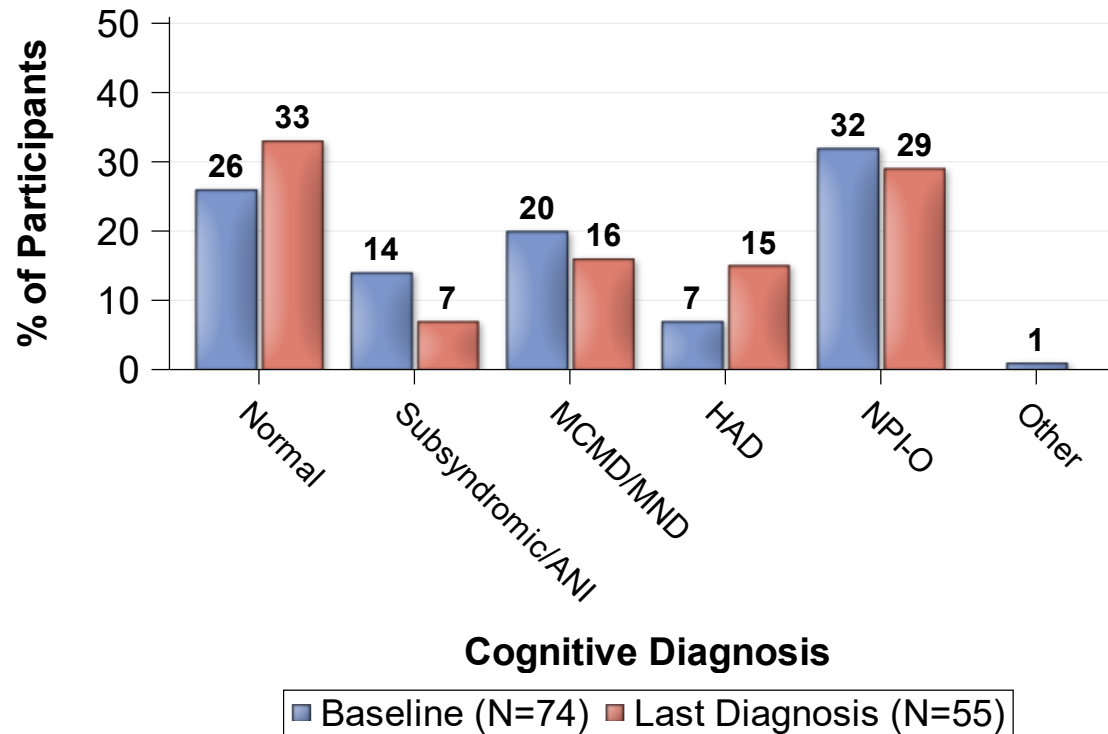
Baseline Psychiatric Diagnosis



19% are Normal/Test Not Administered

*Please note the totals listed above reflect only those cases who have a fixed brain specimen available and data from the PRISM/CIDI evaluation closest to baseline.

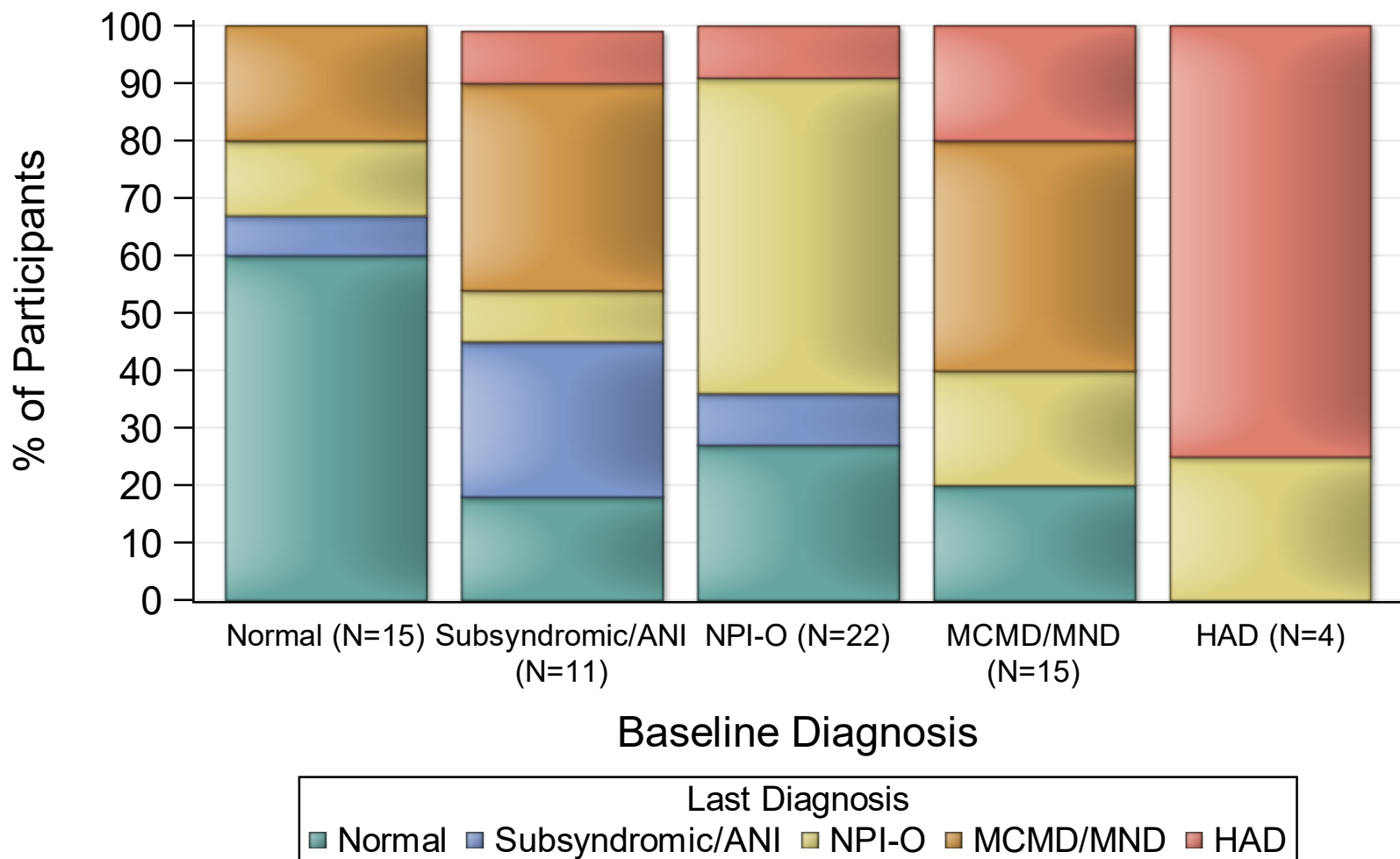
Cognitive Diagnosis



ANI = Asymptomatic Neurocognitive Impairment
 MCMD = Minor Cognitive Motor Disorder
 MND = Minor Neurocognitive Disorder
 HAD = HIV-Associated Dementia
 NPI-O = Neuropsychological Impairment - Other cause, not HIV

*Please note the totals listed above reflect only those cases who have a fixed brain specimen available.

Change in Cognitive Diagnosis



Neurologic Diagnoses*

	<u>Last Dx</u>		<u>Baseline</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
<u>Clinical Myelopathy</u>	<u>(N=54)</u>		<u>(N=75)</u>	
HIV associated	4	7	4	5
Other	0	0	2	3
None	50	93	69	92
<u>Neuropathy</u>	<u>(N=48)</u>		<u>(N=65)</u>	
HIV associated DSP	31	65	29	45
HIV/nucleoside	4	8	4	6
None	13	27	32	49

*Cases with a fixed brain specimen available.

Participants Reporting Concomitant Medications

Medication	# of Pts (N=75)	%
Central Nervous System Agents	71	94.7
Cardiovascular Drugs	65	86.7
Gastrointestinal Drugs	64	85.3
Vitamins	61	81.3
Anti-infective Agents	60	80
Hormones and Synthetic Substitutes	52	69.3
Electrolytic, Caloric, and Water Balance	49	65.3
Autonomic Drugs	43	57.3
Blood Formation, Coagulation, and Thrombosis Agents	38	50.7
Skin and Mucous Membrane Agents	36	48
Antihistamine Drugs	28	37.3
Miscellaneous Therapeutic Agents	28	37.3
Eye, Ear, Nose, and Throat (EENT) Preparations	24	32
Respiratory Tract Agents	20	26.7
Antineoplastic Agents	17	22.7
Pharmaceutical Aids	8	10.7
Local Anesthetics	6	8
Serums, Toxoids, and Vaccines	6	8
Smooth Muscle Relaxants	6	8
No medication use reported on at least one occasion	4	5.3

Ancillary Lab Measurements

Ancillary Lab	Total # records overall	% cohort with at least 1 measure	Total # cases with baseline measure	% cohort with baseline & one other measure
Miscellaneous Hematology				
Red blood cells	253	21	11	14
Mean Corpuscular Hemoglobin (MCH)	253	21	11	14
Mean Corpuscular Volume (MCV)	1186	72	50	66
Mean Corpuscular Hemoglobin Concentration (MCHC)	253	21	11	14
Blood Red cell Distribution Width (RDW)	207	17	4	5
Blood Rapid Plasma Reagin (RPR)	178	64	26	22
Blood Neutrophil Percent	1103	67	43	57
Blood Lymphocyte Percent	1161	71	50	66
Blood Monocyte Percent	1148	71	50	66
Blood Eosinophil Percent	1145	71	50	66
Blood Basophil Percent	1136	71	48	63
Blood Mean Platelet Volume (MPV)	163	13	4	5
Blood CD3 Percent	79	13	9	11
Blood CD3 Absolute	30	9	2	1
Miscellaneous Serology & viral loads				
Blood Hepatitis B Surface Antigens	123	63	36	28
Blood Hepatitis B Surface Antibodies	109	53	29	25
Blood Hepatitis B Core Antibodies	106	55	29	21
Blood Hepatitis B Viral Load	19	9	2	3
Blood Hepatitis C Antibodies (HCV)	176	87	45	36
Blood Hepatitis C Viral Load	78	38	12	13
Miscellaneous Serology & viral loads				
COVID-19 Test Results (qualitative)	20	8	0	0

Ancillary Lab Measurements cont.

Ancillary Lab	Total # records overall	% cohort with at least 1 measure	Total # cases with baseline measure	% cohort with baseline & one other measure
Miscellaneous Blood Chemistries				
Glucose	1118	72	49	64
Hemoglobin A1c	217	57	13	14
Sodium	1067	76	49	64
Calcium	1024	71	47	62
Chloride	1033	76	47	62
Potassium	1050	76	47	62
Total Protein	889	75	45	59
Alkaline Phosphatase	895	72	45	59
AST	875	72	42	55
ALT	890	72	44	58
Total Bilirubin	932	78	49	64
Direct Bilirubin	100	12	6	8
Creatinine	1221	95	59	75
BUN	1063	75	47	62
CO2	1037	72	46	61
PT	512	57	39	51
INR	510	57	39	51
Urate	46	11	5	5
Triglycerides	372	74	28	34
Cholesterol	378	74	29	36
LDL	319	68	24	28
HDL	326	70	25	29
Phosphorus	125	14	7	8
LDH	58	12	6	7

Ancillary Lab Measurements cont.

Ancillary Lab	Total # records overall	% cohort with at least 1 measure	Total # cases with baseline measure	% cohort with baseline & one other measure
<u>Miscellaneous CSF values</u>				
CSF-VDRL Test	37	11	3	4
<u>Miscellaneous Urine values</u>				
Urinalysis: Glucose	422	57	38	47
Urinalysis: Protein	427	57	38	47
Urinalysis: pH	422	57	38	47
Urinalysis: Specific Gravity	422	57	38	47
Urinalysis: Ketones	421	55	38	47
Urinalysis: Bilirubin	422	57	38	47
Urine Toxicology; Methamphetamine	143	21	12	16
Urinalysis: Red Blood Cells	245	49	23	28
Urinalysis: White Blood Cells	242	49	23	28