

NACC RESEARCHERS DATA DICTIONARY

The Neuropathology (NP) Data Set

July 2014

Copyright© 2014 University of Washington

Created and published by the Research Support Group at the National Alzheimer's Coordinating Center (Walter A. Kukull, PhD, Director). All rights reserved.

This publication was funded by the National Institutes of Health through the National Institute on Aging (Cooperative Agreement U01 AG016976).

Revisions made to the NP RDD since implementation (July 2014)

Date yyyy-mm-dd	Description	Data element(s) affected
2021-02-10	Aging-related tau astrogliopathy section added and various small changes to data source tables and description to account for NPv11	All
2026-03-10	Changed allowable code range for NACCINT from "0-100" to "0 - no limit". Changed allowable code "8" to "9" for NACCBRRN .	NACCINT, NACCBRRN

CONTENTS

	Page
Revisions made since implementation	ii
Introduction	iv
Table of variables	v
The Data Dictionary	1
1 Form header	2
2 Subject demographics	3
3 Brain autopsy details	5
4 Gross findings and overall impressions	6
5 Methods for scoring cases	10
6 Alzheimer's disease	15
7 Cerebrovascular disease	18
8 Lewy body and substantia nigra pathology	39
9 Hippocampal sclerosis	41
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	42
11 Aging-related tau astrogliopathy	52
12 Other pathologic diagnoses	57
13 Stored tissue and full autopsy details	64
Appendix A: Other available neuropathology data	68
Appendix B: NACC Derived Variables — derivation guide	69

Introduction

The **Researcher's Data Dictionary — Neuropathology Data Set (RDD-NP)** is intended to be the first and primary resource for researchers analyzing NACC neuropathology data. The original data-collection instruments (Coding Guidebooks and Forms) for all past and current NP form versions are referenced in the RDD-NP and are available on the NACC website: www.alz.washington.edu/WEB/forms_np.html.

DEFINITIONS

Original variables are coded as they were originally collected and sent to NACC by the Alzheimer's Disease Centers. In some instances, NACC has added codes to explain missing data and to ease use of the variable in analyses (e.g., a -4 code), but the essential format of the variable remains unchanged.

Derived variables are developed by NACC from the original data collected and are updated with each data freeze. In some cases, derived variables simply ensure consistent coding and a way to use all of the data even though the data elements were collected in various ways across different versions of the NP Form. In other cases, derived variables provide new information that was only indirectly collected by the NP Form — for example, a calculation of the days between the last UDS visit and death (i.e., $NACCINT = \text{date of death} - \text{date of most recent visit}$).

The goal of the RDD-NP is to provide a comprehensive document describing the data elements available to researchers for analysis of the neuropathology data collected using versions 1, 7, 8, 9, 10, and 11 of the NP Form.

The NACC Neuropathology Data Set has undergone several revisions since its inception in 2002, the most substantial of which occurred in 2014 with the implementation of version 10 of the Neuropathology Data Form.

Several data elements collected in v1–9 of the NP Form are not collected in v10, and vice-versa. Version 10–11 includes the 2012 NIA-AA criteria for Alzheimer's disease and the staining methods used, as well as finer detail on vascular, TDP-43, and other pathological features. Version 11 adds a section assessing the presence of aging-related tau astrogliopathy. To clarify the difference between missing data and data not collected due to differences in form versions, a code was added of *-4 = Not available, NP Form version did not collect data this way*.

There are also differences in codes for variables that have been continually collected across NP Form versions. For example, CERAD neuritic plaque frequency was collected in all versions of the NP Form; however, the coding scheme changed in v10: in v1–9, 4=No neuritic plaques, and in v10–11, 0=No neuritic plaques. In order to provide consistent coding across all versions, derived variables were developed from the original source variables. In analysis files, these derived variables replace the original NP variable. Derived variables are named with the prefix "NACC," while original NP variables begin with the prefix "NP."

When selecting variables for data analysis, be sure to review all data elements in the section of interest.

Some variables differing across forms could not be combined into a single derived variable. For example, the way of recording the presence of lacunes was slightly different in v9 and v10, so both original source variables are provided. Thus, the investigator will need to decide how to analyze these data keeping in mind the inconsistency.

In addition, original data elements with blank values resulting from skip patterns in v10–11 of the NP Form were recoded to the unknown and missing codes from the gateway question.

Finally, outdated diagnosis variables were removed from this document in order to prioritize newer, more relevant diagnostic criteria and pathologic features; however, all original NP data elements are still available by request.

Table of variables

Section	Variable name	Short descriptor	Variable type	Source
1 Form header	NACCID	Subject ID	Derived variable	v1-11
1 Form header	NACCADC	ADC at which subject was seen	Derived variable	v1-11
1 Form header	NPFORMVER	NP form version	Original NP question	v8-11
2 Subject demographics	NPSEX	Subject's sex	Original NP question	v1-11
2 Subject demographics	NACCDAGE	Age at death	Derived variable	v1-11, Milestones
2 Subject demographics	NACCMOD	Month of death	Derived variable	v1-11, Milestones
2 Subject demographics	NACCYOD	Year of death	Derived variable	v1-11, Milestones
2 Subject demographics	NACCINT	Time interval between last visit and death	Derived variable	v1-11, Milestones
3 Brain autopsy details	NPPMIH	Postmortem interval (PMI) (hours)	Original NP question	v10-11
3 Brain autopsy details	NPFIX	Fixative	Original NP question	v10-11
3 Brain autopsy details	NPFIXX	Fixative other specify	Original NP question	v10-11
4 Gross findings and overall impressions	NPWBRWT	Whole brain weight (grams)	Original NP question	v10-11
4 Gross findings and overall impressions	NPWBRF	Fresh or fixed brain weight	Original NP question	v10-11
4 Gross findings and overall impressions	NACCBRNN	No major neuropathologic change present	Derived variable	v1-11
4 Gross findings and overall impressions	NPGRCCA	Severity of gross findings — cerebral cortex atrophy	Original NP question	v10-11
4 Gross findings and overall impressions	NPGRLA	Severity of gross findings — lobar atrophy	Original NP question	v10-11
4 Gross findings and overall impressions	NPGRHA	Severity of gross findings — hippocampus atrophy	Original NP question	v10-11
4 Gross findings and overall impressions	NPGRSNH	Severity of gross findings — substantia nigra hypopigmentation	Original NP question	v10-11
4 Gross findings and overall impressions	NPGRCH	Severity of gross findings — I. (locus) ceruleus hypopigmentation	Original NP question	v10-11
4 Gross findings and overall impressions	NACCAVAS	Severity of gross findings — atherosclerosis of the circle of Willis	Derived variable	v1-11
5 Methods for scoring case	NPTAN	Method for scoring case — tau antibody	Original NP question	v10-11
5 Methods for scoring case	NPTANX	Method for scoring case — tau antibody other specify	Original NP question	v10-11
5 Methods for scoring case	NPABAN	Method for scoring case — amyloid beta antibody	Original NP question	v10-11
5 Methods for scoring case	NPABANX	Method for scoring case — amyloid beta antibody other specify	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
5 Methods for scoring case	NPASAN	Method for scoring case — alpha synuclein antibody	Original NP question	v10-11
5 Methods for scoring case	NPASANX	Method for scoring case — alpha synuclein antibody other specify	Original NP question	v10-11
5 Methods for scoring case	NPTDPAN	Method for scoring case — TDP-43 antibody	Original NP question	v10-11
5 Methods for scoring case	NPTDPANX	Method for scoring case — TDP-43 antibody other specify	Original NP question	v10-11
5 Methods for scoring case	NPHISMB	Histochemical stain used — modified Bielschowsky	Original NP question	v10-11
5 Methods for scoring case	NPHISG	Histochemical stain used — Gallyas	Original NP question	v10-11
5 Methods for scoring case	NPHISSS	Histochemical stain used — other silver stain	Original NP question	v10-11
5 Methods for scoring case	NPHIST	Histochemical stain used — thioflavin	Original NP question	v10-11
5 Methods for scoring case	NPHISO	Histochemical stain used — other	Original NP question	v10-11
5 Methods for scoring case	NPHISOX	Histochemical stain used — other specify	Original NP question	v10-11
6 Alzheimer's disease	NPTHAL	Thal phase for amyloid plaques (A score)	Original NP question	v10-11
6 Alzheimer's disease	NACCBRAA	Braak stage for neurofibrillary degeneration (B score)	Derived variable	v1-11
6 Alzheimer's disease	NACCNEUR	Density of neocortical neuritic plaques (CERAD score) (C score)	Derived variable	v1-11
6 Alzheimer's disease	NPADNC	NIA-AA Alzheimer's disease neuropathologic change (ADNC) (ABC score)	Original NP question	v10-11
6 Alzheimer's disease	NACCDIFF	Density of diffuse plaques (CERAD semi-quantitative score)	Derived variable	v1-11
7 Cerebrovascular disease	NACCVASC	Ischemic, hemorrhagic, or vascular pathology present	Derived variable	v1-11
7 Cerebrovascular disease	NACCAMY	Cerebral amyloid angiopathy	Derived variable	v1-11
7 Cerebrovascular disease	NPLINF	Large arterial infarcts present	Original NP question	v1-9
7 Cerebrovascular disease	NPLAC	One or more lacunes (small artery infarcts and/or hemorrhages) present	Original NP question	v1-9
7 Cerebrovascular disease	NPINF	Old infarcts observed grossly (including lacunes)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF1A	Old infarcts observed grossly — number in cerebral cortex	Original NP question	v10-11
7 Cerebrovascular disease	NPINF1B	Size of largest old infarct observed in cerebral cortex (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF1D	Size of second-largest old infarct observed in cerebral cortex (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF1F	Size of third-largest old infarct observed in cerebral cortex (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF2A	Old infarcts observed grossly — number in subcortical/periventricular white matter	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
7 Cerebrovascular disease	NPINF2B	Size of largest old infarct observed in subcortical cerebral/periventricular white matter (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF2D	Size of second-largest old infarct observed in sub-cortical cerebral/periventricular white matter (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF2F	Size of third-largest old infarct observed in sub-cortical cerebral/periventricular white matter (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF3A	Old infarcts observed grossly — number in deep cerebral gray matter or internal capsule	Original NP question	v10-11
7 Cerebrovascular disease	NPINF3B	Size of largest old infarct observed in deep cerebral gray matter or internal capsule	Original NP question	v10-11
7 Cerebrovascular disease	NPINF3D	Size of second-largest old infarct observed in deep cerebral gray matter or internal capsule (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF3F	Size of third-largest old infarct observed in deep cerebral gray matter or internal capsule (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF4A	Old infarcts observed grossly — number in brainstem or cerebellum	Original NP question	v10-11
7 Cerebrovascular disease	NPINF4B	Size of largest old infarct observed in brainstem or cerebellum (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF4D	Size of second largest old infarct observed in brainstem or cerebellum (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NPINF4F	Size of third largest old infarct observed in brainstem or cerebellum (cm)	Original NP question	v10-11
7 Cerebrovascular disease	NACCINF	Infarcts and lacunes	Derived variable	v1-11
7 Cerebrovascular disease	NPHEM	Single or multiple hemorrhages present	Original NP question	v1-9
7 Cerebrovascular disease	NPHEMO	Single or multiple old hemorrhages observed grossly	Original NP question	v10-11
7 Cerebrovascular disease	NPHEMO1	Single or multiple old hemorrhages observed grossly — subdural or epidural hemorrhage	Original NP question	v10-11
7 Cerebrovascular disease	NPHEMO2	Single or multiple old hemorrhages observed grossly — primary parenchymal hemorrhage	Original NP question	v10-11
7 Cerebrovascular disease	NPHEMO3	Single or multiple old hemorrhages observed grossly — secondary parenchymal hemorrhage	Original NP question	v10-11
7 Cerebrovascular disease	NPMICRO	Multiple microinfarcts present	Original NP question	v1-9
7 Cerebrovascular disease	NPOLD	Old microinfarcts, not observed grossly	Original NP question	v10-11
7 Cerebrovascular disease	NPOLD1	Number of old microinfarcts, not observed grossly — cerebral cortex	Original NP question	v10-11
7 Cerebrovascular disease	NPOLD2	Number of old microinfarcts, not observed grossly — subcortical or periventricular white matter	Original NP question	v10-11
7 Cerebrovascular disease	NPOLD3	Number of old microinfarcts, not observed grossly — subcortical gray matter	Original NP question	v10-11
7 Cerebrovascular disease	NPOLD4	Number of old microinfarcts, not observed grossly — brainstem and cerebellum	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
7 Cerebrovascular disease	NACCMICR	Microinfarcts	Derived variable	v1-11
7 Cerebrovascular disease	NPOLDD	Old cerebral microbleeds	Original NP question	v10-11
7 Cerebrovascular disease	NPOLDD1	Number of cerebral microbleeds — cerebral cortex	Original NP question	v10-11
7 Cerebrovascular disease	NPOLDD2	Number of cerebral microbleeds — subcortical and periventricular white matter	Original NP question	v10-11
7 Cerebrovascular disease	NPOLDD3	Number of cerebral microbleeds — subcortical gray matter	Original NP question	v10-11
7 Cerebrovascular disease	NPOLDD4	Number of cerebral microbleeds — brainstem and cerebellum	Original NP question	v10-11
7 Cerebrovascular disease	NACCHEM	Hemorrhages and microbleeds	Derived variable	v1-11
7 Cerebrovascular disease	NACCARTE	Arteriolosclerosis	Derived variable	v1-11
7 Cerebrovascular disease	NPWMR	White matter rarefaction	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH	Other pathological changes related to ischemic or vascular disease not previously specified	Original NP question	v10-11
7 Cerebrovascular disease	NACCNEC	Laminar necrosis	Derived variable	v1-11
7 Cerebrovascular disease	NPPATH2	Acute neuronal necrosis	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH3	Acute/subacute gross infarcts	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH4	Acute/subacute microinfarcts	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH5	Acute/subacute gross hemorrhage	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH6	Acute/subacute microhemorrhage	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH7	Vascular malformation of any type	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH8	Aneurysm of any type	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH9	Vasculitis of any type	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH10	CADASIL	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH11	Mineralization of blood vessels	Original NP question	v10-11
7 Cerebrovascular disease	NPPATH0	Other ischemic or vascular pathology	Original NP question	v10-11
7 Cerebrovascular disease	NPPATHOX	Other ischemic or vascular pathology specify	Original NP question	v10-11
7 Cerebrovascular disease	NPART	Subcortical arteriosclerotic leukoencephalopathy present	Original NP question	v1-9
7 Cerebrovascular disease	NPOANG	Angiopathy other than amyloid angiopathy present	Original NP question	v1-9

Section	Variable name	Short descriptor	Variable type	Source
8 Lewy body and substantia nigra pathology	NACCLEWY	Lewy body pathology	Derived variable	v1-11
8 Lewy body and substantia nigra pathology	NPLBOD	Evidence of Lewy body pathology	Original NP question	v10-11
8 Lewy body and substantia nigra pathology	NPLOSS	Neuron loss in the substantia nigra	Original NP question	v10-11
9 Hippocampal sclerosis	NPHIPSCL	Hippocampal sclerosis (CA1 and/or subiculum)	Original NP question	v10-11
9 Hippocampal sclerosis	NPSCSCL	Medial temporal lobe sclerosis present	Original NP question	v1-9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDTAU	FTLD with tau pathology (FTLD-tau) or other tauopathy	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NACCPICK	FTLD-tau subtype — Pick's (PiD)	Derived variable	v1-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT2	FTLD-tau subtype — other 3R tauopathy (includes MAPT mutation tauopathy)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NACCCBD	FTLD-tau subtype — corticobasal degeneration (CBD)	Derived variable	v1-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NACCPROG	FTLD-tau subtype — progressive supranuclear palsy (PSP)	Derived variable	v1-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT5	FTLD-tau subtype — argyrophilic grains	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT6	FTLD-tau subtype — other 4R tauopathy (includes sporadic multiple systems tauopathy, globular glial tauopathy, MAPT mutation tauopathy)	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT7	FTLD-tau subtype — chronic traumatic encephalopathy	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT8	FTLD-tau subtype — amyotrophic lateral sclerosis (ALS)/parkinsonism-dementia	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT9	FTLD-tau subtype — tangle dominant disease	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDT10	FTLD-tau subtype — other 3R + 4R tauopathy	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFRONT	Frontotemporal dementia and parkinsonism with tau-positive or argyrophilic inclusions	Original NP question	v1–9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTAU	Tauopathy, other (e.g., tangle-only dementia and argyrophilic grain dementia)	Original NP question	v1–9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTD	FTD with ubiquitin-positive 9 (tau-negative) inclusions	Original NP question	v1–9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDTP	FTLD with TDP-43 pathology (FTLD-TDP)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPALSMND	ALS/motor neuron disease (MND)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD	Other FTLD	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD1	Other FTLD subtype — atypical FTLD-U	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD2	Other FTLD subtype — NIFID (neuronal intermediate filament inclusions disease)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD3	Other FTLD subtype — BIBD (basophilic inclusion body disease)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD4	Other FTLD subtype — FTLD-UPS (ubiquitin-proteasome system [ubiquitin or p62 positive, tau/TDP-43/FUS negative inclusions])	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPOFTD5	Other FTLD subtype — FTLD-NOS (includes dementia lacking distinctive histology [DLDH] and FTLD with no inclusions [FTLD-NI] detected by tau, TDP-43, or ubiquitin/p62 IHC)	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDNO	FTD with no distinctive histopathology present	Original NP question	v1–9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPFTDSPC	FTD not otherwise specified present	Original NP question	v1–9
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTDPA	Distribution of TDP-43 immunoreactive inclusions — spinal cord	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTDPB	Distribution of TDP-43 immunoreactive inclusions — amygdala	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTDPC	Distribution of TDP-43 immunoreactive inclusions — hippocampus	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTDPD	Distribution of TDP-43 immunoreactive inclusions — entorhinal/inferior temporal cortex	Original NP question	v10-11
10 Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology	NPTDPE	Distribution of TDP-43 immunoreactive inclusions — neocortex	Original NP question	v10-11
11 Aging-related tau astroglial pathology	NPARTAG	ARTAG pathology	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGSEV	Severity of ARTAG pathology	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAMY	Localization of ARTAG pathology, amygdala	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAM1	Localization of ARTAG pathology, amygdala, subpial	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAM2	Localization of ARTAG pathology, amygdala, subependymal	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAM3	Localization of ARTAG pathology, amygdala, gray matter	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAM4	Localization of ARTAG pathology, amygdala, white matter	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGAM5	Localization of ARTAG pathology, amygdala, perivascular	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGFRN	Localization of ARTAG pathology, frontal neocortex	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGFR1	Localization of ARTAG pathology, frontal neocortex, subpial	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGFR2	Localization of ARTAG pathology, frontal neocortex, gray matter	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGFR3	Localization of ARTAG pathology, frontal neocortex, white matter	Original NP question	v11
11 Aging-related tau astroglial pathology	NPATGFR4	Localization of ARTAG pathology, frontal neocortex, perivascular	Original NP question	v11
12 Other pathologic diagnoses	NPPDXA	Pigment-spheroid degeneration/NBIA	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXB	Multiple system atrophy	Original NP question	v10-11
12 Other pathologic diagnoses	NACCPRIO	Prion disease	Derived variable	v1-11
12 Other pathologic diagnoses	NPPDXD	Trinucleotide disease (Huntington disease, SCA, other)	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXE	Malformation of cortical development	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXF	Metabolic/storage disorder of any type	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXG	WM disease, leukodystrophy	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXH	WM disease, multiple sclerosis or other demyelinating disease	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
12 Other pathologic diagnoses	NPPDXI	Contusion/traumatic brain injury of any type, acute	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXJ	Contusion/traumatic brain injury of any type, chronic	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXK	Neoplasm, primary	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXL	Neoplasm, metastatic	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXM	Infectious process of any type (encephalitis, abscess, etc.)	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXN	Herniation, any site	Original NP question	v10-11
12 Other pathologic diagnoses	NACCDOWN	Down syndrome	Derived variable	v1-11
12 Other pathologic diagnoses	NPPDXP	AD-related genes	Original NP question	v10-11
12 Other pathologic diagnoses	NPPDXQ	FTLD-related genes	Original NP question	v10-11
12 Other pathologic diagnoses	NACCOTHP	Other pathologic diagnosis	Derived variable	v1-11
12 Other pathologic diagnoses	NACCWRI1	First other pathologic diagnosis write-in	Derived variable	v1-11
12 Other pathologic diagnoses	NACCWRI2	Second other pathologic diagnosis write-in	Derived variable	v1-11
12 Other pathologic diagnoses	NACCWRI3	Third other pathologic diagnosis write-in	Derived variable	v1-11
13 Stored tissue and full autopsy findings	NACCBNKF	Banked frozen brain	Derived variable	v8-11, MDS
13 Stored tissue and full autopsy findings	NPBNKB	Banked frozen wedge of cerebellum or other sample for future DNA prep	Original NP question	v10-11
13 Stored tissue and full autopsy findings	NACCFORM	Formalin- or paraformaldehyde-fixed brain derived	Derived variable	v8-11, MDS
13 Stored tissue and full autopsy findings	NACCPARA	Paraffin-embedded blocks of brain regions	Derived variable	v8-11, MDS
13 Stored tissue and full autopsy findings	NACCCSFP	Banked postmortem CSF	Derived variable	v8-11, MDS
13 Stored tissue and full autopsy findings	NPBNKF	Banked postmortem blood or serum	Original NP question	v10-11
13 Stored tissue and full autopsy findings	NPFAUT	Full autopsy performed	Original NP question	v10-11
13 Stored tissue and full autopsy findings	NPFAUT1	If full autopsy performed, first major finding	Original NP question	v10-11
13 Stored tissue and full autopsy findings	NPFAUT2	If full autopsy performed, second major finding	Original NP question	v10-11

Section	Variable name	Short descriptor	Variable type	Source
13 Stored tissue and full autopsy findings	NPFAUT3	If full autopsy performed, third major finding	Original NP question	v10-11
13 Stored tissue and full autopsy findings	NPFAUT4	If full autopsy performed, fourth major finding	Original NP question	v10-11
App. A Glossary of other available NP data	NPNIT	NIA/Reagan Institute criteria	Original NP question	v1-9
App. A Glossary of other available NP data	NPCERAD	CERAD criteria	Original NP question	v1-9
App. A Glossary of other available NP data	NPADRDA	ADRDA/Khachaturian criteria	Original NP question	v1-9
App. A Glossary of other available NP data	NPOCRIT	Other criteria	Original NP question	v1-9
App. A Glossary of other available NP data	NPVOTH	Other vascular	Original NP question	v1-9
App. A Glossary of other available NP data	NPLEWYCS	DLB clinical syndrome due to DLB pathology	Original NP question	v9
App. A Glossary of other available NP data	NPGENE	Family history	Original NP question	v1-9
App. A Glossary of other available NP data	NPFHSPEC	Specify family history	Original NP question	v1-9
App. A Glossary of other available NP data	NPTAUHAP	Tau haplotype	Original NP question	v1-9
App. A Glossary of other available NP data	NPPRNP	PRNP codon 129	Original NP question	v1-9
App. A Glossary of other available NP data	NPCHROM	Genetic or chromosomal abnormalities	Original NP question	v1-9
App. A Glossary of other available NP data	NPPNORM	Normal brain — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPCNORM	Normal brain — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPADP	AD pathology present but insufficient for AD diagnosis — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPCADP	AD pathology present but insufficient for AD diagnosis — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPAD	Alzheimer's disease — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPCAD	Alzheimer's disease — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPLEWY	Lewy body disease, with or without AD — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPCLEWY	Lewy body disease, with or without AD — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPVASC	Vascular disease — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPVASC	Vascular disease — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPFTLD	FTLD — primary	Original NP question	v8-9
App. A Glossary of other available NP data	NPFTLD	FTLD — contributing	Original NP question	v8-9
App. A Glossary of other available NP data	NPPHIPP	Hippocampal sclerosis — primary	Original NP question	v8-9

Section		Variable name	Short descriptor	Variable type	Source
App. A	Glossary of other available NP data	NPCHIPP	Hippocampal sclerosis — contributing	Original NP question	v8–9
App. A	Glossary of other available NP data	NPPRION	Prion-associated disease — primary	Original NP question	v8–9
App. A	Glossary of other available NP data	NPCPRION	Prion-associated disease — contributing	Original NP question	v8–9
App. A	Glossary of other available NP data	NPPOTH1	Other primary pathologic diagnosis 1	Original NP question	v8–9
App. A	Glossary of other available NP data	NPCOTH1	Other contributing pathologic diagnosis 1	Original NP question	v8–9
App. A	Glossary of other available NP data	NPOTH1X	Other pathologic diagnosis 1 — specify	Original NP question	v8–9
App. A	Glossary of other available NP data	NPPOTH2	Other primary pathologic diagnosis 2	Original NP question	v8–9
App. A	Glossary of other available NP data	NPCOTH2	Other contributing pathologic diagnosis 2	Original NP question	v8–9
App. A	Glossary of other available NP data	NPOTH2X	Other pathologic diagnosis 2 — specify	Original NP question	v8–9
App. A	Glossary of other available NP data	NPPOTH3	Other primary pathologic diagnosis 3	Original NP question	v8–9
App. A	Glossary of other available NP data	NPCOTH3	Other contributing pathologic diagnosis 3	Original NP question	v8–9
App. A	Glossary of other available NP data	NPOTH3X	Other pathologic diagnosis 3 — specify	Original NP question	v8–9

The Data Dictionary

Section 1. Form header

Variable name	NACCID
Variable type	NACC Derived Variable
Short descriptor	Subject ID
Data type	Character cross-sectional
Allowable codes	Prefix “NACC” followed by six numbers
Description/derivation	Randomly generated subject ID created by NACC

Variable name	NACCADC
Variable type	NACC Derived Variable
Short descriptor	ADC at which subject was seen
Data type	Numeric cross-sectional
Allowable codes	100–9999
Description/derivation	Randomly generated Center ID created by NACC

Variable name	NPFORMVER
Variable type	Original NP question
Short descriptor	NP Form version
Data type	Numeric cross-sectional
Allowable codes	1 = Version 1 7 = Version 7 8 = Version 8 9 = Version 9 10 = Version 10 11 = Version 11

Section 2. Subject demographics

Variable name	NPSEX
Variable type	Original NP question
Short descriptor	Subject's sex
Data type	Numeric cross-sectional
Allowable codes	1 = Male 2 = Female

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NPv11
Question #	4	4	4	4	4	4

Variable name	NACCDAGE
Variable type	NACC Derived Variable
Short descriptor	Age at death
Data type	Numeric cross-sectional
Allowable codes	15–120 888 = Not applicable 999 = Unknown

Description/derivation

This variable is derived using data from both the Neuropathology (NP) and Milestones Forms. For subjects for whom NP data is available, **NACCDAGE** is equal to the death age on the NP Form. Note that all subjects with an NP Form will have a known age at death.

	Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	Milestones	MDS
Question #	5	5	5	5	5	5	1	26

Variable name:	NACCMOD
Variable type:	NACC Derived Variable
Short descriptor:	Month of death
Data type:	Numeric cross-sectional
Allowable codes:	0–12 88 = Not applicable 99 = Unknown

Description/derivation:

This variable is derived using data from both the Neuropathology (NP) and Milestones Forms. For subjects for whom NP data is available, **NACCMOD** is equal to the month of death provided on the NP Form. Note that all subjects with an NP Form will have a known month of death.

	Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	Milestones	MDS
Question #	6a	6a	6a	6a	6a	6a	1	26a

Variable name:	NACCYOD
Variable type:	NACC Derived Variable
Short descriptor:	Year of death
Data type:	Numeric cross-sectional
Allowable codes:	Allowable codes cannot precede 1970; in most cases, should not precede 1984 8888 = Not applicable 9999 = Unknown

Description/derivation: This variable is derived using data from both the Neuropathology (NP) and Milestones Forms. For subjects for whom NP data is available, **NACCYOD** is equal to the year of death provided on the NP Form. Note that all subjects with an NP Form will have a known year of death.

	Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	Milestones	MDS
Question #	6c	6c	6c	6c	6c	6c	1	26c

Variable name	NACCINT
Variable type	NACC Derived Variable
Short descriptor	Time interval in months between last visit and death
Data type	Numeric cross-sectional
Allowable codes	0 - no limit 8888 = Not applicable 9999 = Unknown

Description/derivation This variable is derived using data from the Neuropathology (NP), UDS, and Milestones Forms.

	Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	UDS	Milestones
Question #	6	6	6	6	6	6	Form header	1

Section 3. Brain autopsy details

Variable name	NPPMIH
Variable type	Original NP question
Short descriptor	Postmortem interval (PMI) (hours)
Data type	Numeric cross-sectional
Allowable codes	0.0 – 98.9 99.9 = Unknown -4.4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	7	7

Variable name	NPFIIX
Variable type	Original NP question
Short descriptor	Fixative
Data type	Numeric cross-sectional
Allowable codes	1 = Formalin 2 = Paraformaldehyde 7 = Other (specify) -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	8	8

Variable name	NPFIIXX
Variable type	Original NP question
Short descriptor	Fixative other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way

Blanks Blank if NPFIIX ≠ 7 (Other)

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	8a	8a

Section 4. Gross findings and overall impressions

Variable name	NPWBRWT
Variable type	Original NP question
Short descriptor	Whole brain weight (grams)
Data type	Numeric cross-sectional
Allowable codes	100–2500 9999 = unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9a	9a

Variable name	NPWBRF
Variable type	Original NP question
Short descriptor	Fresh or fixed brain weight
Data type	Numeric cross-sectional
Allowable codes	1 = Fresh 2 = Fixed 8 = Not applicable -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9b	9b

Variable name	NACCBRRN
Variable type	NACC Derived Variable
Short descriptor	No major neuropathologic change present
Data type	Numeric cross-sectional
Allowable codes	0 = Some pathologic change present 1 = No major pathologic change present 9 = At least one required variable is not assessed/missing/unknown

Description/derivation

This derived variable defines no major neuropathologic change present as meeting all of the following criteria:

- Braak stage 0 (AD-type neurofibrillary degeneration not present), I, or II
- No amyloid pathology
- No or mild vascular pathology
- No Lewy bodies
- No other pathology (e.g., FTLN-TDP, FTLN-tau, tangle-only dementia, prion disease, etc.)

Form, version	Data source					
	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	9-11, 12a-12l, 13, 14a-14h, 15a-15b, 16a	9-11, 12a-12l, 13, 14a-14h, 15a-15b, 16a	9-11, 12a-12l, 13, 14a-14h, 15a-15b, 16a	9-11, 12a-12l, 13, 14a-14h, 15a-15b, 16a	11a-11c, 11e1, 11e2, 12a, 12b, 12e, 12f, 12g, 13, 14, 15, 16a-16e, 17a, 17c-17e, 18a-18n, 18r-18t	11a-11c, 11e1, 11e2, 12a, 12b, 12e, 12f, 12g, 13, 14, 15, 16a-16e, 17a, 17c-17e, 18a, 19a-19n, 19r-19t

Variable name	NPGRCCA
Variable type	Original NP question
Short descriptor	Severity of gross findings — cerebral cortex atrophy
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

Form, version	Data source					
	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9c1	9c1

Variable name	NPGRLA
Variable type	Original NP question
Short descriptor	Severity of gross findings — lobar atrophy
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

Form, version	Data source					
	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9c2	9c2

Variable name	NPGRHA
Variable type	Original NP question
Short descriptor	Severity of gross findings — hippocampus atrophy
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9c3	9c3

Variable name	NPGRSNH
Variable type	Original NP question
Short descriptor	Severity of gross findings — substantia nigra hypopigmentation
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9c4	9c4

Variable name	NPGR LCH
Variable type	Original NP question
Short descriptor	Severity of gross findings — locus ceruleus hypopigmentation
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	9c5	9c5

Variable name	NACCAVAS
Variable type	NACC Derived Variable
Short descriptor	Severity of gross findings — atherosclerosis of the circle of Willis
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12i	12h	12h	12h	9c6	9c6

Section 5. Methods for scoring case

Variable name	NPTAN
Variable type	Original NP question
Short descriptor	Method for scoring case — tau antibody
Data type	Numeric cross-sectional
Allowable codes	1 = Non-phospho specific 2 = PHF1 3 = CP13 4 = AT8 7 = Other (specify) 8 = Not assessed -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	10a	10a

Variable name	NPTANX
Variable type	Original NP question
Short descriptor	Method for scoring case — tau antibody other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	If NPTAN ≠ 7 (Other)

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	10a1	10a1

Variable name	NPABAN
Variable type	Original NP question
Short descriptor	Method for scoring case — amyloid beta antibody
Data type	Numeric cross-sectional
Allowable codes	1 = 4G8 2 = 10D5 7 = Other (specify) 8 = Not assessed -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	10b	10b

Variable name	NPABANX
Variable type	Original NP question
Short descriptor	Method for scoring case — amyloid beta antibody other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	If NPBAN ≠ 7 (Other)
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10b1 10b1

Variable name	NPASAN
Variable type	Original NP question
Short descriptor	Method for scoring case — alpha synuclein antibody
Data type	Numeric cross-sectional
Allowable codes	1 = Non-phospho specific (e.g., LB509) 2 = Phospho-specific (e.g., pSYN#64) 7 = Other (specify) 8 = Not assessed -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10c 10c

Variable name	NPASANX
Variable type	Original NP question
Short descriptor	Method for scoring case — alpha synuclein antibody other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	If NPASAN ≠ 7 (Other)
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10c1 10c1

Variable name	NPTDPAN
Variable type	Original NP question
Short descriptor	Method for scoring case — TDP-43 antibody
Data type	Numeric cross-sectional
Allowable codes	1 = Non-phospho specific 2 = Phospho-specific 7 = Other (specify) 8 = Not assessed -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10d 10d

Variable name	NPTDPANX
Variable type	Original NP question
Short descriptor	Method for scoring case — TDP-43 antibody other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	If NPTDPAN ≠ 7 (Other)
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10d1 10d1

Variable name	NPHISMB
Variable type	Original NP question
Short descriptor	Histochemical stain used — modified Bielschowsky
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 10e1 10e1

Variable name	NPHISG
Variable type	Original NP question
Short descriptor	Histochemical stain used — Gallyas
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	10e2	10e2

Variable name	NPHISS
Variable type	Original NP question
Short descriptor	Histochemical stain used — other silver stain
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	10e3	10e3

Variable name	NPHIST
Variable type	Original NP question
Short descriptor	Histochemical stain used — thioflavin
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	10e4	10e4

Variable name	NPHISO
Variable type	Original NP question
Short descriptor	Histochemical stain used — other
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation	Data source						
	Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
	Question #	n/a	n/a	n/a	n/a	10e5	10e5

Variable name	NPHISOX
Variable type	Original NP question
Short descriptor	Histochemical stain used, other specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPHISO≠1

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	10ex	10ex

Section 6. Alzheimer's disease

Variable name	NPTHAL
Variable type	Original NP question
Short descriptor	Thal phase for amyloid plaques (A score)
Data type	Numeric cross-sectional
Allowable codes	0 = Phase 0 (A0) 1 = Phase 1 (A1) 2 = Phase 2 (A1) 3 = Phase 3 (A2) 4 = Phase 4 (A3) 5 = Phase 5 (A3) 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	11a	11a

Variable name	NACCBRAA
Variable type	NACC Derived Variable
Short descriptor	Braak stage for neurofibrillary degeneration (B score)
Data type	Numeric cross-sectional
Allowable codes	0 = Stage 0, AD-type neurofibrillary degeneration not present (B0) 1 = Stage I (B1) 2 = Stage II (B1) 3 = Stage III (B2) 4 = Stage IV (B2) 5 = Stage V (B3) 6 = Stage VI (B3) 7 = The presence of a tauopathy (other than aging/AD) precludes Braak staging 8 = Not assessed 9 = Missing/unknown

Description/derivation

This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	9	9	9	9	11b	11b

Variable name	NACCNEUR
Variable type	NACC Derived Variable
Short descriptor	Density of neocortical neuritic plaques (CERAD score) (C score)
Data type	Numeric cross-sectional
Allowable codes	0 = No neuritic plaques (C0) 1 = Sparse neuritic plaques (C1) 2 = Moderate neuritic plaques (C2) 3 = Frequent neuritic plaques (C3) 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	10	10	10	10	11c	11c

Variable name	NPADNC
Variable type	Original NP question
Short descriptor	NIA-AA Alzheimer's disease neuropathologic change (ADNC) (ABC score)
Data type	Numeric cross-sectional
Allowable codes	0 = Not AD 1 = Low ADNC 2 = Intermediate ADNC 3 = High ADNC 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	11d	11d

*****NOTE: Previous Alzheimer's disease diagnostic criteria are available (e.g., NIA/Reagan, CERAD). See Appendix A and contact NACC for more information about requesting these data.**

Variable name	NACCDIFF
Variable type	NACC Derived Variable
Short descriptor	Density of diffuse plaques (CERAD semi-quantitative score)
Data type	Numeric cross-sectional
Allowable codes	0 = No diffuse plaques 1 = Sparse diffuse plaques 2 = Moderate diffuse plaques 3 = Frequent diffuse plaques 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	11	11	11	11	11e1	11e1

Section 7. Cerebrovascular disease

Variable name	NACCVASC
Variable type	NACC Derived Variable
Short descriptor	Ischemic, hemorrhagic, or vascular pathology present
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = One or more vascular pathology 9 = Unknown
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	12a–12l 12a–12l 12a–12l 12a–12l 9c6, 11e2, 12a–12g 9c6, 11e2, 12a–12g

Variable name	NACCAMY
Variable type	NACC Derived Variable
Short descriptor	Cerebral amyloid angiopathy
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown
Description/derivation	This derived variable was constructed to make the coding consistent between form versions.
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	12k 12j 12j 12j 11e2 11e2

Variable name	NPLINF
Variable type	Original NP question
Short descriptor	Large arterial infarcts present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	This variable comes from NP Form version 9, Question 12A.
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	12a 12a 12a 12a n/a n/a

Variable name	NPLAC
Variable type	Original NP question
Short descriptor	One or more lacunes (small artery infarcts and/or hemorrhages) present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12c	12c	12c	12c	n/a	n/a

Variable name	NPINF
Variable type	Original NP question
Short descriptor	Old infarcts observed grossly (including lacunes)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12a	12a

Variable name	NPINF1A
Variable type	Original NP question
Short descriptor	Old infarcts observed grossly — number in cerebral cortex
Data type	Numeric cross-sectional
Allowable codes	0–87 88 = Not assessed 99 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	121a	121a

Zero if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPINF1B
Variable type	Original NP question
Short descriptor	Size of largest old infarct observed in cerebral cortex (cm)
Data type	Numeric cross-sectional
Allowable codes	0.0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	121b	121b

Variable name	NPINF1D
Variable type	Original NP question
Short descriptor	Size of second largest old infarct observed in cerebral cortex (cm)
Data type	Numeric cross-sectional
Allowable codes	0.0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	121d	121d

Variable name	NPINF1F
Variable type	Original NP question
Short descriptor	Size of third largest old infarct observed in cerebral cortex (cm)
Data type	Numeric cross-sectional
Allowable codes	0.0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	121f	121f

Variable name	NPINF2A
Variable type	Original NP question
Short descriptor	Old infarcts observed grossly — number in subcortical cerebral/periventricular white matter
Data type	Numeric cross-sectional
Allowable codes	0–87 88 = Not assessed 99 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	122a	122a

Zero if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPINF2B
Variable type	Original NP question
Short descriptor	Size of largest old infarct observed in subcortical cerebral/periventricular white matter (cm)
Data type	Numeric cross-sectional
Allowable codes	0.0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way

Blanks Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	122b	122b

Variable name	NPINF2D
Variable type	Original NP question
Short descriptor	Size of second largest old infarct observed in subcortical cerebral/periventricular white matter (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way

Blanks Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	122d	122d

Variable name	NPINF2F
Variable type	Original NP question
Short descriptor	Size of third largest old infarct observed in subcortical cerebral/periventricular white matter (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	122f	122f

Variable name	NPINF3A
Variable type	Original NP question
Short descriptor	Old infarcts observed grossly — number in deep cerebral gray matter or internal capsule
Data type	Numeric cross-sectional
Allowable codes	0–87 88 = Not assessed 99 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	123a	123a

Zero if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPINF3B
Variable type	Original NP question
Short descriptor	Size of largest old infarct observed in deep cerebral gray matter or internal capsule (cm)
Data type	Numeric cross-sectional
Allowable codes	0.0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	123b	123b

Variable name	NPINF3D
Variable type	Original NP question
Short descriptor	Size of second-largest old infarct observed in deep cerebral gray matter or internal capsule (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	123d	123d

Variable name	NPINF3F
Variable type	Original NP question
Short descriptor	Size of third-largest old infarct observed in deep cerebral gray matter or internal capsule (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	123f	123f

Variable name	NPINF4A
Variable type	Original NP question
Short descriptor	Old infarcts observed grossly — number in brainstem or cerebellum
Data type	Numeric cross-sectional
Allowable codes	0–87 88 = Not assessed 99 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	124a	124a

Zero if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPINF4B
Variable type	Original NP question
Short descriptor	Size of largest old infarct observed in brainstem or cerebellum (cm)
Data type	Numeric cross-sectional
Allowable codes	0.00–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	124b	124b

Variable name	NPINF4D
Variable type	Original NP question
Short descriptor	Size of second-largest old infarct observed in brainstem or cerebellum (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	124d	124d

Variable name	NPINF4F
Variable type	Original NP question
Short descriptor	Size of third-largest old infarct observed in brainstem or cerebellum (cm)
Data type	Numeric cross-sectional
Allowable codes	0–20.0 88.8 = Not assessed or not applicable 99.9 = Missing/unknown -4.4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPINF = 0 (old infarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	124f	124f

Variable name	NACCINF
Variable type	NACC Derived Variable
Short descriptor	Infarct and lacunes
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing

Description/derivation This variable combines data on the presence of large cerebral artery infarcts, lacunes (small artery infarcts and/or hemorrhages), and gross infarcts across Neuropathology Form versions.

Note: Data on infarcts and lacunes were not collected in the same way across NP Form Versions. Please see Appendix B for detailed information on the derivation of this variable.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12a, 12c	12a, 12c	12a, 12c	12a, 12c	12a	12a

Variable name	NPHEM
Variable type	Original NP question
Short descriptor	Single or multiple hemorrhages present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation:

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12d	12d	12d	12d	n/a	n/a

Variable name	NPHEMO
Variable type	Original NP question
Short descriptor	Single or multiple old hemorrhages observed grossly
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12b	12b

Variable name	NPHEMO1
Variable type	Original NP question
Short descriptor	Single or multiple old hemorrhages observed grossly — subdural or epidural hemorrhage
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12b1	12b1

Zero if NPHEMO = 0 (old hemorrhages were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPHEMO2
Variable type	Original NP question
Short descriptor	Single or multiple old hemorrhages observed grossly — primary parenchymal hemorrhage
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12b2	12b2

Zero if NPHEMO = 0 (old hemorrhages were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPHEMO3
Variable type	Original NP question
Short descriptor	Single or multiple old hemorrhages observed grossly — secondary parenchymal hemorrhage
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12b3	12b3

Zero if NPHEMO = 0 (old hemorrhages were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPMICRO
Variable type	Original NP question
Short descriptor	Multiple microinfarcts present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12b	12b	12b	12b	n/a	n/a

Variable name	NPOLD
Variable type	Original NP question
Short descriptor	Old microinfarcts, not observed grossly
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12c	12c

Variable name	NPOLD1
Variable type	Original NP question
Short descriptor	Number of old microinfarcts, not observed grossly — cerebral cortex
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12c1	12c1

Zero if NPOLD = 0 (old microinfarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLD2
Variable type	Original NP question
Short descriptor	Number of old microinfarcts, not observed grossly — subcortical or periventricular white matter
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12c2	12c2

Zero if NPOLD = 0 (old microinfarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLD3
Variable type	Original NP question
Short descriptor	Number of old microinfarcts, not observed grossly — subcortical gray matter
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12c3	12c3

Zero if NPOLD = 0 (old microinfarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLD4
Variable type	Original NP question
Short descriptor	Number of old microinfarcts, not observed grossly — brainstem and cerebellum
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12c4	12c4

Zero if NPOLD = 0 (old microinfarcts were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NACCMICR
Variable type	NACC Derived Variable
Short descriptor	Microinfarcts
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing

Description/derivation

This variable combines data on the presence of microinfarcts across Neuropathology Form versions.

Note: Data on microinfarcts were not collected in the same way across NP Form Versions. Please see Appendix B for detailed information on the derivation of this variable.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12b	12b	12b	12b	12c	12c

Variable name	NPOLDD
Variable type	Original NP question
Short descriptor	Old cerebral microbleeds
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12d	12d

Variable name	NPOLDD1
Variable type	Original NP question
Short descriptor	Number of cerebral microbleeds — cerebral cortex
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12d1	12d1

Zero if NPOLDD = 0 (cerebral microbleeds were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLDD2
Variable type	Original NP question
Short descriptor	Number of cerebral microbleeds — subcortical and periventricular white matter
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12d2	12d2

Zero if NPOLDD = 0 (cerebral microbleeds were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLDD3
Variable type	Original NP question
Short descriptor	Number of cerebral microbleeds — subcortical gray matter
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12d3	12d3

Zero if NPOLDD = 0 (cerebral microbleeds were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NPOLDD4
Variable type	Original NP question
Short descriptor	Number of cerebral microbleeds — brainstem and cerebellum
Data type	Numeric cross-sectional
Allowable codes	0 = 0 1 = 1 2 = 2 3 = 3 or more 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12d4	12d4

Zero if NPOLDD = 0 (cerebral microbleeds were not observed grossly in regions examined, or were not assessed specifically for this region).

Variable name	NACCHEM
Variable type	NACC Derived Variable
Short descriptor	Hemorrhages and microbleeds
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing

Description/derivation This variable combines data on the presence of microbleeds and hemorrhages across Neuropathology Form versions.

Note: Data on hemorrhages and microbleeds were not collected in the same way across NP Form Versions. Please see Appendix B for detailed information on the derivation of this variable.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12d	12d	12d	12d	12b, 12d	12b, 12d

Variable name	NACCARTE
Variable type	NACC Derived Variable
Short descriptor	Arteriolosclerosis
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12j	12i	12i	12i	12e	12e

Variable name	NPWMR
Variable type	Original NP question
Short descriptor	White matter rarefaction
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12f	12f

Variable name	NPPATH
Variable type	Original NP question
Short descriptor	Other pathologic changes related to ischemic or vascular disease not previously specified
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g	12g

Variable name	NACCNEC
Variable type	NACC Derived Variable
Short descriptor	Laminar necrosis
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation

This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12f	12f	12f	12f	12g1	12g1

Zero if NPPATH = 0.

Variable name	NPPATH2
Variable type	Original NP question
Short descriptor	Acute neuronal necrosis
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g2	12g2

Zero if NPPATH = 0.

Variable name	NPPATH3
Variable type	Original NP question
Short descriptor	Acute/subacute gross infarcts
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g3	12g3

Zero if NPPATH = 0.

Variable name	NPPATH4
Variable type	Original NP question
Short descriptor	Acute/subacute microinfarcts
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g4	12g4

Zero if NPPATH = 0.

Variable name	NPPATH5
Variable type	Original NP question
Short descriptor	Acute/subacute gross hemorrhage
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g5	12g5

Zero if NPPATH = 0.

Variable name	NPPATH6
Variable type	Original NP question
Short descriptor	Acute/subacute microhemorrhage
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g6	12g6

Zero if NPPATH = 0.

Variable name	NPPATH7
Variable type	Original NP question
Short descriptor	Vascular malformation of any type
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g7	12g7

Zero if NPPATH = 0.

Variable name	NPPATH8
Variable type	Original NP question
Short descriptor	Aneurysm of any type
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g8	12g8

Zero if NPPATH = 0.

Variable name	NPPATH9
Variable type	Original NP question
Short descriptor	Vasculitis of any type
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g9	12g9

Zero if NPPATH = 0.

Variable name	NPPATH10
Variable type	Original NP question
Short descriptor	CADASIL
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g10	12g10

Zero if NPPATH = 0.

Variable name	NPPATH11
Variable type	Original NP question
Short descriptor	Mineralization of blood vessels
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g11	12g11

Zero if NPPATH = 0.

Variable name	NPPATHO
Variable type	Original NP question
Short descriptor	Other ischemic or vascular pathology
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12g12	12g12

Zero if NPPATH = 0.

Variable name	NPPATHOX
Variable type	Original NP question
Short descriptor	Other ischemic or vascular pathology specify
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way

Blanks Blank if NPPATHO ≠ 1

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	12gx	12gx

Variable name	NPART
Variable type	Original NP question
Short descriptor	Subcortical arteriosclerotic leukoencephalopathy present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12e	12e	12e	12e	n/a	n/a

Variable name	NPOANG
Variable type	Original NP question
Short descriptor	Angiopathy other than amyloid angiopathy present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12k	12k	12k	12k	n/a	n/a

Section 8. Lewy body and substantia nigra pathology

Variable name	NACCLEWY
Variable type	NACC Derived Variable
Short descriptor	Lewy body pathology derived
Data type	Numeric cross-sectional
Allowable codes	<p>0 = No Lewy body pathology*</p> <p>1 = Brainstem-predominant</p> <p>2 = Limbic (transitional) or amygdala-predominant</p> <p>3 = Neocortical (diffuse)</p> <p>4 = Lewy bodies present, but region unspecified or found in the olfactory bulb</p> <p>8 = Not assessed</p> <p>9 = Missing</p> <p><i>*Note: For v1–9, olfactory bulb may not have been assessed, and therefore, if there were Lewy bodies in the olfactory bulb, they would have nacclewy = 0.</i></p>
Description/derivation	This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	13	13	13	13a	13	13

Variable name	NPLBOD
Variable type	Original NP question
Short descriptor	Evidence of Lewy body pathology
Data type	Numeric cross-sectional
Allowable codes	<p>0 = No</p> <p>1 = Brainstem predominant</p> <p>2 = Limbic (transitional)</p> <p>3 = Neocortical (diffuse)</p> <p>4 = Amygdala predominant</p> <p>5 = Olfactory bulb</p> <p>8 = Not assessed</p> <p>9 = Missing/unknown</p> <p>-4 = Not available, NP Form version submitted did not collect data in this way</p>

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	13	13

Variable name	NPNLOSS
Variable type	Original NP question
Short descriptor	Neuron loss in the substantia nigra
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	14	14

Section 9. Hippocampal sclerosis

Variable name	NPHIPSCL
Variable type	Original NP question
Short descriptor	Hippocampal sclerosis (CA1 and/or subiculum)
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Unilateral 2 = Bilateral 3 = Present but laterality not assessed 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	Note: Hippocampal sclerosis was collected together with medial temporal lobe sclerosis in NP Form version 9 and earlier.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	15	15

Variable name	NPSCL
Variable type	Original NP question
Short descriptor	Medial temporal lobe sclerosis present (including hippocampal sclerosis)
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	12g	12g	12g	12g	n/a	n/a

Section 10. Frontotemporal lobar degeneration, other tauopathies, and TDP-43 pathology

Variable name	NPFTDTAU
Variable type	Original NP question
Short descriptor	FTLD with tau pathology (FTLD-tau) or other tauopathy
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17a	17a

Variable name	NACCPICK
Variable type	NACC Derived Variable
Short descriptor	FTLD-tau subtype – Pick’s (PiD)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14a	14a	14a	14a	17b1	17b1

Zero if NPFTDTAU = 0.

Variable name	NPFTDT2
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — other 3R tauopathy (includes MAPT mutation tauopathy)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b2	17b2

Zero if NPFTDTAU = 0.

Variable name	NACCCBD
Variable type	NACC Derived Variable
Short descriptor	FTLD-tau subtype — corticobasal degeneration (CBD)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14b	14b	14b	14b	17b3	17b3

Zero if NPFTDTAU = 0.

Variable name	NACCPROG
Variable type	NACC Derived Variable
Short descriptor	FTLD-tau subtype — progressive supranuclear palsy (PSP)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14c	14c	14c	14c	17b4	17b4

Zero if NPFTDTAU = 0.

Variable name	NPFTDT5
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — argyrophilic grains
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b5	17b5

Zero if NPFTDTAU = 0.

Variable name	NPFTDT6
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — other 4R tauopathy (includes sporadic multiple systems tauopathy, globular glial tauopathy, MAPT mutation tauopathy)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b6	17b6

Zero if NPFTDTAU = 0.

Variable name	NPFTDT7
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — chronic traumatic encephalopathy
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b7	17b7

Zero if NPFTDTAU = 0.

Variable name	NPFTDT8
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — amyotrophic lateral sclerosis (ALS)/parkinsonism-dementia
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b8	17b8

Zero if NPFTDTAU = 0.

Variable name	NPFTDT9
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — tangle dominant disease
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b9	17b9

Zero if NPFTDTAU = 0.

Variable name	NPFTDT10
Variable type	Original NP question
Short descriptor	FTLD-tau subtype — other 3R + 4R tauopathy
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17b10	17b10

Zero if NPFTDTAU = 0.

Variable name	NPFRONT
Variable type	Original NP question
Short descriptor	Frontotemporal dementia and parkinsonism with tau-positive or argyrophilic inclusions
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14d	14d	14d	14d	n/a	n/a

Variable name	NPTAU
Variable type	Original NP question
Short descriptor	Tauopathy, other (e.g., tangle-only dementia and argyrophilic grain dementia)
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14e	14e	14e	14e	n/a	n/a

Variable name	NPFTD
Variable type	Original NP question
Short descriptor	FTD with ubiquitin-positive (tau-negative) inclusions
Data type	Numeric cross-sectional
Allowable codes	1 = FTD with motor neuron disease 2 = FTD without motor neuron disease 3 = None present 4 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14f	14f	14f	14f	n/a	n/a

Variable name	NPFTDTP
Variable type	Original NP question
Short descriptor	FTLD with TDP-43 pathology (FTLD-TDP)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17c	17c

Variable name	NPALSMND
Variable type	Original NP question
Short descriptor	ALS/motor neuron disease (MND)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes, with TDP-43 inclusions in motor neurons 2 = Yes, with FUS inclusions in motor neurons 3 = Yes, with SOD1 inclusions in motor neurons 4 = Yes, with other inclusions 5 = Yes, with no specific inclusions 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17d	17d

Variable name	NPOFTD
Variable type	Original NP question
Short descriptor	Other FTLD
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f	17f

Variable name	NPOFTD1
Variable type	Original NP question
Short descriptor	Other FTLD subtype — atypical FTLD-U
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f1	17f1

Zero if NPOFTD = 0.

Variable name	NPOFTD2
Variable type	Original NP question
Short descriptor	Other FTLD subtype – NIFID (neuronal intermediate filament inclusions disease)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f2	17f2

Zero if NPOFTD = 0.

Variable name	NPOFTD3
Variable type	Original NP question
Short descriptor	Other FTLD subtype – BIBD (basophilic inclusion body disease)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f3	17f3

Zero if NPOFTD = 0.

Variable name	NPOFTD4
Variable type	Original NP question
Short descriptor	Other FTLD subtype — FTLD-UPS (ubiquitin-proteasome system [ubiquitin or p62 positive, tau/TDP-43/FUS negative inclusions])
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f4	17f4

Zero if NPOFTD = 0.

Variable name	NPOFTD5
Variable type	Original NP question
Short descriptor	Other FTLN subtype — FTLN-NOS (includes dementia lacking distinctive histology [DLN] and FTLN with no inclusions [FTLN-NI] detected by tau, TDP-43, or ubiquitin/p62 IHC)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	17f5	17f5

Zero if NPOFTD = 0.

Variable name	NPFTDNO
Variable type	Original NP question
Short descriptor	FTD with no distinctive histopathology present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14g	14g	14g	14g	n/a	n/a

Variable name	NPFTDSPC
Variable type	Original NP question
Short descriptor	FTD “not otherwise specified” present
Data type	Numeric cross-sectional
Allowable codes	1 = Yes 2 = No 3 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	14h	14h	14h	14h	n/a	n/a

Variable name	NPTDPA
Variable type	Original NP question
Short descriptor	Distribution of TDP-43 immunoreactive inclusions — spinal cord
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	16a	16a

Variable name	NPTDPB
Variable type	Original NP question
Short descriptor	Distribution of TDP-43 immunoreactive inclusions — amygdala
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	16b	16b

Variable name	NPTDPC
Variable type	Original NP question
Short descriptor	Distribution of TDP-43 immunoreactive inclusions — hippocampus
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	16c	16c

Variable name	NPTDPD
Variable type	Original NP question
Short descriptor	Distribution of TDP-43 immunoreactive inclusions — entorhinal/inferior temporal cortex
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	16d	16d

Variable name	NPTDPE
Variable type	Original NP question
Short descriptor	Distribution of TDP-43 immunoreactive inclusions — neocortex
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	16e	16e

Section 11. Aging-related tau astroglial pathology

Variable name	NPARTAG
Variable type	Original NP question
Short descriptor	ARTAG pathology
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18a

Variable name	NPATGSEV
Variable type	Original NP question
Short descriptor	Severity of ARTAG pathology
Data type	Numeric cross-sectional
Allowable codes	1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18b

Variable name	NPATGAMY
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18c

Variable name	NPPDXD
Variable type	Original NP question

Variable name	NPATGAM1
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala, subpial
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18d1

Variable name	NPATGAM2
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala, subependymal
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18d2

Variable name	NPATGAM3
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala, gray matter
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18d3

Variable name	NPATGAM4
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala, white matter
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18d4

Variable name	NPATGAM5
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, amygdala, perivascular
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18d5

Variable name	NPATGFRN
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, frontal neocortex
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18e

Variable name	NPATGFR1
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, frontal neocortex, subpial
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18f1

Variable name	NPATGFR2
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, frontal neocortex, gray matter
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18f2

Variable name	NPATGFR3
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, frontal neocortex, white matter
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18f3

Variable name	NPATGFR4
Variable type	Original NP question
Short descriptor	Localization of ARTAG pathology, frontal neocortex, perivascular
Data type	Numeric cross-sectional
Allowable codes	0 = None 1 = Focal 2 = Widespread 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	n/a	18f4

Section 12. Other pathologic diagnoses

Variable name	NPPDXA
Variable type	Original NP question
Short descriptor	Pigment-spheroid degeneration/NBIA
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18a	19a

Variable name	NPPDXB
Variable type	Original NP question
Short descriptor	Multiple system atrophy
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18b	19b

Variable name	NACCPRIO
Variable type	NACC Derived Variable
Short descriptor	Prion disease
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	15a, 15b	15a, 15b	15a, 15b	15a, 15b	18c	19c

Short descriptor	Trinucleotide disease (Huntington disease, SCA, other)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18d	19d

Variable name	NPPDXE
Variable type	Original NP question
Short descriptor	Malformation of cortical development
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18e	19e

Variable name	NPPDXF
Variable type	Original NP question
Short descriptor	Metabolic/storage disorder of any type
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18f	19f

Variable name	NPPDXG
Variable type	Original NP question
Short descriptor	White matter disease, leukodystrophy
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18g	19g

Variable name	NPPDXH
Variable type	Original NP question
Short descriptor	White matter disease, multiple sclerosis or other demyelinating disease
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18h	19h

Variable name	NPPDXI
Variable type	Original NP question
Short descriptor	Contusion/traumatic brain injury of any type, acute
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18i	19i

Variable name	NPPDXJ
Variable type	Original NP question
Short descriptor	Contusion/traumatic brain injury of any type, chronic
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18j	19j

Variable name	NPPDXK
Variable type	Original NP question
Short descriptor	Neoplasm, primary
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18k	19k

Variable name	NPPDXL
Variable type	Original NP question
Short descriptor	Neoplasm, metastatic
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18l	19l

Variable name	NPPDXM
Variable type	Original NP question
Short descriptor	Infectious process of any type (encephalitis, abscess, etc.)
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18m	19m

Variable name	NPPDXN
Variable type	Original NP question
Short descriptor	Herniation, any site
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18n	19n

Variable name	NACCDOWN
Variable type	NACC Derived Variable
Short descriptor	Down syndrome
Data type	Numeric cross-sectional
Allowable codes	1 = Flag for known mutation 7 = No flag for known mutation (not present, not assessed, missing or unknown)

Description/derivation This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	19	19	19	19	18o	19o

Variable name	NPPDXP
Variable type	Original NP question
Short descriptor	AD-related genes
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18p	19p

Variable name	NPPDXQ
Variable type	Original NP question
Short descriptor	FTLD-related genes
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	18q	19q

Variable name	NACCOTHP
Variable type	NACC Derived Variable
Short descriptor	Other pathologic diagnosis
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes, one or more written-in diagnoses 8 = Not assessed 9 = Unknown

Description/derivation

This derived variable was constructed to make the coding consistent between form versions.

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	16a	16a	16a	16a	18r-t	19r-t

Variable name	NACCWRI1
Variable type	NACC Derived Variable
Short descriptor	First other pathologic diagnosis write-in
Data type	Character cross-sectional
Allowable codes	Any text or numbers
Blanks	Blank if NACCOTHP ≠ 1
Description/derivation	This derived variable was constructed to combine the written-in diagnoses across NP Form versions.

Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	16b1	16b1	16b1	16b1	18r1	19r1

Variable name	NACCWRI2
Variable type	NACC Derived Variable
Short descriptor	Second other pathologic diagnosis write-in
Data type	Character cross-sectional
Allowable codes	Any text or numbers
Blanks	Blank if NACCOTHP ≠ 1 or if only one write-in diagnosis
Description/derivation	This derived variable was constructed to combine the written-in diagnoses across NP Form versions.

Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	16b2	16b2	16b2	16b2	18s1	19s1

Variable name	NACCWRI3
Variable type	NACC Derived Variable
Short descriptor	Third other pathologic diagnosis write-in
Data type	Character cross-sectional
Allowable codes	Any text or numbers
Blanks	Blank if NACCOTHP ≠ 1 or if only two write-in diagnoses
Description/derivation	This derived variable was constructed to combine the written-in diagnoses across NP Form versions.

Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	16b3	16b3	16b3	16b3	18t1	19t1

Section 13. Stored tissue and full autopsy findings

Variable name	NACCBNKF
Variable type	NACC Derived Variable
Short descriptor	Banked frozen brain
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	This derived variables was constructed to make coding consistent between versions.

Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	MDS
Question #	n/a	n/a	21	21	19a	20a	31

Variable name	NPBNKB
Variable type	Original NP question
Short descriptor	Banked frozen wedge of cerebellum or other sample for future DNA prep
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	

Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	19b	20b

Variable name	NACCFORM
Variable type	NACC Derived Variable
Short descriptor	Formalin- or paraformaldehyde-fixed brain
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	This derived variable was constructed to make the coding consistent between form versions.

Data source							
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	MDS
Question #	n/a	n/a	22	22	19c	20c	32

Variable name	NACCPARA
Variable type	NACC Derived Variable
Short descriptor	Paraffin-embedded blocks of brain regions
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	This derived variable was constructed to make the coding consistent between form versions.

	Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	MDS
Question #	n/a	n/a	22	22	19d	20d	33

Variable name	NACCCSFP
Variable type	NACC Derived Variable
Short descriptor	Banked postmortem CSF
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	This derived variable was constructed to make the coding consistent between form versions.

	Data source						
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11	MDS
Question #	n/a	n/a	24	24	19e	20e	34

Variable name	NPBNKF
Variable type	Original NP question
Short descriptor	Banked postmortem blood or serum
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation	

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	19f	20f

Variable name	NPFAUT
Variable type	Original NP question
Short descriptor	Full autopsy performed
Data type	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	19h	20h

Variable name	NPFAUT1
Variable type	Original NP question
Short descriptor	If full autopsy performed, first major finding
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPFAUT≠1

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	19h1	20h1

Variable name	NPFAUT2
Variable type	Original NP question
Short descriptor	If full autopsy performed, second major finding
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPFAUT≠1 or no additional findings

Description/derivation

	Data source					
Form, version	NP v1	NP v7	NP v8	NP v9	NP v10	NP v11
Question #	n/a	n/a	n/a	n/a	19h2	20h2

Variable name	NPFAUT3
Variable type	Original NP question
Short descriptor	If full autopsy performed, third major finding
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPFAUT≠1 or no additional findings
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 19h3 20h3

Variable name	NPFAUT4
Variable type	Original NP question
Short descriptor	If full autopsy performed, fourth major finding
Data type	Character cross-sectional
Allowable codes	Any text or numbers -4 = Not available, NP Form version submitted did not collect data in this way
Blanks	Blank if NPFAUT≠1 or no additional findings
Description/derivation	
	Data source
Form, version	NP v1 NP v7 NP v8 NP v9 NP v10 NP v11
Question #	n/a n/a n/a n/a 19h4 20h4

APPENDIX A. Glossary of other available NP data

Variable name	Short descriptor	NP Form version
NPNIT	NIA/Reagan Institute criteria	1–9
NPCERAD	CERAD criteria	1–9
NPADRDA	ADRDA/Khachaturian criteria	1–9
NPOCRIT	Other criteria	1–9
NPVOTH	Other vascular	1–9
NPLEWYCS	DLB clinical syndrome due to DLB pathology	9
NPGENE	Family history	1–9
NPFHSPEC	Specify family history	1–9
NPTAUHAP	Tau haplotype	1–9
NPPRNP	PRNP codon 129	1–9
NPCHROM	Genetic or chromosomal abnormalities	1–9
NPPNORM	Normal brain — primary	8–9
NPCNORM	Normal brain — contributing	8–9
NPPADP	AD pathology present but insufficient for AD diagnosis — primary	8–9
NPCADP	AD pathology present but insufficient for AD diagnosis — contributing	8–9
NPPAD	Alzheimer's disease — primary	8–9
NPCAD	Alzheimer's disease — contributing	8–9
NPPLEWY	Lewy body disease, with or without AD — primary	8–9
NPCLEWY	Lewy body disease, with or without AD — contributing	8–9
NPPVASC	Vascular disease — primary	8–9
NPCVASC	Vascular disease — contributing	8–9
NPPFTLD	FTLD — primary	8–9
NPCFTLD	FTLD — contributing	8–9
NPPHIPP	Hippocampal sclerosis — primary	8–9
NPCHIPP	Hippocampal sclerosis — contributing	8–9
NPPPRION	Prion-associated disease — primary	8–9
NPCPRION	Prion-associated disease — contributing	8–9
NPPOTH1	Other primary pathologic diagnosis 1	8–9
NPCOTH1	Other contributing pathologic diagnosis 1	8–9
NPOTH1X	Other pathologic diagnosis 1 — specify	8–9
NPPOTH2	Other primary pathologic diagnosis 2	8–9
NPCOTH2	Other contributing pathologic diagnosis 2	8–9
NPOTH2X	Other pathologic diagnosis 2 — specify	8–9
NPPOTH3	Other primary pathologic diagnosis 3	8–9
NPCOTH3	Other contributing pathologic diagnosis 3	8–9
NPOTH3X	Other pathologic diagnosis 3 — specify	8–9

APPENDIX B. NACC Derived Variables — DERIVATION GUIDE

Variable name:	NACCDAGE
Short descriptor:	Age at death
Data type:	Numeric cross-sectional
Allowable codes:	0–120 888 = Not applicable 999 = Unknown
Description/derivation:	<p>For subjects for whom NP data is available, NACCDAGE = NPDAGE.</p> <p>OTHER DATA SETS:</p> <p>UDS subjects: This variable is derived using data from both the Neuropathology (NP) and Milestones Forms. For subjects for whom NP data is available, NACCDAGE = NPDAGE. If NP data is not available, the date of death reported on the Milestones Form is used. In the event that month of death is missing from the Milestones Form, 7 (July) is imputed. In the event that day of death is missing from the Milestones Form, 1 is imputed. Birth month and year are required elements in the UDS; however, birth day is not collected. To calculate NACCDAGE, birth day is set to 1 for all subjects, and age at death is computed as death date – birth date. For subjects reported as deceased, but missing year of death on the Milestones Form, NACCDAGE = 999. For subjects who are not known to be deceased, NACCDAGE = 888. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional.</p> <p>MDS subjects: For MDS subjects for whom a NP Form is available, NACCDAGE = NPDAGE. If no NP Form is available, NACCDAGE is computed using MDS death date – birth date. If birth month or death month is missing, 7 (July) is imputed. If last known vital status is “Dead” (VITALST = 2), and birth year or death year is missing, NACCDAGE = 999.</p>

Variable name:	NACCMOD
Short descriptor:	Month of death
Data type:	Numeric cross-sectional
Allowable codes:	0–12 88 = Not applicable 99 = Unknown
Description/derivation:	<p>For subjects for whom NP data is available, NACCMOD is equal to the month of death provided on the NP form (NPDDMO). Note that all subjects with an NP form will have a known month of death.</p> <p>OTHER DATA SETS:</p> <p>UDS subjects: If NP data is not available, the month of death reported on the Milestones form is used (DEATHMO). If a subject is known to be deceased, but month of death is missing or unknown on the Milestones Form, then NACCMOD = 99. For subjects who are not known to be deceased, NACCMOD = 88.</p> <p>MDS subjects: If NP data is not available, the month of death reported in the MDS (DEATHMO) is used. If last known vital status is “Dead” (VITALST = 2) and DEATHMO = 99 or is missing, then NACCMOD = 99.</p>

Variable name:	NACCYOD
Short descriptor:	Year of death
Data type:	Numeric cross-sectional
Allowable codes:	Allowable codes cannot precede 1970; in most cases, should not precede 1984 8888 = Not applicable 9999 = Unknown
Description/derivation:	<p>For subjects for whom NP data is available, NACCYOD is equal to the year of death provided on the NP form. Note that all subjects with an NP form will have a known year of death.</p> <p>OTHER DATA SETS:</p> <p>UDS subjects: If NP data is not available, the year of death reported on the Milestones form is used (DEATHYR). If a subject is known to be deceased, but year of death is missing or unknown on the Milestones Form, then NACCYOD=99. For subjects who are not known to be deceased, NACCYOD=88.</p> <p>MDS subjects: If NP data is not available, the year of death reported in the MDS (DEATHYR) is used. If last known vital status is “Dead” (VITALST=2) and DEATHYR=99 or is missing, then NACCYOD=99.</p>

Variable name:	NACCINT
Short descriptor:	Time interval (in months) between last visit and death
Data type:	Numeric cross-sectional
Allowable codes:	0 – 100 888 = Not applicable 999 = Unknown
Description/derivation:	<p>UDS subjects: This variable is the calculated time interval (in months) between the date of the subject’s last UDS visit (either telephone or in-person) and their date of death. The interval is computed as death date – last visit date, and is rounded to the nearest whole month.</p> <p>MDS subjects: NACCINT is not calculated for MDS subjects because the MDS is not a longitudinal data set.</p> <p>OTHER DATA SETS:</p> <p>UDS subjects without NP Forms (Milestones data): Death date is taken from the NP Form when available, and otherwise from the Milestones Form. In the event that a subject is known to be deceased, but month of death is missing from the Milestones Form, or is inconsistent with the last known visit date, NACCINT=999. For subjects who are not known to be deceased, NACCINT=888. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional.</p>

Variable name:	NACCAVAS
Short descriptor:	Severity of gross findings — atherosclerosis of the circle of Willis
Data type:	Numeric cross-sectional
Allowable codes:	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for **NPGROSS** and **NPVASC** were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version				
	v1			v7, 8, 9	v10, 11
NACCAVAS	NPGROSS	NPVASC	NPAVAS		
0	2	Blank	Blank	1	0
	1	2	Blank		
	*	*	1		
1	*	*	2	2	1
2	*	*	3	3	2
3	*	*	4	4	3
8	1	3	Blank	5	8
	*	*	5		
9	9	Blank	Blank	9	9
	1	9	Blank		
	*	*	9		

**Not used. NPAVAS value determines NACCAVAS value.*

Variable name:	NACCBRAA
Short descriptor:	Braak stage for neurofibrillary degeneration (B score)
Data type:	Numeric cross-sectional
Allowable codes:	0 = Stage 0: AD-type neurofibrillary degeneration not present (B0) 1 = Stage I (B1) 2 = Stage II (B1) 3 = Stage III (B2) 4 = Stage IV (B2) 5 = Stage V (B3) 6 = Stage VI (B3) 7 = The presence of a tauopathy (other than aging/AD) precludes Braak staging 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Note:** Subjects with **NPBRAAK**=7 (Neurofibrillary degeneration not present) in versions 1, 7, 8, and 9 of the NP Form will have **NACCBRAA**=0, though they could be equivalent to either **NACCBRAA**=0 or **NACCBRAA**=7. Option 7 was added in version 10 and 11 to reduce inconsistencies in the way Centers were reporting Braak stage in the presence of a tauopathy.

Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the field(s) necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version			
	v1		v7, 8, 9	v10, 11
NACCBRAA	NPGROSS	NPBRAAK		
0	2	Blank	7	0
	*	7		
1	*	1	1	1
2	*	2	2	2
3	*	3	3	3
4	*	4	4	4
5	*	5	5	5
6	*	6	6	6
7				7
8	*	8	8	8
9	9	Blank	9	9
	*	9		

**Not used. NPBRAAK value determines NACCBRAA value.*

Variable name:	NACCNEUR
Short descriptor:	Density of neocortical neuritic plaques (CERAD score) (C score)
Data type:	Numeric cross-sectional
Allowable codes:	0 = No neuritic plaques (C0) 1 = Sparse neuritic plaques (C1) 2 = Moderate neuritic plaques (C2) 3 = Frequent neuritic plaques (C3) 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version			
		v1	v7, 8, 9	v10, 11
NACCNEUR	NPGROSS	NPNEUR		
0	2	Blank	4	0
	*	4		
1	*	3	3	1
2	*	2	2	2
3	*	1	1	3
8	*	5	5	8
9	9	Blank	9	9
	*	9		

**Not used. NPNEUR value determines NACCNEUR value.*

Variable name:	NACCDIFF
Short descriptor:	Density of diffuse plaques (CERAD semi-quantitative score)
Data type:	Numeric cross-sectional
Allowable codes:	0 = No diffuse plaques 1 = Sparse diffuse plaques 2 = Moderate diffuse plaques 3 = Frequent diffuse plaques 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version			
		v1	v7, 8, 9	v10, 11
NACCDIFF	NPGROSS	NPDIFF		
0	2	Blank	4	0
	*	4		
1	*	3	3	1
2	*	2	2	2
3	*	1	1	3
8	*	5	5	8
9	9	Blank	9	9
	*	9		

**Not used. NPDIFF value determines NACCDIFF value.*

Variable name:	NACCAMY
Short descriptor:	Cerebral amyloid angiopathy
Data type:	Numeric cross-sectional
Allowable codes:	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for **NPGROSS** and **NPVASC** were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version				
	v1		v7, 8, 9	v10, 11	
NACCAMY	NPGROSS	NPVASC	NPAMY		
0	2	Blank	Blank	1	0
	1	2	Blank		
	*	*	1		
1	*	*	2	2	1
2	*	*	3	3	2
3	*	*	4	4	3
8	1	3	Blank	5	8
	*	*	5		
9	9	Blank	Blank	9	9
	1	9	Blank		
	*	*	9		

**Not used. NPAMY value determines NACCAMY value.*

Variable name:	NACCINF
Short descriptor:	Infarcts and lacunes
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing
Description/derivation:	<p>This variable combines data on the presence of large cerebral artery infarcts, lacunes (small artery infarcts and/or hemorrhages), and gross infarcts across Neuropathology Form versions.</p> <p>Note: Versions 1, 7, 8, and 9 of the Neuropathology Form did not explicitly distinguish between old and acute infarcts and lacunes. Additionally, the specific location of the infarct(s) was not asked, and thus the regions assessed are unknown for earlier versions of the form. This variable is best thought of as a flag for the presence of infarcts or lacunes, with the understanding that “No” on previous form versions may have missed the presence of infarcts or lacunes in regions explicitly assessed in version 10 and 11, and that the regions assessed could also vary by subject or Center.</p> <p>v1–9 coding: Subjects with either v1–9 NPLINF=1 (Yes) or NPLAC=1 (Yes) will have NACCINF=1. Subjects with both NPLINF and NPLAC=2 (No) will have NACCINF= 0. Subjects with both NPLINF and NPLAC=3 (Not assessed) will have NACCINF=8, and subjects with both NPLINF and NPLAC=9 (Missing/unknown) will have NACCINF=9. If answers to NPLINF and NPLAC are a combination of “No” and “Not assessed” or “No” and “missing/unknown,” then NACCINF=9.</p> <p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for NPGROSS and NPVASC were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used as follows: subjects with NPFORMVER=1 and question 7, NPGROSS=2 (No), or question 12, NPVASC=2 (No) will have NACCINF=0. Subjects with NPFORMVER=1 and question 7, NPGROSS=9 (No neuropathology diagnosis available) will have NACCINF=9. Subjects with NPFORMVER=1 and question 12, NPVASC=3 (Not assessed) or 9 (Missing/unknown) will have NACCINF=8 or NACCINF=9, respectively.</p> <p>v10-11 coding: NACCINF=NPINF for subjects with v10-11 data.</p>

Variable name:	NACCMICR
Short descriptor:	Microinfarcts derived
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing
Description/derivation:	<p>This variable combines data on the presence of microinfarcts across Neuropathology Form versions.</p> <p>Note: Versions 1, 7, 8 and 9 of the Neuropathology Form did not explicitly distinguish between old and acute microinfarcts. Additionally, the specific location of the microinfarct(s) was not asked and thus the regions assessed are unknown for earlier versions of the form. This variable is best thought of as a flag for the presence of microinfarcts, with the understanding that “No” on previous form versions may have missed the presence of microinfarcts in regions explicitly assessed in version 10 and 11, and that the regions assessed could also vary by subject or Center.</p> <p>v1–9 coding: Subjects with v1–9 NPMICRO=1 (Yes) will have NACCMICR=1. Subjects with NPMICRO=2 (No) will have NACCMICR=0. Subjects with NPMICRO=3 (Not assessed) will have NACCMICR=8, and subjects with NPMICRO=9 (Missing/unknown) will have NACCMICR=9.</p> <p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for NPGROSS and NPVASC were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used as follows: subjects with NPFORMVER=1 and question 7, NPGROSS=2 (No), or question 12, NPVASC=2 (No) will have NACCMICR=0. Subjects with NPFORMVER=1 and question 7, NPGROSS=9 (no neuropathology diagnosis available) will have NACCMICR=9. Subjects with NPFORMVER=1 and question 12, NPVASC=3 (Not assessed) or 9 (Missing/unknown) will have NACCMICR=8 or NACCMICR=9, respectively.</p> <p>v10-11 coding: NACCMICR=NACCMICR for subjects with v10-11 data.</p>

Variable name:	NACCHEM
Short descriptor:	Hemorrhages and microbleeds
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Unknown or missing
Description/derivation:	<p>This variable combines data on the presence of microbleeds and hemorrhages across Neuropathology Form versions.</p> <p>Note: Versions 1, 7, 8, and 9 of the Neuropathology Form did not explicitly distinguish between old and acute hemorrhages, nor did they collect information about microbleeds and hemorrhages separately. Additionally, the specific location of the microbleed(s) or hemorrhage(s) was not asked and thus the regions assessed are unknown for earlier versions of the form. This variable is best thought of as a flag for the presence of microbleeds or hemorrhages, with the understanding that “No” on previous form versions potentially may have missed the presence of microbleeds or hemorrhages in regions explicitly assessed in version 10 and 11, and that the regions assessed could also vary by subject or Center.</p> <p>v1–9 coding: Subjects with v1–9 NPHEM=1 (Yes) will have NACCHEM=1. Subjects with NPHEM=2 (No) will have NACCHEM= 0. Subjects with NPHEM=3 (Not assessed) will have NACCHEM=8, and subjects with NPHEM=9 (Missing/unknown) will have NACCHEM=9.</p> <p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for NPGROSS and NPVASC were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used as follows:</p> <p>Subjects with NPFORMVER=1 and question 7, NPGROSS=2 (No), or question 12, NPVASC=2 (No) will have NACCHEM=0. Subjects with NPFORMVER=1 and question 7, NPGROSS=9 (no neuropathology diagnosis available) will have NACCHEM=9. Subjects with NPFORMVER=1 and question 12, NPVASC=3 (Not assessed) or 9 (Missing/unknown) will have NACCHEM=8 or NACCHEM=9, respectively.</p> <p>v10-11 coding: Subjects with either NPHEMO=1 (Yes) or NPOLDD=1 (Yes) will have NACCHEM=1. Subjects with both NPHEMO=0 (No) and NPOLDD=0 (No) will have NACCHEM=0. Subjects with both NPHEMO=8 and NPOLDD=8 (not assessed) will have NACCHEM=8, and subjects with both NPHEMO=9 and NPOLDD=9 (missing/unknown) will have NACCHEM=9. If answers to NPHEMO and NPOLDD are a combination of “No” and “Not assessed” or “No” and “missing/unknown,” then NACCHEM=9.</p>

Variable name:	NACCARTE
Short descriptor:	Arteriolosclerosis
Data type:	Numeric cross-sectional
Allowable codes:	0 = None 1 = Mild 2 = Moderate 3 = Severe 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for **NPGROSS** and **NPVASC** were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version				
	v1		v7, 8, 9	v10, 11	
NACCARTE	NPGROSS	NPVASC	NPARTER		
0	2	Blank	Blank	1	0
	1	2	Blank		
	*	*	1		
1	*	*	2	2	1
2	*	*	3	3	2
3	*	*	4	4	3
8	1	3	Blank	5	8
	*	*	5		
9	9	Blank	Blank	9	9
	1	9	Blank		
	*	*	9		

**Not used. NPARTER value determines NACCARTE value.*

Variable name:	NACCNEC
Short descriptor:	Laminar necrosis
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown
Blanks:	Blank if NPPATH=0 (No)
Description/derivation:	<p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for NPGROSS and NPVASC were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.</p> <p>Skip patterns in NP Form version 10 and 11 result in blanks coded for this variable. The following recodes are made for NACCNEC using v10, 11 data: If NPPATH=8 then NACCNEC=8. If NPPATH=9 then NACCNEC=9. If NPPATH=0 then NACCNEC=blank.</p>

Recodes:

	Form version				
	v1			v7, 8, 9	v10, 11
NACCNEC	NPGROSS	NPVASC	NPNEC		
0	2	Blank	Blank	2	0
	1	2	Blank		
	*	*	2		
1	*	*	1	1	1
8	1	3	Blank	3	8
	*	*	3		
9	9	Blank	Blank	9	9
	1	9	Blank		
	*	*	9		
Blank					Blank**

*Not used. NPNEC value determines NACCNEC value.

**Blank if NPPATH=0. Recodes for blank values of NPNEC in version 10-11 are described in the skip pattern above.

Variable name:	NACCVASC
Short descriptor:	Ischemic, hemorrhagic, or vascular pathology present
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = One or more vascular pathology 9 = Unknown
Description/derivation:	<p>Note: The questions on vascular pathology changed substantially between version 9 and version 10 of the NP Form. If a subject had at least 1 vascular pathology reported on the NP Form (including mild severity indicated for pathologies such as atherosclerosis), he/she would have NACCVASC=1. If all of the vascular pathology questions on the NP Form are marked absent, NACCVASC= 0. If some of the vascular pathology questions were marked as 0 (No) and the remainder were not assessed or missing/unknown, then NACCVASC= 9.</p> <p>v1-9 coding: Coding for NP Form versions 1-9 uses the following variables: NPLINF, NPNEC, NPMICRO, NPLAC, NPHEM, NPART, NPSCL, NPAVAS, NPARTER, NPAMY, NPOANG, and NPVOTH.</p> <p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when skip patterns for NPGROSS and NPVASC were removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used as follows: subjects with NPFORMVER=1 and Question 7, NPGROSS=2 (No), or NPGROSS=9 (no neuropathology diagnosis available) will be coded as NACCVASC=0 or NACCVASC=9, respectively.</p> <p>v10-11 coding: Coding for NP Form version 10-11 uses NPWMR, NPHEMO, NPOLD, NPOLDD, NPARTER, NPAVAS, NPINF, NPAMY, and NPPATH.</p>

Variable name:	NACCLEWY
Short descriptor:	Lewy body disease
Data type:	Numeric cross-sectional
Allowable codes:	0 = No Lewy body pathology 1 = Brainstem-predominant 2 = Limbic or amygdala-predominant 3 = Neocortical 4 = Lewy bodies present, but region unspecified or found in the olfactory bulb 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Note:** The question on Lewy body pathology changed between version 9 and version 10 of the NP Form. Codes for evidence of Lewy body pathology in the amygdala (**NPLBOD=4**) and olfactory bulb (**NPLBOD=5**) were added in Version 10, and these data are available for subjects assessed using v10-11 of the form.

Since v1–9 did not include a specific code for Lewy bodies in the olfactory bulb, and assessment of the olfactory bulb (although included as a coding option) is not part of the criteria for neuropathologic assessment of Lewy body pathology in v10–11, subjects with olfactory bulb Lewy bodies may be coded as having “no Lewy body pathology” (**NACCLEWY=0**) for this variable. Additionally, in versions 1–9, if Lewy body pathology was assessed using ubiquitin or H&E stains (not alpha-synuclein) and was found to be present, then **NACCLEWY=4** (Lewy bodies present, but region unspecified or found in the olfactory bulb). In v10-11, staining by alpha-synuclein is the recommended method; therefore, **NACCLEWY** is equal to 4 only if Lewy body pathology was found in the olfactory bulb.

Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version			
	v1		v7, 8, 9	v10, 11
NACCLEWY	NPGROSS	NPLEWY		NPLBOD
0	2	Blank	5	0
	*	5		
1	*	1	1	1
2	*	2	2	2
				4
3	*	3	3	3
4	*	4	4	5
8	*	6	6	8
9	9	Blank	9	9
	*	9		

*Not used. **NPLEWY** value determines **NACCLEWY** value.

Variable name:	NACCPICK
Short descriptor:	FTLD-tau subtype — Pick's (PiD)
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown
Blanks	Blank if NPFTDTAU=0 (No)

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 10-11 result in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Skip patterns in NP Form version 10-11 result in blanks coded for this variable. The following recodes are made for **NACCPICK** using v10-11 data: If **NPFTDTAU**=8 then **NACCPICK**=8. If **NPFTDTAU**=9 then **NACCPICK**=9. If **NPFTDTAU**=0 then **NACCPICK**=blank.

Recodes:

		Form version		
		v1	v7, 8, 9	v10, 11
NACCPICK	NPGROSS	NPPICK		
0	2	Blank	2	0
	*	2		
1	*	1	1	1
8	*	3	3	8
9	9	Blank	9	9
Blank				Blank**

*Not used. **NPPICK** value determines **NACCPICK** value.

Blank if **NPFTDTAU=0. Recodes for blank values of **NPPICK** in version 10-11 are described in the skip pattern above.

Variable name:	NACCCBD
Short descriptor:	FTLD-tau subtype – corticobasal degeneration (CBD)
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown
Blanks:	Blank if NPFTDTAU=0 (No)

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 10-11 result in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Skip patterns in NP Form version 10-11 result in blanks coded for this variable. The following recodes are made for **NACCCBD** using v10-11 data: If **NPFTDTAU**=8 then **NACCCBD**=8. If **NPFTDTAU**=9 then **NACCCBD**=9. If **NPFTDTAU**=0 then **NACCCBD**=blank.

Recodes:

	Form version			
	v1	v7, 8, 9	v10, 11	
NACCCBD	NPGROSS	NPCORT		
0	2	Blank	2	0
	*	2		
1	*	1	1	1
8	*	3	3	8
9	9	Blank	9	9
Blank				Blank**

*Not used. NPCORT value determines NACCCBD value.

**Blank if NPFTDTAU=0. Recodes for blank values of NPCORT in version 10-11 are described in the skip pattern above.

Variable name:	NACCPROG
Short descriptor:	FTLD-tau subtype — progressive supranuclear palsy (PSP)
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown
Blanks:	Blank if NPFTDTAU =0 (No)

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 10-11 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Skip patterns in NP Form version 10-11 result in blanks coded for this variable. The following recodes are made for **NACCPROG** using v10-11 data: If **NPFTDTAU**=8 then **NACCPROG**=8. If **NPFTDTAU**=9 then **NACCPROG**=9. If **NPFTDTAU**=0 then **NACCPROG**=blank.

Recodes:

		Form version		
		v1	v7, 8, 9	v10, 11
NACCPROG	NPGROSS	NPPROG		
0	2	Blank	2	0
	*	2		
1	*	1	1	1
8	*	3	3	8
9	9	Blank	9	9
Blank				Blank**

*Not used. **NPPROG** value determines **NACCPROG** value.

Blank if **NPFTDTAU=0. Recodes for blank values of **NPPROG** in version 10-11 are described in the skip pattern above.

Variable name:	NACCPRIO
Short descriptor:	Prion disease
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 8 = Not assessed 9 = Missing/unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version					
	v1			v7, 8, 9		v10, 11
NACCPRIO	NPGROSS	NPCJ	NPPRION	NPCJ	NPPRION	NPPDXC
0	2	Blank	Blank	2	2	0
	*	2	2			
1	*	1	1, 2 or 9	1	1, 2 or 9	1
		2 or 9	1	2 or 9	1	
8	*	3	3	3	3	8
9	9	Blank	Blank	Blank	Blank	9
	*	9	9	9	9	

**Not used. NPCJ and NPPRION values determines NACCPRIO value.*

Variable name:	NACCOTHP
Short descriptor:	Other pathologic diagnosis
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes, one or more written-in diagnoses 8 = Not assessed 9 = Unknown

Description/derivation: **Skip patterns:** Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for **NPGROSS** was removed in later versions of the form. If the fields necessary to code this derived variable are blank, the version 1 skip pattern is used per the grey text in the table below.

Recodes:

	Form version			
	v1	v7, 8, 9		v10, 11
NACCOTHP	NPGROSS	NPMAJOR		NPPDXR, NPPDXS & NPPDXT
0	2	Blank	2	0
	*	2		
1	*	1	1	Any = 1
8	*	3	3	
9	9	Blank	9	

**Not used. NPMAJOR value determines NACCOTHP value.*

Variable name:	NACCWRI1
Short descriptor:	First other pathologic diagnosis write-in
Data type:	Character cross-sectional
Allowable codes:	Any text or numbers except for single quotes, double quotes, ampersands, or percentage signs
Blanks	Blank if NACCOTHP ≠1
Description/derivation:	This variable combines the first written-in diagnoses across multiple Form versions for “other pathologic diagnoses.” Please note that the content of the Neuropathology Form versions leading up to these questions differ, thus items written-in in previous versions may be specifically collected in later versions, and vice-versa. v1–9 coding: Coding for NP Form versions 1–9 uses NPMPATH1 . v10-11 coding: Coding for NP Form version 10-11 uses NPPDXRX .

Variable name:	NACCWRI2
Short descriptor:	Second other pathologic diagnosis write-in
Data type:	Character cross-sectional
Allowable codes:	Any text or numbers except for single quotes, double quotes, ampersands, or percentage signs
Blanks	Blank if NACCOTHP ≠1 or if only 1 write-in diagnosis
Description/derivation:	This variable combines the second written-in diagnoses across multiple Form versions for “other pathologic diagnoses.” Please note that the content of the Neuropathology Form versions leading up to these questions differ, thus items written-in in previous versions may be specifically collected in later versions, and vice-versa. v1–9 coding: Coding for NP Form versions 1–9 uses NPMPATH2 . v10-11 coding: Coding for NP Form version 10-11 uses NPPDXSX .

Variable name:	NACCWRI3
Short descriptor:	Third other pathologic diagnosis write-in
Data type:	Character cross-sectional
Allowable codes:	Any text or numbers except for single quotes, double quotes, ampersands, or percentage signs
Blanks:	Blank if NACCOTHP ≠1 or if only 2 write-in diagnoses
Description/derivation:	This variable combines the third written-in diagnoses across multiple Form versions for “other pathologic diagnoses.” Please note that the content of the Neuropathology Form versions leading up to these questions differ, thus items written-in in previous versions may be specifically collected in later versions, and vice-versa. v1–9 coding: Coding for NP Form versions 1–9 uses NPMPATH3 . v10-11 coding: Coding for NP Form version 10-11 uses NPPDXTX .

Variable name:	NACCBNKF
Short descriptor:	Banked frozen brain
Data type:	Numeric cross-sectional
Allowable codes	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation:	Recodes:

	Form version		
	v1, 7	v8 and 9	v10, 11
NACCBNKF	N/A	NPBRFRZN	NPBNKA
0		2	0
1		1	1
9			9
-4	v1, v7 data		

Variable name:	NACCDOWN
Short descriptor:	Down syndrome
Data type:	Numeric cross-sectional
Allowable codes:	1 = Flag for known mutation 7 = No flag for known mutation (not present, not assessed, missing or unknown)

Description/derivation: This variable flags subjects with Down syndrome. If **NPCHROM**=11 on v1-9 of the NP Form, then **NACCDOWN**=1. If **NPCHROM**≠11 then **NACCDOWN**=7. On v10-11 of the NP Form, if **NPPDXO**=1, then **NACCDOWN**=1, and if **NPPDXO**≠1, then **NACCDOWN**=7. Thus, **NACCDOWN**=7 indicates subjects who do not have the mutation, were not assessed for the mutation, or have missing/unknown information on this data element.

Variable name:	NACCFORM
Short descriptor:	Formalin- or paraformaldehyde-fixed brain
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way
Description/derivation:	Recodes:

	Form version		
	v1, 7	v8 and 9	v10, 11
NACCFORM	N/A	NPBRFRM	NPBNKC
0		2	0
1		1	1
9			9
-4	v1, v7 data		

Variable name:	NACCPARA
Short descriptor:	Paraffin-embedded blocks of brain regions
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation: **Recodes:**

	Form version		
	v1, 7	v8 and 9	v10, 11
NACCPARA	N/A	NPBPARF	NPBNKD
0		2	0
1		1	1
9			9
-4	v1, v7 data		

Variable name:	NACCCSFP
Short descriptor:	Banked postmortem CSF
Data type:	Numeric cross-sectional
Allowable codes:	0 = No 1 = Yes 9 = Missing/unknown -4 = Not available, NP Form version submitted did not collect data in this way

Description/derivation: **Recodes:**

	Form version		
	v1, 7	v8 and 9	v10, 11
NACCCSFP	N/A	NPCSFANT	NPBNKE
0		2	0
1		1	1
9			9
-4	v1, v7 data		

Variable name:	NACCBRRN
Short descriptor:	No major neuropathologic change present
Data type:	Numeric cross-sectional
Allowable codes:	0 = Some pathologic change present 1 = No major pathologic change present 9 = At least one required variable is not assessed/missing/unknown
Description/derivation:	<p>Note: There is no question that records data specifically on normal or disease-free brain on v10 of the NP Form. Previous versions of the form had an entry for normal brain but did not provide specific criteria in order to define it, and this variable included consideration of subjects' cognitive status before death. This derived variable defines normal brain as meeting all of the following criteria:</p> <ul style="list-style-type: none"> • Braak stage 0 (AD-type neurofibrillary degeneration not Present), I, or II • No amyloid pathology • No or mild vascular pathology • No Lewy bodies • No other pathology (e.g., FTLN-TDP, FTLN-tau, tangle-only dementia, prion disease, etc.) <p>Skip patterns: Skip patterns in NP Form version 1 resulted in blanks coded for this variable. Where available, data on neuropathologic features were retroactively updated when the skip pattern for NPGROSS was removed in later versions of the form. If the fields necessary to code this derived variable are blank in version 1 data, the v1 skip patterns for NPGROSS and NPVASC are used to code NACCBRRN.</p> <p>Recodes (see next page):</p>

Criteria for NACCBRRN = 1	v1-9	v10	v11
Braak stage 0, I or II	NPBRAAK = 1, 2 or 7	NPBRAAK = 0, 1 or 2	NPBRAAK = 0, 1 or 2
No amyloid pathology	NPNEUR = 4 NPDIFF = 4	NPNEUR = 0 NPDIFF = 0 NPTHAL = 0	NPNEUR = 0 NPDIFF = 0 NPTHAL = 0
No or mild vascular pathology	NPLINF = 2 NPMICRO = 2 NPLAC = 2 NPHEM = 2 NPART = 2 NPNEC = 2 NPSCCL = 2 NPAVAS = 1 or 2 NPARTER = 1 or 2 NPAMY = 1 or 2 NPOANG = 2 NPVOTH = 2	NPAMY = 0 or 1 NPINF = 0 NPHEMO = 0 NPOLD = 0 NPOLDD = 0 NPAVAS = 0 or 1 NPARTER = 0 or 1 NPWMR = 0 or 1 NPPATH = 0	NPAMY = 0 or 1 NPINF = 0 NPHEMO = 0 NPOLD = 0 NPOLDD = 0 NPAVAS = 0 or 1 NPARTER = 0 or 1 NPWMR = 0 or 1 NPPATH = 0
No Lewy bodies	NPLEWY = 5	NPLBOD = 0	NPLBOD = 0
No other pathology (e.g., TDP, FTL, tangle-only dementia, prion disease, etc.)	NPPICK = 2 NPCORT = 2 NPPROG = 2 NPFRONT = 2 NPTAU = 2 NPFTD = 3 NPFTDNO = 2 NPFTDSPC = 2 NPCJ = 2 NPPRION = 2 NPMAJOR = 2	NPNLOSS = 0 or 1 NPHIPSCL = 0 NPTDPA = 0 NPTDPB = 0 NPTDPC = 0 NPTDPD = 0 NPTDPE = 0 NPFTDTAU = 0 NPFTDTPD = 0 NPALSMND = 0 NPOFTD = 0 NPPDXA = 0 NPPDXB = 0 NPPDXC = 0 NPPDXD = 0 NPPDXE = 0 NPPDXF = 0 NPPDXG = 0 NPPDXH = 0 NPPDXI = 0 NPPDXJ = 0 NPPDXK = 0 NPPDXL = 0 NPPDXM = 0 NPPDXN = 0 NPPDXR = 0 NPPDXS = 0 NPPDXT = 0	NPNLOSS = 0 or 1 NPHIPSCL = 0 NPTDPA = 0 NPTDPB = 0 NPTDPC = 0 NPTDPD = 0 NPTDPE = 0 NPFTDTAU = 0 NPFTDTPD = 0 NPALSMND = 0 NPOFTD = 0 NPPDXA = 0 NPPDXB = 0 NPPDXC = 0 NPPDXD = 0 NPPDXE = 0 NPPDXF = 0 NPPDXG = 0 NPPDXH = 0 NPPDXI = 0 NPPDXJ = 0 NPPDXK = 0 NPPDXL = 0 NPPDXM = 0 NPPDXN = 0 NPPDXR = 0 NPPDXS = 0 NPARTAG = 0