

The data presented in the following reports reflect the NNTC central database as of
June 25, 2021

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 (%)

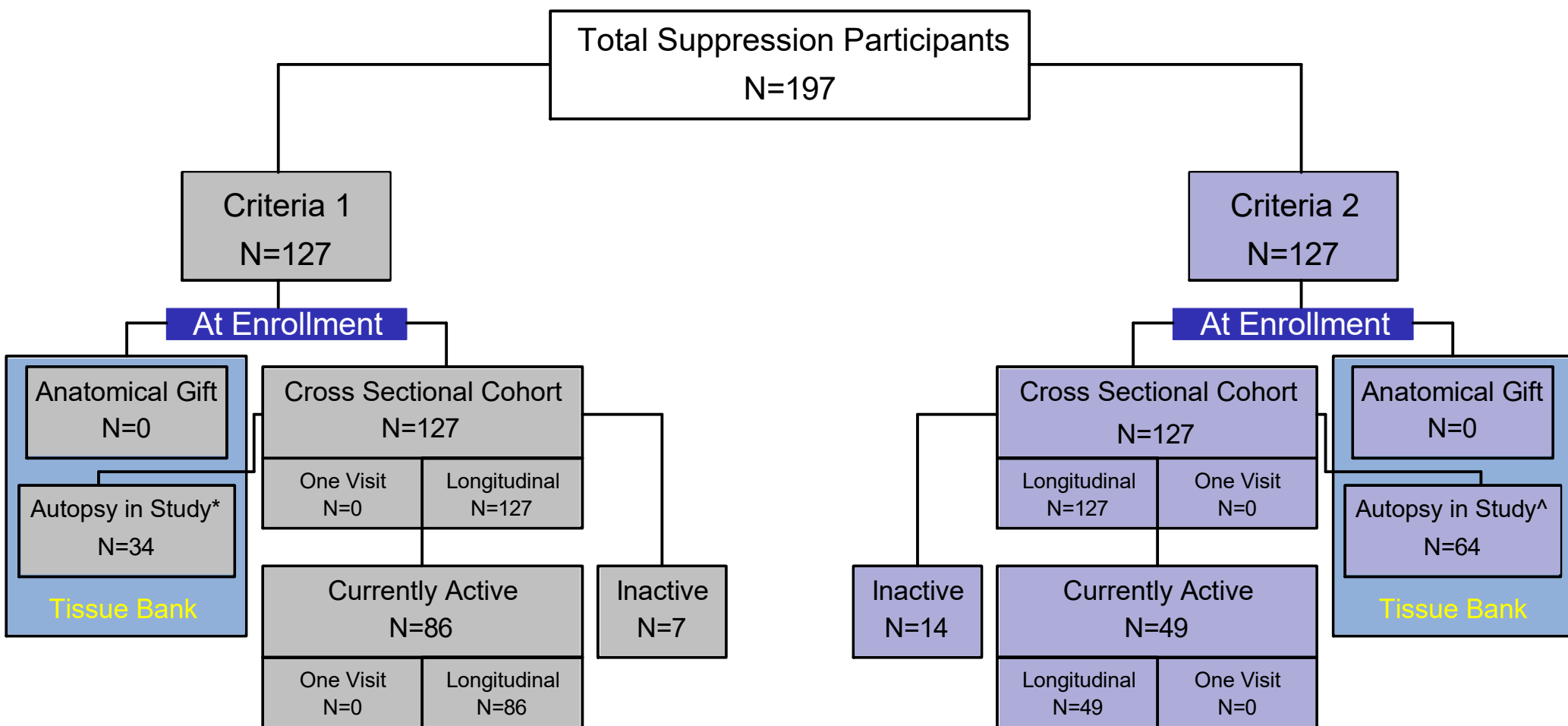
Change in Cognitive Diagnosis

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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.

57 cases meet both criteria.

Inactive cases are either lost to follow-up/administratively censored/withdrawn (N=0) or deceased without autopsy (N=18).

* 0 autopsy cases included in Cross Sectional Cohort; 34 autopsy cases included in Longitudinal Cohort.

^ 0 autopsy cases included in Cross Sectional Cohort; 64 autopsy cases included in Longitudinal Cohort.

CNS Specimens Available

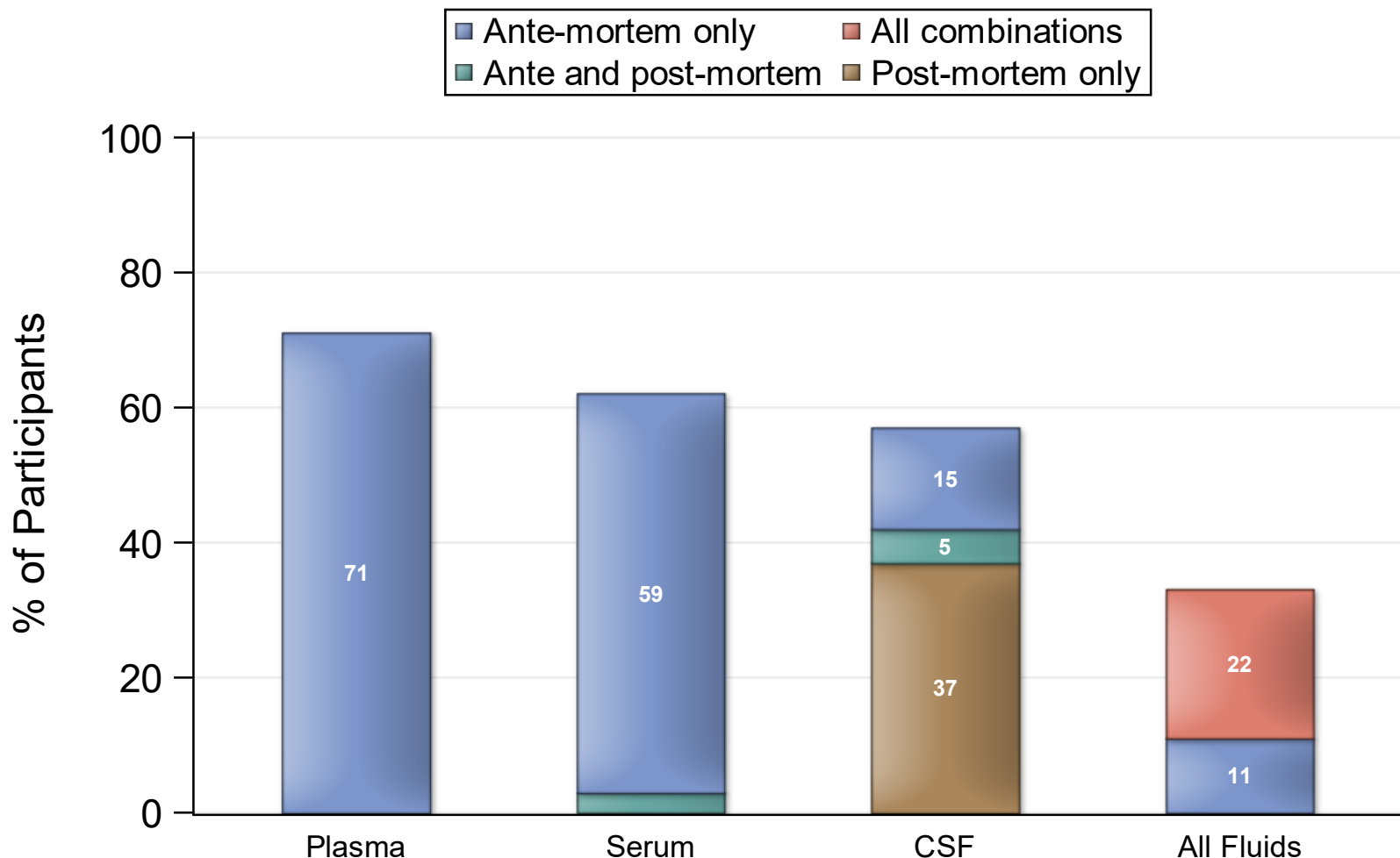
Type:	HIV +
Fixed Brain	73
Frozen Brain	70
Spinal Cord	68
Dorsal Root Ganglia	41
Frontal Lobe*	31
Parietal Lobe*	31
Occipital Lobe*	31
Temporal Lobe*	31
Thalamus*	31
Cerebellum*	30
Brain Stem*	29
Basal Ganglia*	28
Hippocampus*	27
Trigeminal Ganglia	25

*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 +
Liver	60
Heart	60
Kidney	60
Spleen	56
Lung	52
Peripheral Nerve	51
Adipose Tissue	48
Muscle	46
Bone Marrow	45
Lymph Node	43
Bowel	36
Pituitary Gland	30
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>73</u>
<u>Age</u>	
Mean	58.8
SD	8.5
25th Percentile	53
Median	59
75th Percentile	64

*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	56	77
Female	17	23
<u>Ethnicity</u>		
Hispanic origin	20	27
<u>Race</u>		
White	36	49
Black	29	40
Other	8	11

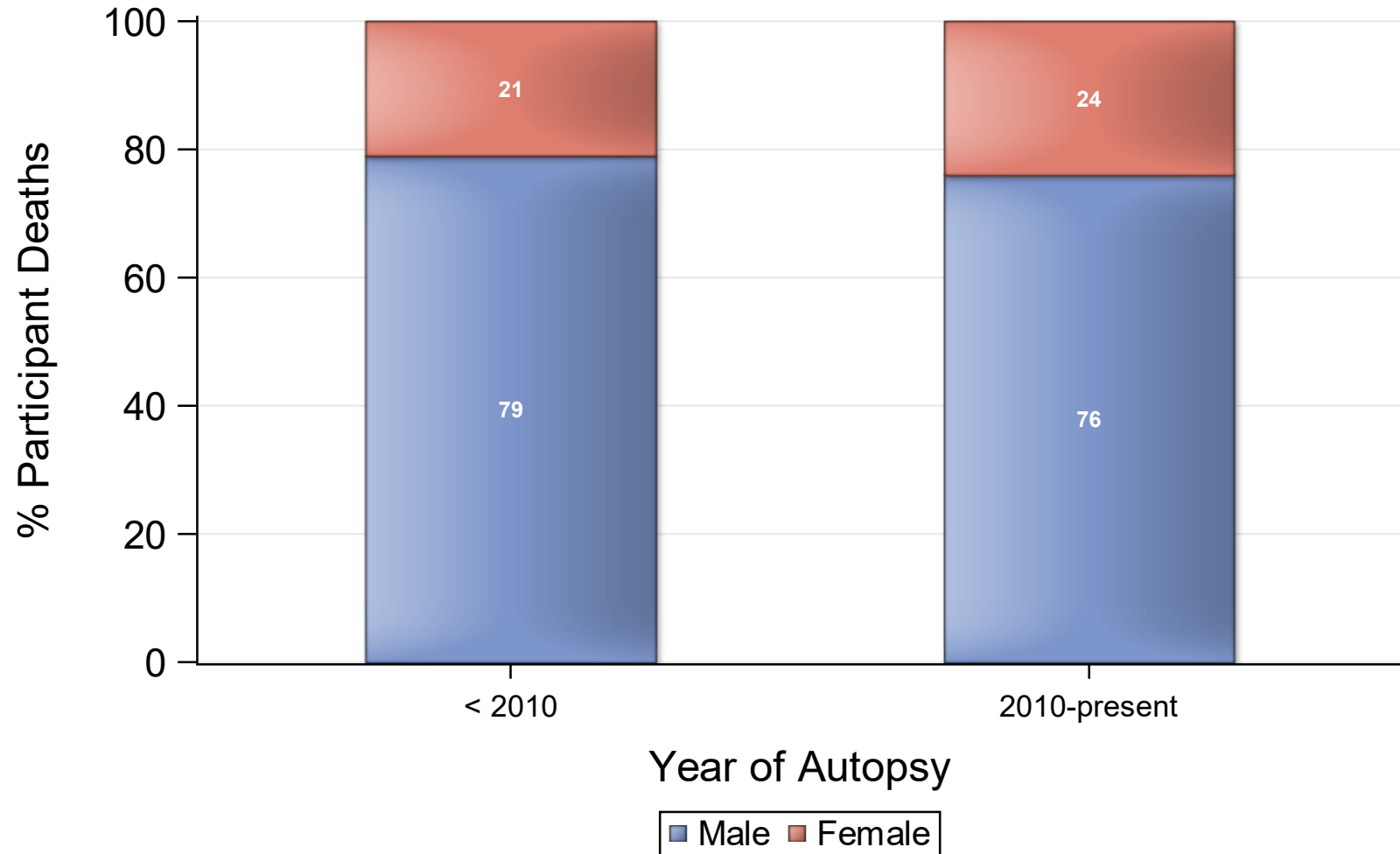
*Cases with a fixed brain specimen available.

Demographics cont.*

	<u>N</u>	<u>%</u>
<u>Furthest Education</u>		
8th grade or less	5	7
Some High School	18	25
High School Gradudate	16	22
Some College/Associate's Degree	22	30
College Graduate	5	7
Advanced Degree work	7	10

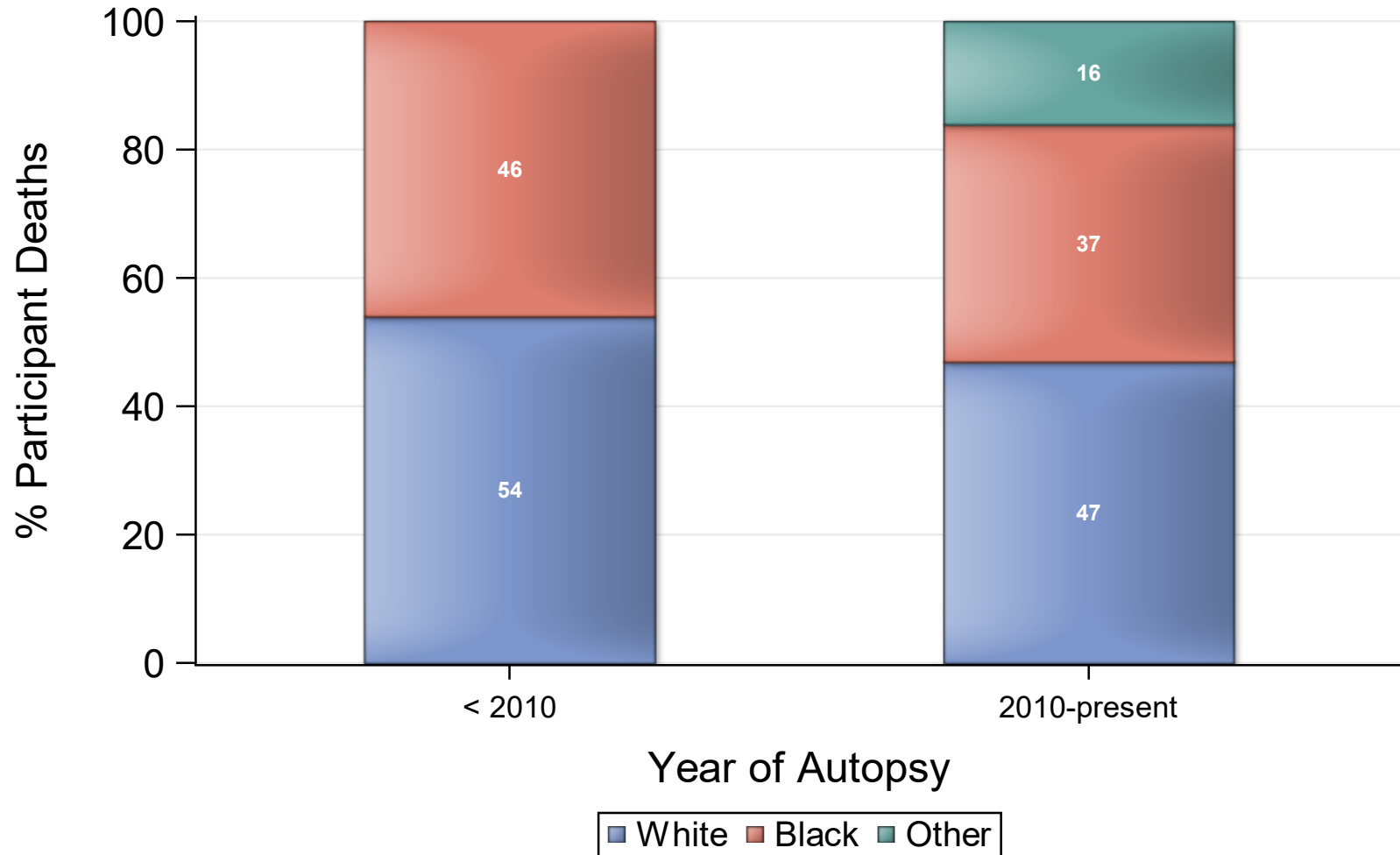
*Cases with a fixed brain specimen available.

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	24	33
Male to male sex	34	47
Heterosexual sex	15	21
<u>On ART</u>		
at baseline:	59	81
at last visit:	51	70

*Cases with a fixed brain specimen available.

*HIV Characteristics at time of death**

CD4 Count (N=68)

25th Percentile	210.5
Median	387
75th Percentile	589

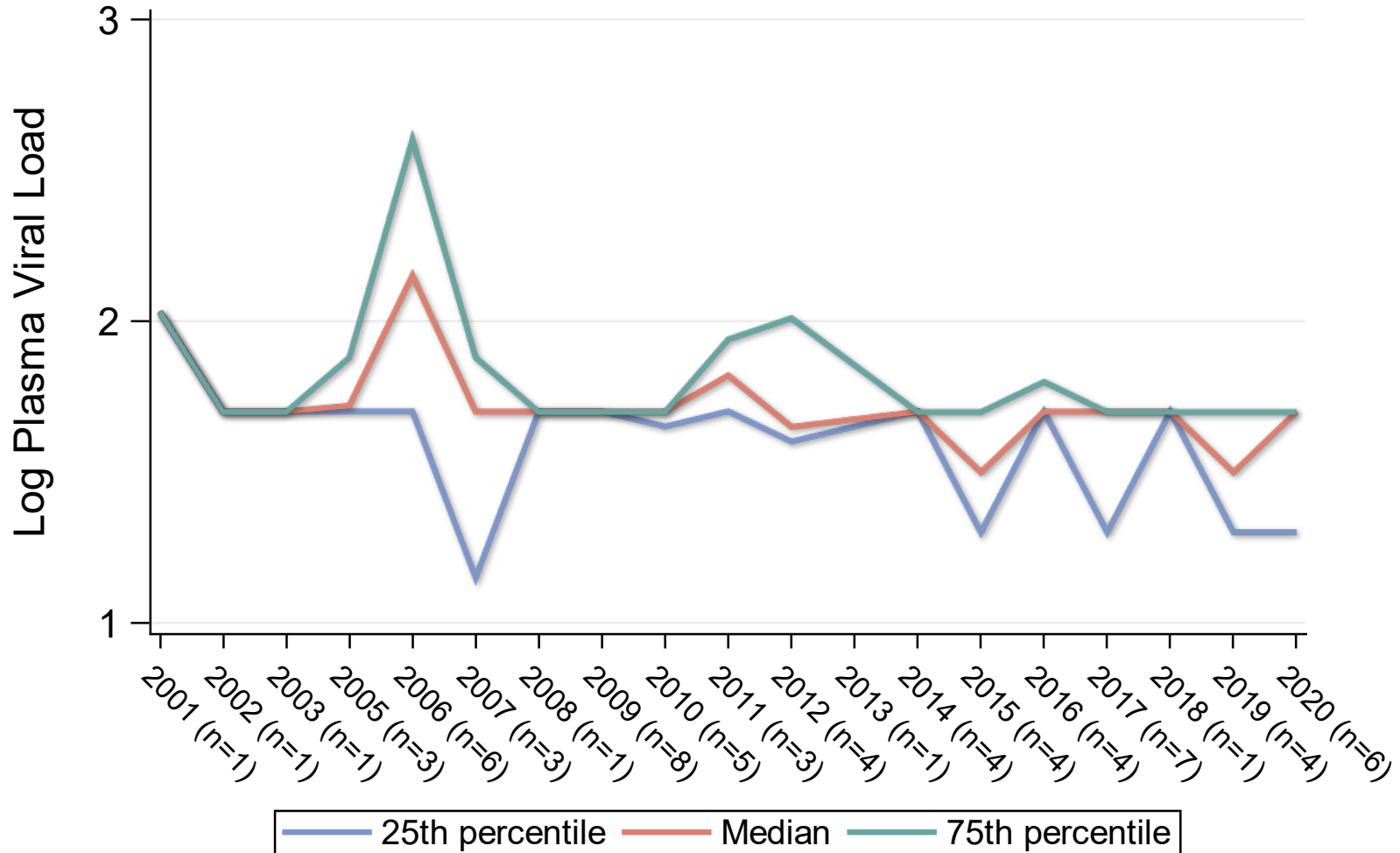
Log Plasma Viral Load** (N=65)

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. 6 participants had detectable VL values of 0 where a viral log could not otherwise be calculated.

cART Era Viral Load

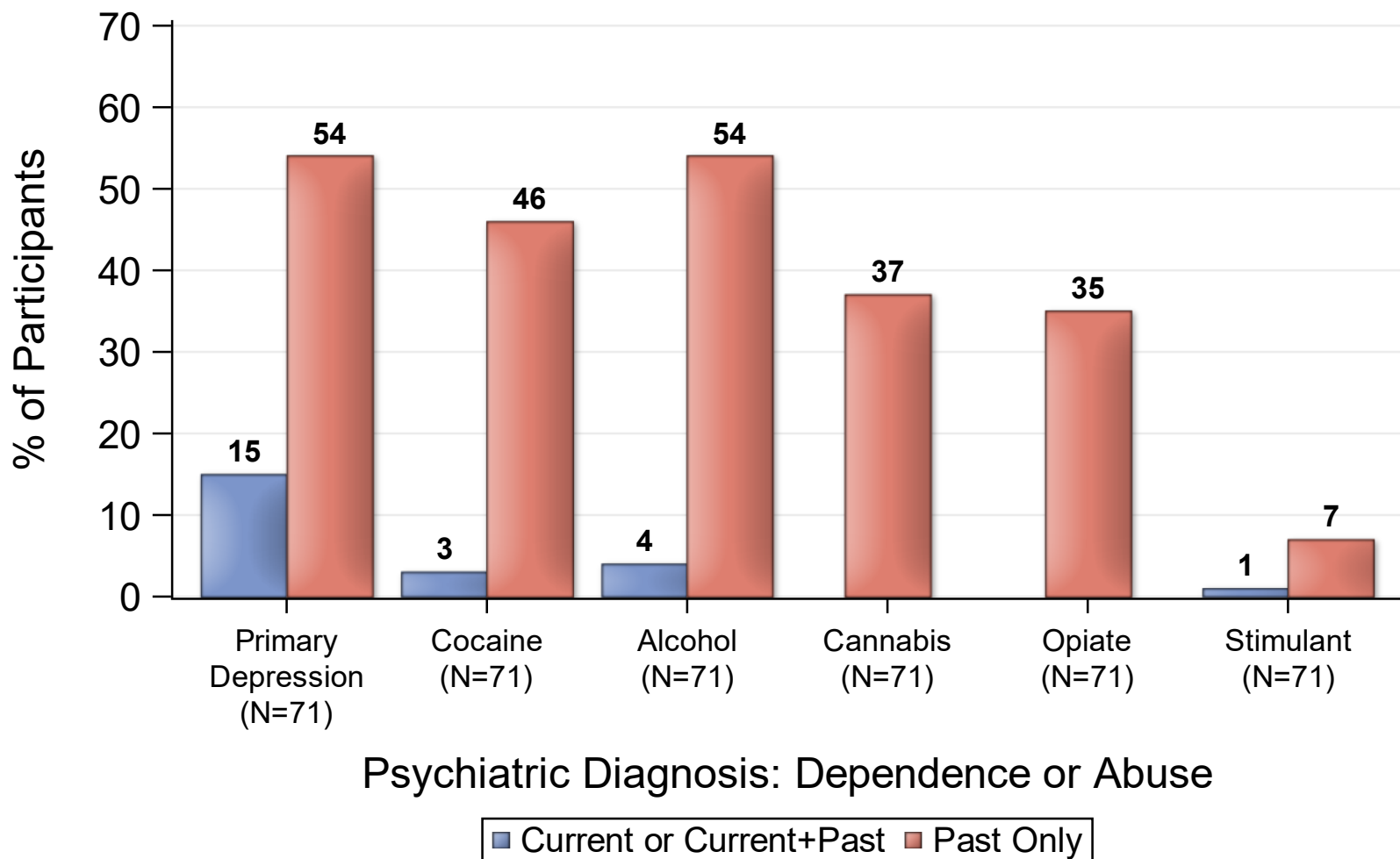


*Among those who have died during the cART era.

Pathological Conditions: Year of Autopsy

Type:	Year of Autopsy		
	< 2010	2010-present	Total Cases
<i>Total Fixed Specimens</i>	24	48	72
Normal/minor neuropath changes	7 (29)	5 (10)	12 (17)
Other non-infectious pathology	8 (33)	27 (56)	35 (49)
Alzheimer's type 2 gliosis	1 (4)	9 (19)	10 (14)
Focal infarct	7 (29)	16 (33)	23 (32)
HIV encephalitis	1 (4)	0	1 (1)
Hypoxic/ischemic damage	4 (17)	14 (29)	18 (25)
Aseptic Leptomeningitis	2 (8)	9 (19)	11 (15)
Microglial nodule encephalitis	0	1 (2)	1 (1)
Hemorrhage-parenchymal	0	5 (10)	5 (7)
Progressive Multifocal Leukoencephalopathy	0	1 (2)	1 (1)
Other infections	0	3 (6)	3 (4)

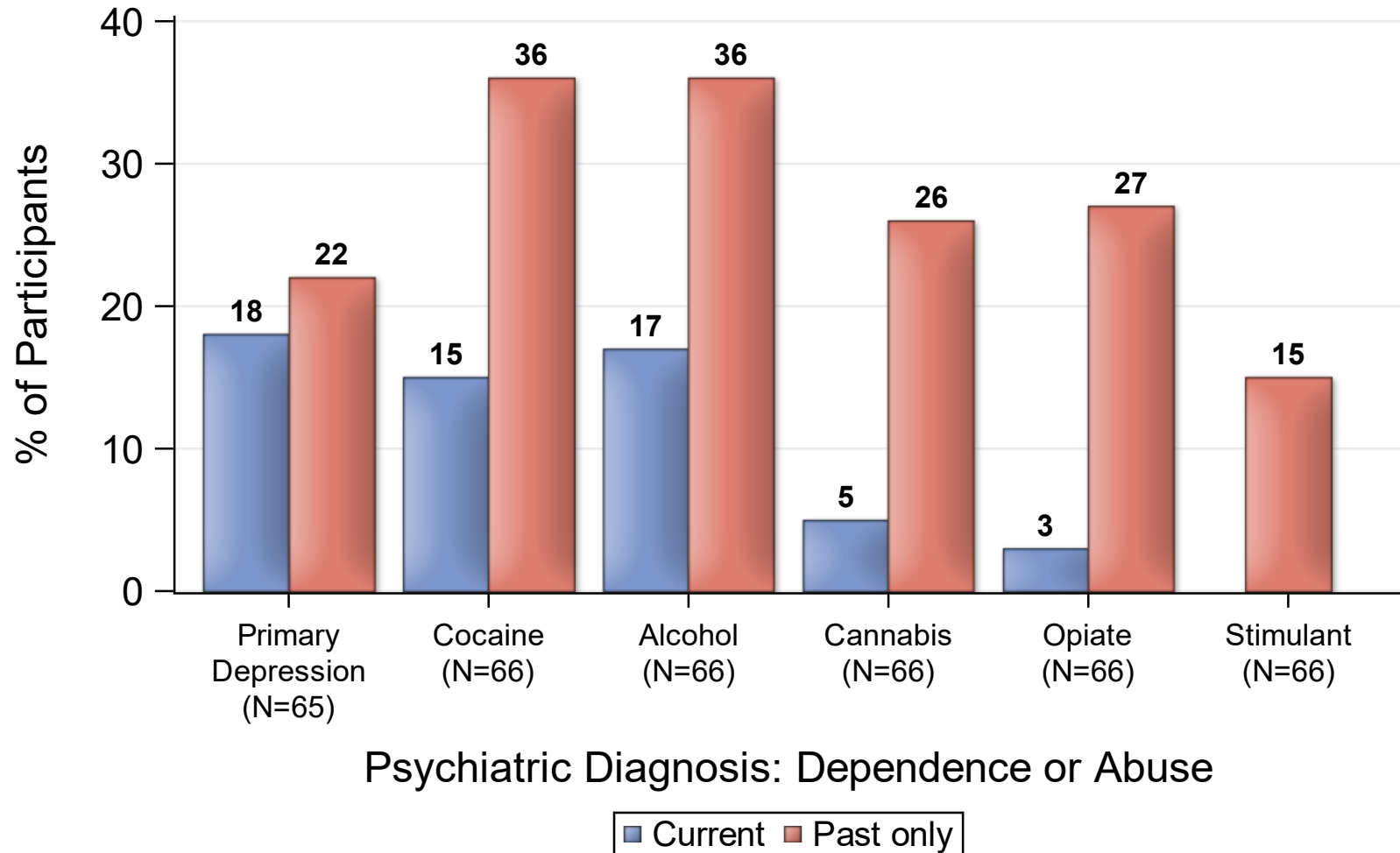
Last Psychiatric Diagnosis



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.

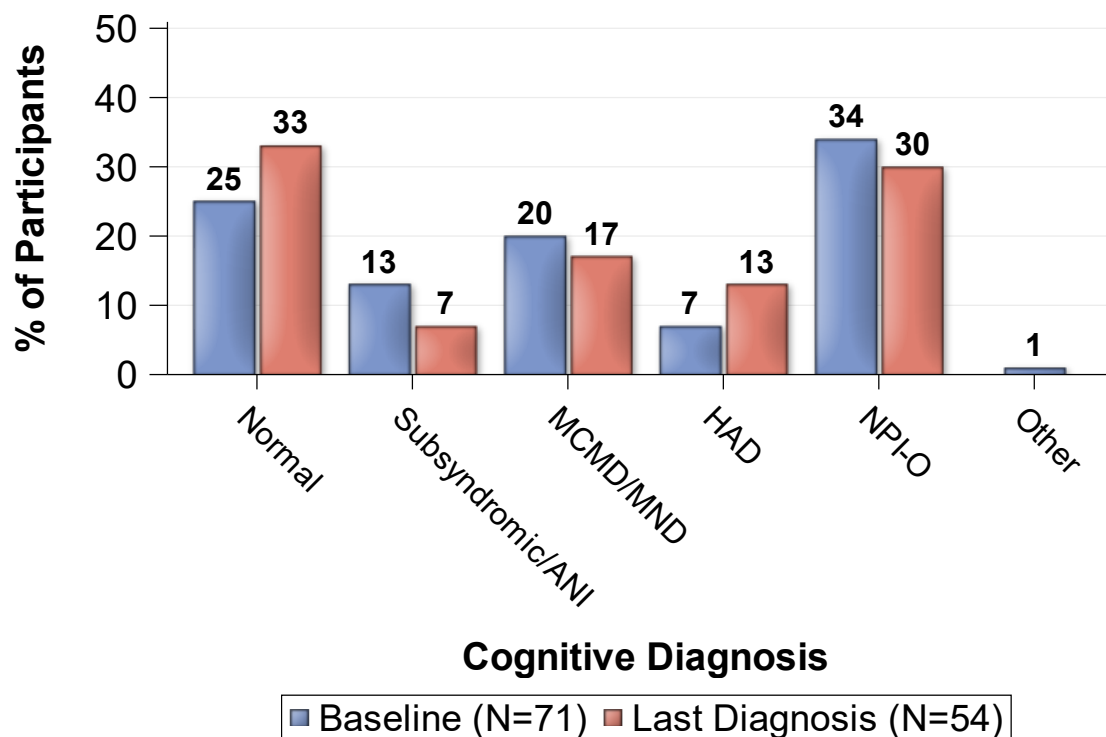
Baseline Psychiatric Diagnosis



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.

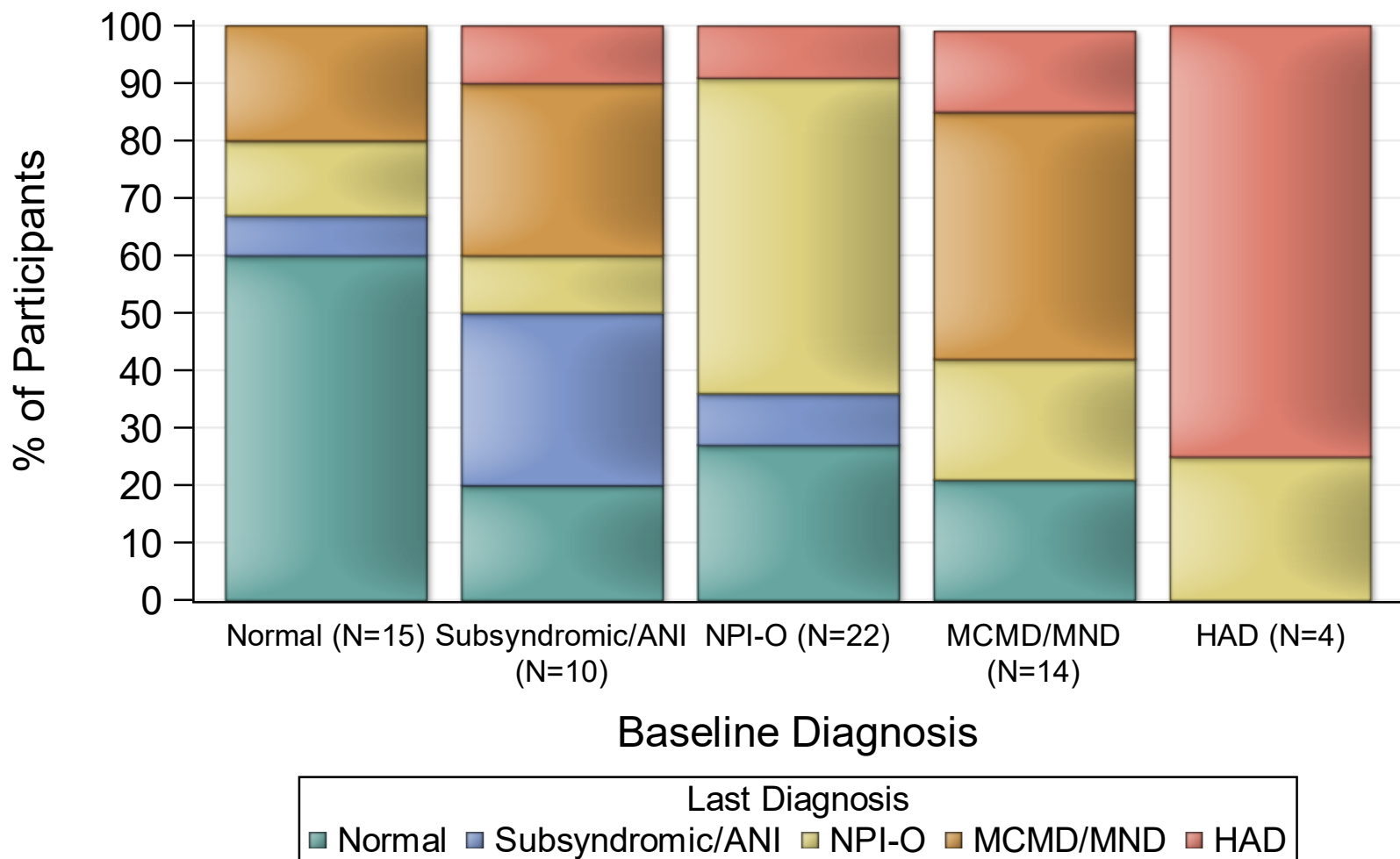
Cognitive Diagnosis



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=53)</u>		<u>(N=72)</u>	
HIV associated	4	8	4	6
Other	0	0	2	3
None	49	92	66	92
<u>Neuropathy</u>	<u>(N=48)</u>		<u>(N=63)</u>	
HIV associated DSP	31	65	28	44
HIV/nucleoside	4	8	4	6
None	13	27	31	49

*Cases with a fixed brain specimen available.

Participants Reporting Concomitant Medications

Medication	# of Pts (N=70)	%
Central Nervous System Agents	67	95.7
Cardiovascular Drugs	59	84.3
Gastrointestinal Drugs	58	82.9
Anti-infective Agents	57	81.4
Vitamins	52	74.3
Hormones and Synthetic Substitutes	47	67.1
Electrolytic, Caloric, and Water Balance	45	64.3
Autonomic Drugs	41	58.6
Blood Formation, Coagulation, and Thrombosis Agents	35	50
Skin and Mucous Membrane Agents	32	45.7
Antihistamine Drugs	25	35.7
Miscellaneous Therapeutic Agents	22	31.4
Eye, Ear, Nose, and Throat (EENT) Preparations	21	30
Respiratory Tract Agents	17	24.3
Antineoplastic Agents	14	20
Pharmaceutical Aids	8	11.4
Local Anesthetics	6	8.6
Smooth Muscle Relaxants	6	8.6
Serums, Toxoids, and Vaccines	5	7.1
No medication use reported on at least one occasion	4	5.7

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
<u>Miscellaneous Hematology</u>				
Red blood cells	253	22	11	15
Mean Corpuscular Hemoglobin (MCH)	253	22	11	15
Mean Corpuscular Volume (MCV)	1169	74	49	67
Mean Corpuscular Hemoglobin Concentration (MCHC)	253	22	11	15
Blood Red cell Distribution Width (RDW)	207	18	4	5
Blood Rapid Plasma Reagin (RPR)	166	63	24	21
Blood Neutrophil Percent	1085	68	42	58
Blood Lymphocyte Percent	1136	73	49	67
Blood Monocyte Percent	1130	73	49	67
Blood Eosinophil Percent	1127	73	49	67
Blood Basophil Percent	1118	73	47	64
Blood Mean Platelet Volume (MPV)	163	14	4	5
Blood CD3 Percent	78	12	8	11
Blood CD3 Absolute	29	8	1	1
<u>Miscellaneous Serology & viral loads</u>				
Blood Hepatitis B Surface Antigens	120	63	35	29
Blood Hepatitis B Surface Antibodies	106	53	28	25
Blood Hepatitis B Core Antibodies	105	56	28	22
Blood Hepatitis B Viral Load	19	10	2	3
Blood Hepatitis C Antibodies (HCV)	165	86	43	34
Blood Hepatitis C Viral Load	78	40	12	14
<u>Miscellaneous Serology & viral loads</u>				
COVID-19 Test Results (qualitative)	6	4	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	1097	74	48	66
Hemoglobin A1c	203	55	12	14
Sodium	1047	78	48	66
Calcium	1005	73	46	63
Chloride	1013	78	46	63
Potassium	1030	78	46	63
Total Protein	869	77	44	60
Alkaline Phosphatase	875	74	44	60
AST	856	74	41	56
ALT	870	74	43	59
Total Bilirubin	908	78	47	64
Direct Bilirubin	100	12	6	8
Creatinine	1190	96	57	75
BUN	1043	77	46	63
CO2	1017	74	45	62
PT	501	58	38	52
INR	499	58	38	52
Urate	46	11	5	5
Triglycerides	354	73	26	33
Cholesterol	360	73	27	34
LDL	301	67	22	26
HDL	308	68	23	27
Phosphorus	125	15	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	35	11	3	4
<u>Miscellaneous Urine values</u>				
Urinalysis: Glucose	412	58	37	48
Urinalysis: Protein	417	58	37	48
Urinalysis: pH	412	58	37	48
Urinalysis: Specific Gravity	412	58	37	48
Urinalysis: Ketones	412	58	37	48
Urinalysis: Bilirubin	412	58	37	48
Urine Toxicology; Methamphetamine	144	22	13	18
Urinalysis: Red Blood Cells	245	51	23	29
Urinalysis: White Blood Cells	242	51	23	29