NACC Derived Variables

Description of NACC Derived Variables to be used in data analysis

FOR NACC DERIVED VARIABLES COMPUTED FROM UDS V2.0, NEUROPATHOLOGY, MILESTONES, AND MDS DATA

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NACC
National Alzheimer's Coordinating Center

Glossary

In the lists below, clicking on the variable name in column 2 will take you to the page with the longer description of the variable.

1. Subject demographics, visit characteristics, and study status

	Var name	Short descriptor	Data type
1a	**naccmdss**	Subject's status in the Minimal Data Set (MDS) and Uniform Data Set (UDS)	numeric cross-sectional
1b	**naccage**	UDS subject age at visit (years)	numeric longitudinal
1c	**naccageb**	Subject age at initial visit (years)	numeric cross-sectional
1d	**naccmage**	MDS subject age at most recent evaluation (years)	numeric cross-sectional
1e	**naccnihr**	Derived NIH race definitions	numeric cross-sectional
1f	**naccavst**	Total number of UDS visits made	numeric cross-sectional
1g	**naccnvst**	Number of in-person UDS visits made	numeric cross-sectional
1h	**naccdays**	Days from initial visit to most recent visit	numeric cross-sectional
1i	**naccfdys**	Days from initial visit to each follow-up visit	numeric longitudinal
1j	**naccwndw**	UDS visit window	numeric longitudinal
1k	**naccstat**	Participation status at the ADC	numeric cross-sectional
1l	**naccnurs**	Reported residence in a nursing home	numeric cross-sectional
1m	**naccdied**	Subject is known to be deceased	numeric cross-sectional
1n	**naccpaff**	Previously affiliated subject	numeric cross-sectional

2. Reported subject health history / family history

	Var name	Short descriptor	Data type
2a	**naccaged**	Age of onset of cognitive decline (years)	numeric cross-sectional
2b	**nacchdis**	Heart disease reported at any UDS visit	numeric cross-sectional
2c	**naccahtn**	Reported use of any type of antihypertensive or blood pressure medication	numeric longitudinal
2d	**nacchtnc**	Reported current use of an antihypertensive combination therapy	numeric longitudinal
2e	**naccacei**	Reported current use of an angiotensin converting enzyme (ACE) inhibitor	numeric longitudinal
2f	**naccaaas**	Reported current use of an antiadrenergic agent	numeric longitudinal
2g	**naccbeta**	Reported current use of a beta-adrenergic blocking agent (Beta-Blocker)	numeric longitudinal
2h	**naccccbs**	Reported current use of a calcium channel blocking agent	numeric longitudinal
2i	**naccdiur**	Reported current use of a diuretic	numeric longitudinal

2j	**naccvasd**	Reported current use of a vasodilator	numeric longitudinal
2k	**naccangi**	Reported current use of an angiotensin II inhibitor	numeric longitudinal
2l	**nacclipl**	Reported current use of lipid lowering medication	numeric longitudinal
2m	**naccnsd**	Reported curent use of nonsteroidal anti-inflammatory medication	numeric longitudinal
2n	**naccac**	Reported current use of an anticoagulant or antiplatelet agent	numeric longitudinal
2o	**naccadep**	Reported current use of an antidepressant	numeric longitudinal
2p	**naccapsy**	Reported current use of an antipsychotic agent	numeric longitudinal
2q	**naccaanx**	Reported current use of an anxiolytic, sedative, or hypnotic agent	numeric longitudinal
2r	**naccadmd**	Reported current use of a FDA-approved medication for Alzheimer's disease symptoms	numeric longitudinal
2s	**naccpdmd**	Reported current use of an antiparkinson agent	numeric longitudinal
2t	**naccamd**	Total number of medications at each visit	numeric longitudinal
2u	**naccemd**	Reported current use of estrogen hormone therapy	numeric longitudinal
2v	**naccepmd**	Reported current use of estrogen + progestin hormone therapy	numeric longitudinal
2w	**naccdbmd**	Reported current use of a diabetes medication	numeric longitudinal
2x	**naccfamh**	Indicator for first-degree family member with dementia	numeric cross-sectional
2y	**naccmomd**	Mother with dementia	numeric cross-sectional
2z	**naccdadd**	Father with dementia	numeric cross-sectional

3. Assessments, exams, evaluations

	Var name	Short descriptor	Data type
3a	**naccbmi**	Body mass index (BMI)	numeric longitudinal
3b	**naccabbp**	Abnormal blood pressure at visit	numeric longitudinal
3c	**naccleva**	Levy A Score for levodopa-responsive symptoms	numeric longitudinal
3d	**nacclevb**	Levy B Score for levodopa-nonresponsive symptoms	numeric longitudinal
3e	**naccc1**	Form date discrepancy between UDS Form A1 and Form C1	numeric longitudinal
3f	**nacczmms**	Age-, sex-, and education-adjusted z-score for the MMSE score	numeric longitudinal
3g	**nacczlmi**	Age-, sex-, and education-adjusted z-score for Logical Memory 1A-Immediate total number of items recalled	numeric longitudinal
3h	**nacczlmd**	Age-, sex-, and education-adjusted z-score for Logical Memory 1A-Delayed total number of items recalled	numeric longitudinal

3i	**nacczdft**	Age-, sex-, and education-adjusted z-score for Digit Span Forward total number of trials correct	numeric longitudinal
3j	**nacczdfl**	Age-, sex-, and education-adjusted z-score for Digit Span Forward length	numeric longitudinal
3k	**nacczdbt**	Age-, sex-, and education-adjusted z-score for Digit Span Backward total number of trials correct	numeric longitudinal
3l	**nacczdbl**	Age-, sex-, and education-adjusted z-score for Digit Span Backward length	numeric longitudinal
3m	**nacczani**	Age-, sex-, and education-adjusted z-score for Category Fluency: animals	numeric longitudinal
3n	**nacczveg**	Age-, sex-, and education-adjusted z-score for Category Fluency: vegetables	numeric longitudinal
3o	**naccztra**	Age-, sex-, and education-adjusted z-score for the Trail A score	numeric longitudinal
3p	**naccztrb**	Age-, sex-, and education-adjusted z-score for the Trail B score	numeric longitudinal
3q	**nacczwai**	Age-, sex-, and education-adjusted z-score for the WAIS-R Digit Symbol score	numeric longitudinal
3r	**nacczbos**	Age-, sex-, and education-adjusted z-score for the Boston Naming Test score	numeric longitudinal

4. Clinician diagnosis and cognitive status

	Var name	Short descriptor	Data type
4a	**naccudsd**	Cognitive status at UDS visit	numeric longitudinal
4b	**naccmdsd**	Cognitive status at last MDS evaluation	numeric cross-sectional
4c	**naccimci**	Incident MCI	numeric cross-sectional
4d	**naccmcit**	MCI type	numeric longitudinal
4e	**naccidem**	Incident dementia	numeric cross-sectional
4f	**naccnorm**	Subject had normal cognition at all visits to date	numeric cross-sectional
4g	**naccdimp**	Dementia diagnosis followed by diagnosis of improved cognition	numeric cross-sectional
4h	**nacchiv**	HIV+ write-in on Form D1	numeric longitudinal
4i	**naccmnd**	Motor neuron disease write-in on Form D1	numeric longitudinal
4j	**naccpca**	Posterior cortical atrophy (PCA) write-in on Form D1	numeric longitudinal
4k	**nacccanc**	Cancer or tumor write-in on Form D1	numeric longitudinal
4l	**naccmad**	Dementia with primary probable AD (MDS, NINCDS/ARDA criteria)	numeric cross-sectional

THE FOLLOWING VARIABLES (sections 5 and 6) are intended to be used as flags to identify cognitive + etiologic diagnosis groups. Careful consideration of the appropriate comparison group to be used in analysis should precede any data requests for these derived diagnosis variables. For example, **naccprad=0** includes all subjects with normal cognition, impaired, not-MCI, or MCI diagnoses, *as well as those with a dementia diagnosis other than primary probable Alzheimer's disease.*

Please consult NACC for further guidance.

5. Primary diagnosis for cognitive status — dementia

	Var name	Short descriptor	Data type
5a	**naccpret**	Primary etiologic diagnosis (MCI, Impaired, not MCI, or Dementia)	numeric longitudinal
5b	**naccprad**	Dementia — primary diagnosis — probable Alzheimer's disease	numeric longitudinal
5c	**naccpoad**	Dementia — primary diagnosis — possible Alzheimer's disease	numeric longitudinal
5d	**nacclbd**	Dementia — primary diagnosis — dementia with Lewy bodies	numeric longitudinal
5e	**naccprvd**	Dementia — primary diagnosis — vascular dementia (NINDS/AIREN Probable)	numeric longitudinal
5f	**naccpovd**	Dementia — primary diagnosis — vascular dementia (NINDS/AIREN Possible)	numeric longitudinal
5g	**naccard**	Dementia — primary diagnosis — alcohol-related dementia	numeric longitudinal
5h	**naccund**	Dementia — primary diagnosis — dementia of undetermined etiology	numeric longitudinal
5i	**naccftdd**	Dementia — primary diagnosis — frontotemporal dementia	numeric longitudinal
5j	**naccppad**	Dementia — primary diagnosis — primary progressive aphasia	numeric longitudinal
5k	**naccpspd**	Dementia — primary diagnosis — progressive supranuclear palsy	numeric longitudinal
5l	**nacccbdd**	Dementia — primary diagnosis — corticobasal degeneration	numeric longitudinal
5m	**nacchntd**	Dementia — primary diagnosis — Huntington's disease	numeric longitudinal
5n	**naccprid**	Dementia — primary diagnosis — prion disease	numeric longitudinal
5o	**naccmedd**	Dementia — primary diagnosis — cognitive dysfunction from medications	numeric longitudinal
5p	**naccmid**	Dementia — primary diagnosis — cognitive dysfunction from medical illness	numeric longitudinal
5q	**naccdepd**	Dementia — primary diagnosis — depression	numeric longitudinal
5r	**naccpsyd**	Dementia — primary diagnosis — other major psychiatric illness	numeric longitudinal
5s	**naccdsd**	Dementia — primary diagnosis — Down syndrome	numeric longitudinal

5t	**naccpdd**	Dementia — primary diagnosis — Parkinson's disease	numeric longitudinal
5u	**naccstkd**	Dementia — primary diagnosis — stroke	numeric longitudinal
5v	**nacchydd**	Dementia — primary diagnosis — hydrocephalus	numeric longitudinal
5w	**nacctbid**	Dementia — primary diagnosis — traumatic brain injury	numeric longitudinal
5x	**nacccnsd**	Dementia — primary diagnosis — CNS neoplasm	numeric longitudinal
5y	**naccothd**	Dementia — primary diagnosis — other	numeric longitudinal

6. Primary diagnosis for cognitive status — MCI

	Var name	Short descriptor	Data type
6a	**naccpram**	MCI — primary suspected etiology — probable Alzheimer's disease	numeric longitudinal
6b	**naccpoam**	MCI — primary suspected etiology — possible Alzheimer's disease	numeric longitudinal
6c	**nacclbm**	MCI — primary suspected etiology — Lewy body disease	numeric longitudinal
6d	**naccprvm**	MCI — primary suspected etiology — probable vascular disease	numeric longitudinal
6e	**naccpovm**	MCI — primary suspected etiology — possible vascular disease	numeric longitudinal
6f	**naccarm**	MCI — primary suspected etiology — alcohol-related	numeric longitudinal
6g	**naccunm**	MCI — primary suspected etiology — undetermined etiology	numeric longitudinal
6h	**naccftdm**	MCI — primary suspected etiology — frontotemporal degeneration	numeric longitudinal
6i	**naccppam**	MCI — primary suspected etiology — primary progressive aphasia	numeric longitudinal
6j	**naccpspm**	MCI — primary suspected etiology — progressive supranuclear palsy	numeric longitudinal
6k	**nacccbdm**	MCI — primary suspected etiology — corticobasal degeneration	numeric longitudinal
6l	**nacchntm**	MCI — primary suspected etiology — Huntington's disease	numeric longitudinal
6m	**naccprim**	MCI — primary suspected etiology — prion disease	numeric longitudinal
6n	**naccmedm**	MCI — primary suspected etiology — cognitive dysfunction from medications	numeric longitudinal
6o	**naccmim**	MCI — primary suspected etiology — cognitive dysfunction from medical illness	numeric longitudinal
6p	**naccdepm**	MCI — primary suspected etiology — depression	numeric longitudinal
6q	**naccpsym**	MCI — primary suspected etiology — other major psychiatric illness	numeric longitudinal
6r	**naccdsm**	MCI — primary suspected etiology — Down syndrome	numeric longitudinal
6s	**naccpdm**	MCI — primary suspected etiology — Parkinson's disease	numeric longitudinal

6t	**naccstkm**	MCI — primary suspected etiology — stroke	numeric longitudinal
6u	**nacchydm**	MCI — primary suspected etiology — hydrocephalus	numeric longitudinal
6v	**nacctbim**	MCI — primary suspected etiology — traumatic brain injury	numeric longitudinal
6w	**nacccnsm**	MCI — primary suspected etiology — CNS neoplasm	numeric longitudinal
6x	**naccothm**	MCI — primary suspected etiology — other	numeric longitudinal

7. Genetics, imaging, and biomarkers

	Var name	Short descriptor	Data type
7a	**naccapoe**	APOE genotype	numeric cross-sectional
7b	**naccne4s**	Number of APOE e4 alleles	numeric cross-sectional
7c	**naccadgc**	Indicator of whether or not genotype data is available at ADGC	numeric cross-sectional

8. FTLD Module

	Var name	Short descriptor	Data type
8a	**naccftd**	FTLD Module visit data available	numeric cross-sectional

9. Imaging and biomarkers

	Var name	Short descriptor	Data type
9a	**naccmri**	MRI file available	numeric cross-sectional
9b	**naccnmri**	Total number of MRIs	numeric cross-sectional
9c	**nacc180n**	Number of MRIs within ±180 days of UDS visit	numeric longitudinal
9d	**naccadni**	Subject is known to be in ADNI study	numeric cross-sectional

Description of NACC Derived Variables to be used in data analysis

1. Subject demographics, visit characteristics, and study status

1a.	Variable name	**naccmdss**
	Short descriptor	Subject's status in the Minimal Data Set (MDS) and Uniform Data Set (UDS)
	Data type	Numeric cross-sectional
	Allowable codes	1 = In the UDS and MDS 2 = In the MDS only 3 = In the UDS only
	Description/derivation	**UDS and MDS subjects:** Data collection for the MDS ceased in 2005, at which point the UDS began. Thus, some subjects are included in both the MDS and the UDS. This variable is designed to identify subjects who started participation in the MDS and continued participation in the UDS, as well as participants who participated in the MDS only or who have participated in the UDS only. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional.
1b.	Variable name	**naccage**
	Short descriptor	UDS subject age at visit (years)
	Data type	Numeric longitudinal
	Allowable codes	18 – 120
	Description/derivation	**UDS subjects:** Birth month and year are required elements in the UDS; however, birth day is not collected. To calculate age, birth day is set to 1 for all subjects and computed as visit date – birth date.
1c.	Variable name	**naccageb**
	Short descriptor	Subject age at the initial visit (years)
	Data type	Numeric cross-sectional
	Allowable codes	18 – 120
	Description/derivation	**UDS subjects:** Birth month and year are required elements in the UDS; however, birth day is not collected. To calculate naccageb, birth day is set to 1 for all subjects. Baseline age is then computed as initial visit date – birth date. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** Age at initial visit is not calculated for MDS subjects. Please see naccmage for age of MDS subjects at most recent evaluation.
1d.	Variable name	**naccmage**
	Short descriptor	MDS subject age at most recent evaluation (years)
	Data type	Numeric cross-sectional
	Allowable codes	18 – 120

	Description/derivation	**MDS subjects:** Birth month and day are NOT required elements in the MDS; however, birth year is collected. Birth day is set to 1 for all subjects, and if month is missing, 7 (July) is imputed. Age is not calculated for subjects who are missing birth year. In the MDS, age is computed as most recent evaluation date – birth date.
1e.	Variable name	**naccnihr**
	Short descriptor	Derived NIH race definitions
	Data type	Numeric cross-sectional
	Allowable codes	1 = White 2 = Black or African American 3 = American Indian or Alaska Native 4 = Native Hawaiian or Pacific Islander 5 = Asian 6 = Multiracial 99 = Unknown or ambiguous
	Description/derivation	**UDS subjects:** Some subjects have reported an other race that is not technically a race but rather an ethnicity or country of origin (e.g, Hispanic or Irish). We have created a derived race variable that is more consistent with the NIH guidelines for human subjects reporting. The categories are described as follows: **naccnihr** = 1 for subjects with RACE = 1 or RACE = 50 with a write-in response that is considered white or Caucasian race **naccnihr** = 2 for subjects with RACE = 2 or RACE = 50 with a write-in response that is considered black or African American **naccnihr** = 3 for subjects with RACE = 3 or RACE =50 with a write-in response that is considered American Indian or Alaska Native **naccnihr** = 4 for subjects with RACE = 4 or RACE = 50 with a write-in response that is considered Native Hawaiian or Pacific Islander **naccnihr** = 5 for subjects with RACE = 5 or RACE = 50 with a write-in response that is considered Asian **naccnihr** = 6 for subjects reporting multiple races or with RACE = 50 and a write-in response indicating mixed race including, but not limited to, "multiracial", "biracial", and "mestizo" **naccnihr** = 99 for subjects with RACE=99 or with RACE = 50 and a write-in response that cannot be classified as one of the categories without additional information, including but not limited to, "Hispanic", "American", and "Unknown". Subjects reporting multiple races (Codes 1 – 5 for **race** and **racesec**, or for **race**, **racesec** and **raceter**) are coded to **naccnihr** = 6 "Multi-racial". For some multiracial subjects (**naccnihr** = 6), additional information on their primary, secondary, and/or tertiary race can be found by looking at the **race**, **racesec**, and **raceter** variables. Subjects reporting codes 1 through 5 for race, followed by **racesec** = 50 or **raceter** = 50, are assigned the original primary race reported if the write-in does not indicate a different race, or is ambiguous. For example, a subject that reports **race** = 1 (white) and then **racesec** = 50 with a write-in of "Irish" will still have **naccnihr** = 1 and will not be considered multi-racial. If write-ins for **racesec** = 50 or **raceter** = 50 are indicative of additional race, then **naccnihr** = 6. Additionally, **race** = 99 or ambiguous write-ins for primary race (**race** = 50) that are

		followed by codes 1 through 5 for racesec or raceter are coded as naccnihr = 99. **MDS subjects:** A derived race variable has not been created for MDS subjects.
1f.	Variable name	naccavst
	Short descriptor	Total number of all UDS visits made
	Data type	Numeric cross-sectional
	Allowable codes	1 – 20
	Description/derivation	**UDS subjects:** This variable is calculated as the number of visits the subject made, regardless of the time between visits and whether the visit was in person or on the telephone. Subjects with naccavst = 1 have completed an initial visit only. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** naccavst is not calculated for MDS subjects as the MDS is not a longitudinal database.
1g.	Variable name	naccnvst
	Short descriptor	Number of in-person UDS visits made
	Data type	Numeric cross-sectional
	Allowable codes	1 – 20
	Description/derivation	**UDS subjects:** This variable is calculated as the number of in-person visits the subject made, regardless of the time between visits. Telephone visits are not included in the count. Subjects with naccnvst = 1 have completed an initial visit only. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** naccnvst is not calculated for MDS subjects as the MDS is not a longitudinal database.
1h.	Variable name	naccdays
	Short descriptor	Days from initial visit to most recent visit
	Data type	Numeric cross-sectional
	Allowable codes	0 – 3650
	Description/derivation	**UDS subjects:** This variable is calculated as the most recent visit date minus the initial visit date. All subjects completing the initial visit only will have naccdays = 0. Note that in order to obtain follow-up time in years, simply divide naccdays by 365.25. Also Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** naccdays is not calculated for MDS subjects as the MDS is not a longitudinal database.
1i.	Variable name	naccfdys
	Short descriptor	Days from initial visit to each follow-up visit
	Data type	Numeric longitudinal
	Allowable codes	0 – 3650
	Description/derivation	**UDS subjects:** This variable is calculated as the follow-up visit date minus the initial

visit date for every follow-up visit. All initial visits will have naccfdys = 0. Note that in order to obtain follow-up time in years, simply divide naccfdys by 365.25.

MDS subjects: naccfdys is not calculated for MDS subjects as the MDS is not a longitudinal database.

1j.	Variable name	**naccwndw**
	Short descriptor	UDS visit window
	Data type	Numeric longitudinal
	Allowable codes	0 = Initial visit or <180 days since initial visit. 1 = 180 ≤ days since initial visit ≤ 545 2 = 546 ≤ days since initial visit ≤ 910 3 = 911 ≤ days since initial visit ≤ 1275 4 = 1276 ≤ days since initial visit ≤ 1640 5 = 1641 ≤ days since initial visit ≤ 2005 6 = 2006 ≤ days since initial visit ≤ 2370 7 = 2371 ≤ days since initial visit ≤ 2735
	Description/derivation	**UDS subjects:** This variable is the UDS visit window in which each visit falls. The visit windows are defined by the number of days since the initial visit. Note that all initial visits will have naccwndw = 0. It is also possible for a subject to have more than one visit within a window and/or skip a visit window. **MDS subjects:** naccwndw is not calculated for MDS subjects as the MDS is not a longitudinal database.

1k.	Variable name	**naccstat**
	Short descriptor	Participation status at the ADC
	Data type	Numeric cross-sectional
	Allowable codes	0 = Not active 1 = Active
	Description/derivation	**UDS subjects:** Subjects can be enrolled for initial visit only or for longitudinal follow-up. After the initial visit, subjects can discontinue participation for a number of reasons. A subject's most recent status in the database can be dichotomized in the following way: naccstat = 0 if the subject is not under active UDS follow-up (e.g., the subject has died, was discontinued, is followed for autopsy only, or was enrolled as initial visit only). naccstat = 1 if the subject is under active follow-up and is expected to make additional visits, either in person or by telephone. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. Additionally, it does not capture change in participation status. For example, subjects who were discontinued but who have since rejoined are coded as active (naccstat = 1), and subjects who were enrolled as IV-only (prespart = 1), but made additional visits and are now actively followed are coded as active (naccstat = 1). **MDS subjects:** naccstat is not calculated for MDS subjects as the MDS is not a longitudinal database.

1l.	Variable name	naccnurs
	Short descriptor	Reported residence in a nursing home
	Data type	Numeric cross-sectional
	Allowable codes	0 = Did not report living in a nursing home / unknown 1 = Lived in a nursing home
	Description/derivation	**UDS subjects:** Subjects with residenc = 3 or 4 and/or a Milestones Form reporting nursehom = 1 are indicated as living in a nursing home during at least one UDS visit, or previously as part of the MDS (naccnurs = 1). Otherwise, naccnurs = 0. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** Subjects with residenc = 3 or 4 and/or a Milestones Form reporting nursehom = 1 are indicated as living in a nursing home during observation (naccnurs = 1). Otherwise, naccnurs = 0.
1m.	Variable name	naccdied
	Short descriptor	Subject is known to be deceased
	Data type	Numeric cross-sectional
	Allowable codes	0 = Not Deceased/Unknown 1 = Deceased
	Description/derivation	**UDS subjects:** Subjects with a Neuropathology Form and/or a Milestones Form reporting deceased = 1 are indicated as deceased (naccdied = 1). Otherwise, naccdied = 0. **NOTE:** This variable includes subjects who were not under active follow-up at an ADC at the time of their death. **MDS subjects:** Subjects with a Neuropathology form and/or vitalst = 2 are indicated as deceased (naccdied = 1). Otherwise, naccdied = 0.
1m.	Variable name	naccpaff
	Short descriptor	Previously affiliated subject
	Data type	Numeric cross-sectional
	Allowable codes	0 = Not previously affiliated subject 1 = Previously affiliated subject
	Description/derivation	**UDS subjects:** This variable is an indicator for whether the subject was an affiliated subject before entering the Clinical Core. Affiliated subjects are seen by Center staff and evaluated using the UDS forms but are not considered part of the Clinical Core. **MDS subjects:** This variable is not available for MDS subjects.

2. Reported subject health history / family history

2a.	**Variable name**	**naccaged**
	Short descriptor	Age of onset of cognitive decline (years)
	Data type	Numeric cross-sectional
	Allowable codes	15 – 110 999 = Age of decline unknown 888 = N/A — no decline indicated –8 = Value varies over visits; consult with NACC if you need help deciding which value to use
	Description/derivation	**UDS subjects:** This variable provides the age in years at which the subject began experiencing cognitive decline. The value for this variable is determined by the clinician after consulting with medical records, direct observation, and subject/informant report. Due to the way Form B9 was designed, it was possible for Centers to provide a different value for age of cognitive decline at different UDS visits (these subjects have been flagged with **naccaged** = –8). As such, Centers are currently examining the age of onset of decline data to provide NACC with a single value for each subject's age of onset of cognitive decline. In the meantime, NACC suggests that you use caution and examine how many subjects in your analytic sample have **naccaged** = –8 values. In the case that a valid value for **decage** is followed by a code of Unknown (999) or N/A (888), the valid value is used. When the clinician does not report decline at any visit, the subject receives a value of N/A (888). Please contact NACC for further guidance if needed. **MDS subjects:** This variable was not collected for MDS subjects. However, please see the MDS **agedem** variable for the age at which the subject developed dementia symptoms. **NOTE:** The **agedem** and **naccaged** variables do not capture the same information. Please consult NACC's MDS and UDS Coding Guidebooks and contact NACC for further guidance if needed.

2b.	**Variable name**	**nacchdis**
	Short descriptor	Heart disease or related procedure reported at any UDS visit
	Data type	Numeric cross-sectional
	Allowable codes	0 = No 1 = Yes 9 = Unknown
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form A5 questions 1a through 1g. Centers are asked to record a subject's history of heart disease and related procedures based on subject/informant report, medical records, and/or observation. Subjects have **nacchdis**=1 (Yes) if they have reported 1=Recent/active or 2=Remote/inactive history for one or more of the following variables at any UDS visit: heart attack (**CVHATT**), atrial fibrillation (**CVAFIB**),angioplasty/enarterectomy/stent (**CVANGIO**), cardiac bypass (**CVBYPASS**), pacemaker (**CVPACE**), or congestive heart failure (**CVCHF**)). If heart disease is reported as absent at all of the subject's UDS visits (i.e., all heart disease variables 3=Absent), then **nacchdis**=0 (No). If none of the heart disease variables indicate 1=Recent/active or 2=Remote/inactive history of heart disease, but one or more=Unknown (9), then nacchdis=Unknown (9). **MDS subjects:** This variable is not available for MDS subjects as subject heath history data were not collected before the introduction of the UDS.

NOTE: Please speak with a NACC consultant if you are considering using this variable as a primary exposure or outcome variable in your analysis.

2c.		
	Variable name	**naccahtn**
	Short descriptor	Reported current use of any type an antihypertensive or blood pressure medication
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
	Description/derivation	**UDS subjects:** This variable is an indicator of reported current use of an antiadrenergic agent, ACE inhibitor, beta-blocker, calcium channel blocking agent, diruetic, vasodilator, antihypertensive combination therapy or angiotensin II inhibitor. All of the medications used to code **NACCACEI, NACCAAAS, NACCBETA, NACCCCBS, NACCDIUR, NACCVASD, NACCHTNC,** or **NACCANGI** are included in this category. **MDS subjects:** This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2d.		
	Variable name	**nacchtnc**
	Short descriptor	Reported current use of an antihypertensive combination therapy
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
	Description/derivation	**UDS subjects:** This variable indicates reported current use of an antihypertensive combination medication. The following medications are included in this category:

Drug name	Example brand names
hydrochlorothiazide-triamterene	Dyazide, Hydrochlorothiazide-Triamterene, Maxzide, Maxzide-25
aMILoride-hydrochlorothiazide	Moduretic 5-50, AMILoride HCl-Hydrochlorothiazide
hydrochlorothiazide-spironolactone	Aldactazide, Hydrochlorothiazide-Spironolactone, Spironolactone Plus
polythiazide-reserpine	Renese-R, Demi-Regroton, Regroton
chlorothiazide-reserpine	Chlorothiazide-Reserpine, Diupres-250, Diupres-500
hydrochlorothiazide-reserpine	Hydro-Reserp, Hydrochlorothiazide-Reserpine, Hydropres-25, Hydropres-50, Hydroserp, Hydroserpine, Hydroserpine #1, Salutensin, Mallopress, Salutensin-Demi
methyclothiazide-reserpine	Diutensen-R
reserpine-trichlormethiazide	Metatensin #2, Metatensin #4
bendroflumethiazide-rauwolfia serpentina	Bendroflumethiazide-Rauwolfia Serp, Flumezide, Rauzide, Rondameth
hydrALAZINE/hydrochlorothiazide/ reserpine	Diuretic Ap-Es, HHR, HydrALAZINE HCl/ Hydrochlorothiazid, Hydrap-ES, Marpres, Ser-Ap-Es, Serathide, Serpazide, Serpex, Tri-Hydroserpine, Uni Serp, Unipres
hydrALAZINE-hydrochlorothiazide	Apresazide, HydrALAZINE HCl-Hydrochlorothiazid, HydrALAZINE Plus, Hydra-Zide

atenolol-chlorthalidone	Atenolol-Chlorthalidone, Tenoretic 100, Tenoretic 50
bendroflumethiazide-nadolol	Bendroflumethiazide-Nadolol, Corzide 40/5, Corzide 80/5
hydrochlorothiazide-timolol	Timolide 10-25
hydrochlorothiazide-propranolol	Hydrochlorothiazide-Propranolol, Inderide, Inderide :A
hydrochlorothiazide-methyldopa	Aldoril 15, Aldoril 25, Aldoril D30, Aldoril D50, Hydrochlorothiazide-Methyldopa, Hydrochlorothiazide-Metoprolol, Lopressor HCT
benazepril-hydrochlorothiazide	Lotensin HCT, Benazepril-Hydrochlorothiazide
hydrochlorothiazide-lisinopril	Prinzide, Zestoretic, Hydrochlorothiazide-Lisinopril
chlorthalidone-cloNIDine	Chlorthalidone-CloNIDine, Clorpres, Combipres
polythiazide-prazosin	Minizide
guanethidine-hydrochlorothiazide	Esimil
deserpidine-methyclothiazide	Enduronyl, Enduronyl Forte
deserpidine-hydrochlorothiazide	Oreticyl 25, Oreticyl 50, Oreticyl Forte
captopril-hydrochlorothiazide	Capozide 25/15, Capozide 25/25, Capozide 50/15, Capozide 50/25, Captopril-Hydrochlorothiazide
enalapril-hydrochlorothiazide	Enalapril-Hydrochlorothiazide, Vaseretic 10-25, Vaseretic 5-12.5
bisoprolol-hydrochlorothiazide	Ziac, Bisoprolol-Hydrochlorothiazide
chlorothiazide-methyldopa	Aldoclor-150, Aldoclor-250, Chlorothiazide-Methyldopa
amLODIPine-benazepril	Lotrel, AmLODIPine Besylate-Benazepril Hyd
hydrochlorothiazide-losartan	Hyzaar, Hydrochlorothiazide-Losartan
diltiazem-enalapril	Teczem
trandolapril-verapamil	Tarka, Trandolapril-Verapamil Hydrochlori
enalapril-felodipine	Lexxel
hydrochlorothiazide-moexipril	Uniretic, Hydrochlorothiazide-Moexipril Hydr
hydrochlorothiazide-irbesartan	Avalide
hydrochlorothiazide-valsartan	Diovan HCT
hydrochlorothiazide-quinapril	Accuretic, Quinaretic, Hydrochlorothiazide-Quinapril Hydr
fosinopril-hydrochlorothiazide	Fosinopril-Hydrochlorothiazide, Monopril HCT
candesartan-hydrochlorothiazide	Atacand HCT
hydrochlorothiazide-telmisartan	Micardis HCT
eprosartan-hydrochlorothiazide	Teveten HCT
hydrochlorothiazide-olmesartan	Benicar HCT
amLODIPine-atorvastatin	Amlodipine Besylate-Atorvastatin
hydrALAZINE-isosorbide dinitrate	BiDil
amLODIPine-valsartan	Exforge
amLODIPine-olmesartan	Azor
aliskiren-hydrochlorothiazide	Tekturna HCT
amLODIPine/hydrochlorothiazide/valsartan	Exforge HCT
aliskiren-valsartan	Valturna
amLODIPine-telmisartan	Twynsta

amLODIPine/hydrochlorothiazide/ olmesartan	Tribenzor
aliskiren-amLODIPine	Tekamlo
aliskiren/amLODIPine/hydrochlorothiazide	Amturnide

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2e.

Variable name	**naccacei**
Short descriptor	Reported current use of an angiotensin converting enzyme (ACE) inhibitor
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of an ACE inhibitor. The following medications are included in this category:

Drug name	Example brand names
captopril	Capoten, Captopril
enalapril	Enalapril Maleate, Enalaprilat, Vasotec
fosinopril	Fosinopril Sodium, Monopril
quinapril	Accupril, Quinapril Hydrochloride
ramipril	Altace, Ramipril
benazepril	Lotensin, Benazepril Hydrochloride
lisinopril	Lisinopril, Prinivil, Zestril
moexipril	Univasc, Moexipril Hydrochloride
trandolapril	Mavik, Trandolapril
perindopril	Aceon, Perindopril Erbumine

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2f.

Variable name	**naccaaas**
Short descriptor	Reported current use of an antiadrenergic agent
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of an antiadrenergic agent, including both peripherally and centrally acting antiadrenergic agents. The following medications are included in this category:

Drug name	Example brand names
guanethidine	Ismelin
prazosin	Minipress, Prazosin Hydrochloride
reserpine	Reserpine
terazosin	Hytrin, Terazosin Hydrochloride
guanadrel	Hylorel
doxazosin	Cardura, Cardura XL, Doxazosin Mesylate
mecamylamine	Inversine
rauwolfia serpentina	Rauwolfemms, Rauwolfia 1X, Rauwolfia Serpentina
deserpidine	Harmonyl
tamsulosin	Flomax, Tamsulosin Hydrochloride
alfuzosin	Uroxatral, Alfuzosin Hydrochloride
silodosin	Rapaflo
dutasteride-tamsulosin	Jalyn
cloNIDine	Catapres, Catapres-TTS1-3, CloNIDine Hydrochloride, CloNIDine TTS1-3, Duraclon, Kapvay, Nexiclon XR
guanabenz	Wytensin, Guanabenz Acetate
methyldopa	Aldomet, Aldomet Ester Hydrochloride, Methyldopa, Methyldopate
guanFACINE	Intuniv, GuanFACINE Hydrochloride, Tenex

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2g.

Variable name	**naccbeta**
Short descriptor	Reported current use of a beta-adrenergic blocking agent (Beta-Blocker)
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a beta-blocker medication, including both cardioselective and non-cardioselective beta-blockers. The following medications are included in this category:

Drug name	Example brand names
atenolol	Atenolol, Senormin, Tenormin
acebutolol	Acebutolol Hydrochloride
metoprolol	Lopressor, Metoprolol Succinate ER, Metoprolol Tartrate, Toprol-XL
betaxolol	Betaxolol Hydrochloride, Kerlone
esmolol	Brevibloc
bisoprolol	Zebeta, Bisoprolol Fumarate
nebivolol	Bystolic
labetalol	Normodyne, Trandate, Labetalol Hydrochloride
nadolol	Corgard, Nadolol
propranolol	Inderal
pindolol	Pindolol, Visken
timolol	Blocadren, Timolol Maleate
penbutolol	Levatol
sotalol	Betapace
carteolol	Cartrol
carvedilol	Carvedilol, Coreg, Coreg CR

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2h.

Variable name	**naccccbs**
Short descriptor	Reported current use of a calcium channel blocking agent
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a calcium channel blocking medication. The following medications are included in this category:

Drug name	Example brand names
diltiazem	Cardizem
verapamil	Calan
NIFEdipine	Adalat, Adalat CC, Afeditab CR, NIFEdipine ER, Nifediac CC, Nifedical XL, Nifedipine, Procardia, Procardia XL
felodipine	Plendil, Felodipine ER
isradipine	Dynacirc, Dynacirc CR, Isradipine
niCARdipine	Cardene, Cardene IV, Cardene SR, NiCARdipine Hydrochloride
niMODipine	NiMODipine, Nimotop
bepridil	Vascor
amLODIPine	Norvasc, AmLODIPine Besylate
nisoldipine	Nisoldipine, Sular
mibefradil	Posicor
clevidipine	Cleviprex

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2i.

Variable name	**naccdiur**
Short descriptor	Reported current use of a diuretic
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a diuretic medication and includes loop diuretics, potassium-sparing diuretics, thiazide and thiazide-like diuretics, carbonic anhydrase inhibitors, and miscellaneous diuretics. The following medications are included in this category:

Drug name	Example brand names
furosemide	Lasix, Diaqua-2, Furosemide, Lo-Aqua
bumetanide	Bumex, Bumetanide
ethacrynic acid	Edecrin, Edecrin Sodium
torsemide	Demadex, Demadex I.V., Torsemide
aMILoride	AMILoride Hydrochloride, AMILoride Hydrochloride Dihydrate, Midamor
spironolactone	Aldactone
triamterene	Dyrenium, Triamterene
chlorothiazide	Chlorothiazide, Chlorothiazide Sodium, Diuril, Diuril Sodium, Chlorthalidone, Hygroton, Thalitone
hydrochlorothiazide	Aquazide H, Carozide, Diaqua, Esidrix, Ezide, Hydro Par, HydroDIURIL, Hydrochlorothiazide, Loqua, Microzide, Oretic
indapamide	Lozol, Indapamide
metolazone	Metolazone, Mykrox, Zaroxolyn
bendroflumethiazide	Bendroflumethiazide, Naturetin-10, Naturetin-5
methyclothiazide	Aquatensen, Enduron, Methyclothiazide
benzthiazide	Exna
hydroflumethiazide	Diucardin, Saluron
trichlormethiazide	Aquacot, Diurese, Metahydrin, Naqua, Trichlormethiazide
polythiazide	Renese
acetaZOLAMIDE	AcetaZOLAMIDE
dichlorphenamide	Daranide
methazolamide	Glauctabs, MZM, Methazolamide, Neptazane
mannitol	Aridol, Mannitol, Osmitrol
pamabrom	Aqua-Ban, Aqua-Ban with Pamabrom, Diurex Aquagels, Diurex Water Capsules
urea	Ureaphil

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2j.

Variable name	**naccvasd**
Short descriptor	Reported current use of a vasodilator
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a vasodilator. The following medications are included in this category:

Drug name	Example brand names
hydrALAZINE	Apresoline, HydrALAZINE Hydrochloride
minoxidil	Loniten, Minoxidil
nitroprusside	Sodium Nitroprusside
nitroglycerin	Minitran, Nitrek, Nitro TD Patch-A, Nitro-Bid, Nitro-Bid IV, Nitro-Dur, Nitro-Par, Nitro-Time, Nitrocot, Nitrodisc, Nitrogard, Nitroglycerin, Nitroglycerin ER, Nitroglycerin Patch, NitroglycerinTransdermal System, Nitroglyn E-R, Nitrol, Nitrol Appli-Kit, Nitrolingual, Nitrolingual Duo Pack, Nitromist, Nitrong, Nitroquick, Nitrostat, Transderm-Nitro, Tridil

alprostadil	Alprostadil
nesiritide	Natrecor

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2k.

Variable name	**naccangi**
Short descriptor	Reported current use of an angiotensin II inhibitor
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of an angiotensin II inhibitor. The following medications are included in this category:

Drug name	Example brand names
losartan	Cozaar, Losartan Potassium
valsartan	Diovan
irbesartan	Avapro
eprosartan	Teveten
candesartan	Atacand
telmisartan	Micardis
olmesartan	Benicar
azilsartan	Edarbi

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2l.

Variable name	**nacclipl**
Short descriptor	Reported current use of lipid lowering medication
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a prescription antihyperlipidemic (lipid lowering) medication, including HMG-COA reductase inhibitors, miscellaneous antihyperlipidemic agents, fibric acid derivatives, bile acid sequestrants, cholesterol absorption inhibitors, and antihyperlipidemic combination therapies. The following medications are included in this category:

Drug name	Example brand names
lovastatin	Altoprev, Altocor, Lovastatin, Mevacor
pravastatin	Pravachol, Pravastatin Sodium

simvastatin	Zocor, Simvastatin
fluvastatin	Lescol, Lescol XL
atorvastatin	Lipitor, Atorvastatin Calcium
cerivastatin	Baycol
red yeast rice	Cholestin (obsolete)
rosuvastatin	Crestor
pitavastatin	Livalo
niacin	B3-500-Gr, Niacin, Niacin ER, Niacin SR, Niacin TD, Niacor, Niacor B3, Niaspan ER, Niaspan ER Starter Pack, Nico-400, Nicobid Tempules, Nicolar, Nicotinex, Nicotinic Acid, Slo-Niacin
probucol	Lorelco
dextrothyroxine sodium	Choloxin
clofibrate	Atromid-S, Clofibrate
gemfibrozil	Gemcor, Gemfibrozil, Lopid
fenofibrate	Antara, Fenofibrate, Fenofibrate Micronized, Fenoglide, Lipofen, Lofibra, TriCor, Triglide
fenofibric acid	Fenofibric Acid, Fibricor, Trilipix
cholestyramine	Cholestyramine, Cholestyramine Light, Cholestyramine Light Packets, Cholestyramine Packets, Locholest, Locholest Light, Locholest Light Packets, Locholest Packets, Prevalite, Prevalite Packets, Questran, Questran Light, Questran Light Packets, Questran Packets
colestipol	Colestid, Colestid Flavored, Colestipol Hydrochloride,
colesevelam	Welchol
ezetimibe	Zetia
lovastatin-niacin	Advicor
aspirin-pravastatin	Pravigard Pac
amLODIPine-atorvastatin	Caduet
ezetimibe-simvastatin	Vytorin
niacin-simvastatin	Simcor
simvastatin-sitaGLIPtin	Juvisync

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2m.

Variable name	**naccnsd**
Short descriptor	Reported current use of nonsteroidal anti-inflammatory medication
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a nonsteroidal anti-inflammatory medication. Medications included in this category include non-steroidal anti-inflammatory agents, salicylates, COX2 inhibitors, and analgesic combinations containing one of the latter. The following medications are included in this category:

Drug name	Example brand names
ibuprofen	Advanced Pain Relief, Advil, Advil Childrens, Advil Junior Strength, Advil Junior Strength, Advil Liquigel, Advil Migraine, Advil Pediatric, Arthritis Foundation IB, Caldolor, Cap-Profen, Childrens Ibuprofen Berry, Childrens Ibuprofen, Dolgesic, Genpril, Haltran, IBU, IBU-200, Ibifon 600, Ibren, Ibu-4, Ibu-6, Ibu-8, Ibu-Tab, Ibuprofen, Ibuprofen Childrens, Ibuprofen Dye Free, Ibuprofen IB, Ibuprofen Infants Drops, Ibuprofen PMR, Ibuprofen to Go, Ibuprohm, Menadol, Midol IB, Midol Maximum Strength Cramp Formula, Motrin, Motrin Childrens, Motrin IB, Motrin Infant Drops, Motrin Junior Strength, Motrin Migraine Pain, Motrin Pediatric, NeoProfen, Nuprin, Pediacare Fever, Q-Profen, Rufen, Saleto-200, Saleto-400, Saleto-600, Saleto-800, Sup Pain Med, Tab-Profen, Uni-Pro, Wal-Profen
naproxen	Aflaxen, Aleve, Aleve Caplet, Aleve Easy Open Arthritis, Aleve Gelcap, All Day Pain Relief, Anaprox, Anaprox-DS, Comfort Pac with Naproxen, EC-Naprosyn, Leader Naproxen Sodium, Midol Extended Relief, Naprelan 375, Naprelan 500, Naprelan 750, Naprelan Dose Card, Naprosyn, Naproxen, Naproxen Enteric Coated, Naproxen Sodium, Naproxen Sodium DS, Wal-Proxen, Wal-Proxen Caplets
fenoprofen	Nalfon, Fenoprofen Calcium, Fenoprofen Calcium Anhydrous
ketoprofen	Actron, Ketoprofen, Ketoprofen ER, Orudis, Orudis KT, Oruvail
sulindac	Clinoril, Sulindac
indomethacin	Indocin, Indocin SR, Indomethacin, Indomethacin SR, Indomethacin Sodium Trihydrate
tolmetin	Tolectin, Tolectin 600, Tolectin DS, Tolmetin Sodium
flurbiprofen	Ansaid, Flurbiprofen
ketorolac	Ketorolac Tromethamine, Sprix, Toradol, Toradol IM, Toradol IV/IM
meclofenamate	Meclofenamate Sodium, Meclomen
mefenamic acid	Mefenamic Acid, Ponstel
nabumetone	Nabumetone, Relafen
piroxicam	Feldene, Piroxicam
diclofenac	Cambia, Cataflam, Diclofenac Potassium, Diclofenac Sodium, Diclofenac Sodium XR, Voltaren, Voltaren-XR, Zipsor
etodolac	Etodolac, Etodolac ER, Lodine, Lodine XL
oxaprozin	Daypro, Oxaprozin
bromfenac	DurAct
diclofenac-misoprostol	Arthrotec
meloxicam	Meloxicam, Mobic
lansoprazole-naproxen	PREVACID NapraPAC 375, PREVACID NapraPAC 500
esomeprazole-naproxen	Vimovo
famotidine-ibuprofen	Duexis

aspirin	Acetylsalicylic Acid, Acuprin 81, Arthritis Foundation Aspirin, Arthritis Pain, Arthritis Pain, Ascriptin Enteric, Aspergum Cherry, Aspergum Orginal, Aspir 81, Aspir-Low, Aspir-trin, Aspirin, Aspirin Adult Low Strength, Aspirin Child Chewable, Aspirin Childrens Cherry, Aspirin Childrens Orange, Aspirin EC Lo-Dose, Aspirin Enteric Coated, Aspirin Lite Coat, Aspirin Litecoat, Aspirin Low Dose, Aspirin Low Strength, Aspirin Tri-Buffered, Aspirin, Extended Release, Aspirin-Antacid, Aspirtab, Bayer Aspirin, Bayer Aspirin Regimen, Bayer Aspirin Sugar Free, Bayer Aspirin with Calcium, Bayer Aspirin with Heart Advantage, Bayer Childrens Aspirin, Bayer Low Dose, Bayer Low Strength, Bayer Plus, Buffered Aspirin, Bufferin, Bufferin Arthritis Strength, Bufferin Extra Strength, Bufferin Low Dose, Buffex, CTD Aspirin, Coated Aspirin, Easprin, Ecotrin, Ecotrin Adult Low Strength, Ecotrin Maximum Strength, Ecpirin, Empirin, Entaprin, Entercote, Extra Strength Bayer, Fasprin, Genacote, Gennin-FC, Genprin, Halfprin, Litecoat Aspirin, Low Dose ASA, Med Aspirin, Minitabs, Norwich Aspirin, Ridiprin, Sloprin, St. Joseph Aspirin, St. Joseph Aspirin Adult Chewable, St. Joseph Aspirin Adult EC, Stanback Analgesic, Tri-Buffered Aspirin, Uni-Buff, Uni-Tren, Valomag, YSP Aspirin, Zero-Order Release, Zorprin
diflunisal	Diflunisal, Dolobid
choline salicylate	Arthropan
salsalate	Amigesic, Anaflex, Argesic-SA, Disalcid, Marthritic, Mono-Gesic, Salflex, Salsalate, Salsitab
sodium salicylate	Sodium Salicylate
sodium thiosalicylate	Rexolate, Sodium Thiosalicylate, Tusal
magnesium salicylate	Backache Relief Extra Strength, Bayer Select Backache Pain Formula, Doans Pills, Doans Pills Extra Strength, MST, Magan, Magnesium Salicylate, Mobidin, Novasal, Nuprin Backache Caplet
choline salicylate-magnesium salicylate	CMT, Choline Magnesium Trisalicylate, Tricosal, Trilisate
ASA/citric acid/Na bicarb	Alka-Seltzer, Alka-Seltzer Blue, Alka-Seltzer Extra Strength, Alka-Seltzer Flavored, Effervescent Pain & Antacid, Effervescent Pain Relief, Pain Relief (Effervescent)
Al hydroxide/ASA/Ca carbonate/ Mg hydroxide	Arthritis Pain Formula, Ascriptin, Ascriptin Maximum Strength, Aspidrox, Aspir-Mox, Aspir-Mox IB, Aspirin Buffered, Aspirin Plus Antacid Extra Strength, Magnaprin
celecoxib	CeleBREX
rofecoxib	Vioxx
valdecoxib	Bextra
APAP/ASA/caffeine/salicylamide	Levacet, Saleto
APAP/ASA/caffeine	Excedrin, Excedrin Express Gels, Excedrin Extra Strength, Excedrin Extra Strength Geltab, Excedrin Geltab, Excedrin Menstrual Express Gels, Excedrin Migraine, Excedrin Migraine Geltab, Ex-Pain, Genace, Acetaminophen/Aspirin/ Caffeine, Anacin Advanced Headache Formula, Goodys Headache Powders, Goodys Extra Strength, Headache Relief, Migraine Formula, Pain Reliever Added Strength, Pain Reliever Plus, Pamprin Max, Supac, Uni-Case
APAP/Al hydroxide/ASA/caffeine/ Mg hydroxide	Vanquish
ASA/caffeine/salicylamide	B.C. Powder, B.C. Powder Arthritis Strength, B.C. Headache, Emagrin
aspirin-meprobamate	Equagesic

aspirin-caffeine	AA&C, Adult Pain, Adult Strength, Alka-Seltzer Morning Relief, Anacin, Anacin Extra Strength, Analgesic Pain Reliever, Aspircaf, Aspirin-Caffeine, CP-2, Cope, Genasan, Major-Cin, P-A-C Analgesic, Pain Relief with Aspirin, Q-Acin, Uni-Ann
aspirin-phenyltoloxamine	Momentum
magnesium salicylate-phenyltoloxamine	Mag-Phen, Magsal, Mobigesic, Tetra-Mag
ASA/butalbital/caffeine	Aspirin/Butalbital/Caffeine, Butalbital Compound, Fiorinal, Fiormor, Fiortal, Fortabs, Idenal, Isollyl, Laniroif
aspirin-butalbital	Axotal
aspirin-diphenhydrAMINE	Bayer Aspirin PM Extra Strength, Bayer NightTime Relief
diphenhydrAMINE-magnesium salicylate	Doans PM
acetaminophen-salicylamide	Frenadol, Panritis Forte
APAP/caffeine/phenyltoloxamine/ salicylamide	Cafgesic
APAP/phenyltoloxamine/ salicylamide	Anabar, Be-Flex Plus, By-Ache, Dolorex, Ed-Flex, Lobac
APAP/caffeine/mg salicylate/ phenyltoloxamin	Cafgesic Forte, Combiflex ES, Durabac Forte
diphenhydrAMINE-ibuprofen	Advil PM, Advil PM Liqui-Gels, Ibuprofen PM, Motrin PM
APAP/caffeine/magnesium salicylate	KneeRelief
acetaminophen-aspirin	Excedrin Back & Body
caffeine-magnesium salicylate	Diurex
APAP/magnesium salicylate/ pamabrom	Pamprin Cramp Formula

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2n.

Variable name	**naccac**
Short descriptor	Reported current use of an anticoagulant or antiplatelet agent
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of an anti-clotting or blood-thinning medication, including heparins, coumarins and indandiones, thrombin inhibitors, factor Xa inhibitors, platelet aggregation inhibitors, and glycoprotein platelet inhibitors. The following medications are included in this category:

Drug name	Example brand names
heparin	Dextrose-Heparin Sodium, Heparin Sodium, Heparin Sodium (beef), Heparin Sodium ADD-Vantage, Heparin Sodium Preservative Free, Heparin Sodium-Sodium Chloride
enoxaparin	Lovenox, Enoxaparin Sodium
dalteparin	Fragmin
danaparoid	Orgaran

ardeparin	Normiflo
tinzaparin	Innohep
heparin flush	Hep-Lock, Hep-Pak, Hep-Pak CVC, Heparin (Preservative Free) in Sod, Heparin Lock Flush, Heparin Sodium in Sodium Chloride, Lok-Pak Needleless Kit, Lok-Pak-N, Monoject Prefill Advanced, PosiFlush
warfarin	Coumadin, Jantoven, Warfarin Sodium
anisindione	Miradon
dicumarol	Dicumarol
lepirudin	Refludan
argatroban	Acova, Argatroban
bivalirudin	Angiomax
desirudin	Iprivask
dabigatran	Pradaxa
fondaparinux	Arixtra, Fondaparinux Sodium
rivaroxaban	Xarelto
aspirin	Acetylsalicylic Acid, Acuprin 81, Arthritis Foundation Aspirin, Arthritis Pain, Arthritis Pain, Ascriptin Enteric, Aspergum Cherry, Aspergum Orginal, Aspir 81, Aspir-Low, Aspir-trin, Aspirin, Aspirin Adult Low Strength, Aspirin Child Chewable, Aspirin Childrens Cherry, Aspirin Childrens Orange, Aspirin EC Lo-Dose, Aspirin Enteric Coated, Aspirin Lite Coat, Aspirin Litecoat, Aspirin Low Dose, Aspirin Low Strength, Aspirin Tri-Buffered, Aspirin, Extended Release, Aspirin-Antacid, Aspirtab, Bayer Aspirin, Bayer Aspirin Regimen, Bayer Aspirin Sugar Free, Bayer Aspirin with Calcium, Bayer Aspirin with Heart Advantage, Bayer Childrens Aspirin, Bayer Low Dose, Bayer Low Strength, Bayer Plus, Buffered Aspirin, Bufferin, Bufferin Arthritis Strength, Bufferin Extra Strength, Bufferin Low Dose, Buffex, CTD Aspirin, Coated Aspirin, Easprin, Ecotrin, Ecotrin Adult Low Strength, Ecotrin Maximum Strength, Ecpirin, Empirin, Entaprin, Entercote, Extra Strength Bayer, Fasprin, Genacote, Gennin-FC, Genprin, Halfprin, Litecoat Aspirin, Low Dose ASA, Med Aspirin, Minitabs, Norwich Aspirin, Ridiprin, Sloprin, St. Joseph Aspirin, St. Joseph Aspirin Adult Chewable, St. Joseph Aspirin Adult EC, Stanback Analgesic, Tri-Buffered Aspirin, Uni-Buff, Uni-Tren, Valomag, YSP Aspirin, Zero-Order Release, Zorprin
dipyridamole	Dipyridamole
ticlopidine	Ticlid, Ticlopidine Hydrochloride
clopidogrel	Clopidogrel, Plavix
cilostazol	Pletal
aspirin-dipyridamole	Aggrenox
aspirin-pravastatin	Pravigard Pac
prasugrel	Effient
aspirin-calcium carbonate	Bayer Womens Low Dose Plus Calcium
ticagrelor	Brilinta
abciximab	Reopro
tirofiban	Aggrastat
eptifibatide	Integrilin

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2o.

Variable name	**naccadep**
Short descriptor	Reported current use of an antidepressant
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a prescription antidepressant, including miscellaneous, SSRIs, tricylcic, MOI, phenylpiperazine, tetracyclic, and SSNRI antidepressants. The following medications are included in this category:

Drug name	Example brand names
buPROPion	Aplenzin
St. Johns wort	St. Johns Wort
5-hydroxytryptophan	5-HTP
vilazodone	Viibryd
FLUoxetine	FLUoxetine Hydrochloride, FLUoxetine Hydrochloride DR, PROzac, PROzac Weekly, Rapiflux, Sarafem, Selfemra
sertraline	Zoloft, Sertraline Hydrochloride
PARoxetine	Paxil, Paxil CR, Pexeva, PARoxetine Hydrochloride, PARoxetine Hydrochloride ER
fluvoxaMINE	FluvoxaMINE Maleate, Luvox, Luvox CR
citalopram	CeleXA, Citalopram Hydrobromide
escitalopram	Lexapro
nortriptyline	Aventyl HCl, Nortriptyline Hydrochloride, Pamelor
desipramine	Desipramine Hydrochloride, Norpramin
amitriptyline	Amitriptyline Hydrochloride, Elavil, Endep, Vanatrip
doxepin	Doxepin Hydrochloride, SINEquan, Silenor
imipramine	Imipramine Hydrochloride, Imipramine Pamoate, Tofranil, Tofranil-PM
trimipramine	Surmontil, Trimipramine Maleate
amoxapine	Asendin, Amoxapine
protriptyline	Vivactil, Protriptyline Hydrochloride
clomiPRAMINE	Anafranil, ClomiPRAMINE Hydrochloride
isocarboxazid	Marplan
phenelzine	Nardil, Phenelzine Sulfate
tranylcypromine	Parnate, Tranylcypromine Sulfate
selegiline	Atapryl
traZODone	Desyrel, Desyrel Dividose, Oleptro, TraZODone Hydrochloride
nefazodone	Serzone, Nefazodone Hydrochloride
maprotiline	Ludiomil, Maprotiline Hydrochloride
mirtazapine	Mirtazapine, Remeron, Remeron SolTab
venlafaxine	Effexor, Effexor XR, Venlafaxine Hydrochloride, Venlafaxine Hydrochloride ER
DULoxetine	Cymbalta
milnacipran	Savella
desvenlafaxine	Pristiq

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2p.

Variable name	**naccapsy**
Short descriptor	Reported current use of an antipsychotic agent
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of an antipsychotic agent, including miscellaneous antipsychotics, psychotherapeutic combinations, phenothiazine psychotics, thioxanthenes, and atypical antipsychotics. The following medications are included in this category:

Drug name	Example brand names
haloperidol	Haldol, Haldol Decanoate, Haloperidol, Haloperidol Decanoate, Haloperidol Lactate
lithium	Eskalith, Eskalith-CR, Lithium Carbonate, Lithium Citrate, Lithobid, Lithonate, Lithotabs
molindone	Moban
loxapine	Loxapine Succinate, Loxitane, Loxitane C, Loxitane IM
pimozide	Orap
amitriptyline-chlordiazePOXIDE	Amitriptyline-ChlordiazePOXIDE, Limbitrol, Limbitrol DS
amitriptyline-perphenazine	Duo-Vil 2-10, Duo-Vil 2-25, Duo-Vil 4-10, Etrafon 2-10, Etrafon 2-25, Etrafon Forte, Etrafon-A, Perphenazine-Amitriptyline, Triavil
FLUoxetine-OLANZapine	Symbyax, FLUoxetine-OLANZapine
chlorproMAZINE	Ormazine, Thorazine, Thorazine Spansule, ChlorproMAZINE Hydrochloride
fluPHENAZine	Permitil, Prolixin, FluPHENAZine Decanoate, FluPHENAZine Hydrochloride, Prolixin Decanoate, Prolixin Enanthate
prochlorperazine	Compro, Compazine Spansule, Prochlorperazine, Prochlorperazine Edisylate, Prochlorperazine Maleate, Procot
promazine	Sparine, Promazine Hydrochloride
thioridazine	Mellaril, Mellaril-S, Thioridazine Hydrochloride
methotrimeprazine	Levoprome
perphenazine	Trilafon
mesoridazine	Serentil
trifluoperazine	Stelazine, Trifluoperazine Hydrochloride
trifluprom azine	Vesprin
thiothixene	Navane, Thiothixene
cloZAPine	CloZAPine, Clozaril, FazaClo
risperiDONE	RisperDAL, RisperDAL Consta, RisperDAL M-Tab, RisperiDONE
OLANZapine	Olanzapine, ZyPREXA, ZyPREXA Relprevv, ZyPREXA Zydis
QUEtiapine	SEROquel, SEROquel XR
ziprasidone	Geodon
ARIPiprazole	Abilify, Abilify Discmelt
paliperidone	Invega, Invega Sustenna

iloperidone	Fanapt
asenapine	Saphris, Saphris Black Cherry
lurasidone	Latuda

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2q.

Variable name naccaanx

Short descriptor Reported current use of an anxiolytic, sedative, or hypnotic agent

Data type Numeric longitudinal

Allowable codes

0 = Did not report use at visit
1 = Reported use at visit
–9 = Did not complete medications form

Description/derivation

UDS subjects: This variable indicates reported current use of an anxiolytic, sedative or hypnotic agent, including barbituates, benzodiazepines and miscellaneous anxiolytics, sedatives, and hypnotics. The following medications are included in this category:

Drug name	Example brand names
amobarbital	Amobarbital Sodium, Amytal Sodium
PENTobarbital	Nembutal, Nembutal Sodium, PENTobarbital Sodium, Pentobarbital, Luminal
secobarbital	Secobarbital Sodium, Seconal Sodium
mephobarbital	Mebaral
butabarbital	Busodium, Butabarbital, Butisol Sodium
butalbital	Butalbital
amobarbital-secobarbital	Tuinal
oxazepam	Oxazepam, Serax
diazepam	Diastat, Diastat AcuDial, Diastat Pediatric, Valium, Valrelease, Zetran, Diazepam
LORazepam	Ativan
ALPRAZolam	Alprazolam, ALPRAZolam ER, Niravam, Xanax, Xanax XR
chlordiazePOXIDE	Libritabs, ChlordiazePOXIDE Hydrochloride, Librium, Mitran, Poxi
clonazePAM	ClonazePAM, Clorazepate Dipotassium, Gen-xene, Tranxene SD, Tranxene T-Tab
flurazepam	Dalmane, Flurazepam Hydrochloride,
midazolam	Midazolam, Midazolam Hydrochloride, Versed
temazepam	Restoril, Temazepam
triazolam	Halcion, Triazolam
halazepam	Paxipam
estazolam	Estazolam, Prosom
quazepam	Doral
chloral hydrate	Aquachloral Supprettes, Chloral Hydrate, Somnote
busPIRone	BuSpar, BuSpar Dividose, BusPIRone Hydrochloride, Vanspar
diphenhydrAMINE	DiphenhydrAMINE Hydrochloride
doxepin	Adapin

ethchlorvynol	Placidyl
meprobamate	Equanil, MB-TAB, Meprobamate, Miltown
pyrilamine	Pyrilamine Maleate
hydrOXYzine	Anx
chlormezanone	Trancopal
zolpidem	Ambien, Ambien CR, Edluar, Zolpidem Tartrate, Zolpidem Tartrate ER, Zolpimist
paraldehyde	Paral
acetylcarbromal	Paxarel
propiomazine	Largon
doxylamine	Aldex AN, Doxylamine Succinate, Nitetime, Nytol Maximum Strength, Sleep Aid (Doxylamine), Unisom
melatonin	Melatonin
zaleplon	Sonata, Zaleplon
dexmedetomidine	Precedex
sodium oxybate	Xyrem
eszopiclone	Lunesta
ramelteon	Rozerem

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2r.

Variable name	**naccadmd**
Short descriptor	Reported current use of a FDA-approved medication for Alzheimer's disease symptoms
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a FDA-approved medication for Alzheimer's disease symptoms, including cholinesterase inhibitors and memantine. The following medications are included in this category:

Drug name	Example brand names
tacrine	Cognex
donepezil	Aricept, Aricept ODT, Donepezil Hydrochloride
rivastigmine	Exelon, Rivastigmine Tartrate
galantamine	Razadyne, Razadyne ER, Reminyl, Galantamine Hydrobromide, Galantamine Hydrobromide ER
memantine	Namenda

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2s.

Variable name	**naccpdmd**
Short descriptor	Reported current use of an antiparkinson agent
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates reported current use of a Parkinsons disease medication, including anticholinergic and dopaminergic antiparkinson agents. The following medications are included in this category:

Drug name	Example brand names
benztropine	Cogentin, Benztropine Mesylate
diphenhydrAMINE	DiphenhydrAMINE Hydrochloride
procyclidine	Kemadrin
trihexyphenidyl	Artane, Trihexane, Trihexyphenidyl Hydrochloride
biperiden	Akineton HCl
amantadine	Symmetrel, Symadine
bromocriptine	Bromocriptine Mesylate
carbidopa	Carbidopa, Lodosyn
levodopa	Levodopa, Larodopa, Dopar
selegiline	Carbex, Eldepryl, Emsam, Selegiline Hydrochloride, Zelapar
pergolide	Permax, Pergolide Mesylate
carbidopa-levodopa	Atamet, Carbidopa-Levodopa, Carbidopa-Levodopa CR, Parcopa, Sinemet, Sinemet CR
cabergoline	Cabergoline
pramipexole	Mirapex, Mirapex ER, Pramipexole Dihydrochloride
rOPINIRole	Requip, Requip Starter Kit, Requip XL, ROPINIRole Hydrochloride
tolcapone	Tasmar
entacapone	Comtan
carbidopa/entacapone/ levodopa	Stalevo 50, Stalevo 75, Stalevo 100, Stalevo 125, Stalevo 150, Stalevo 200
apomorphine	Apokyn, Apomorphine Hydrochloride
rasagiline	Azilect
rotigotine	Neupro

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2t.

Variable name	**naccamd**
Short descriptor	Total number of medications reported at each visit
Data type	Numeric longitudinal
Allowable codes	0–40 –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable provides the total number of medications reported at a visit including all prescription and over the counter medications reported on UDS Form

A4 at a single visit. If the medications form was not completed, then naccnmd=–9.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2u.

Variable name	**naccemd**
Short descriptor	Reported current use of estrogen hormone therapy
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates the current use of an estrogen-alone hormone therapy, including estradiol, conjugated estrogens, and esterified estrogens. Topical preparations are not included. The following medications are included in this category:

Drug name	Example brand names
conjugated estrogens	Cenestin, Premarin
esterified estrogens	Menest
estradiol	Fempatch, Estrace
estropipate	Ogen, Ortho-Est
diethylstilbestrol	Stilphostrol
quinestrol	quinestrol

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2v.

Variable name	**naccepmd**
Short descriptor	Reported current use of estrogen + progestin hormone therapy
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates the current use of an estrogen and progestin (or progesterone analog) combination hormone therapy. Topical preparations are not included. The following medications are included in this category:

Drug name	Example brand names
drospirenone-estradiol	Angeliq
ethinyl estradiol-norethindrone	FemHrt
estradiol-norethindrone	Mimvey, Activella
estradiol-norgestimate	Prefest, Ortho-Prefest
conjugated estrogens- medroxyprogesterone	Premphase, Prempro

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2w.

Variable name	**naccdbmd**
Short descriptor	Reported current use of a diabetes medication
Data type	Numeric longitudinal
Allowable codes	0 = Did not report use at visit 1 = Reported use at visit –9 = Did not complete medications form
Description/derivation	**UDS subjects:** This variable indicates the current use of a diabetes medication, including insulin, sulfonylureas, biguanides, dipeptidyl peptidase 4 inhibitors, amylin analogs, incretin mimetics, and antidiabetic combinations. The following medications are included in this category:

Drug name	Example brand names
chlorproPAMIDE	ChlorproPAMIDE, Diabinese
acetoHEXAMIDE	AcetoHEXAMIDE, Dymelor
glipiZIDE	GlipiZIDE, GlipiZIDE Extended Release, Glucotrol
glyBURIDE	DiaBeta, Glycron, Micronase
TOLAZamide	Tolazamide, Tolinase
TOLBUTamide	Orinase, Tol-Tab, Tolbutamide
glimepiride	Amaryl, Glimepiride
metFORMIN	Fortamet, Glucophage, MetFORMIN Hydrochloride, Riomet, Glumetza
insulin	insulin
insulin lispro protamine	insulin lispro protamine
insulin regular	HumuLIN R, HumuLIN R (Concentrated), Iletin Regular, Iletin II Regular Pork, Insulin Purified Regular Pork, NovoLIN R, NovoLIN R Innolet, NovoLIN R PenFill, Velosulin BR, ReliOn/NovoLIN R
insulin isophane	HumuLIN N, HumuLIN N Pen, Iletin II NPH Pork, Iletin NPH, Insulin Purified NPH Pork, NovoLIN N, NovoLIN N Innolet, NovoLIN N PenFill, Relion NovoLIN N
insulin zinc	HumuLIN L, Iletin II Lente Pork, Iletin Lente, Insulin Lente Pork, NovoLIN L
insulin zinc extended	HumuLIN U
insulin lispro	HumaLOG, HumaLOG Cartridge, HumaLOG KwikPen, HumaLOG Pen, Lispro PRC
insulin isophane-insulin regular	HumuLIN 50/50, HumuLIN 70/30, HumuLIN 70/30 Pen, Insulin Pork Mix, NovoLIN 70/30, NovoLIN 70/30 Innolet, NovoLIN 70/30 PenFill, ReliOn/NovoLIN 70/30, Relion NovoLIN 70/30 Innolet
insulin lispro-insulin lispro protamine	HumaLOG Mix 50/50, HumaLOG Mix 50/50 KwikPen, HumaLOG Mix 50/50 Pen, HumaLOG Mix 75/25, HumaLOG Mix 75/25 KwikPen, HumaLOG Mix 75/25 Pen
insulin glargine	Lantus, Lantus OptiClik Cartridge, Lantus Solostar Pen
insulin aspart	NovoLOG, NovoLOG FlexPen, NovoLOG PenFill
insulin aspart protamine	insulin aspart protamine
insulin aspart-insulin aspart protamine	NovoLOG Mix 70/30, NovoLOG Mix 70/30 FlexPen, NovoLOG Mix 70/30 PenFill
insulin glulisine	Apidra, Apidra OptiClik Cartridge, Apidra SoloStar Pen
insulin detemir	Levemir, Levemir FlexPen
insulin inhalation, rapid acting	EXUBERA, EXUBERA Combination Pack 12, EXUBERA Combination Pack 15, EXUBERA Kit

acarbose	Acarbose, Precose
miglitol	Glyset
troglitazone	Rezulin
rosiglitazone	Avandia
pioglitazone	Actos
repaglinide	Prandin
nateglinide	Nateglinide, Starlix
glyBURIDE-metFORMIN	Glucovance, Glyburide-Metformin
metFORMIN-rosiglitazone	Avandamet
glipiZIDE-metFORMIN	GlipiZIDE-Metformin, Metaglip
metFORMIN-pioglitazone	Actoplus Met, Actoplus Met XR
glimepiride-rosiglitazone	Avandaryl
glimepiride-pioglitazone	Duetact
metFORMIN-sitaGLIPtin	Janumet
metFORMIN-repaglinide	PrandiMet
metFORMIN-saxagliptin	Kombiglyze XR
simvastatin-sitaGLIPtin	Juvisync
sitaGLIPtin	Januvia
saxagliptin	Onglyza
linagliptin	Tradjenta
pramlintide	Symlin, SymlinPen 120, SymlinPen 60
exenatide	Byetta Prefilled Pen
liraglutide	Victoza

Medications variables were derived using Multum/Lexi-Comp© therapeutic drug categories.

MDS subjects: This variable is not available for MDS subjects as medication data were not collected before the introduction of the UDS.

2x.

Variable name	**naccfamh**
Short descriptor	Indicator for first-degree family member with dementia
Data type	Numeric cross-sectional
Allowable codes	0 = No affected first degree family members reported with dementia 1 = At least one first degree family member reported with dementia 9 = Unknown –9 = Form not submitted
Description/derivation	**UDS subjects:** Subjects reporting a least one parent, sibling, or child with dementia at any visit meet the criteria for having a first degree family history of dementia (naccfamh = 1). Subjects that have at least one A3 Form filled out and that do not report a first-degree relative with dementia at any visit are coded as not having a first-degree family member with a history of dementia (naccfamh = 0). Subjects not completing the A3 Form during any visit are coded as missing (naccfamh = –9). Those with a submitted A3 Form, but are missing all necessary data, are coded as unknown (naccfamh = 9). Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** This datum is captured in the MDS variable rldem. If rldem = 1 then naccfamh = 1. If rldem = 2 then naccfamh = 0. If rldem = 8 or 9, then naccfamh = 9.

2y.	Variable name	naccmomd
	Short descriptor	Mother with dementia
	Data type	Numeric cross-sectional
	Allowable codes	0 = No report of mother with dementia at any UDS visit 1 = Mother was reported to have dementia at a UDS visit –9 = Form not submitted at all visits
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form A3, question 1d. This variable is an indicator for whether or not the subject's mother was reported to have dementia at any UDS visit. If MOMDEM=1 at any UDS visit then naccmomd=1. If MOMDEM=0 or MOMDEM=9 at all visits, then naccmomd=0. If Form A3 was not submitted at all visits, then naccmomd = –9. **MDS subjects:** This variable is not available for MDS only subjects as detailed family history data were not collected before the introduction of the UDS.

2z.	Variable name	naccdadd
	Short descriptor	Father with dementia
	Data type	Numeric cross-sectional
	Allowable codes	0 = No report of father with dementia at any UDS visit 1 = Father was reported to have dementia at a UDS visit –9 = Form not submitted at all visits
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form A3, question 2d. This variable is an indicator for whether or not the subject's father was reported to have dementia at any UDS visit. If DADDEM=1 at any UDS visit then naccdadd=1. If DADDEM=0 or DADDEM=9 at all visits, then naccdadd=0. If Form A3 was not submitted at all visits, then naccdadd = –9. **MDS subjects:** This variable is not available for MDS only subjects as detailed family history data were not collected before the introduction of the UDS.

3. Assessments, exams, evaluations

3a.	Variable name	**naccbmi**
	Short descriptor	Body mass index (BMI)
	Data type	Numeric longitudinal
	Allowable codes	10–100 –9 = Form not submitted
	Description/derivation	**UDS subjects:** Body mass index is derived using variables HEIGHT (pounds) and WEIGHT (inches) from Form B1. The standardized calculation used is as follows: $\text{BMI} = \frac{\text{WEIGHT (lbs)} * 703}{\text{HEIGHT (in)}^2}$ If HEIGHT or WEIGHT is missing or unknown, then naccbmi = 999. If Form B1 was not submitted, then naccbmi = –9. **MDS subjects:** Body mass index is not available for MDS subjects as height and weight were not collected before the introduction of the UDS.
3b.	Variable name	**naccabbp**
	Short descriptor	Elevated blood pressure at visit
	Data type	Numeric longitudinal
	Allowable codes	0 = No 1 = Yes 9 = Missing/unknown –9 = Form not submitted
	Description/derivation	**UDS subjects:** This variable is an indicator of whether or not a subject's systolic or diastolic blood pressure is elevated at a particular visit. If BPSYS>140 and/or BPDIAS>90 then naccabbp=1. If BPSYS≤140 and BPDIAS≤90, then naccabbp=0. naccabbp=9 if either BPSYS or BPDIAS are missing or unknown. If Form B1 was not submitted, then naccabbp = –9. **MDS subjects:** The indicator for elevated blood pressure is not available for MDS subjects as blood pressure were not collected before the introduction of the UDS.
3c.	Variable name	**naccleva**
	Short descriptor	Levy A Score for levodopa-responsive symptoms
	Data type	Numeric longitudinal
	Allowable codes	0 – 80 99 = missing at least one item required for scoring –9 = Form not submitted
	Description/derivation	**UDS subjects:** The Unified Parkinson's Disease Rating Scale (UPDRS) items can be categorized into two groups: symptoms associated with dopaminergic deficiency and symptoms not associated with dopaminergic deficiency. The Levy A score is a summary score for the severity of UPDRS items associated with dopaminergic deficiency: facial expression, tremor, rigidity, and bradykinesia. The Levy A score is created by summing the following UPDRS items from Form B3:

Facial expression (FACEXP)
Tremor at rest — face, lips, chin (TRESTFAC)
Tremor at rest — right hand (TRESTRHD)
Tremor at rest — left hand (TRESTLHD)
Tremor at rest — right food (TRESTRFT)
Tremor at rest — left foot (TRESTLFT)
Action tremor — left hand (TRACTLHD)
Action tremor — right hand (TRACTRHD)
Rigidity — neck (RIGDNECK)
Rigidity — upper right (RIGDUPRT)
Rigidity — upper left (RIGDUPLF)
Rigidity — lower right (RIGDLORT)
Rigidity — lower left (RIGDLOLF)
Hand movements — right hand (HANDMOVR)
Hand movements — left hand (HANDMOVL)
Alternating movement — right hand (HANDALTR)
Alternating movement — left hand (HANDALTL)
Leg agility — right leg (LEGRT)
Leg agility — left leg (LEGLF)
Body bradykinesia and hypokinesia (BRADYKIN)

If PDNORMAL=1, indicating all UPDRS items are normal, then naccleva=0. naccleva=99 if one or more of the items required for scoring is missing or was untestable (8) (e.g., if TRACTLHD=8 then naccleva=99). If Form B3 was not submitted, then naccleva = –9

MDS subjects: Levy A score is not derived for MDS subjects because the UPDRS was not collected before the introduction of the UDS.

3d.		
	Variable name	**nacclevb**
	Short descriptor	Levy B score for levodopa-nonresponsive symptoms
	Data type	Numeric longitudinal
	Allowable codes	0 – 20 99 = missing at least one item required for scoring –9 = Form not submitted
	Description/derivation	**UDS subjects:** The Unified Parkinson's Disease Rating Scale (UPDRS) items can be categorized into two groups: symptoms associated with dopaminergic deficiency and symptoms not associated with dopaminergic deficiency. The Levy B score is a summary score for the severity of UPDRS items not associated with dopaminergic deficiency: speech and axial impairment. The Levy B score is created by summing the following UPDRS items from Form B3: Speech (SPEECH) Arising from a chair (ARISING) Posture (POSTURE) Gait (GAIT) Posture stability (POSSTAB) If PDNORMAL=1, indicating all UPDRS items are normal, then nacclevb=0. nacclevb=99 if one or more of the items required for scoring is missing or was untestable (8) (e.g., if POSTURE=8, then nacclevb=99). If Form B3 was not submitted, then nacclevb = –9.

MDS subjects: Levy B score is not derived for MDS subjects because the UPDRS was not collected before the introduction of the UDS.

3e.	**Variable name**	**naccc1**
	Short descriptor	Form date discrepancy between UDS Form A1 and Form C1
	Data type	Numeric longitudinal
	Allowable codes	0 = UDS Form C1 completed within 90 days of Form A1 1 = UDS Form C1 completed >90 days before or after Form A1 –9 = UDS Form C1 not completed
	Description/derivation	**UDS subjects:** This variable flags any visit in which the Form C1 date (the date the neuropsychological test battery was conducted) is greater than 90 days before or after the Form A1 (Subject Demographics) date. For all UDS subjects, NACC uses the Form A1 date to determine the visit date (**visitmo**, **visitdy**, **visityr**). **MDS subjects:** This variable is not available for MDS subjects it deals specifically with UDS forms.

3f.	**Variable name**	**nacczmms**
	Short descriptor	Age-, sex-, and education-adjusted z-score for the MMSE score
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the MMSE from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if the MMSE was not completed due to a physical problem (MMSE=95), a cognitive/behavioral problem (MMSE=96), other problem (MMSE=97), or verbal refusal (MMSE=98), then **nacczmms** = 99. If Form C1 was not completed, then **nacczmms** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3g.	**Variable name**	**nacczlmi**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Logical Memory 1A-Immediate total number of items recalled
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of items recalled on the Logical Memory 1A-Immediate test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Logical Memory 1A — Immediate was not completed due to a physical problem (LOGIMEM=95), a cognitive/behavioral problem (LOGIMEM=96), other problem (LOGIMEM=97), or verbal refusal (LOGIMEM=98), then **nacczlmi**=99. If Form C1 was not completed, then **nacczlmi** = -99.

		NOTE: The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.
3h.	**Variable name**	**nacczlmd**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Logical Memory 1A-Delayed total number of items recalled
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of items recalled on the Logical Memory 1A-Delayed test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). **Nacczlmd** is also adjusted for delay interval length (MEMTIME). If any adjustment variables are missing, or if Logical Memory 2A — Delayed was not completed due to a physical problem (MEMUNITS=95), a cognitive/behavioral problem (MEMUNITS=96), other problem (MEMUNITS=97), or verbal refusal (MEMUNITS=98), then **nacczlmd**=99. If Form C1 was not completed, then **nacczlmd** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.
3i.	**Variable name**	**nacczdft**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Digit Span Forward total number of trials correct
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of trials correct prior to two consecutive errors at the same digit length on the Digit Span Forward test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are misssing, or if Digit Span Forward — number of trials correct was not completed due to a physical problem (DIGIF=95), a cognitive/behavioral problem (DIGIF=96), other problem (DIGIF=97), or verbal refusal (DIGIF=98), then **naccdft**=99. If Form C1 was not completed, then **nacczdft** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3j.	Variable name	**nacczdfl**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Digit Span Forward length
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the length on the Digit Span Forward test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Digit Span Forward — length was not completed due to a physical problem (DIGIFLEN=95), a cognitive/behavioral problem (DIGIFLEN=96), other problem (DIGIFLEN=97), or verbal refusal (DIGIFLEN=98), then naccdfl=99. If Form C1 was not completed, then nacczdfl=-99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3k.	Variable name	**nacczdbt**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Digit Span Backward total number of trials correct
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of trials correct prior to two consecutive errors at the same digit length on the Digit Span Backward test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Digit Span Backward — number of trials correct was not completed due to a physical problem (DIGIB=95), a cognitive/behavioral problem (DIGIB=96), other problem (DIGIB=97), or verbal refusal (DIGIB=98), then naccdbt=99. If Form C1 was not completed, then nacczdbt=-99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3l.	Variable name	**nacczdbl**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Digit Span Backward length
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the length on the Digit Span Backward test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are

		missing, or if Digit Span Backward — length was not completed due to a physical problem (DIGIBLEN=95), a cognitive/behavioral problem (DIGIBLEN=96), other problem (DIGIBLEN=97), or verbal refusal (DIGIBLEN=98), then **naccdbl**=99. If Form C1 was not completed, then **nacczdbl**=-99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.
3m.	**Variable name**	**nacczani**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Category Fluency: animals
	Data type	Numeric longitudinal
	Allowable codes	-99, -25–25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the number of animals named in 60 seconds assessment from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Category Fluency: Animals was not completed due to a physical problem (ANIMALS=95), a cognitive/behavioral problem (ANIMALS=96), other problem (ANIMALS=97), or verbal refusal (ANIMALS=98), then **nacczani**=99. If Form C1 was not completed, then **nacczani**=-99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.
3n.	**Variable name**	**nacczveg**
	Short descriptor	Age-, sex-, and education-adjusted z-score for Category Fluency: vegetables
	Data type	Numeric longitudinal
	Allowable codes	-99, -25–25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the number of vegetables named in 60 seconds assessment from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Category fluency: vegetables was not completed due to a physical problem (VEG=95), a cognitive/behavioral problem (VEG=96), other problem (VEG=97), or verbal refusal (VEG=98), then **nacczveg**=99. If Form C1 was not completed, then **nacczveg**=-99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis.

MDS subjects: This variable is not available for MDS subjects.

3o.	Variable name	**naccztra**
	Short descriptor	Age-, sex-, and education-adjusted z-score for the Trail A score
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of seconds to complete on the Trails A test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Trails A was not completed due to a physical problem (TRAILA=95), a cognitive/behavioral problem (TRAILA=96), other problem (TRAILA=97), or verbal refusal (TRAILA=98), then **naccztra**=99. If Form C1 was not completed, then **naccztra** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3p.	Variable name	**naccztrb**
	Short descriptor	Age-, sex-, and education-adjusted z-score for the Trail B score
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of seconds to complete on the Trails B test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Trail B was not completed due to a physical problem (TRAILB=95), a cognitive/behavioral problem (TRAILB=96), other problem (TRAILB=97), or verbal refusal (TRAILB=98), then **naccztrb**=99. If Form C1 was not completed, then **naccztrb** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

3q.	Variable name	**nacczwai**
	Short descriptor	Age-, sex-, and education-adjusted z-score for the WAIS-R Digit Symbol score
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the total number of items correctly completed in 90 seconds on the WAIS-R Digit Symbol

test from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if WAIS-R Digit Symbol was not completed due to a physical problem (WAIS=95), a cognitive/behavioral problem (WAIS=96), other problem (WAIS=97), or verbal refusal (WAIS=98), then **nacczwai**=99. If Form C1 was not completed, then **nacczwai** = -99.

NOTE: The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis.

MDS subjects: This variable is not available for MDS subjects.

3r.	**Variable name**	**nacczbos**
	Short descriptor	Age-, sex-, and education-adjusted z-score for the Boston Naming Test score
	Data type	Numeric longitudinal
	Allowable codes	-99, -25 – 25, 99
	Description/derivation	**UDS subjects:** This variable is the age-, sex-, and education-adjusted z-score for the Boston Naming Test (30 odd-numbered items) from the UDS normative calculator for the UDS neuropsychological test battery (Atri et al., 2011). If any adjustment variables are missing, or if Boston Naming was not completed due to a physical problem (BOSTON=95), a cognitive/behavioral problem (BOSTON=96), other problem (BOSTON=97), or verbal refusal (BOSTON=98), then **nacczbosi**=99. If Form C1 was not completed, then **nacczbos** = -99. **NOTE:** The UDS normative calculator and subsequent z-scores presented here were developed using the predominantly white, non-Hispanic, English speaking, and highly educated UDS subject population as described in Weintraub et al., 2009. Thus, these z-scores may not be well-suited for small subgroup analyses of individuals who do not have these characteristics. Please consult NACC if you have questions about their application or appropriate subject populations to use in analysis. **MDS subjects:** This variable is not available for MDS subjects.

4. Clinical diagnosis and cognitive status

4a.	**Variable name**	**naccudsd**
	Short descriptor	Cognitive status at UDS visit
	Data type	Numeric longitudinal
	Allowable codes	1 = Normal cognition 2 = Impaired not MCI 3 = MCI 4 = Dementia
	Description/derivation	**UDS subjects:** The subject's cognitive status is determined at every visit. Since there is a finite number of possible diagnoses, we have created a categorical variable to capture this datum. naccudsd = 1 for normal cognition (normcog = 1) naccudsd = 2 for impaired not MCI (impnomci = 1) naccudsd = 3 for any MCI (mciamem = 1 or mciaplus = 1 or mcinon1 = 1 or mcinon2 = 1) naccudsd = 4 for dementia (demented = 1) **MDS subjects:** For MDS subjects, please see naccmdsd variable.
4b.	**Variable name**	**naccmdsd**
	Short descriptor	Cognitive status at last MDS evaluation
	Data type	Numeric cross-sectional
	Allowable codes	1 = Normal cognition 2 = Questionable dementia or cognitive impairment 3 = Dementia
	Description/derivation	**MDS subjects:** The subject's cognitive status is determined from the visit record and is coded as follows: naccmdsd = 1 for normal cognition (notdemci = 1) naccmdsd = 2 for questionable dementia or cognitive impairment (notdemci = 3) naccmdsd = 3 for dementia (clindem = 1) **UDS subjects:** for UDS-only subjects, please see naccudsd variable.
4c.	**Variable name**	**naccimci**
	Short descriptor	Incident MCI
	Data type	Numeric cross-sectional
	Allowable codes	0 = Did not progress to MCI 1 = Progressed to MCI 9 = Initial visit only, or started as MCI/Dementia, or progressed directly to dementia
	Description/derivation	**UDS subjects:** Subjects with normal cognition (normcog = 1) or impaired not MCI (impnomci) at the initial visit who have a follow-up visit with MCI (mciamem = 1, mciaplus = 1, mcinon1 = 1, or mcinon2 = 1) will have naccimci = 1. Subjects with normal cognition (normcog =1) or impaired not MCI (impnomci) at every visit will have naccimci = 0. Those who revert from incident MCI to normal cognition will still have naccimci = 1. Subjects who have MCI or dementia at the initial visit will have

naccimci = 9. Subjects who progress directly to dementia without an MCI diagnosis will also have naccimci = 9. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional.

MDS subjects: naccimci is not calculated for MDS subjects as the MDS is not a longitudinal database.

4d.	Variable name	naccmcit
	Short descriptor	Mild cognitive impairment type
	Data type	Numeric longitudinal
	Allowable codes	1 = Amnestic MCI 2 = Non-amnestic MCI 8 = Not applicable
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 question 4. Clinicians are asked to designate the type of cognitive impairment for subjects who do not have normal cognition and who are not demented. If MCIAMEM=1 (Amnestic MCI — memory impairment only present) or MCIAPLUS=1 (Amnestic MCI — memory impairment plus one or more other domains present), then naccmci=1. If MCINON1=1 (Non-amnestic MCI — single domain present) or MCINON2=1 (Non-amnestic MCI — multiple domains), then naccmci=2. If a subject has normal cognition (NORMCOG=1) or dementia (DEMENTED=1), or has been diagnosed as impaired, not MCI (IMPNOMCI=1), then naccmci=8. **MDS subjects:** This variable is not derived for MDS subjects because sub-types of mild cognitive impairment were not collected before the introduction of the UDS.

4e.	Variable name	naccidem
	Short descriptor	Incident dementia
	Data type	Numeric cross-sectional
	Allowable codes	0 = Did not progress to dementia 1 = Progressed to dementia 9 = Initial visit only or started as demented
	Description/derivation	**UDS subjects:** Subjects with normal cognition (normcog = 1), impaired not MCI (impnomci), or MCI (mcimem = 1, mciaplus = 1, mcinon1 = 1, or mcinon2 = 1) at the initial visit who have a follow-up visit with dementia (demented = 1) will have naccidem = 1. Subjects who do not progress to dementia will have naccidem = 0. Those with incident dementia who revert to normal cognition or MCI will still have naccidem = 1. Subjects who have dementia at the initial visit will have naccidem = 9. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** naccidem is not calculated for MDS subjects as the MDS is not a longitudinal database.

4f.	Variable name	naccnorm
	Short descriptor	Subject had normal cognition at all visits to date
	Data type	Numeric cross-sectional
	Allowable codes	0 = Had a diagnosis other than normal cognition for at least one visit

		1 = Had normal cognition at all visits
	Description/derivation	**UDS subjects:** This variable identifies subjects with normal cognition (normcog = 1) at all UDS visits. Subjects with at least one visit where the diagnosis was impaired not MCI (impnomci = 1), MCI (mciamem = 1, mciaplus = 1, mcinon1 = 1, or mcinon2 = 1), or dementia (demented = 1) will have naccnorm = 0. **MDS subjects:** naccnorm is not calculated for MDS subjects as the MDS is not a longitudinal database.
4g.	Variable name	**naccdimp**
	Short descriptor	Dementia diagnosis followed by a non-demented diagnosis
	Data type	Numeric cross-sectional
	Allowable codes	0 = Did not have a non-demented diagnosis 1 = Had a non-demented diagnosis after dementia diagnosis 9 = Never diagnosed with dementia, or no follow-up after dementia diagnosis
	Description/derivation	**UDS subjects:** Subjects with dementia (demented = 1) who have a follow-up visit with a non-demented diagnosis are indicated by naccdimp = 1. Non-demented diagnoses include normal cognition (normcog = 1), impaired not MCI (impnomci), and MCI (mciamem = 1, mciaplus = 1, mcinon1 = 1, or mcinon2 = 1). Subjects who remain demented at all follow-up visits will have naccdimp = 0. Subjects with a non-demented diagnosis following a dementia diagnosis who then received another later diagnosis of dementia will still have naccdimp = 1. Subjects who are never diagnosed with dementia or who do not have a follow-up visit after their dementia diagnosis will have naccdimp = 9. Note that although this variable is listed for all visits, it does not change across visits; it is cross-sectional. **MDS subjects:** naccdimp is not calculated for MDS subjects as the MDS is not a longitudinal database.
4h.	Variable name	**nacchiv**
	Short descriptor	HIV+ write-in on Form D1
	Data type	Numeric longitudinal
	Allowable codes	0 = No write-in of HIV 1 = Write-in indicating presence of HIV
	Description/derivation	**UDS subjects:** This variable is designed to flag subjects for whom a clinical diagnosis of "HIV", or similar indicative text, was written in on Form D1. Please note that this variable flags the presence of a write-in only, and not whether the condition was considered to contribute to cognitive impairment. **MDS subjects:** nacchiv is not calculated for MDS subjects because the MDS did not have a write-in option for clinical diagnosis.
4i.	Variable name	**naccmnd**
	Short descriptor	Motor neuron disease write-in on Form D1
	Data type	Numeric longitudinal

	Allowable codes	0 = No write-in of motor neuron disease or ALS 1 = Write-in indicating presence of motor neuron disease or ALS
	Description/derivation	**UDS subjects:** This variable is designed to flag subjects for whom a clinical diagnosis of "motor neuron disease" (including "ALS" or similar indicative text), was written-in on Form D1. Please note that this variable flags the presence of a write-in only, and not whether the condition was considered to contribute to cognitive impairment. **MDS subjects:** naccmnd is not calculated for MDS subjects because the MDS did not have a write-in option for clinical diagnosis.
4j.	Variable name	**naccpca**
	Short descriptor	Posterior cortical atrophy (PCA) write-in on Form D1
	Data type	Numeric longitudinal
	Allowable codes	0 = No write-in of PCA 1 = Write-in indicating presence of PCA
	Description/derivation	**UDS subjects:** This variable is designed to flag subjects for whom a clinical diagnosis of "PCA", or similar indicative text, was written in on Form D1. Please note that this variable flags the presence of a write-in only, and not whether the condition was considered to contribute to cognitive impairment. **MDS subjects:** naccpca is not calculated for MDS subjects because the MDS did not have a write-in option for clinical diagnosis.
4k.	Variable name	**nacccanc**
	Short descriptor	Cancer or tumor write-in on Form D1
	Data type	Numeric longitudinal
	Allowable codes	0 = No write-in of cancer 1 = Write-in indicating presence of cancer
	Description/derivation	**UDS subjects:** This variable is designed to flag subjects for whom a clinical diagnosis of "cancer", or similar text indicative of a tumor or of cancer treatment, was written in on Form D1. Malignant and benign tumors may be included, and the condition may not be active on that visit (e.g., may be in remission or post-treatment). Please note that this variable flags the presence of a write-in only, and not whether the condition was considered to contribute to cognitive impairment. **MDS subjects:** naccanc is not calculated for MDS subjects because the MDS did not have a write-in option for clinical diagnosis.
4l.	Variable name	**naccmad**
	Short descriptor	MDS, dementia with primary probable AD (NINCDS/ARDA criteria)
	Data type	Numeric cross-sectional
	Allowable codes	0 = Did not have dementia with probable AD 1 = Dementia with probable AD diagnosed
	Description/derivation	**MDS subjects:** Subjects with dementia (clindem = 1) and probable AD as the primary clinical diagnosis (cldemdx = 1) will have naccmad = 1. Subjects who do not have a dementia diagnosis will have naccmad = 0, as will subjects with dementia but with another primary diagnosis.

THE FOLLOWING VARIABLES (sections 5 and 6) are intended to be used as flags to identify cognitive + etiologic diagnosis groups. Careful consideration of the appropriate comparison group to be used in analysis should precede any data requests for these derived diagnosis variables. For example, **naccprad=0** includes all subjects with normal cognition, impaired, not-MCI, or MCI diagnoses, *as well as those with a dementia diagnosis other than primary probable Alzheimer's disease.*

Please consult NACC for further guidance.

5. Primary diagnosis for cognitive status — dementia

5a.

Variable name	**naccpret**
Short descriptor	Primary etiologic diagnosis (MCI, Impaired, not MCI, or Dementia)
Data type	Numeric longitudinal
Allowable codes	1 = Probable Alzheimer's disease 2 = Possible Alzheimer's disease 3 = Dementia with Lewy bodies 4 = Probable vascular dementia 5 = Possible vascular dementia 6 = Alcohol-related dementia 7 = Dementia of undetermined etiology 8 = Frontotemporal dementia (behavioral/executive dementia) 9 = Primary progressive aphasia (aphasic dementia) 10 = Progressive supranuclear palsy 11 = Corticobasal degeneration 12 = Huntington's disease 13 = Prion disease 14 = Cognitive dysfunction from medications 15 = Cognitive dysfunction from medical illnesses 16 = Depression 17 = Other major psychiatric illness 18 = Down syndrome 19 = Parkinson's disease 20 = Stroke 21 = Hydrocephalus 22 = Traumatic brain injury 23 = CNS neoplasm 50 = Other cognitive/neurologic condition 88 = Not applicable 99 = Missing/unknown
Description/derivation	**UDS subjects:** This variable is a categorical summary of the primary etiologic diagnoses in the UDS. It is derived from UDS Form D1 questions 5–30. Clinicians are asked to mark only one condition on Form D1 as primary to the observed cognitive impairment. Only subjects with cognitive impairment (MCI, impaired not

MCI, or dementia: MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1 or IMPNOMCI=1 or DEMENTED=1) will have a primary etiologic diagnosis. If you wish to look at dementia subjects only, please be sure to restrict to DEMENTED=1 in your analyses when using this variable. Otherwise you will be including MCI and impaired, not MCI subjects.

If PROBADIF=1 then naccpret=1
If POSSADIF=1 then naccpret=2
If DLBIF=1 then naccpret=3
If VASCIF=1 then naccpret=4
If VASCPSIF=1 then naccpret=5
If ALCDEMIF=1 then naccpret=6
If DEMUNIF=1 then naccpret=7
If FTDIF=1 then naccpret=8
If PPAPHIF=1 then naccpret=9
If PSPIF=1 then naccpret=10
If CORTIF=1 then naccpret=11
If HUNTIF=1 then naccpret=12
If PRIONIF=1 then naccpret=13
If MEDSIF=1 then naccpret=14
If DYSILLIF=1 then naccpret=15
If DEPIF=1 then naccpret=16
If OTHPSYIF=1 then naccpret=17
If DOWNSIF=1 then naccpret=18
If PARKIF=1 then naccpret=19
If STROKIF=1 then naccpret=20
If HYCHEPHIF=1 then naccpret=21
If BRNINJIF=1 then naccpret=22
If NEOPIF=1 then naccpret=23
If (COGOTHIF=1 or COGOTH2F=1 or COGOTH3F=1) then naccpret=50

If the subject is not cognitively impaired (NORMCOG=1), then naccpret =88. If the subject is cognitively impaired, but does not have an etiologic diagnosis, then naccpret =99.

MDS subjects: This variable is not derived for MDS subjects because sub-types of mild cognitive impairment were not collected before the introduction of the UDS.

5b.		
	Variable name	naccprad
	Short descriptor	UDS, dementia with primary probable AD (NINCDS/ADRDA criteria)
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with probable AD 1 = Dementia with probable AD diagnosed
	Description/derivation	**UDS subjects:** For each visit, subjects with dementia (demented =1) and probable AD as the primary clinical diagnosis (probadif=1) will have naccprad =1. Subjects who do not have a dementia diagnosis will have naccprad = 0, as will subjects with dementia but with another primary diagnosis.

5c.	Variable name	**naccpoad**
	Short descriptor	Dementia — primary diagnosis — possible Alzheimer's disease (NINCDS/ADRDA)
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary possible AD 1 = Dementia with primary possible AD
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 6a. For each visit, subjects with dementia (demented=1) and possible AD as the primary clinical diagnosis (possadif=1) will have naccpoad=1. Subjects who do not have a dementia diagnosis will have naccpoad=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5d.	Variable name	**nacclbd**
	Short descriptor	Dementia — primary diagnosis — dementia with Lewy bodies
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary dementia with Lewy bodies 1 = Primary dementia with Lewy bodies
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 7a. For each visit, subjects with dementia (demented=1) and Lewy body dementia as the primary clinical diagnosis (dlbif=1) will have nacclbd=1. Subjects who do not have a dementia diagnosis will have nacclbd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5e.	Variable name	**naccprvd**
	Short descriptor	Dementia — primary diagnosis — vascular dementia (NINDS/AIREN Probable)
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary probable vascular dementia 1 = Primary probable vascular dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 8a. For each visit, subjects with dementia (demented=1) and probable vascular dementia as the primary clinical diagnosis (vascif=1) will have naccprvd=1. Subjects who do not have a dementia diagnosis will have naccprvd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5f.	Variable name	**naccpovd**
	Short descriptor	Dementia — primary diagnosis — vascular dementia (NINDS/AIREN Possible)
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary possible vascular dementia 1 = Primary possible vascular dementia -4 = Not collected in UDS version 1
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 9a. For each visit, subjects with dementia (demented=1) and possible vascular dementia as the primary clinical diagnosis (vascpsif=1) will have naccpovd=1. Subjects who do not have a dementia diagnosis will have naccpovd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5g.	Variable name	naccard
	Short descriptor	Dementia — primary diagnosis — Alcohol-related dementia
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary alcohol-related dementia 1 = Primary alcohol-related dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 10a. For each visit, subjects with dementia (demented=1) and alcohol-related dementia as the primary clinical diagnosis (alcdemif=1) will have naccard=1. Subjects who do not have a dementia diagnosis will have naccard=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5h.	Variable name	naccund
	Short descriptor	Dementia — primary diagnosis — dementia of undetermined etiology
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary dementia of undetermined etiology 1 = Primary dementia of undetermined etiology
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 11a. For each visit, subjects with dementia (demented=1) and dementia of undetermined etiology as the primary clinical diagnosis (demunif=1) will have naccund=1. Subjects who do not have a dementia diagnosis will have naccund=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5i.	Variable name	naccftdd
	Short descriptor	Dementia — primary diagnosis — frontotemporal dementia
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary frontotemporal dementia 1 = Primary frontotemporal dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 12a. For each visit, subjects with dementia (demented=1) and frontotemporal dementia as the primary clinical diagnosis (ftdif=1) will have naccftdd=1. Subjects who do not have a dementia diagnosis will have naccftdd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5j.	Variable name	naccppad
	Short descriptor	Dementia — primary diagnosis — primary progressive aphasia
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary progressive aphasia 1 = Dementia with primary progressive aphasia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 13a. For each visit, subjects with dementia (demented=1) and primary progressive aphasia as the primary clinical diagnosis (ppaphif=1) will have naccppad=1. Subjects who do not have a dementia diagnosis will have naccppad=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5k.	Variable name	naccpspd
	Short descriptor	Dementia — primary diagnosis — progressive supranuclear palsy
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary progressive supranuclear palsy 1 = Dementia with primary progressive supranuclear palsy
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 14a. For each visit, subjects with dementia (demented=1) and primary progressive supranuclear palsy as the primary clinical diagnosis (pspif=1) will have naccpspd=1. Subjects who do not have a dementia diagnosis will have naccpspd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5l.	Variable name	nacccbdd
	Short descriptor	Dementia — primary diagnosis — corticobasal degeneration
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary corticobasal degeneration dementia 1 = Primary corticobasal degeneration dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 15a. For each visit, subjects with dementia (demented=1) and corticobasal degeneration as the primary clinical diagnosis (cortif=1) will have nacccbd=1. Subjects who do not have a dementia diagnosis will have nacccbd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5m.	Variable name	nacchntd
	Short descriptor	Dementia — primary diagnosis — Huntington's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary Huntington's disease dementia 1 = Primary Huntington's disease dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 16a. For each visit, subjects with dementia (demented=1) and Huntington's disease as the primary clinical diagnosis (huntif=1) will have nacchntd=1. Subjects who do not have a dementia diagnosis will have nacchntd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5n.	Variable name	naccprid
	Short descriptor	Dementia — primary diagnosis — prion disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary prion disease 1 = Dementia with primary prion disease
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 17a. For each visit, subjects with dementia (demented=1) and prion disease as the primary clinical diagnosis (prionif=1) will have naccprid=1. Subjects who do not have a dementia diagnosis will have naccprid=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5o.	Variable name	naccmedd
	Short descriptor	Dementia — primary diagnosis — cognitive dysfunction from medications
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary cognitive dysfunction from medications 1 = Dementia with primary cognitive dysfunction from medications
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 18a. For each visit, subjects with dementia (demented=1) and cognitive dysfunction from medications as the primary clinical diagnosis (medsif=1) will have naccmedd=1. Subjects who do not have a dementia diagnosis will have naccmedd=0, as will subjects with dementia, but with another primary etiologic diagnosis.
5p.	Variable name	naccmid
	Short descriptor	Dementia — primary diagnosis — cognitive dysfunction from medical illness
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary cognitive dysfunction from medical illness 1 = Dementia with primary cognitive dysfunction from medical illness
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 19a. For each visit, subjects with dementia (demented=1) and cognitive dysfunction from medical illness as the primary clinical diagnosis (dysillif=1) will have naccmid=1. Subjects who do not have a dementia diagnosis will have naccmid=0, as will subjects with dementia, but with another primary etiologic diagnosis.
5q.	Variable name	naccdepd
	Short descriptor	Dementia — primary diagnosis — depression
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary depression 1 = Dementia with primary depression
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 20a. For each visit, subjects with dementia (demented=1) and depression as the primary clinical diagnosis (depif=1) will have naccdepd=1. Subjects who do not have a dementia diagnosis will have naccdepd=0, as will subjects with dementia, but with another primary etiologic diagnosis.
5r.	Variable name	naccdpsyd
	Short descriptor	Dementia — primary diagnosis — other major psychiatric illness
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary etiology of other major psychiatric illness 1 = Dementia with primary etiology of other major psychiatric illness
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 21a. For each visit, subjects with dementia (demented=1) and other major psychiatric illness as the primary clinical diagnosis (othpsyif=1) will have naccpsyd=1. Subjects who do not have a dementia diagnosis will have naccpsyd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5s.	Variable name	naccdsd
	Short descriptor	Dementia — primary diagnosis — Down syndrome
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary Down syndrome 1 = Dementia with primary Down syndrome
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 22a. For each visit, subjects with dementia (demented=1) and Down syndrome as the primary clinical diagnosis (downsif=1) will have naccdsd=1. Subjects who do not have a dementia diagnosis will have naccdsd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5t.	Variable name	naccpdd
	Short descriptor	Dementia — primary diagnosis — Parkinson's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have primary Parkinson's disease dementia 1 = Primary Parkinson's disease dementia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 23a. For each visit, subjects with dementia (demented=1) and Parkinson's disease as the primary clinical diagnosis (parkif=1) will have naccpdd=1. Subjects who do not have a dementia diagnosis will have naccpdd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5u.	Variable name	naccstkd
	Short descriptor	Dementia — primary diagnosis — stroke
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary etiology — stroke 1 = Dementia with primary etiology — stroke
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 24a. For each visit, subjects with dementia (demented=1) and stroke as the primary clinical diagnosis (strokif=1) will have naccstkd=1. Subjects who do not have a dementia diagnosis will have naccstkd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5v.	Variable name	nacchydd
	Short descriptor	Dementia — primary diagnosis — hydrocephalus
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary etiology — hydrocephalus 1 = Dementia with primary etiology — hydrocephalus
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 25a. For each visit, subjects with dementia (demented=1) and hydrocephalus as the primary clinical diagnosis (hycephif=1) will have nacchydd=1. Subjects who do not have a dementia diagnosis will have nacchydd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5w.	Variable name	**nacctbid**
	Short descriptor	Dementia — primary diagnosis — traumatic brain injury
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary etiology — traumatic brain injury 1 = Dementia with primary etiology — traumatic brain injury
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 26a. For each visit, subjects with dementia (demented=1) and traumatic brain injury as the primary clinical diagnosis (brninjif=1) will have nacctbid=1. Subjects who do not have a dementia diagnosis will have nacctbid=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5x.	Variable name	**nacccnsd**
	Short descriptor	Dementia — primary diagnosis — CNS neoplasm
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with primary etiology — CNS neoplasm 1 = Dementia with primary etiology — CNS neoplasm
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3 and 27a. For each visit, subjects with dementia (demented=1) and CNS neoplasm as the primary clinical diagnosis (neopif=1) will have nacccnsd=1. Subjects who do not have a dementia diagnosis will have nacccnsd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

5y.	Variable name	**naccothd**
	Short descriptor	Dementia — primary diagnosis — other
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have dementia with other primary etiology 1 = Dementia with other primary etiology
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 3, 28a, 29a and 30a. For each visit, subjects with dementia (demented=1) and "other'" as the primary clinical diagnosis (cogothif=1 or cogoth2f or cogoth3f=1) will have naccothd=1. Subjects who do not have a dementia diagnosis will have nacccothd=0, as will subjects with dementia, but with another primary etiologic diagnosis.

6. Primary diagnosis for cognitive status — MCI

6a.	Variable name	**naccpram**
	Short descriptor	MCI — primary suspected etiology — probable Alzheimer's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary probable AD 1 = MCI with primary probable AD
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 5a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and probable AD as the primary clinical diagnosis (probadif=1) will have naccpram=1. Subjects who do not have an MCI diagnosis will have naccpram=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6b.	Variable name	**naccpoam**
	Short descriptor	MCI — primary suspected etiology — possible Alzheimer's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary possible AD 1 = MCI with primary possible AD
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 6a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and possible AD as the primary clinical diagnosis (possadif=1) will have naccpoam=1. Subjects who do not have an MCI diagnosis will have naccpoam=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6c.	Variable name	**nacclbm**
	Short descriptor	MCI — primary suspected etiology — Lewy body disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary etiology — Lewy body disease 1 = MCI with primary etiology — Lewy body disease
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 7a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and Lewy body disease as the primary clinical diagnosis (dlbif=1) will have nacclbm=1. Subjects who do not have a MCI diagnosis will have nacclbm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6d.	Variable name	**naccprvm**
	Short descriptor	MCI — primary suspected etiology — probable vascular cause
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary etiology — probable vascular cause 1 = MCI with primary etiology - probable vascular cause
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 8a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and probable vascular cause as the primary clinical diagnosis

(vascif=1) will have naccprvm=1. Subjects who do not have a MCI diagnosis will have naccprvm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6e.	Variable name	naccpovm
	Short descriptor	MCI — primary suspected etiology — possible vascular cause
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary etiology — possible vascular cause 1 = MCI with primary etiology — possible vascular cause -4 = Not collected in UDS version 1
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 9a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and possible vascular cause as the primary clinical diagnosis (vascpsif=1) will have naccpovm=1. Subjects who do not have a MCI diagnosis will have naccpovd=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6f.	Variable name	naccarm
	Short descriptor	MCI — primary suspected etiology — alcohol-related
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary etiology — alcohol-related 1 = MCI with primary etiology — alcohol related
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 10a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and alcohol abuse as the primary clinical diagnosis (alcdemif=1) will have naccarm=1. Subjects who do not have a dementia diagnosis will have naccarm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6g.	Variable name	naccunm
	Short descriptor	MCI — primary suspected etiology — undetermined etiology
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary undetermined etiology 1 = MCI with primary undetermined etiology
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 11a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) of undetermined etiology as the primary clinical diagnosis (demunif=1) will have naccunm=1. Subjects who do not have a MCI diagnosis will have naccunm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6h.	Variable name	naccftdm
	Short descriptor	MCI — primary suspected etiology — frontotemporal degeneration
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary frontotemporal degeneration 1 = MCI with primary frontotemporal degeneration

	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 12a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and frontotemporal degeneration as the primary clinical diagnosis (ftdif=1) will have naccftdm=1. Subjects who do not have a MCI diagnosis will have naccftdm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6i.	Variable name	**naccppam**
	Short descriptor	MCI — primary suspected etiology — primary progressive aphasia
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary progressive aphasia 1 = MCI with primary progressive aphasia
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 13a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and primary progressive aphasia as the primary clinical diagnosis (ppaphif=1) will have naccppam=1. Subjects who do not have a MCI diagnosis will have naccppam=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6j.	Variable name	**naccpspm**
	Short descriptor	MCI — primary suspected etiology — progressive supranuclear palsy
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary progressive supranuclear palsy 1 = MCI with primary progressive supranuclear palsy
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 14a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and primary progressive supranuclear palsy as the primary clinical diagnosis (pspif=1) will have naccpspm=1. Subjects who do not have a MCI diagnosis will have naccpspm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6k.	Variable name	**nacccbdm**
	Short descriptor	MCI — primary suspected etiology — corticobasal degeneration
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary corticobasal degeneration 1 = MCI with primary corticobasal degeneration
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 15a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and corticobasal degeneration as the primary clinical diagnosis (cortif=1) will have nacccbdm=1. Subjects who do not have a MCI diagnosis will have nacccbdm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6l.	Variable name	**nacchntm**
	Short descriptor	MCI — primary suspected etiology — Huntington's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary Huntington's disease 1 = MCI with primary Huntington's disease
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 16a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and Huntington's disease as the primary clinical diagnosis (huntif=1) will have nacchntm=1. Subjects who do not have a MCI diagnosis will have nacchntd=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6m.	Variable name	**naccprim**
	Short descriptor	MCI — primary suspected etiology — prion disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary prion disease 1 = MCI with primary prion disease
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 17a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and prion disease as the primary clinical diagnosis (prionif=1) will have naccprim=1. Subjects who do not have a MCI diagnosis will have naccprim=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6n.	Variable name	**naccmedm**
	Short descriptor	MCI — primary suspected etiology — cognitive dysfunction from medications
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary cognitive dysfunction from medications 1 = MCI with primary cognitive dysfunction from medications
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 18a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and cognitive dysfunction from medications as the primary clinical diagnosis (medsif=1) will have naccmedm=1. Subjects who do not have a MCI diagnosis will have naccmedm=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6o.	Variable name	**naccmim**
	Short descriptor	MCI — primary suspected etiology — cognitive dysfunction from medical illness
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary cognitive dysfunction from medical illness 1 = MCI with primary cognitive dysfunction from medical illness
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 19a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and cognitive dysfunction from medical illness as the primary clinical diagnosis (dysillif=1) will have naccmim=1. Subjects who do not have a MCI diagnosis will have naccmim=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6p.	Variable name	naccdepm
	Short descriptor	MCI — primary suspected etiology — depression
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary depression 1 = MCI with primary depression
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 20a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and depression as the primary clinical diagnosis (depif=1) will have naccdepm=1. Subjects who do not have a MCI diagnosis will have naccdepm=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6q.	Variable name	naccpsym
	Short descriptor	MCI — primary suspected etiology — other major psychiatric illness
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary other major psychiatric illness 1 = MCI with primary other major psychiatric illness
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 21a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and other major psychiatric illness as the primary clinical diagnosis (othpsyif=1) will have naccpsym=1. Subjects who do not have a MCI diagnosis will have naccpsym=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6r.	Variable name	naccdsm
	Short descriptor	MCI — primary suspected etiology — Down syndrome
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary Down syndrome 1 = MCI with primary Down syndrome
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 22a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and Down syndrome as the primary clinical diagnosis (downsif=1) will have naccdsm=1. Subjects who do not have a MCI diagnosis will have naccdsm=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6s.	Variable name	naccpdm
	Short descriptor	MCI — primary suspected etiology — Parkinson's disease
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary Parkinson's disease 1 = MCI with primary Parkinson's disease
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 23a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and Parkinson's disease as the primary clinical diagnosis (parkif=1) will have naccpdm=1. Subjects who do not have a MCI diagnosis will have naccpdm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6t.	Variable name	naccstkm
	Short descriptor	MCI — primary suspected etiology — stroke
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary stroke 1 = MCI with primary stroke
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 24a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and stroke as the primary clinical diagnosis (strokif=1) will have naccstkm=1. Subjects who do not have a MCI diagnosis will have naccstkm=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6u.	Variable name	nacchydm
	Short descriptor	MCI — primary suspected etiology — hydrocephalus
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary hydrocephalus 1 = MCI with primary hydrocephalus
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 25a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and hydrocephalus as the primary clinical diagnosis (hycephif=1) will have nacchydm=1. Subjects who do not have a MCI diagnosis will have nacchydm=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6v.	Variable name	nacctbim
	Short descriptor	MCI — primary suspected etiology — traumatic brain injury
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary traumatic brain injury 1 = MCI with primary traumatic brain injury
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 26a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and traumatic brain injury as the primary clinical diagnosis (brninjif=1) will have nacctbim=1. Subjects who do not have a MCI diagnosis will have nacctbim=0, as will subjects with MCI, but with another primary etiologic diagnosis.
6w.	Variable name	nacccnsm
	Short descriptor	MCI — primary suspected etiology — CNS neoplasm
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with primary CNS neoplasm 1 = MCI with primary CNS neoplasm
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d and 27a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and CNS neoplasm as the primary clinical diagnosis (neopif=1) will have nacccnsm=1. Subjects who do not have a MCI diagnosis will have nacccnsm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

6x.	Variable name	naccothm
	Short descriptor	MCI — primary suspected etiology — other
	Data type	Numeric longitudinal
	Allowable codes	0 = Did not have MCI with other primary etiologic diagnosis 1 = MCI with other primary etiologic diagnosis
	Description/derivation	**UDS subjects:** This variable is derived from UDS Form D1 questions 4a-d, 28a, 29a and 30a. For each visit, subjects with MCI (MCIAMEM=1 or MCIAPLUS=1 or MCINON1=1 or MCINON2=1) and "other" as the primary clinical diagnosis (cogothif=1 or cogoth2f or cogoth3f=1) will have naccothm=1. Subjects who do not have a MCI diagnosis will have naccothm=0, as will subjects with MCI, but with another primary etiologic diagnosis.

7. Genetics, imaging, and biomarkers

7a.	Variable name	naccapoe
	Short descriptor	APOE genotype
	Data type	Numeric cross-sectional
	Allowable codes	1 = e3,e3 2 = e3,e4 3 = e3,e2 4 = e4,e4 5 = e4,e2 6 = e2,e2 9 = missing/unknown/not assessed
	Description/derivation	**UDS and MDS subjects:** APOE genotype is reported by the Centers on the Neuropathology Form and sent directly to NACC. APOE genotype is also reported from the Alzheimer's Disease Genetics Consortium (ADGC). In the rare case that the Center-reported genotype and the genotype reported by the ADGC are not the same, the genotype is set to missing for that subject. The code for APOE genotype is the same as npapoe on the Neuropathology Form.
7b.	Variable name	naccne4s
	Short descriptor	Number of APOE e4 alleles
	Data type	Numeric cross-sectional
	Allowable codes	0 = no e4 allele 1 = 1 copy of e4 allele 2 = 2 copies of e4 allele 9 = missing/unknown/not assessed
	Description/derivation	**UDS and MDS subjects:** APOE genotype is reported by the Centers on the Neuropathology Form and sent to NACC. APOE genotype is also reported by the Alzheimer's Disease Genetics Consortium (ADGC). In the rare case that the Center-reported genotype and the genotype reported by the ADGC are not the same, the genotype is set to missing for that subject. We used the code for APOE genotype (same as npapoe on the Neuropathology Form) to create a new variable indicating the number of e4 alleles.
7c.	Variable name	naccadgc
	Short descriptor	Indicator of whether or not genotype data are available at ADGC
	Data type	Numeric cross-sectional
	Allowable codes	0 = Not available 1 = Available
	Description/derivation	**UDS and MDS subjects:** Genotype data are available from the Alzheimer's Disease Genetics Consortium (ADGC). The actual genotype data are available only through the ADGC, which requires a formal proposal and application before the data are distributed.

8. FTLD Module

8a.	Variable name	**naccftd**
	Short descriptor	FTLD Module data available
	Data type	Numeric cross-sectional
	Allowable codes	0 = No FTLD Module visit 1 = At least one FTLD Module visit
	Description/derivation	**UDS subjects:** This variable is an indicator for whether or not any FTLD Module data is available for a UDS subject. **MDS subjects:** This variable is not available for MDS only subjects as FTLD Module data were not collected before the introduction of the UDS.

9. Imaging and biomarkers

9a.	Variable name	**naccmri**
	Short descriptor	MRI file available
	Data type	Numeric cross-sectional
	Allowable codes	0 = Does not have any MRIs at NACC 1 = Have at least 1 MRI available at NACC
	Description/derivation	This variable flags UDS subjects who have an MRI at NACC.

9b.	Variable name	**naccnmri**
	Short descriptor	Total number of MRIs
	Data type	Numeric cross-sectional
	Allowable codes	0–20
	Description/derivation	This variable is calculated as the number of MRIs a UDS subject has in the NACC database, regardless of time between scans. Note that while this variable is listed for all visits, it does not change across visits; it is cross-sectional.

9c.	Variable name	**nacc180n**
	Short descriptor	Number of MRIs within ±180 days of UDS visit
	Data type	Numeric longitudinal
	Allowable codes	0–5 88 = Not applicable / No MRI
	Description/derivation	This variable is a count of MRIs within ±180 days of a UDS visit and is calculated for subjects with at least one MRI at NACC. This variable is for internal quality control purposes.

9d.

Variable name	**naccadni**
Short descriptor	Subject is known to be in ADNI study
Data type	Numeric cross-sectional
Allowable codes	0 = Not in ADNI / unknown 1 = Subject is known to be in ADNI
Description/derivation	This variable flags subjects who are known to be in the Alzheimer's Disease Neuroimaging Initiative (ADNI) study in addition to the UDS. NACC does not have complete data on ADNI subject enrollment status, so please note that **naccadni**=0 includes subjects whose ADNI enrollment status is not known.