

The data presented in the following reports reflect the NNTC central database as of
March 1, 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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Peripheral Specimens Available

Fluids Available (%)

Demographics

cART Era Demographics

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Cognitive Diagnosis (%)

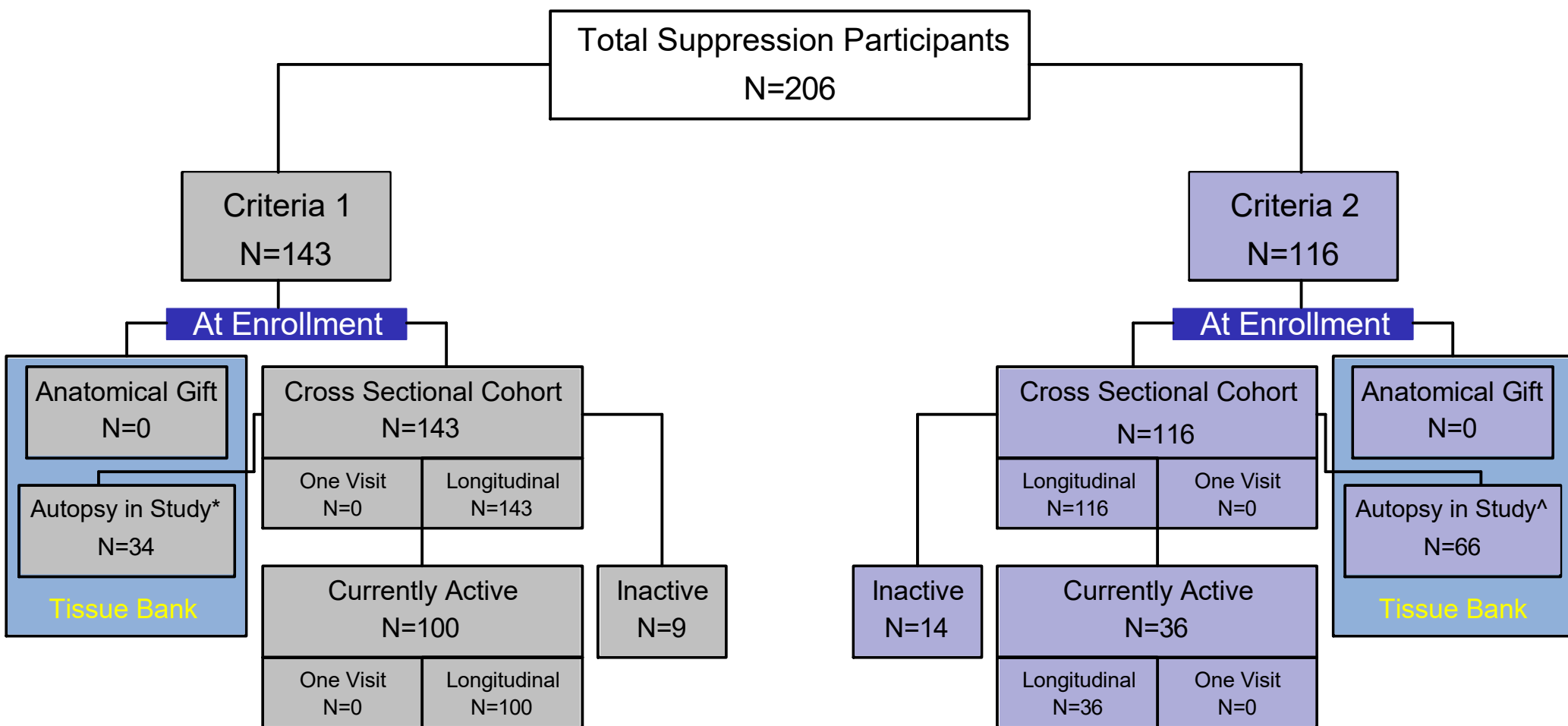
Change in Cognitive Diagnosis

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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.

53 cases meet both criteria.

Inactive cases are either lost to follow-up/administratively censored/withdrawn (N=0) or deceased without autopsy (N=20).

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

^0 autopsy cases included in Cross Sectional Cohort; 66 autopsy cases included in Longitudinal Cohort.

CNS Specimens Available

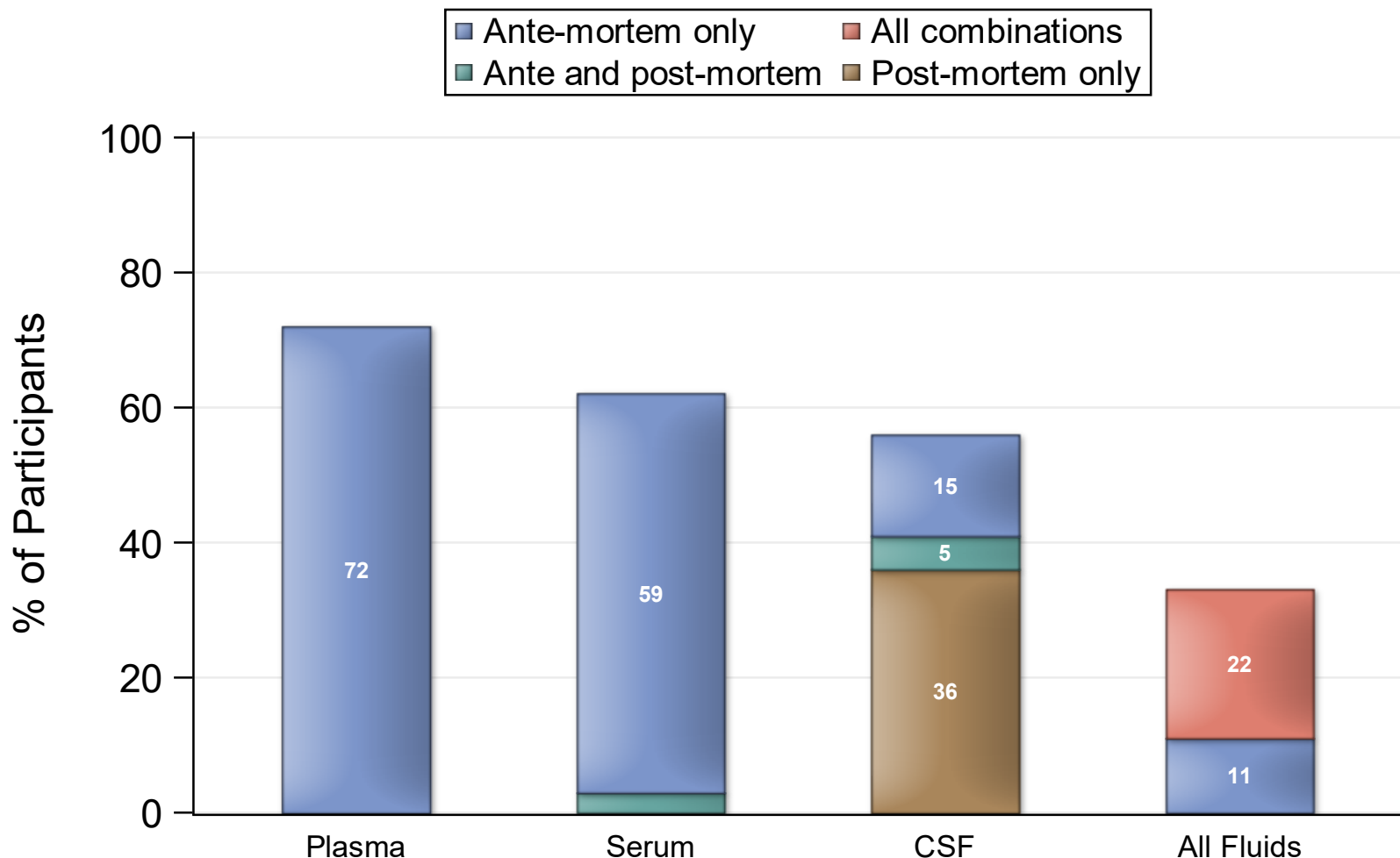
Type:	HIV +
Fixed Brain	74
Frozen Brain	71
Spinal Cord	69
Dorsal Root Ganglia	42
Frontal Lobe*	31
Parietal Lobe*	31
Occipital Lobe*	31
Temporal Lobe*	31
Thalamus*	31
Cerebellum*	30
Brain Stem*	29
Basal Ganglia*	28
Hippocampus*	27
Trigeminal Ganglia	26

*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	61
Kidney	61
Liver	60
Spleen	57
Lung	53
Peripheral Nerve	52
Adipose Tissue	48
Bone Marrow	46
Muscle	46
Lymph Node	42
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>74</u>
<u>Age</u>	
Mean	58.9
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	57	77
Female	17	23
<u>Ethnicity</u>		
Hispanic origin	20	27
<u>Race</u>		
White	37	50
Black	29	39
Other	8	11

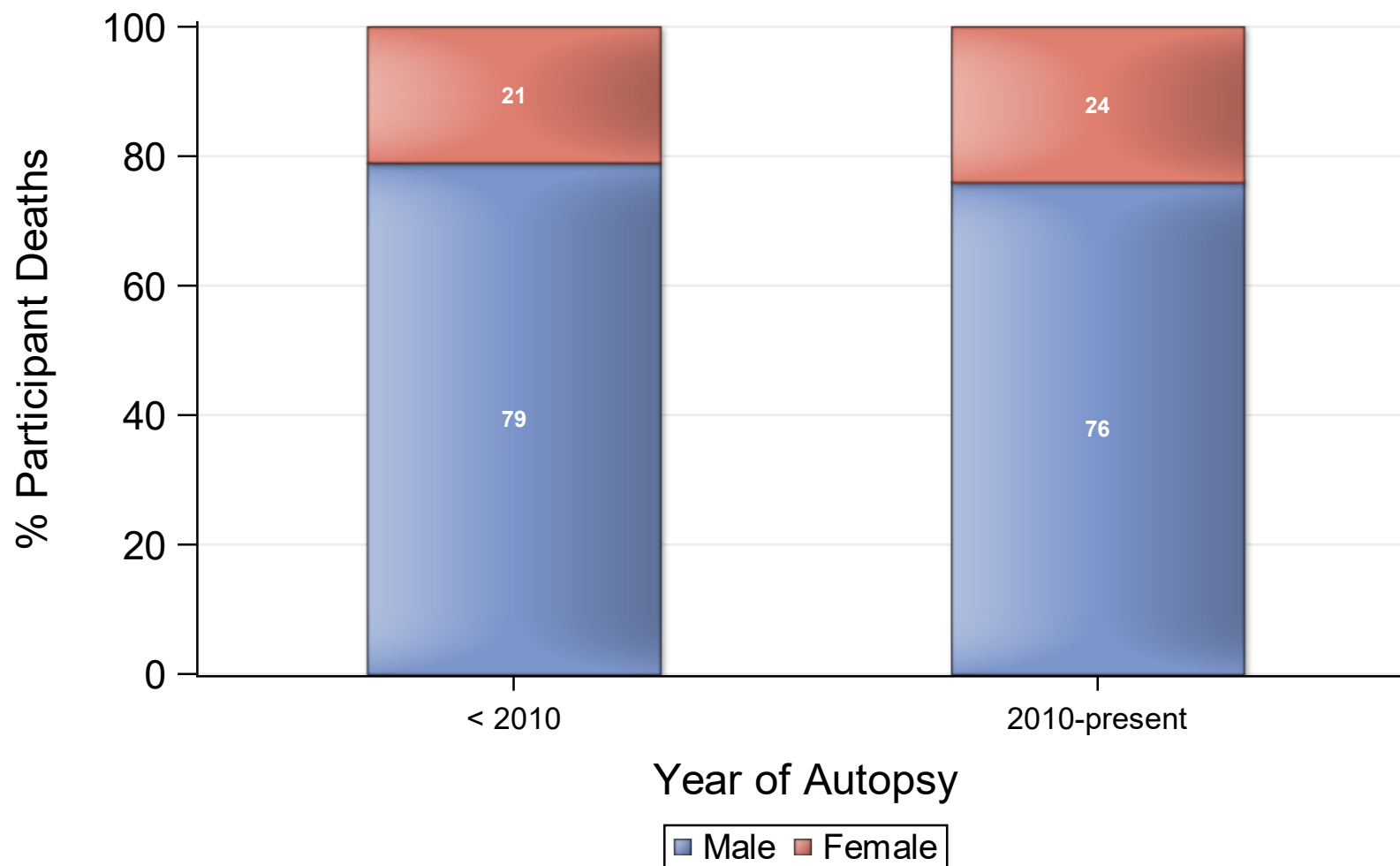
*Cases with a fixed brain specimen available.

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	22
Some College/Associate's Degree	22	30
College Graduate	5	7
Advanced Degree work	8	11

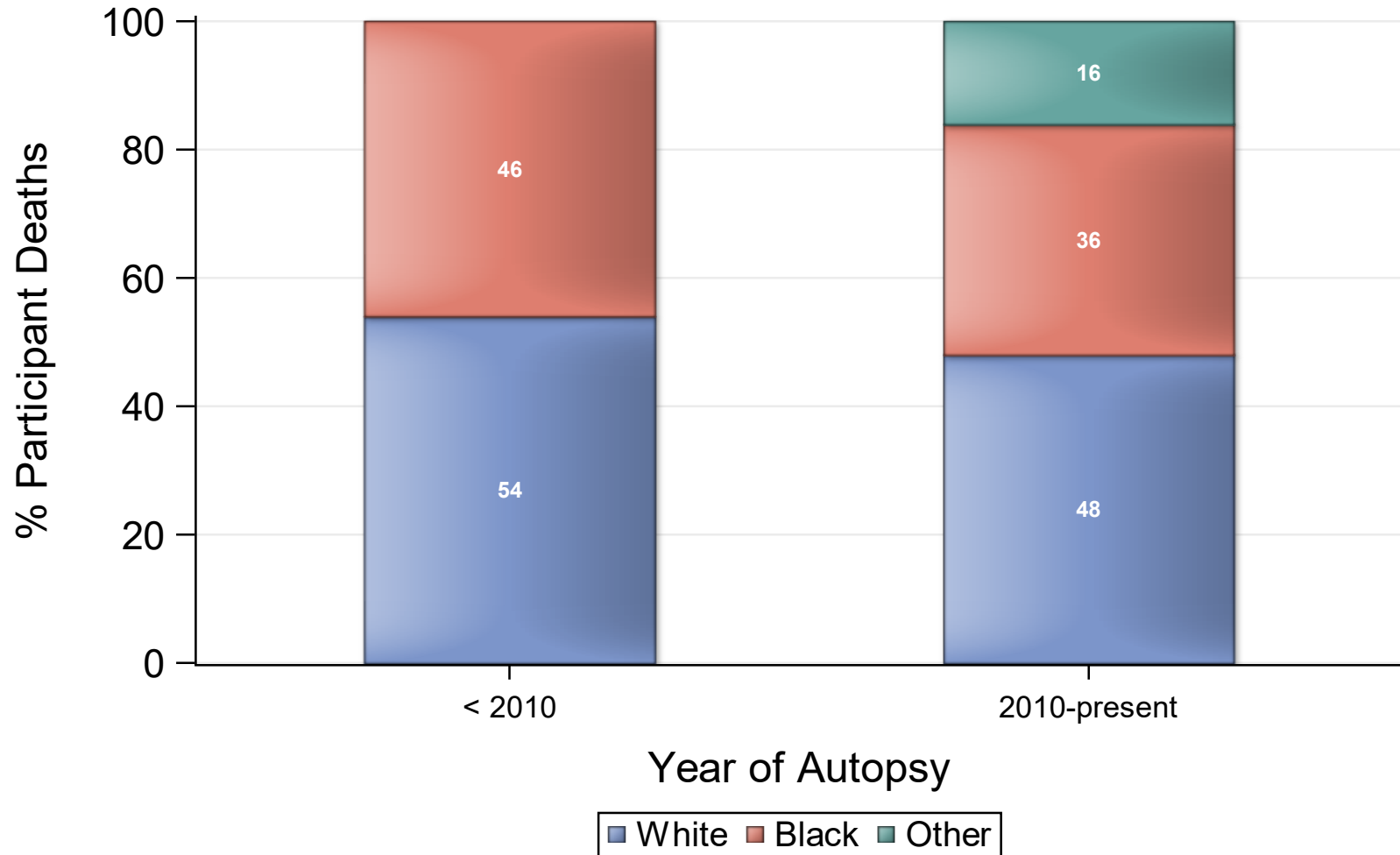
*Cases with a fixed brain specimen available.

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	34
Male to male sex	34	46
Heterosexual sex	15	20
<u>On ART</u>		
at baseline	72	97
at last visit	65	88

*Cases with a fixed brain specimen available.

*HIV Characteristics at time of death**

CD4 Count (N=69)

25th Percentile	208
Median	383
75th Percentile	580

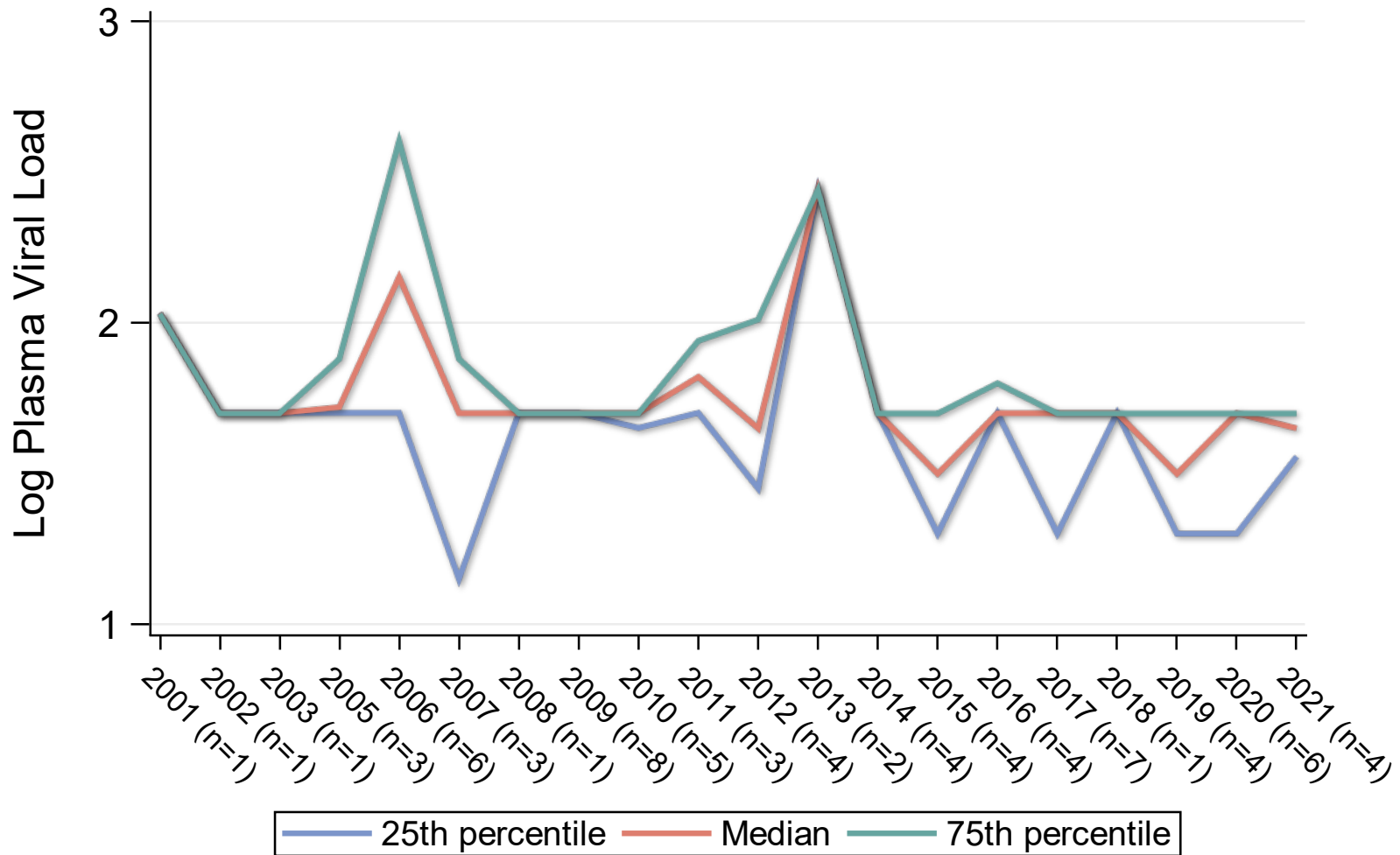
Log Plasma Viral Load** (N=66)

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

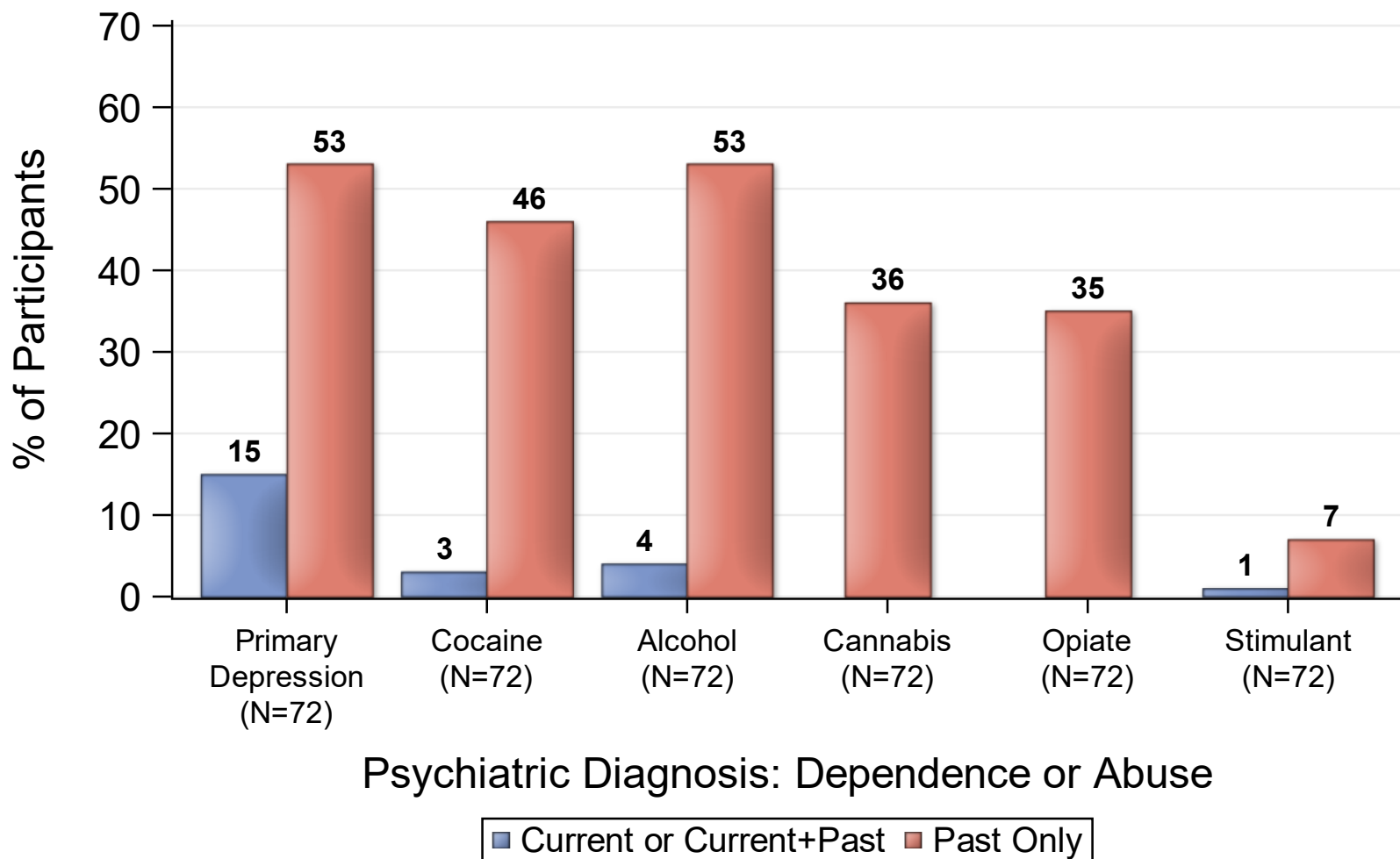


*Among those who have died during the cART era.

Pathological Conditions: Year of Autopsy

Type:	Year of Autopsy		
	< 2010	2010-present	Total Cases
<i>Total Fixed Specimens</i>	24	49	73
Normal/minor neuropath changes	7 (29)	5 (10)	12 (16)
Other non-infectious pathology	8 (33)	27 (56)	35 (48)
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)

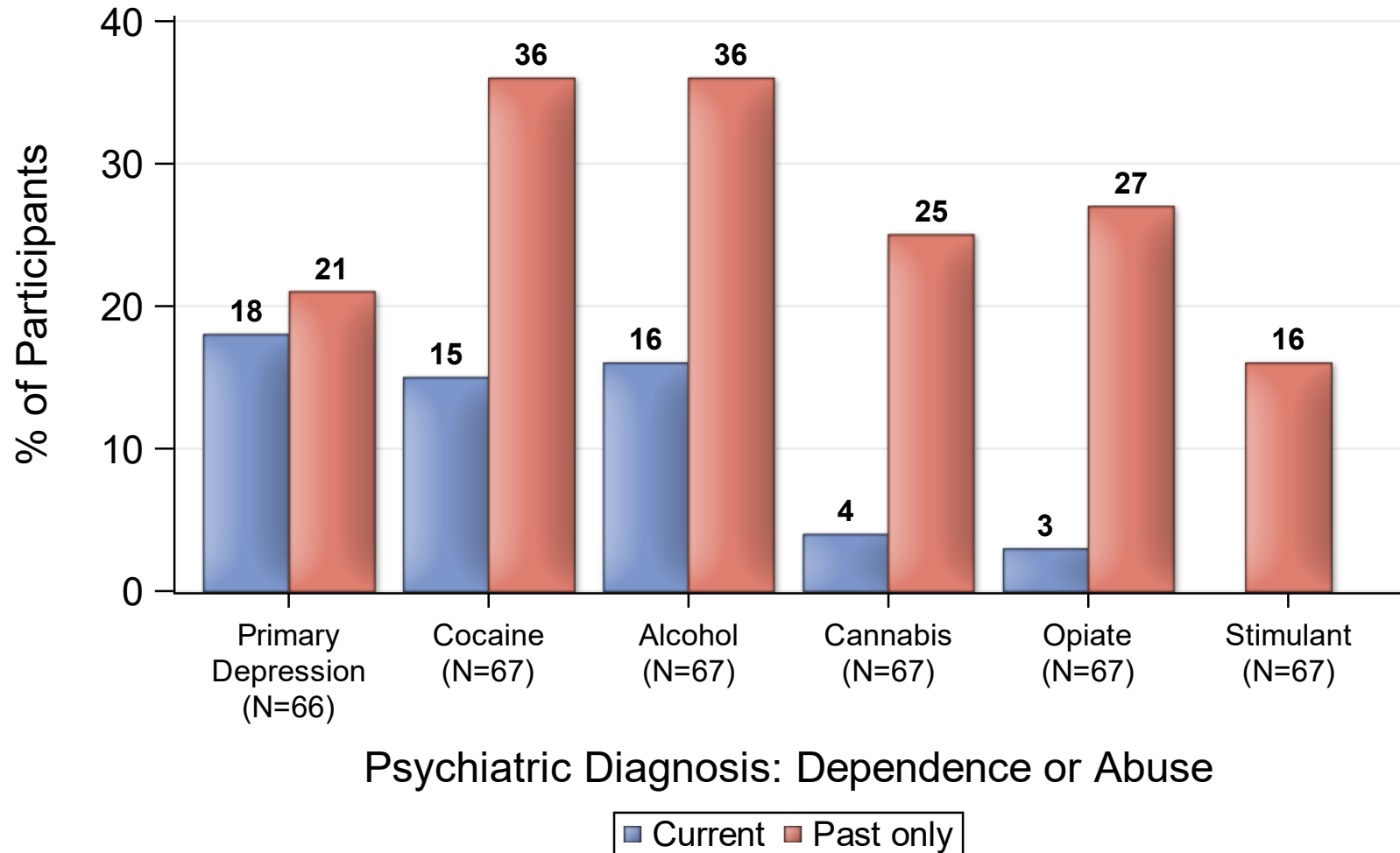
Last Psychiatric Diagnosis



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.

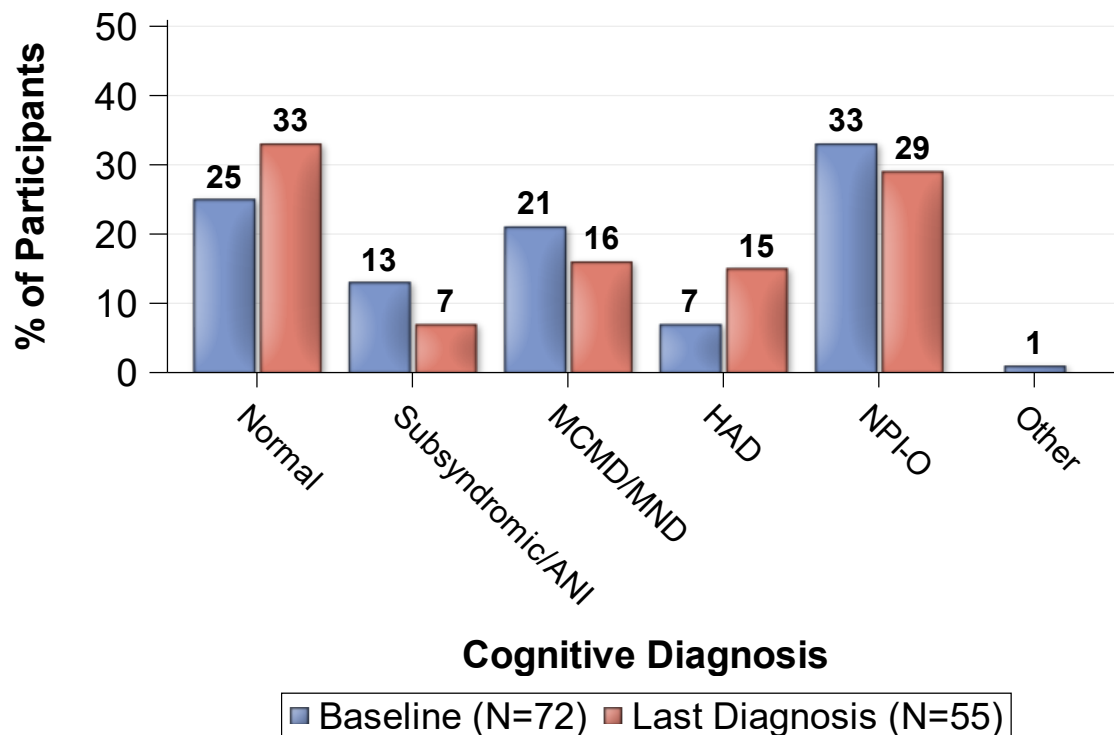
Baseline Psychiatric Diagnosis



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.

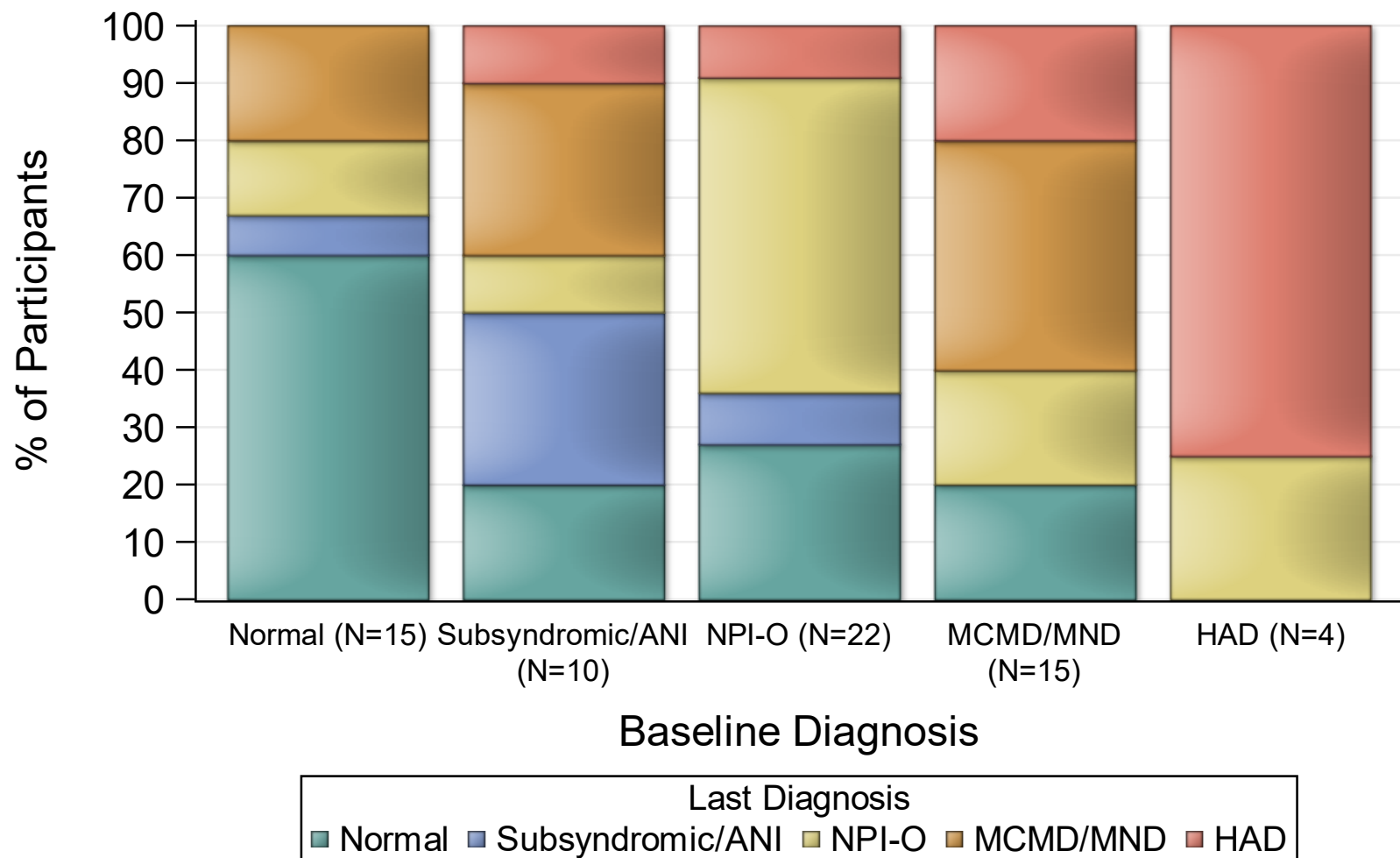
Cognitive Diagnosis



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=73)</u>	
HIV associated	4	7	4	5
Other	0	0	2	3
None	50	93	67	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=71)	%
Central Nervous System Agents	68	95.8
Cardiovascular Drugs	60	84.5
Gastrointestinal Drugs	59	83.1
Anti-infective Agents	57	80.3
Vitamins	53	74.6
Hormones and Synthetic Substitutes	48	67.6
Electrolytic, Caloric, and Water Balance	46	64.8
Autonomic Drugs	41	57.7
Blood Formation, Coagulation, and Thrombosis Agents	36	50.7
Skin and Mucous Membrane Agents	32	45.1
Antihistamine Drugs	25	35.2
Miscellaneous Therapeutic Agents	23	32.4
Eye, Ear, Nose, and Throat (EENT) Preparations	21	29.6
Respiratory Tract Agents	17	23.9
Antineoplastic Agents	14	19.7
Pharmaceutical Aids	8	11.3
Local Anesthetics	6	8.5
Smooth Muscle Relaxants	6	8.5
Serums, Toxoids, and Vaccines	5	7
No medication use reported on at least one occasion	4	5.6

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)	1168	73	49	66
Mean Corpuscular Hemoglobin Concentration (MCHC)	253	22	11	15
Blood Red cell Distribution Width (RDW)	207	18	4	5
Blood Rapid Plasma Reagin (RPR)	170	65	25	22
Blood Neutrophil Percent	1085	68	42	57
Blood Lymphocyte Percent	1143	72	49	66
Blood Monocyte Percent	1130	72	49	66
Blood Eosinophil Percent	1127	72	49	66
Blood Basophil Percent	1118	72	47	64
Blood Mean Platelet Volume (MPV)	163	14	4	5
Blood CD3 Percent	78	12	8	11
Blood CD3 Absolute	30	9	2	1
<u>Miscellaneous Serology & viral loads</u>				
Blood Hepatitis B Surface Antigens	120	62	35	28
Blood Hepatitis B Surface Antibodies	106	53	28	24
Blood Hepatitis B Core Antibodies	105	55	28	22
Blood Hepatitis B Viral Load	19	9	2	3
Blood Hepatitis C Antibodies (HCV)	167	86	44	35
Blood Hepatitis C Viral Load	78	39	12	14
<u>Miscellaneous Serology & viral loads</u>				
COVID-19 Test Results (qualitative)	7	5	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	73	48	65
Hemoglobin A1c	204	55	12	14
Sodium	1047	77	48	65
Calcium	1004	72	46	62
Chloride	1013	77	46	62
Potassium	1030	77	46	62
Total Protein	869	76	44	59
Alkaline Phosphatase	875	73	44	59
AST	856	73	41	55
ALT	870	73	43	58
Total Bilirubin	908	77	47	64
Direct Bilirubin	100	12	6	8
Creatinine	1190	95	57	74
BUN	1043	76	46	62
CO2	1017	73	45	61
PT	501	57	38	51
INR	499	57	38	51
Urate	46	11	5	5
Triglycerides	356	73	26	32
Cholesterol	362	73	27	34
LDL	303	68	22	26
HDL	310	69	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	57	37	47
Urinalysis: Protein	417	57	37	47
Urinalysis: pH	412	57	37	47
Urinalysis: Specific Gravity	412	57	37	47
Urinalysis: Ketones	411	55	37	47
Urinalysis: Bilirubin	412	57	37	47
Urine Toxicology; Methamphetamine	143	22	12	16
Urinalysis: Red Blood Cells	245	50	23	28
Urinalysis: White Blood Cells	242	50	23	28