

The data presented in the following reports reflect the NNTC central database as of
June 24, 2020

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 (%)

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cART Era Demographics

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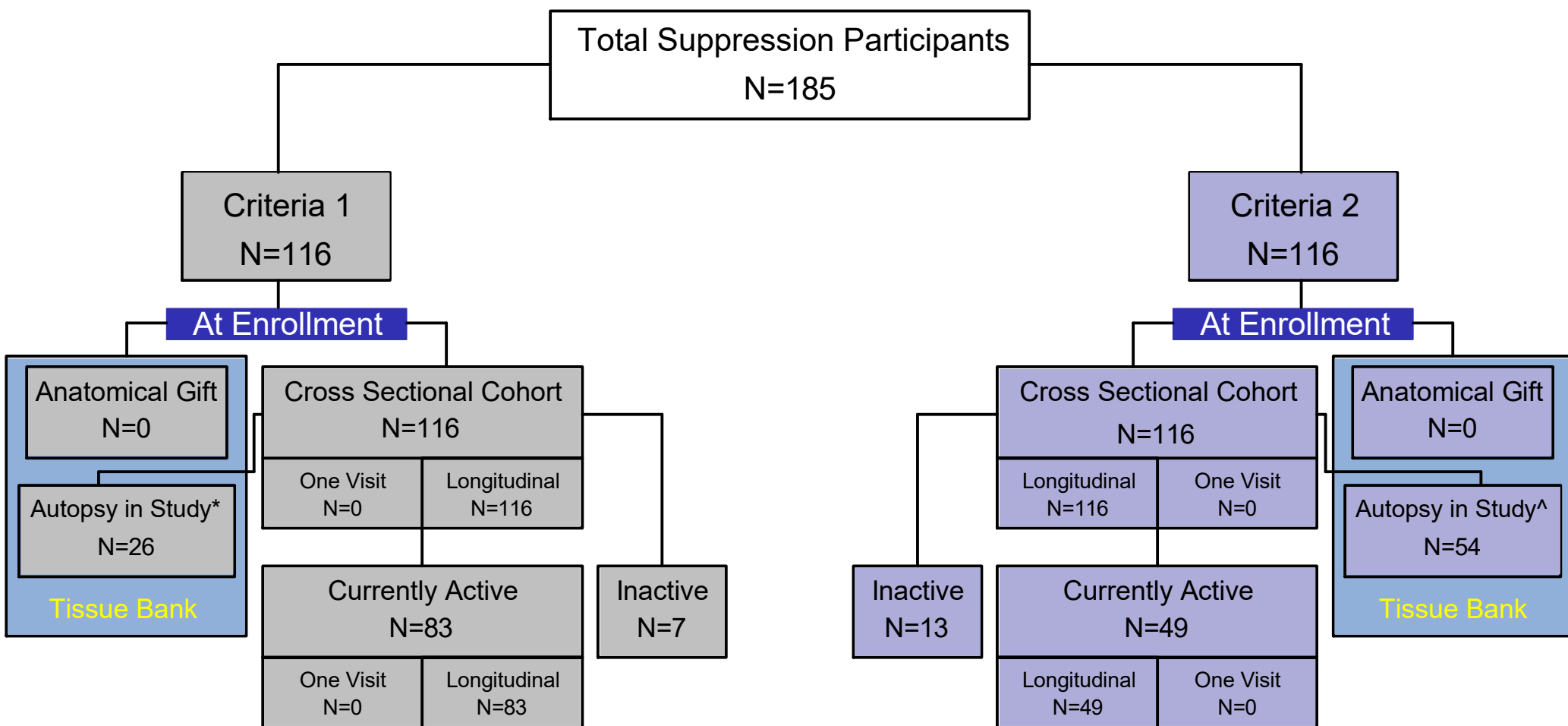
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Suppression Cohort Overview



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.

47 cases meet both criteria.

Inactive cases are either lost to follow-up/administratively censored/withdrawn (N=1) or deceased without autopsy (N=16).

* 0 autopsy cases included in Cross Sectional Cohort; 26 autopsy cases included in Longitudinal Cohort.

^ 0 autopsy cases included in Cross Sectional Cohort; 19 autopsy cases included in Longitudinal Cohort.

CNS Specimens Available

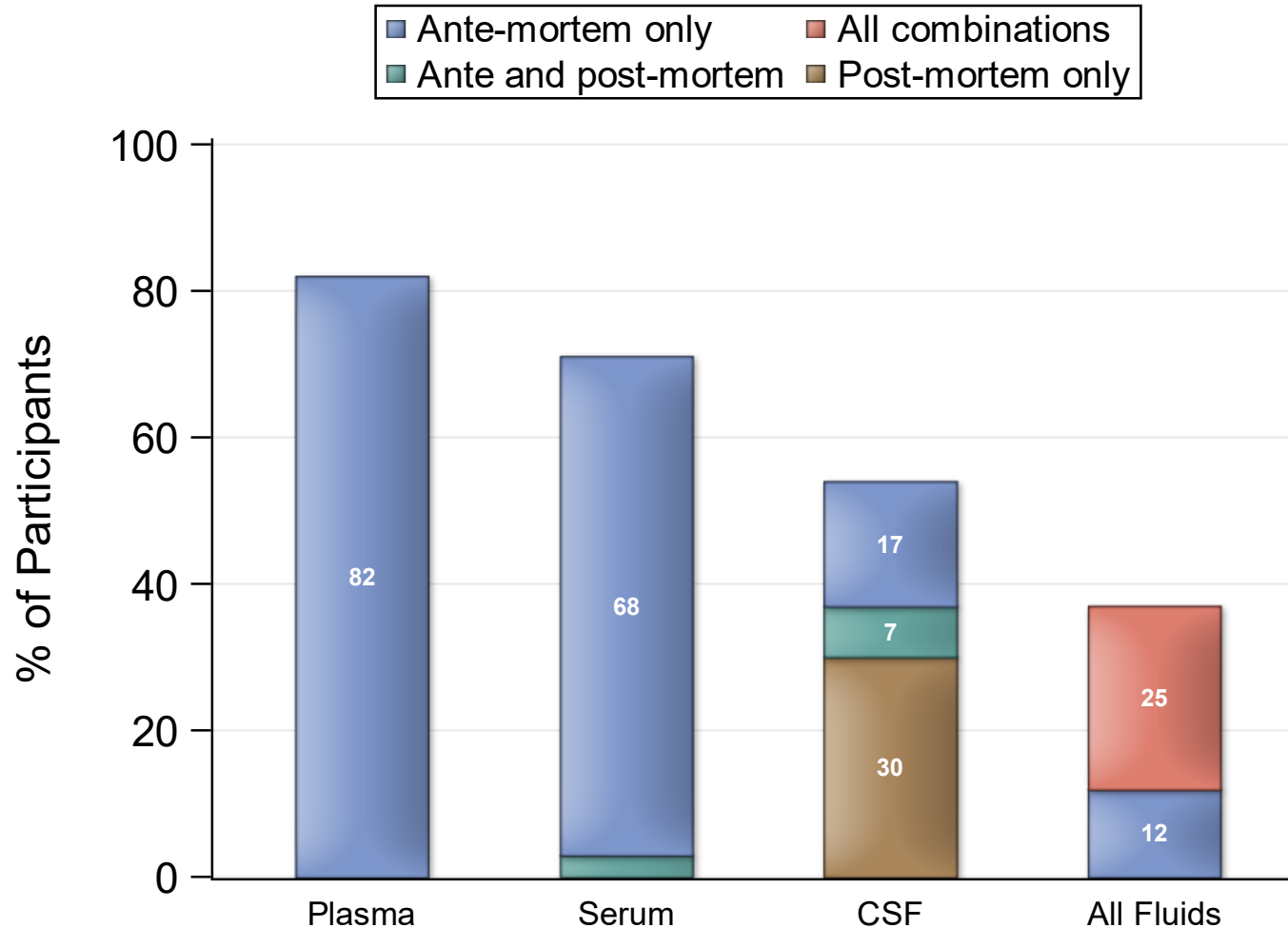
Type:	HIV +
Fixed Brain	60
Frozen Brain	58
Spinal Cord	57
Dorsal Root Ganglia	39
Trigeminal Ganglia	20
Frontal Lobe*	19
Parietal Lobe*	19
Occipital Lobe*	19
Temporal Lobe*	19
Thalamus*	19
Cerebellum*	18
Brain Stem*	18
Hippocampus*	16
Basal Ganglia*	16

*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	48
Heart	48
Kidney	48
Spleen	45
Peripheral Nerve	44
Adipose Tissue	41
Bone Marrow	40
Lung	40
Muscle	39
Lymph Node	36
Pituitary Gland	26
Bowel	25
Testes	18
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>60</u>
<u>Age</u>	
Mean	57.3
SD	7.8
25th Percentile	51.5
Median	59
75th Percentile	62.5

*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	45	75
Female	15	25
<u>Ethnicity</u>		
Hispanic origin	15	25
<u>Race</u>		
White	31	52
Black	25	42
Other	4	7

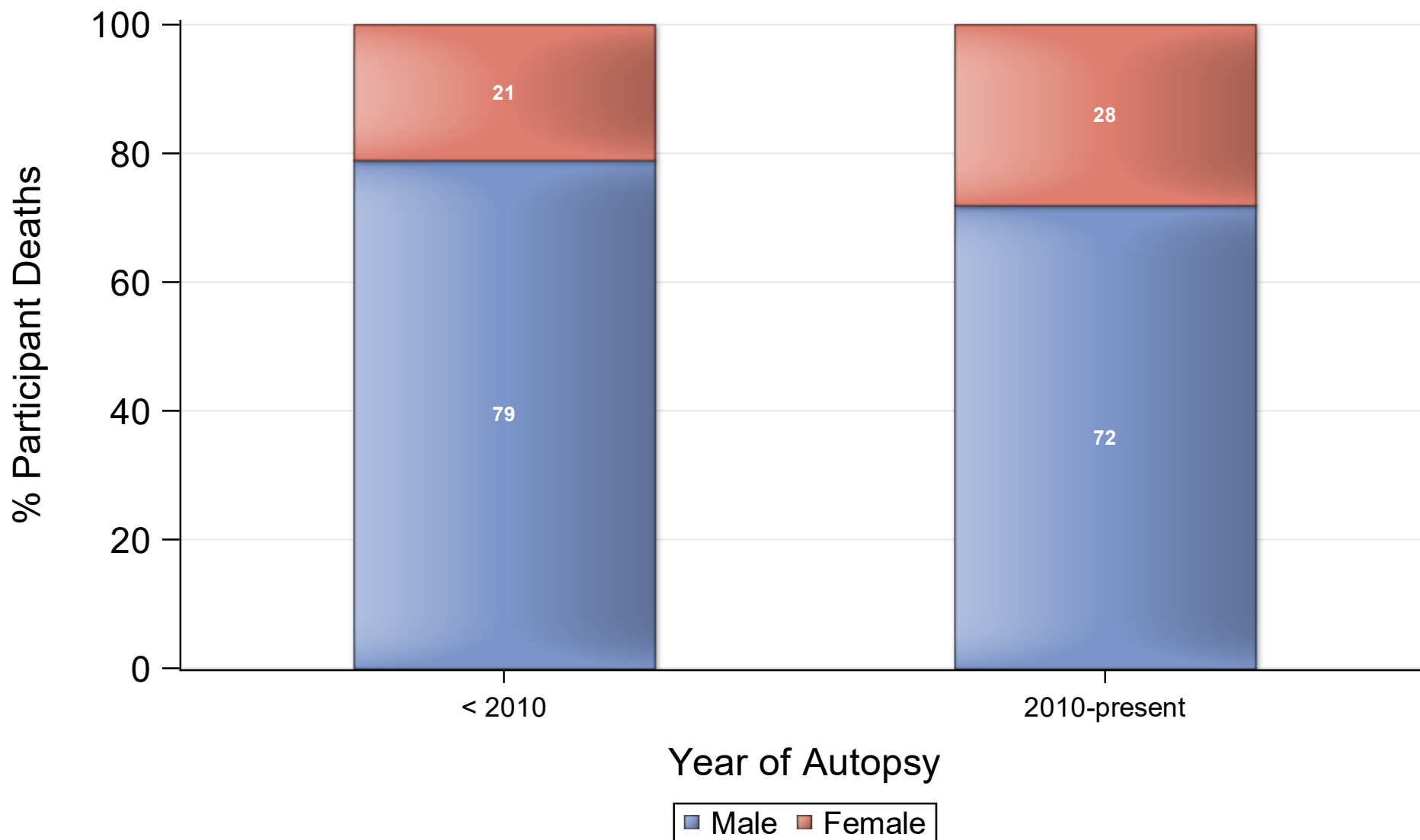
*Cases with a fixed brain specimen available.

Demographics cont.*

	<u>N</u>	<u>%</u>
<u>Furthest Education</u>		
8th grade or less	4	7
Some High School	14	23
High School Gradudate	12	20
Some College/Associate's Degree	20	33
College Graduate	4	7
Advanced Degree work	6	10

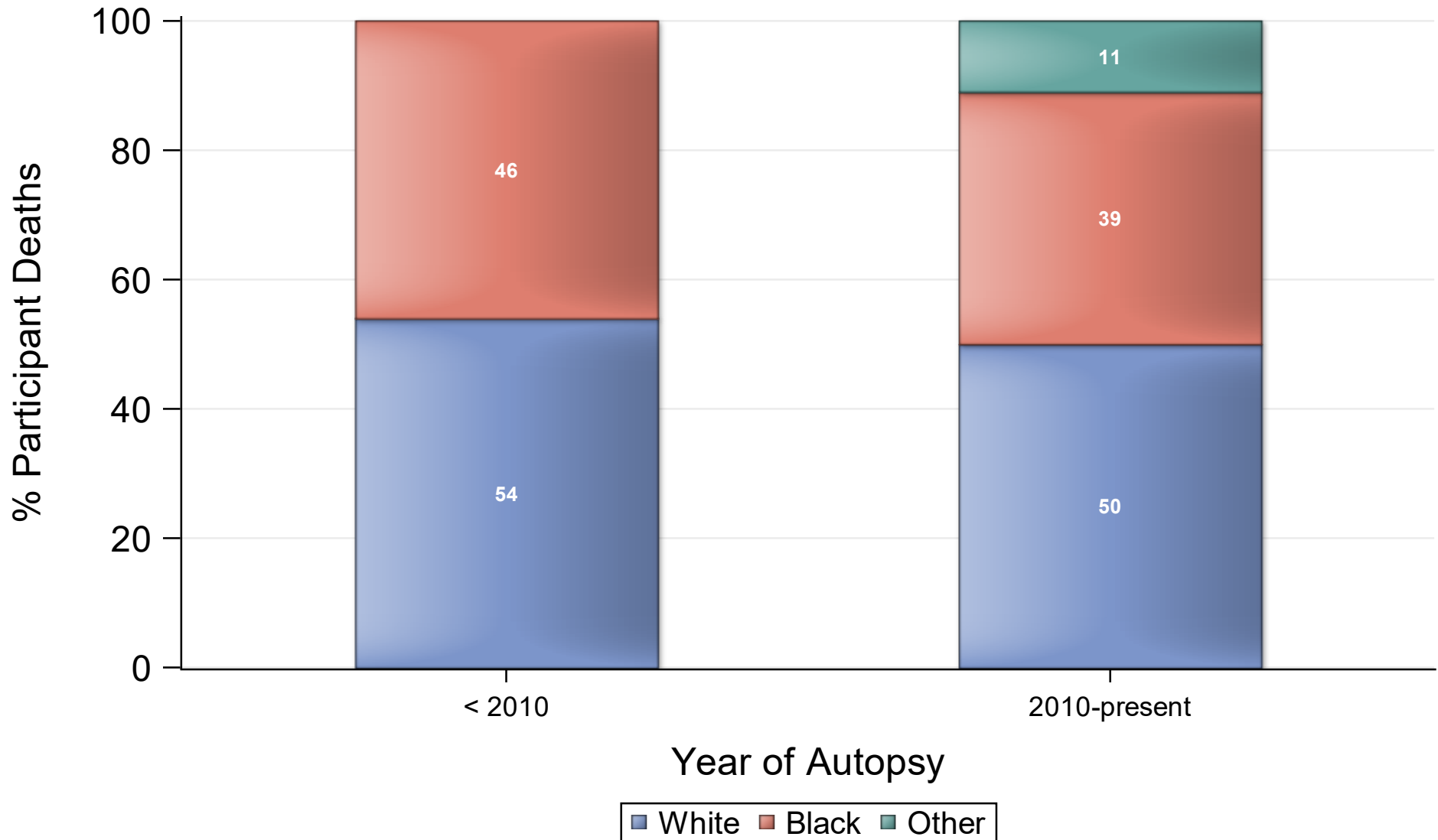
*Cases with a fixed brain specimen available.

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	20	33
Male to male sex	28	47
Heterosexual sex	12	20
<u>On ART</u>		
at baseline:	50	83
at last visit:	39	65

*Cases with a fixed brain specimen available.

*HIV Characteristics at time of death**

CD4 Count (N=55)

25th Percentile	161
Median	355
75th Percentile	598

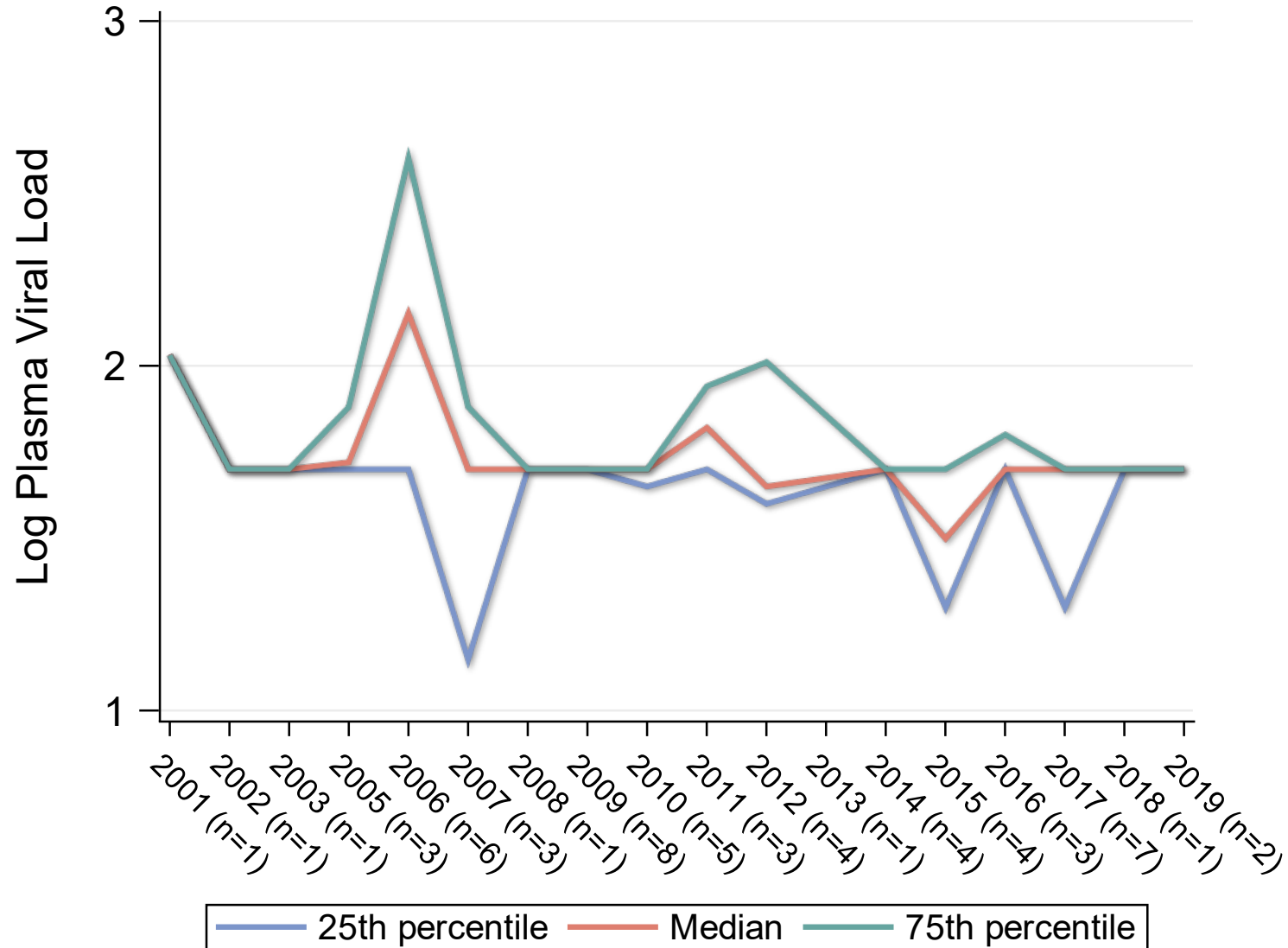
Log Plasma Viral Load** (N=54)

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

cART Era Viral Load

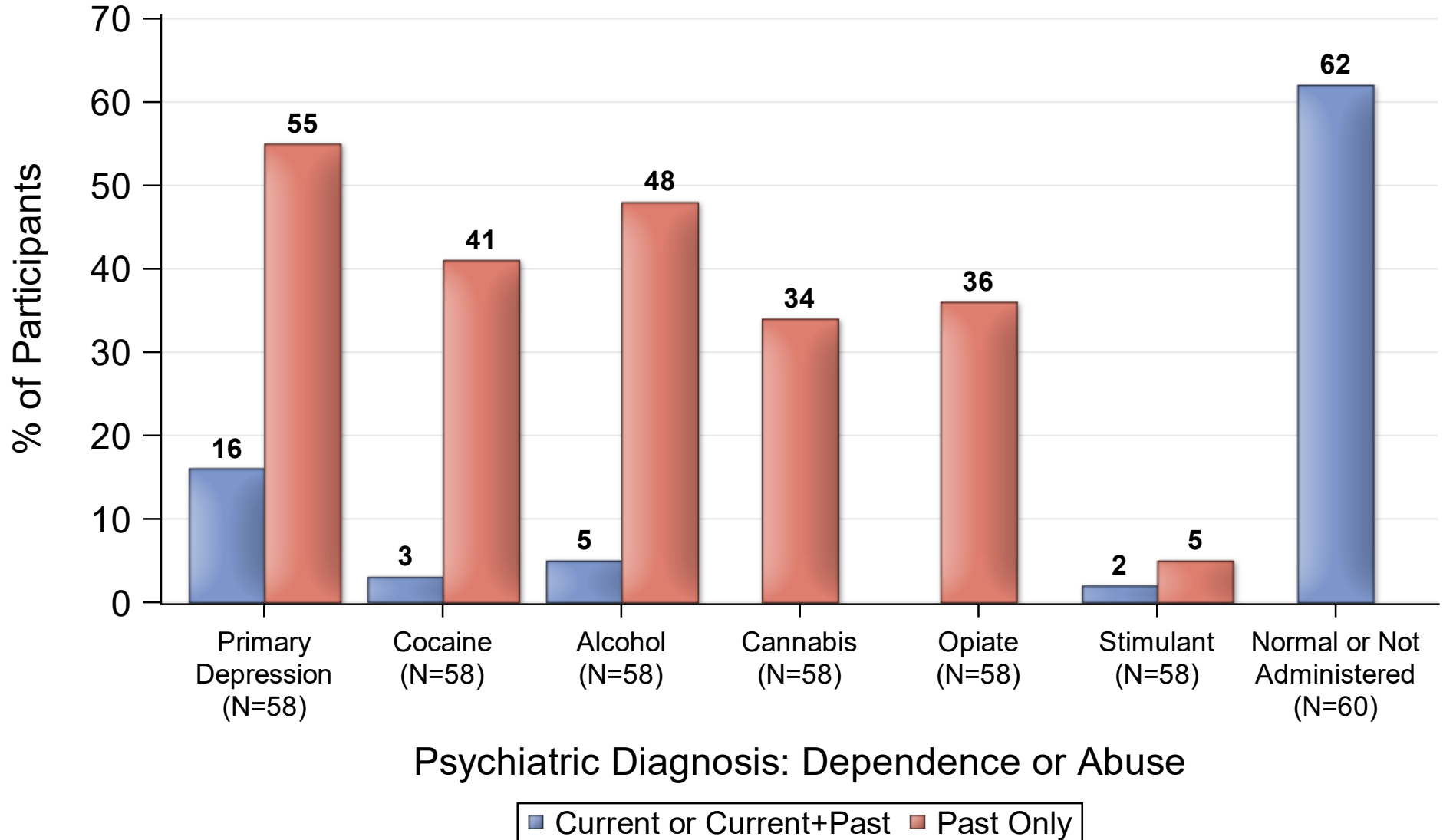


*Among those who have died during the cART era.

Pathological Conditions: Year of Autopsy

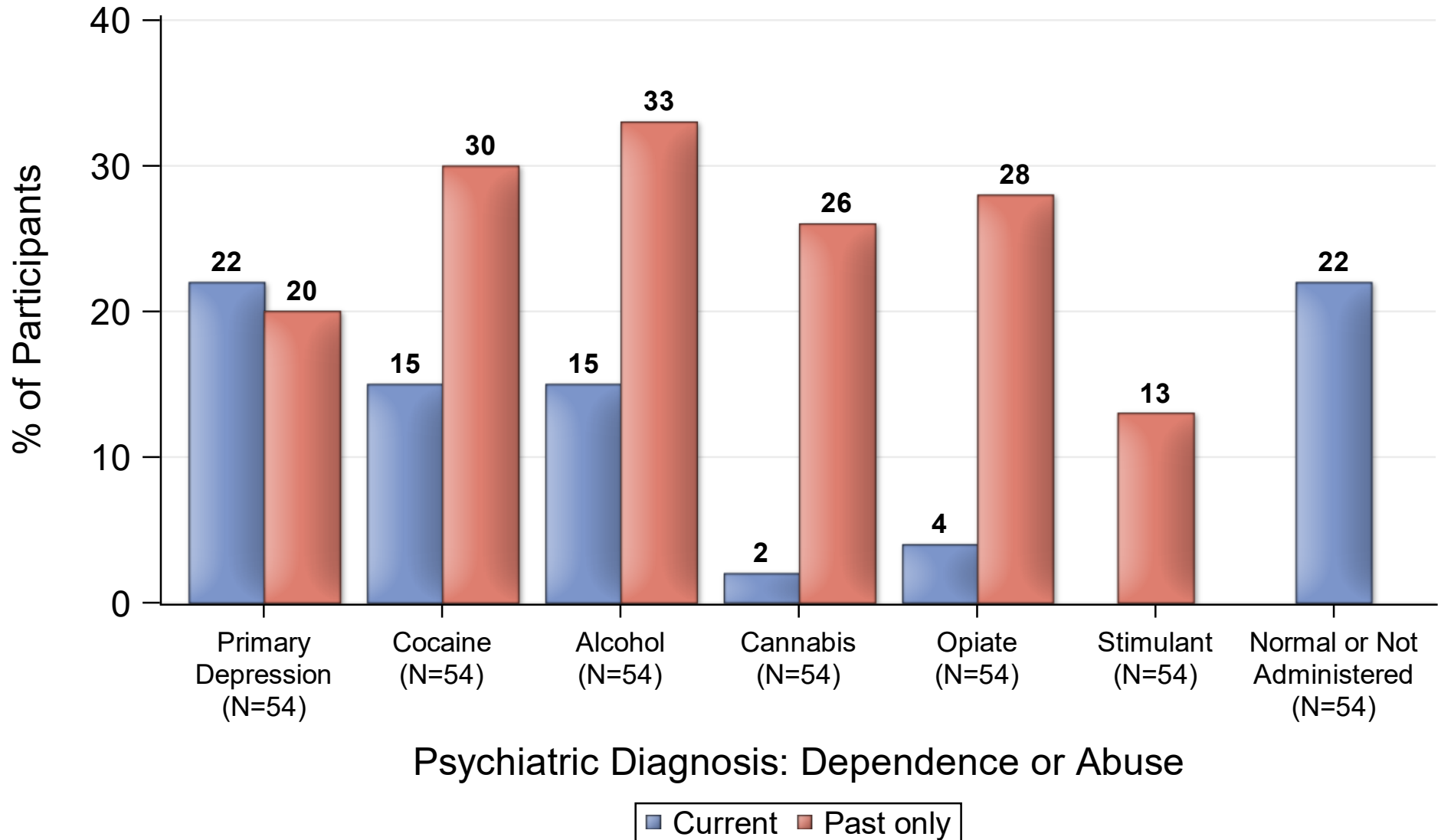
Type:	Year of Autopsy		
	< 2010	2010-present	Total Cases
<i>Total Fixed Specimens</i>	24	36	60
Normal/minor neuropath changes	7 (29)	4 (11)	11 (18)
Other non-infectious pathology	8 (33)	21 (58)	29 (48)
Alzheimer's type 2 gliosis	1 (4)	5 (14)	6 (10)
Focal infarct	7 (29)	13 (36)	20 (33)
HIV encephalitis	1 (4)	0	1 (2)
Hypoxic/ischemic damage	4 (17)	10 (28)	14 (23)
Aseptic Leptomeningitis	2 (8)	7 (19)	9 (15)
Microglial nodule encephalitis	0	1 (3)	1 (2)
Hemorrhage-parenchymal	0	3 (8)	3 (5)
Progressive Multifocal Leukoencephalopathy	0	1 (3)	1 (2)
Other infections	0	2 (6)	2 (3)

Last Psychiatric Diagnosis



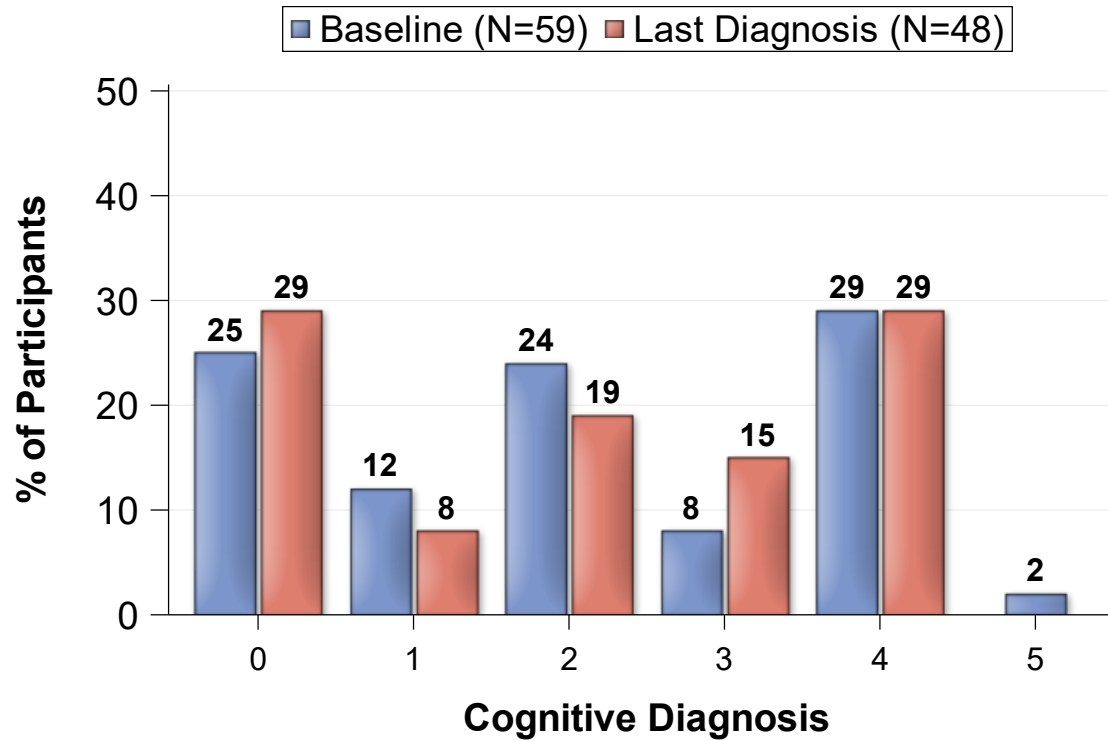
*Please note the totals listed above reflect only those cases who have a fixed brain specimen available and data from the PRISM/CIDI evaluation before death.

Baseline Psychiatric Diagnosis



*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

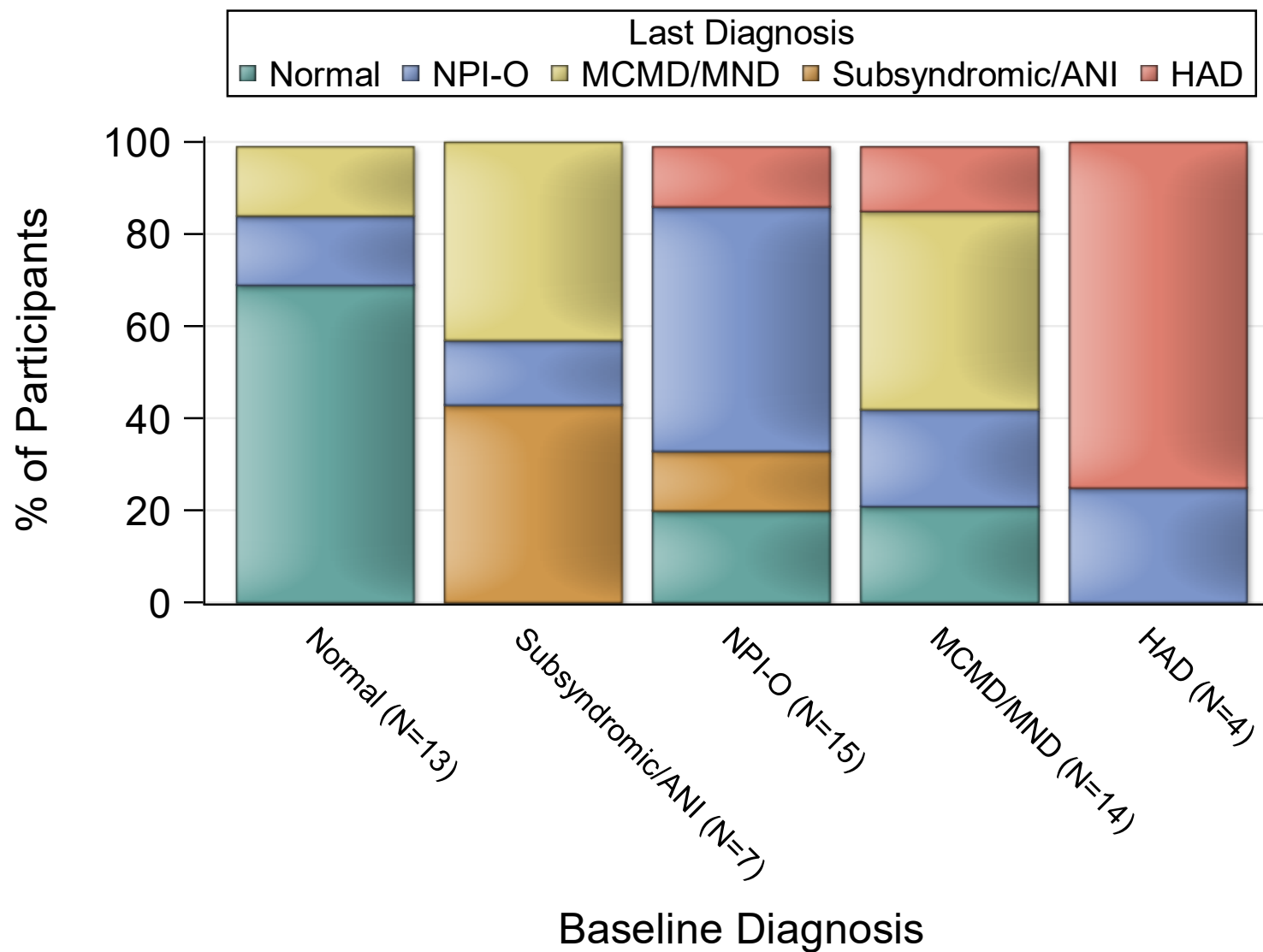
MND = Minor Neurocognitive Disorder

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=47)</u>		<u>(N=60)</u>	
HIV associated	4	9	4	7
Other	0	0	2	3
None	43	91	54	90
<u>Neuropathy</u>	<u>(N=42)</u>		<u>(N=55)</u>	
HIV associated DSP	27	64	25	45
HIV/nucleoside	3	7	3	5
None	12	29	27	49

*Cases with a fixed brain specimen available.

Participants Reporting Concomitant Medications

Medication	# of Pts (N=59)	%
Central Nervous System Agents	56	94.9
Cardiovascular Drugs	50	84.7
Gastrointestinal Drugs	48	81.4
Anti-infective Agents	47	79.7
Vitamins	46	78
Hormones and Synthetic Substitutes	41	69.5
Electrolytic, Caloric, and Water Balance	38	64.4
Blood Formation, Coagulation, and Thrombosis Agents	32	54.2
Autonomic Drugs	31	52.5
Skin and Mucous Membrane Agents	26	44.1
Antihistamine Drugs	20	33.9
Miscellaneous Therapeutic Agents	20	33.9
Eye, Ear, Nose, and Throat (EENT) Preparations	17	28.8
Respiratory Tract Agents	14	23.7
Antineoplastic Agents	12	20.3
Local Anesthetics	6	10.2
Pharmaceutical Aids	6	10.2
Smooth Muscle Relaxants	5	8.5
No medication use reported on at least one occasion	4	6.8
Serums, Toxoids, and Vaccines	4	6.8

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	165	22	10	17
Mean Corpuscular Hemoglobin (MCH)	165	22	10	17
Mean Corpuscular Volume (MCV)	949	77	43	72
Mean Corpuscular Hemoglobin Concentration (MCHC)	165	22	10	17
Blood Red cell Distribution Width (RDW)	119	17	3	5
Blood Rapid Plasma Reagin (RPR)	92	55	19	18
Blood Neutrophil Percent	871	70	36	60
Blood Lymphocyte Percent	922	75	43	72
Blood Monocyte Percent	916	75	43	72
Blood Eosinophil Percent	913	75	43	72
Blood Basophil Percent	904	75	41	68
Blood Mean Platelet Volume (MPV)	90	15	3	5
Blood CD3 Percent	68	13	8	13
Blood CD3 Absolute	19	8	1	2
Miscellaneous Serology & viral loads				
Blood Hepatitis B Surface Antigens	105	62	29	32
Blood Hepatitis B Surface Antibodies	91	55	23	25
Blood Hepatitis B Core Antibodies	92	57	23	23
Blood Hepatitis B Viral Load	18	10	2	3
Blood Hepatitis C Antibodies (HCV)	135	83	33	35
Blood Hepatitis C Viral Load	48	38	8	13

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	867	80	42	70
Hemoglobin A1c	115	43	7	10
Sodium	830	80	42	70
Calcium	795	78	41	68
Chloride	792	77	40	67
Potassium	809	77	40	67
Total Protein	689	75	39	65
Alkaline Phosphatase	698	77	39	65
AST	674	77	35	58
ALT	688	77	37	62
Total Bilirubin	716	80	41	68
Direct Bilirubin	83	13	6	10
Creatinine	888	95	47	75
BUN	830	80	41	68
CO2	804	77	39	65
PT	436	60	32	53
INR	435	60	32	53
Urate	41	10	5	7
Triglycerides	203	63	17	25
Cholesterol	207	63	18	27
LDL	164	57	14	18
HDL	161	58	14	18
Phosphorus	81	15	7	10
LDH	46	12	6	8

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	18	8	2	3
<u>Miscellaneous Urine values</u>				
Urinalysis: Glucose	334	58	32	50
Urinalysis: Protein	339	58	32	50
Urinalysis: pH	333	58	32	50
Urinalysis: Specific Gravity	334	58	32	50
Urinalysis: Ketones	334	58	32	50
Urinalysis: Bilirubin	334	58	32	50
Urine Toxicology; Methamphetamine	123	25	13	22
Urinalysis: Red Blood Cells	217	52	22	33
Urinalysis: White Blood Cells	214	52	22	33