

The data presented in the following reports reflect the NNTC central database as of
November 2, 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+

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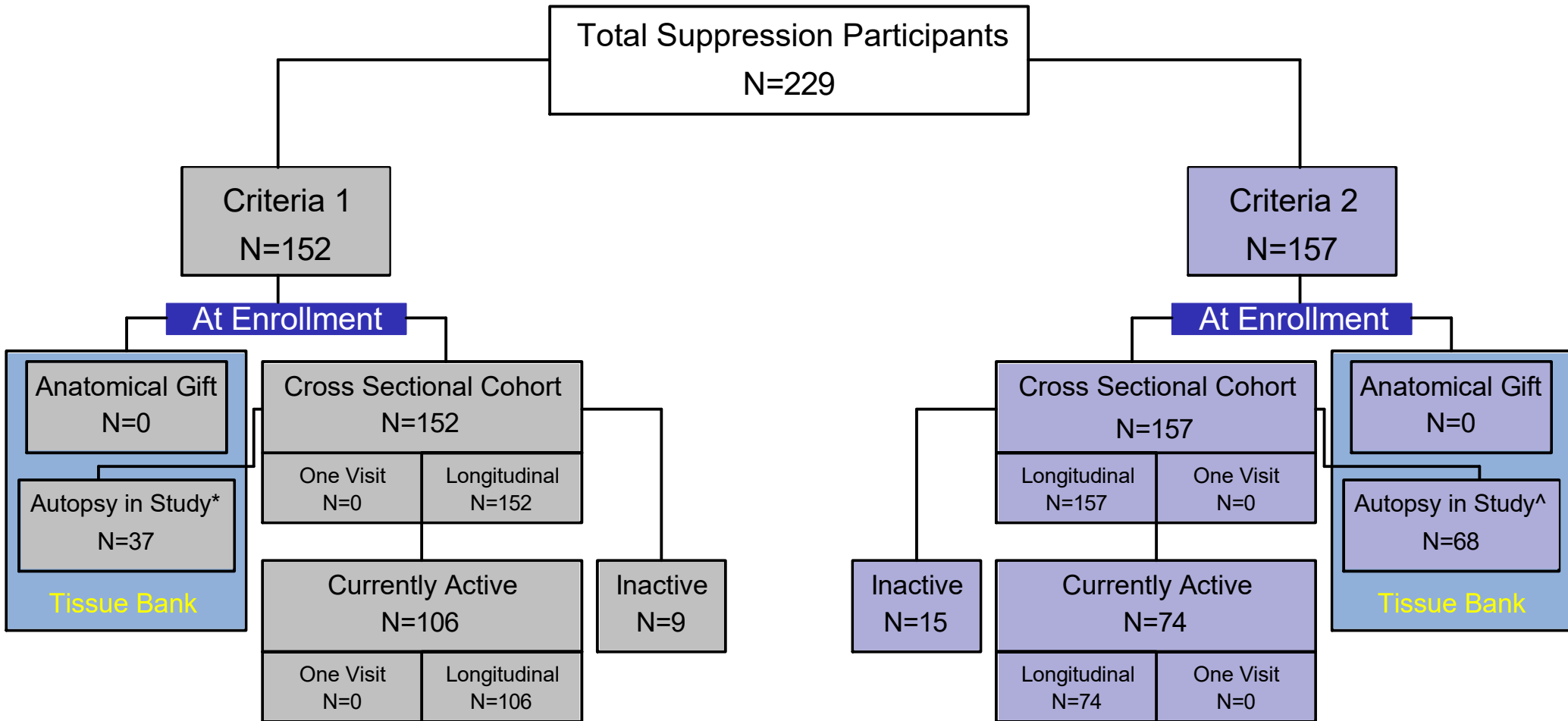
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Suppression Cohort Overview



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.

80 cases meet both criteria. 28 autopsy cases met 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Inactive cases are either lost to follow-up/administratively censored/withdrawn (N=0) or deceased without autopsy (N=21).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; 37 autopsy cases included in Longitudinal Cohort.

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

CNS Specimens Available

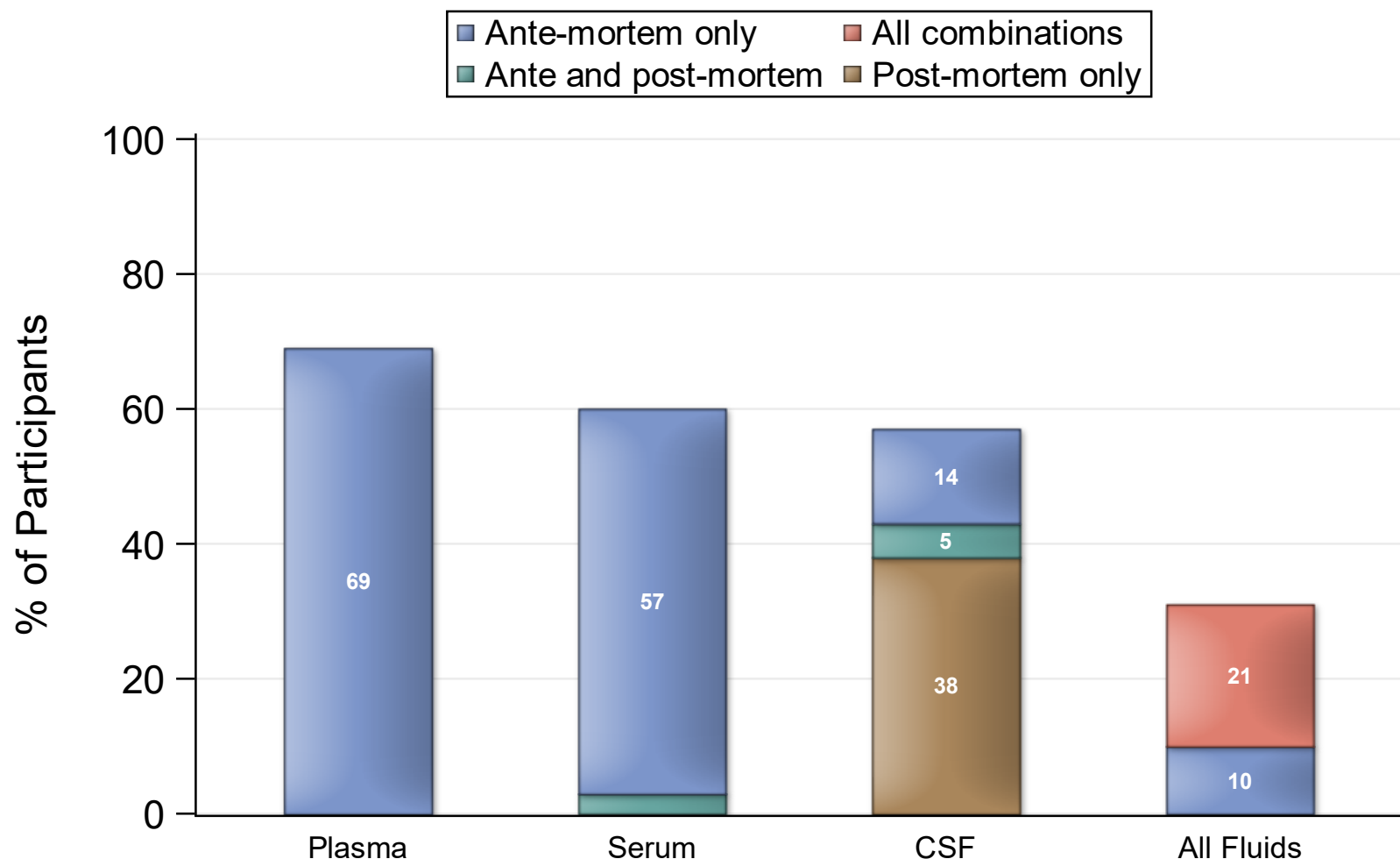
Type:	HIV +
Fixed Brain	77
Frozen Brain	73
Spinal Cord	70
Dorsal Root Ganglia	42
Frontal Lobe*	34
Parietal Lobe*	34
Occipital Lobe*	34
Temporal Lobe*	34
Thalamus*	34
Cerebellum*	33
Brain Stem*	32
Basal Ganglia*	31
Hippocampus*	30
Trigeminal Ganglia	27

*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	63
Kidney	63
Liver	62
Spleen	59
Lung	55
Peripheral Nerve	54
Adipose Tissue	48
Muscle	47
Bone Marrow	46
Lymph Node	43
Bowel	37
Pituitary Gland	32
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>77</u>
<u>Age</u>	
Mean	59.4
SD	8.8
25th Percentile	53
Median	59
75th Percentile	65

*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	59	77
Female	18	23
<u>Ethnicity</u>		
Hispanic origin	21	27
<u>Race</u>		
White	38	49
Black	30	39
Other	9	12

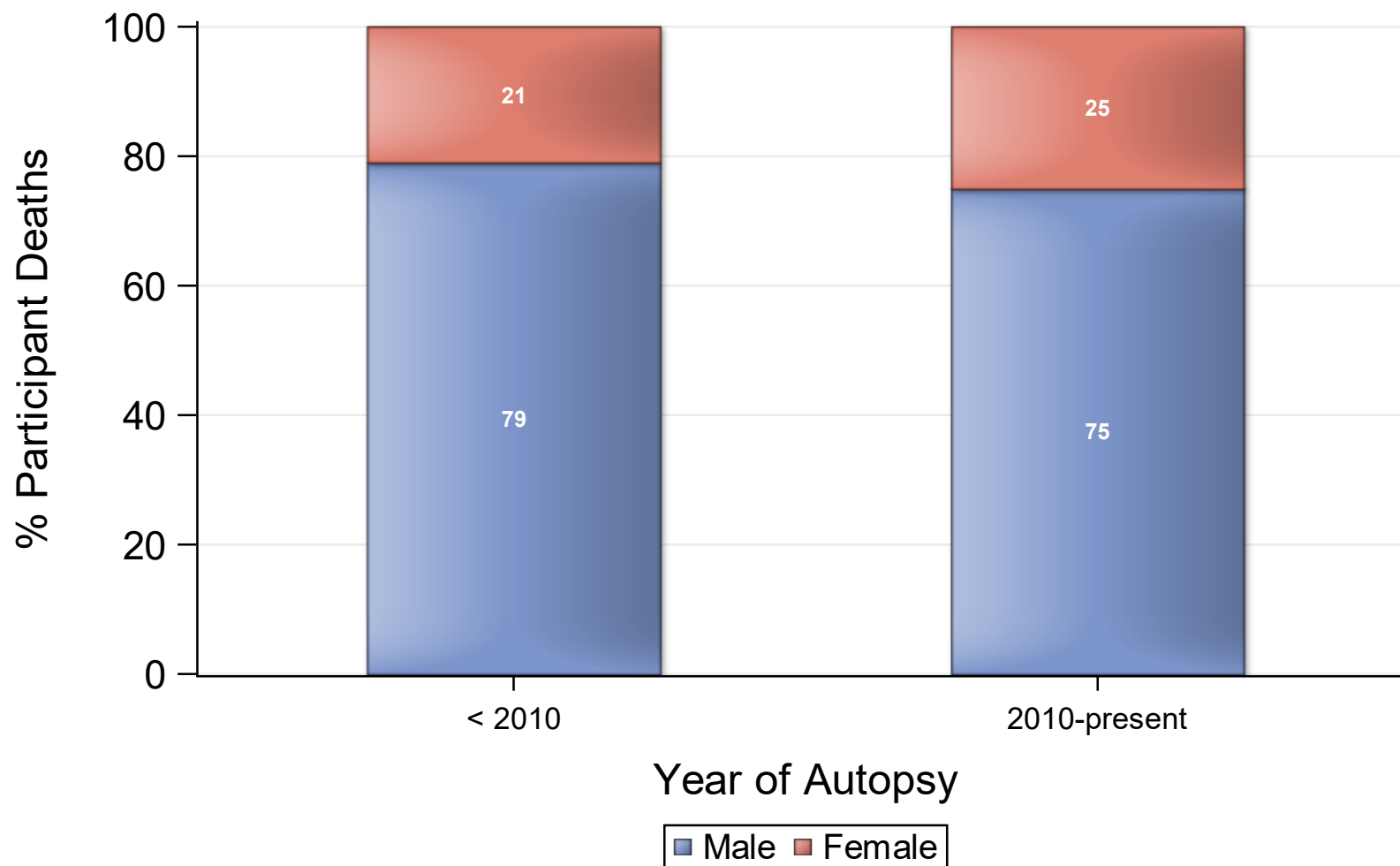
*Cases with a fixed brain specimen available.

Demographics cont.*

	<u>N</u>	<u>%</u>
<u>Furthest Education</u>		
8th grade or less	5	6
Some High School	18	23
High School Gradudate	16	21
Some College/Associate's Degree	25	32
College Graduate	5	6
Advanced Degree work	8	10

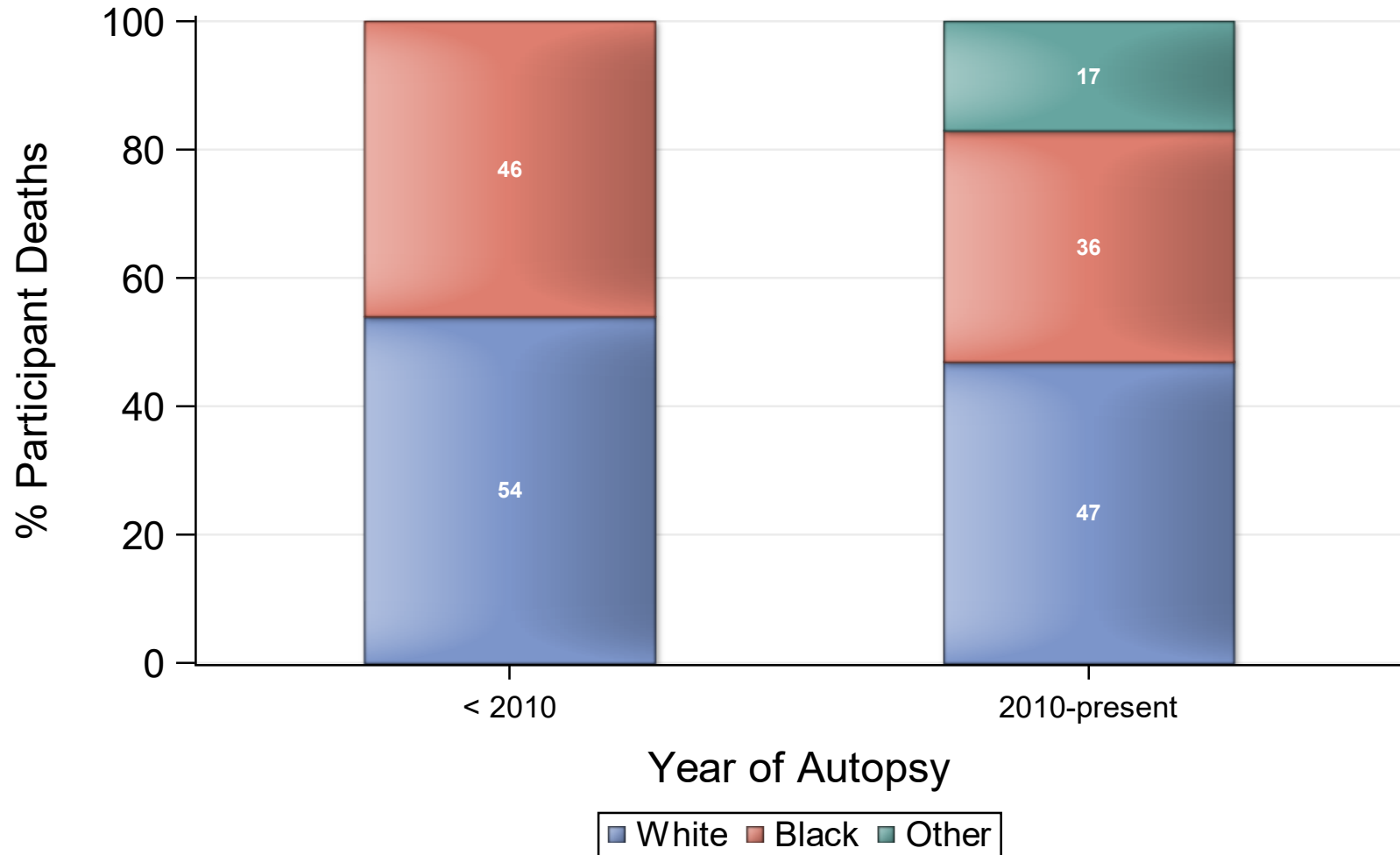
*Cases with a fixed brain specimen available.

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	32
Male to male sex	36	47
Heterosexual sex	16	21
<u>On ART</u>		
at baseline	75	97
at last visit	66	86

*Cases with a fixed brain specimen available.

*HIV Characteristics at time of death**

CD4 Count (N=71)

25th Percentile	197
Median	383
75th Percentile	580

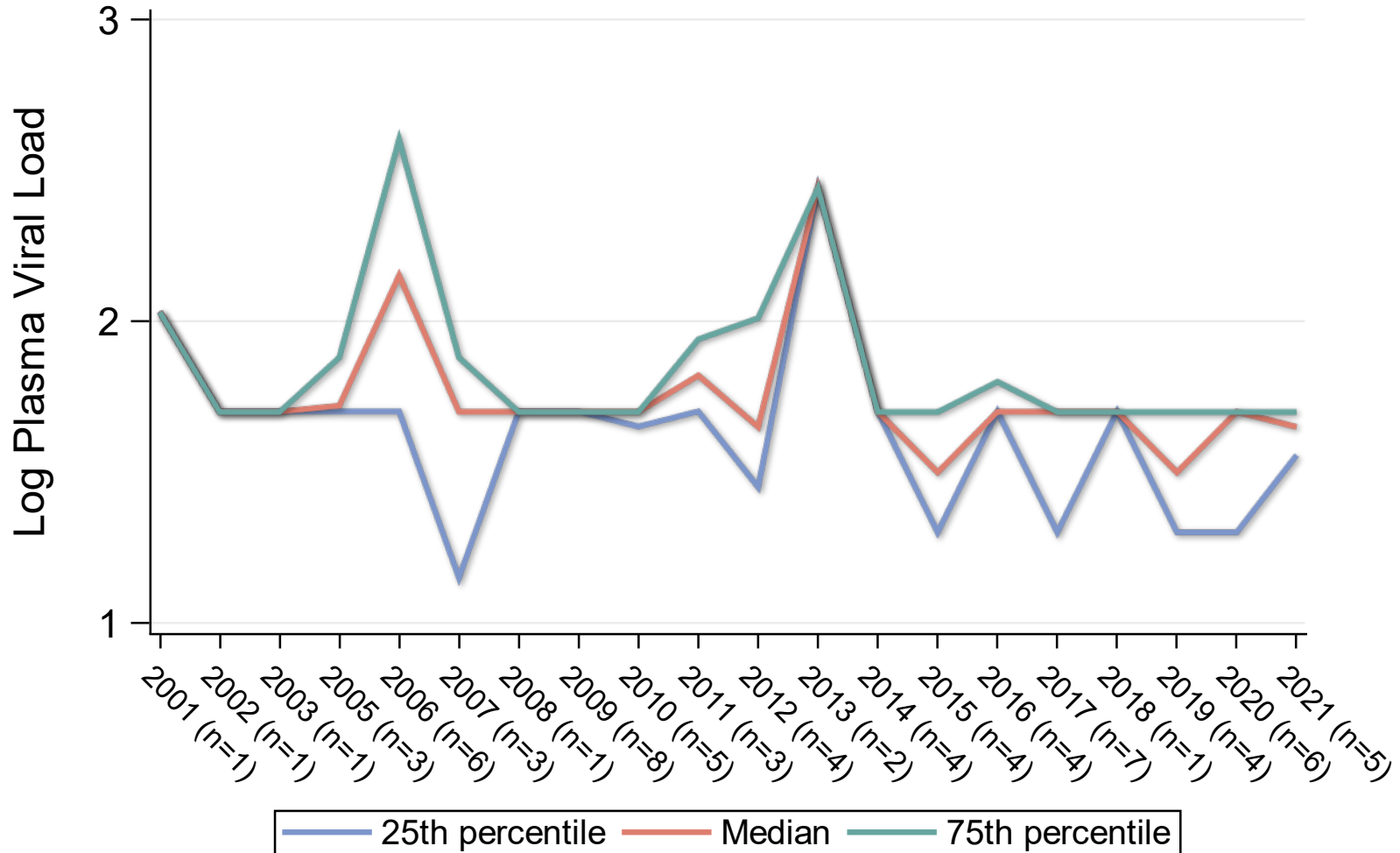
Log Plasma Viral Load** (N=68)

25th Percentile	1.65
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

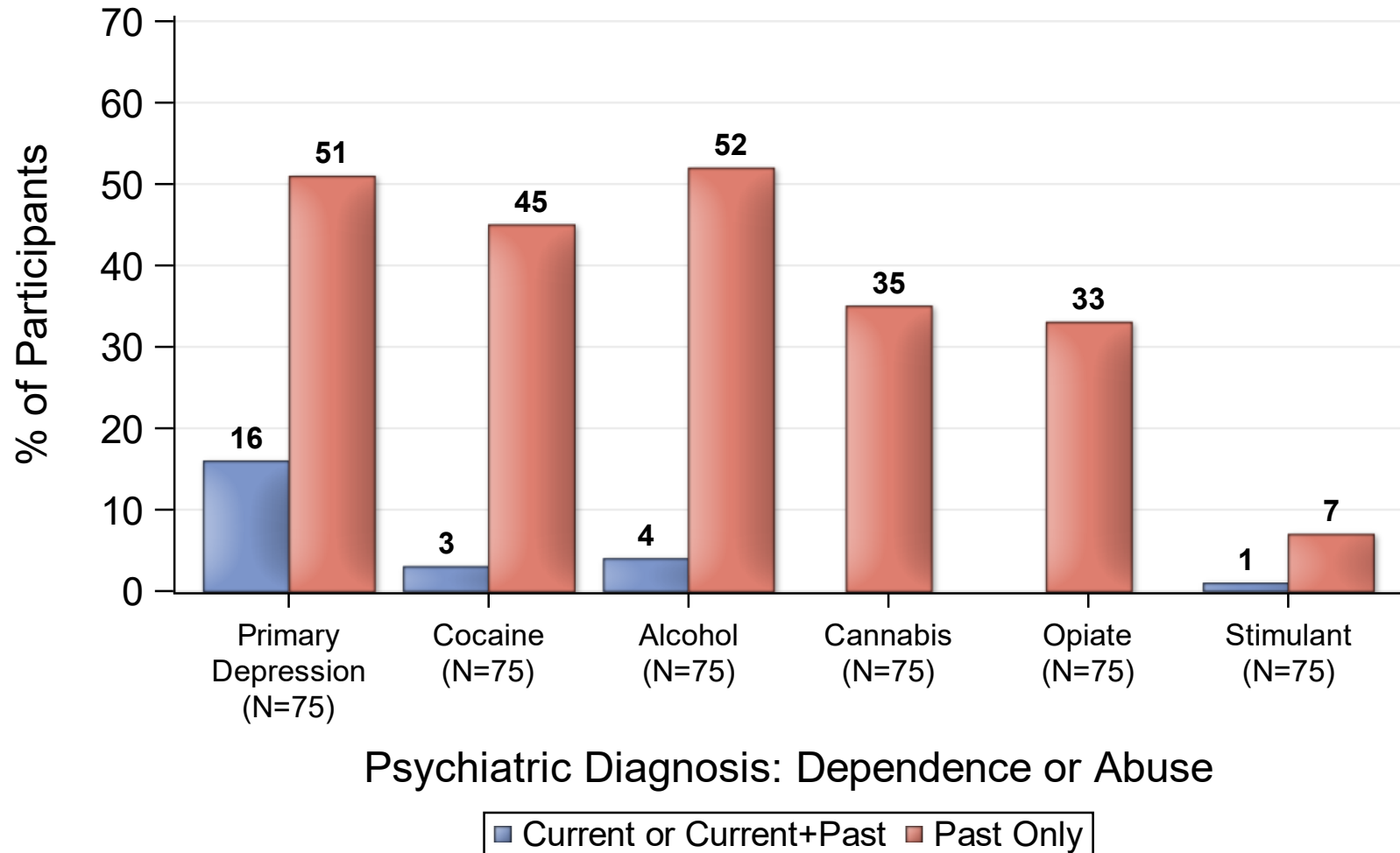


*Among those who have died during the cART era.

Pathological Conditions: Year of Autopsy

Type:	Year of Autopsy		
	< 2010	2010-present	Total Cases
<i>Total Fixed Specimens</i>	24	53	77
Normal/minor neuropath changes	7 (29)	6 (11)	13 (17)
Other non-infectious pathology	8 (33)	27 (53)	35 (45)
Alzheimer's type 2 gliosis	1 (4)	9 (18)	10 (13)
Focal infarct	7 (29)	17 (33)	24 (31)
HIV encephalitis	1 (4)	0	1 (1)
Hypoxic/ischemic damage	4 (17)	15 (28)	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)

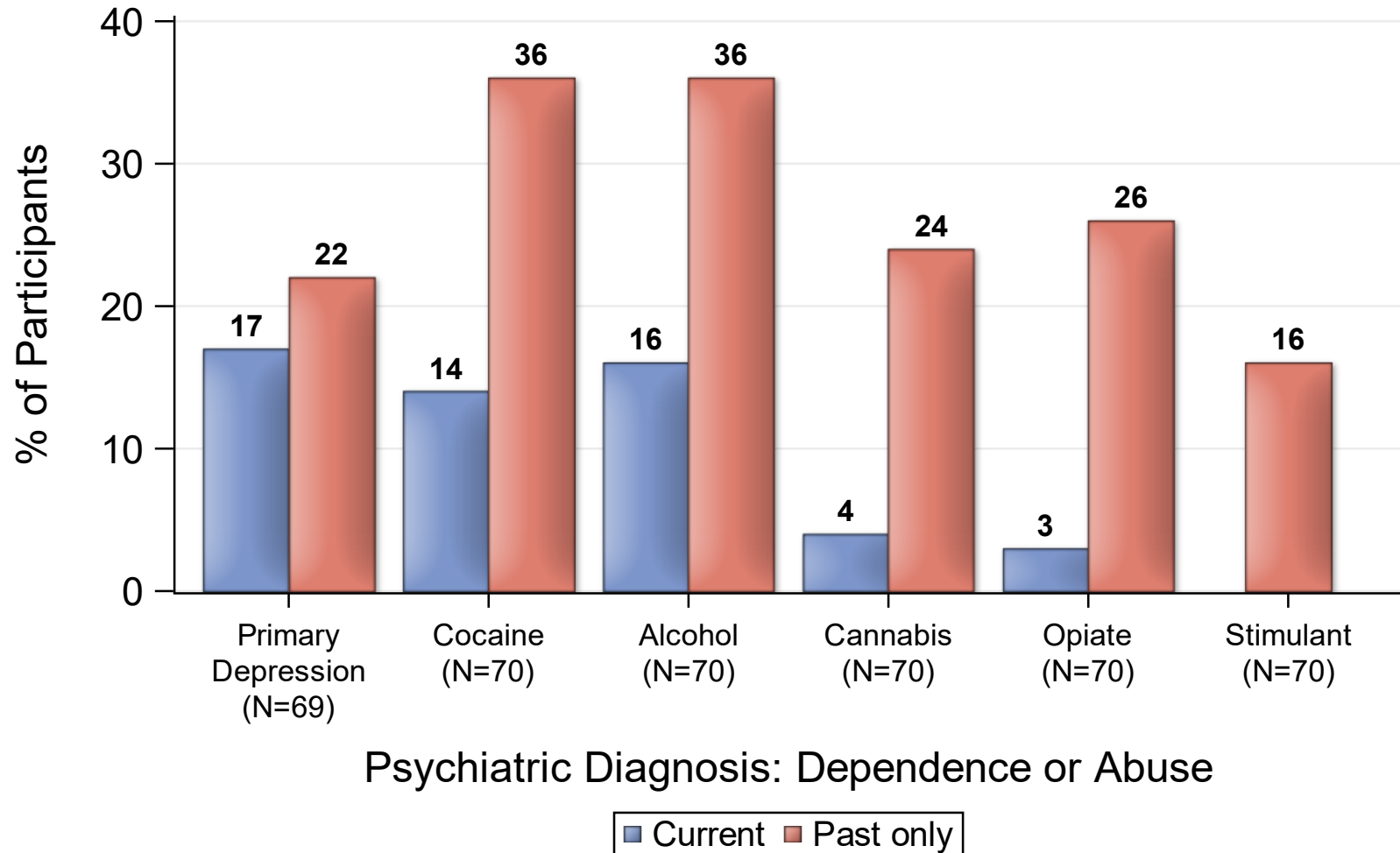
Last Psychiatric Diagnosis



64% 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.

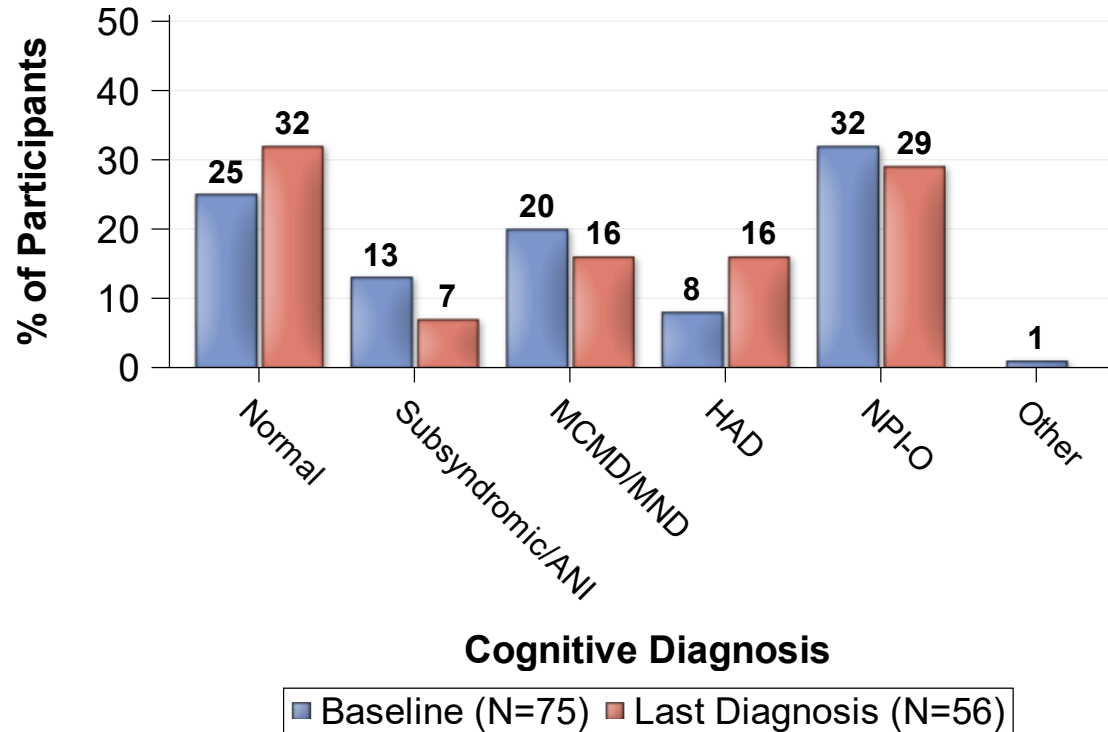
Baseline Psychiatric Diagnosis



20% 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.

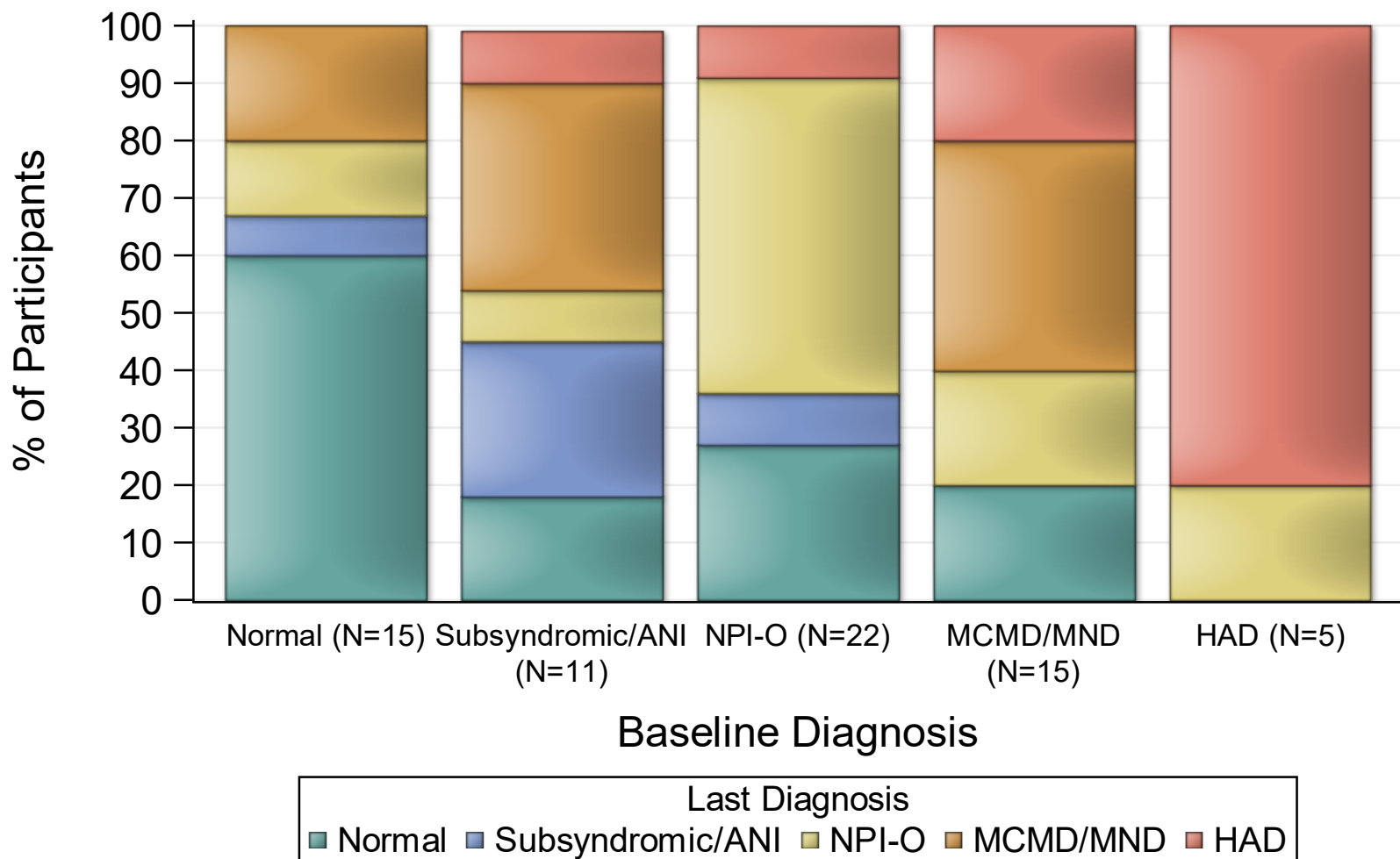
Cognitive Diagnosis



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=55)</u>		<u>(N=76)</u>	
HIV associated	4	7	4	5
Other	0	0	2	3
None	51	93	70	92
<u>Neuropathy</u>	<u>(N=49)</u>		<u>(N=65)</u>	
HIV associated DSP	32	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=76)	%
Central Nervous System Agents	72	94.7
Cardiovascular Drugs	66	86.8
Gastrointestinal Drugs	65	85.5
Vitamins	62	81.6
Anti-infective Agents	61	80.3
Hormones and Synthetic Substitutes	53	69.7
Electrolytic, Caloric, and Water Balance	50	65.8
Autonomic Drugs	44	57.9
Blood Formation, Coagulation, and Thrombosis Agents	39	51.3
Skin and Mucous Membrane Agents	37	48.7
Miscellaneous Therapeutic Agents	29	38.2
Antihistamine Drugs	28	36.8
Eye, Ear, Nose, and Throat (EENT) Preparations	25	32.9
Respiratory Tract Agents	21	27.6
Antineoplastic Agents	17	22.4
Pharmaceutical Aids	8	10.5
Local Anesthetics	7	9.2
Serums, Toxoids, and Vaccines	6	7.9
Smooth Muscle Relaxants	6	7.9
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	261	22	11	14
Mean Corpuscular Hemoglobin (MCH)	260	22	11	14
Mean Corpuscular Volume (MCV)	1194	73	50	65
Mean Corpuscular Hemoglobin Concentration (MCHC)	253	21	11	14
Blood Red cell Distribution Width (RDW)	214	18	4	5
Blood Rapid Plasma Reagin (RPR)	202	65	27	23
Blood Neutrophil Percent	1104	68	43	56
Blood Lymphocyte Percent	1163	71	50	65
Blood Monocyte Percent	1150	71	50	65
Blood Eosinophil Percent	1147	71	50	65
Blood Basophil Percent	1138	71	48	62
Blood Mean Platelet Volume (MPV)	169	14	4	5
Blood CD3 Percent	79	13	9	10
Blood CD3 Absolute	30	9	2	1
Miscellaneous Serology & viral loads				
Blood Hepatitis B Surface Antigens	128	64	36	27
Blood Hepatitis B Surface Antibodies	110	53	29	25
Blood Hepatitis B Core Antibodies	109	56	29	21
Blood Hepatitis B Viral Load	19	9	2	3
Blood Hepatitis C Antibodies (HCV)	183	87	46	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	71	49	64
Hemoglobin A1c	249	57	13	14
Sodium	1077	77	49	64
Calcium	1024	70	47	61
Chloride	1043	77	47	61
Potassium	1061	77	47	61
Total Protein	895	75	45	58
Alkaline Phosphatase	895	71	45	58
AST	875	71	42	55
ALT	890	71	44	57
Total Bilirubin	940	78	49	64
Direct Bilirubin	101	13	6	8
Creatinine	1280	95	60	75
BUN	1069	75	47	61
CO2	1037	71	46	60
PT	519	57	39	51
INR	518	57	39	51
Urate	46	10	5	5
Triglycerides	395	74	29	35
Cholesterol	401	74	30	36
LDL	341	69	25	29
HDL	349	70	26	30
Phosphorus	128	16	7	8
LDH	58	12	6	6

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	10	3	4
<u>Miscellaneous Urine values</u>				
Urinalysis: Glucose	422	56	38	47
Urinalysis: Protein	427	56	38	47
Urinalysis: pH	423	56	38	47
Urinalysis: Specific Gravity	422	56	38	47
Urinalysis: Ketones	421	55	38	47
Urinalysis: Bilirubin	422	56	38	47
Urine Toxicology; Methamphetamine	143	21	12	16
Urinalysis: Red Blood Cells	245	48	23	27
Urinalysis: White Blood Cells	242	48	23	27