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Source: <https://www.hcup-us.ahrq.gov/db/nation/nrd/nrddde.jsp>

This document includes the target variables for the analysis. It provides a quick overview to the main variables that are of interest to the readmission studies I am conducting.

AGE:

Variable	Description	Value	Value Description
AGE	Age in years at admission	0-124	Age in years
		.	Missing
		.A	Invalid
		.B	Unavailable from source (coded in 1988-1997 data only)
		.C	Inconsistent: beginning with 1998 data, EAGE02, EAGE03, EAGE04, EAGE05; in 1988-1997 data, ED021, ED3nn, ED4nnn, ED5nn

Note: Ages over 89 are aggregated into a single category equal to 90 years old

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/age/nrdnote.jsp>

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#### **AWEEKEND:**

| Variable | Description                   | Value | Value Description        |
|----------|-------------------------------|-------|--------------------------|
| AWEEKEND | Admission day is on a weekend | 0     | Admitted Monday-Friday   |
|          |                               | 1     | Admitted Saturday-Sunday |
|          |                               | .     | Missing                  |
|          |                               | .A    | Invalid                  |

Note: if admission day on a weekend

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/awweekend/nrdnote.jsp>

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CHRONBn:

Variable	Description	Value	Value Description
BODYSYSTEMn	ICD-9-CM Body system n	1	1 = Infectious and parasitic disease
		2	2 = Neoplasms
		3	3 = Endocrine, nutritional, and metabolic diseases and immunity disorders
		4	4 = Diseases of blood and blood-forming organs
		5	5 = Mental disorders

6	6 = Diseases of the nervous system and sense organs
7	7 = Diseases of the circulatory system
8	8 = Diseases of the respiratory system
9	9 = Diseases of the digestive system
10	10 = Diseases of the genitourinary System
11	11 = Complications of pregnancy, childbirth, and the puerperium
12	12 = Diseases of the skin and subcutaneous tissue
13	13 = Diseases of the musculoskeletal system
14	14 = Congenital anomalies
15	15 = Certain conditions originating in the perinatal period
16	16 = Symptoms, signs, and ill-defined conditions
17	17 = Injury and poisoning
18	18 = Factors influencing health status and contact with health services
.	Missing
.A	Invalid
.C	Inconsistent

Note: The Chronic Condition Indicator provides an easy way for users to categorize ICD-9-CM diagnosis codes into one of two categories: chronic or not chronic. In addition, the tool groups all diagnoses into body systems so that users can create indicators listing which specific body systems are affected by a chronic condition. The body system indicator is based upon the chapters of the ICD-9-CM codebook.

File: DX_PR_Grps

Link: <https://www.hcup-us.ahrq.gov/db/vars/chronbn/nrdnote.jsp>

CM X:

Where **X** belongs to:

X	Description
AIDS	acquired immune deficiency syndrome
ALCOHOL	alcohol abuse
ANEMDEF	deficiency anemias
ARTH	rheumatoid arthritis/collagen vascular diseases
BLDLOSS	chronic blood loss anemia
CHF	congestive heart failure
CHRN LUNG	chronic pulmonary disease
COAG	coagulopathy
DEPRESS	depression
DM	diabetes, uncomplicated

DMCX	diabetes with chronic complications
DRUG	drug abuse
HTN_C	hypertension (combine uncomplicated and complicated)
HYPOTHY	hypothyroidism
LIVER	liver disease
LYMPH	lymphoma
LYTES	fluid and electrolyte disorders
METS	metastatic cancer
NEURO	other neurological disorders
OBESE	obesity
PARA	paralysis
PERIVASC	peripheral vascular disorders
PSYCH	psychoses
PULMCIRC	pulmonary circulation disorders
RENLFAIL	renal failure
TUMOR	solid tumor without metastasis
ULCER	peptic ulcer disease excluding bleeding
VALVE	valvular disease
WGHTLOSS	weight loss

Variable	Description	Value	Value Description
CM_X	AHRQ comorbidity measure for ICD-9-CM codes: X	0	Comorbidity is not present
		1	Comorbidity is present
		.A	Invalid

Note: Comorbidity measures are assigned using the AHRQ comorbidity software. The AHRQ comorbidity measures identify coexisting medical conditions that are not directly related to the principal diagnosis, or the main reason for admission, and are likely to have originated prior to the hospital stay. Comorbidities are identified using ICD-9-CM diagnoses and the Diagnosis Related Group (DRG) in effect on the discharge date. The prefix "CM_" has been added to the AHRQ comorbidity software data element names to distinguish the comorbidity measures from other HCUP data elements.

File: Severity

Link: https://www.hcup-us.ahrq.gov/db/vars/cm_aids/nrdnote.jsp

DIED:

Died during hospitalization (DIED) is coded from the discharge disposition of patient

Variable	Description	Value	Value Description
DIED		0	Did not die

	Died during hospitalization	1	Died
		.	Missing
		.A	Invalid
		.B	Unavailable from source (coded in 1988-1997 data only)

Note: Died during hospitalization (DIED) is coded from the discharge disposition of patient. The coding varies across years of data.

Beginning with 2001 HCUP data, the coding of DIED is assigned as follows:

- If DISPUniform indicates that a patient was discharged alive (values 1-7, 21 (starting in 2010), 99), then DIED is coded as 0.
 - If a patient had discharge status of died outside the hospital, then DISPUniform is set to 99 (discharged from the hospital alive, destination unknown) and DIED was set to alive (0).
- If DISPUniform indicates that a patient died in the hospital (value 20), then DIED is coded as 1.
- If DISPUniform is missing (.) or invalid (.A), then DIED is also coded as missing (.) or invalid (.A).

In other words, DIED mirrors DISPUniform variable (no need to use both)

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/died/nrdnote.jsp>

DISPUNIFORM:

Variable	Description	Value	Value Description
DISPUNIFORM	Disposition of patient, uniform coding	1	Routine
		2	Transfer to short-term hospital
		5	Transfer other: includes Skilled Nursing Facility (SNF), Intermediate Care Facility (ICF), and another type of facility
		6	Home Health Care (HHC)
		7	Against medical advice (AMA)
		20	Died in hospital
		21	Discharged/transferred to court/law enforcement
		99	Discharged alive, destination unknown, beginning in 2001
		.	Missing
		.A	Invalid

Note:

DISPUNIFORM indicates the disposition of the patient at discharge (routine, transfer to another

hospital, died, etc.). To ensure uniformity of coding across data sources, DISPUNIFORM combines detailed categories in the more general groups. For example,

- Transfers to facilities other than short-term hospitals (skilled nursing facilities, intermediate care facilities, and other type of facilities) are coded as DISPUNIFORM= 5.
- Transfers to Home Health Care (including IV providers and Hospice home care) are coded as DISPUNIFORM= 6.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/dispuniform/nrdnote.jsp>

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**DMONTH:**

| Variable | Description     | Value | Value Description |
|----------|-----------------|-------|-------------------|
| DMONTH   | Discharge month | 1-12  | Discharge month   |
|          |                 | .     | Missing           |
|          |                 | .A    | Invalid           |

Note: Discharge month (DMONTH) is derived from the discharge date (DDATE). If DDATE is missing, then DMONTH is missing (.). If DDATE is invalid, then DMONTH is invalid (.A).

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/dmonth/nrdnote.jsp>

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DXCCSn:

Clinical Classifications Software (CCS) consists of over 260 diagnosis categories. All ICD-9-CM diagnosis codes are classified.

Variable	Description	Value	Value Description
DXCCSn	Clinical Classifications Software (CCS): ICD-9-CM diagnosis classification	1-259	CCS Diagnosis Codes
		260	CCS E-code Class (1988-1997 data)
		2601-2621	CCS E-code Class (beginning with 1998 data)
		.	No diagnosis code
		.A	Invalid diagnosis code: beginning with 1998 data, EDX02
		.C	Inconsistent: beginning with 1998 data, EAGE04, EAGE05, EDX03

Note: DXCCSn is coded as follows:

- 1 to 259 if the diagnosis code (DXn) is valid by the HCUP criteria and not an External Causes of Injury (E-code). The HCUP criteria for diagnosis validation allows a year window (six months before and six months after) around the official ICD-9-CM coding

changes (usually October 1), for anticipation of or lags in response to official ICD-9-CM coding changes.

- 2601-2621 if the diagnosis code (DXn) is a valid E-code by the HCUP criteria.
- DXCCSn is missing (.), if there is no diagnosis code (DXn = " ").
- DXCCSn is set to invalid (.A), if the diagnosis code (DXn) is invalid by the HCUP criteria (EDX02).
- DXCCSn is set to inconsistent (.C), if the diagnosis code (DXn) is inconsistent with age (EAGE04 and EAGE05) or sex of the patient (EDX03).

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/dxccsn/nrdnote.jsp>

ELECTIVE:

Variable	Description	Value	Value Description
ELECTIVE	Elective versus non-elective admission	0	Non-elective admission
		1	Elective admission
		.	Missing
		.A	Invalid

Note: ELECTIVE indicates whether the admission to the hospital was elective. This information was derived from the type of admission (ATYPE). If the admission type indicated an elective admission (ATYPE = 3), then ELECTIVE was set to 1. If the admission type was missing or invalid, then ELECTIVE is also missing or invalid.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/elective/nrdnote.jsp>

FEMALE:

Note: The sex of the patient (FEMALE) is provided by the data source. All non-male, non-female (e.g., "other") values are set to missing (.)

Variable	Description	Value	Value Description
FEMALE	Indicator of sex	0	Male
		1	Female
		.	Missing
		.A	Invalid
		.C	Inconsistent, EDX03, EPR03

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/female/nrdnote.jsp>

LOS:

Variable	Description	Value	Value Description
LOS	Length of stay, cleaned	0 - 365 (for HCUP inpatient data), 0-3 (for HCUP outpatient data)	Days (In the 1988-1997 inpatient data, LOS can be greater than 365 days)
		.	Missing
		.A	Invalid
		.B	Unavailable from source (coded in 1988-1997 data only)
		.C	Inconsistent: beginning with 1998 data, ELOS03, ELOS04; in 1988-1997 data, ED011, ED601, ED911n, ED921

Note: Length of stay (LOS) is calculated by subtracting the admission date (ADATE) from the discharge date (DDATE). Same-day stays are therefore coded as 0. Leave days are not subtracted. Before edit checks are performed, LOS and LOS_X have the same value. If LOS is set to inconsistent (.C), the value of LOS_X is retained.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/los/nrdnote.jsp>

NRD_DaysToEvent:

Variable	Description	Value	Value Description
NRD_DaysToEvent	Days from "start date" to admission	nnnn	Timing between events
		.	Missing

Note: NRD_DaysToEvent is one of two data elements created specifically for the Nationwide Readmissions Database (NRD) for tracking patients across hospitals in a year. The timing information in NRD_DaysToEvent must be used in tandem with the visit linkage variable (NRD_VisitLink). These variables enable users to study multiple hospital visits for the same patient across hospitals and time while adhering to strict privacy regulations. The timing variable (NRD_DaysToEvent) was calculated consistently for each verified patient linkage (NRD_visitLink) based on a randomly assigned "start date." Each patient linkage is assigned a unique start date that is used to calculate NRD_DaysToEvent for all visits associated with that visitLink value. The variable NRD_DaysToEvent is the difference between the visit's admission date and the start date associated with the visitLink

File: Core

Link: https://www.hcup-us.ahrq.gov/db/vars/nrd_daystoevent/nrdnote.jsp

NRD_visitLink:

Variable	Description	Value	Value Description
NRD_VisitLink	Patient linkage variable in the NRD	7(a)	Verified patient linkage number for linking hospital visits for the same patient across hospitals
		.	Missing

Note: NRD_visitLink is one of two data elements created specifically for the Nationwide Readmissions Database (NRD) for tracking patients across hospitals in a year. The timing information in NRD_DaysToEvent must be used in tandem with the visit linkage variable (NRD_visitLink). These variables enable users to study multiple hospital visits for the same patient across hospitals and time while adhering to strict privacy regulations.

NRD_visitLink does not link to other HCUP databases or to external databases. In addition, the values of NRD_visitLink differ from year to year. An individual person identified by NRD_visitLink cannot be followed across data years.

File: Core

Link: https://www.hcup-us.ahrq.gov/db/vars/nrd_visitlink/nrdnote.jsp

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**PAY1:**

| Variable | Description                     | Value | Value Description                                      |
|----------|---------------------------------|-------|--------------------------------------------------------|
| PAY1     | Expected primary payer, uniform | 1     | Medicare                                               |
|          |                                 | 2     | Medicaid                                               |
|          |                                 | 3     | Private insurance                                      |
|          |                                 | 4     | Self-pay                                               |
|          |                                 | 5     | No charge                                              |
|          |                                 | 6     | Other                                                  |
|          |                                 | .     | Missing                                                |
|          |                                 | .A    | Invalid                                                |
|          |                                 | .B    | Unavailable from source (coded in 1988-1997 data only) |

Note: PAY1 indicates the expected primary payer (Medicare, Medicaid, private insurance, etc.). To ensure uniformity of coding across data sources, PAY1 combines detailed categories in the more general groups.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/pay1/nrdnote.jsp>

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PRCCSn:

Clinical Classifications Software (CCS) consists of 231 procedure categories. All ICD-9-CM procedure codes are classified.

Variable	Description	Value	Value Description
PRCCSn		1 - 231	CCS procedure class

Clinical Classifications Software (CCS) for ICD-9-CM Procedures	.	No procedure code
	.A	Invalid procedure code: beginning with 1998 data, EPR02
	.C	Inconsistent: beginning with 1998 data, EAGE05, EPR03

Note: PRCCSn is coded as follows:

- 1 to 231 if the procedure code (PRn) is valid by the HCUP criteria. The HCUP criteria for procedure validation allows a year window (six months before and six months after) around the official ICD-9-CM coding changes (usually October 1), for anticipation of or lags in response to official ICD-9-CM coding changes.
- PRCCSn is missing (.), if there is no procedure code (PRn = " ").
- PRCCSn is set to invalid (.A), if the procedure code (PRn) is invalid by the HCUP criteria (EPR02).
- PRCCSn is set to inconsistent (.C), if the procedure code (PRn) is inconsistent with age (EAGE05) or sex of the patient (EPR03).

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/prccsn/nrdnote.jsp>

PL_NCHS:

Variable	Description	Value	Value Description
PL_NCHS	Patient Location: NCHS Urban-Rural Code	1	"Central" counties of metro areas of ≥ 1 million population
		2	"Fringe" counties of metro areas of ≥ 1 million population
		3	Counties in metro areas of 250,000-999,999 population
		4	Counties in metro areas of 50,000-249,999 population
		5	Micropolitan counties
		6	Not metropolitan or micropolitan counties
		.	Missing

Note: PL_NCHS is a six-category urban-rural classification scheme for U.S. counties developed by the National Center for Health Statistics (NCHS) especially for use in health care research. The classification emphasizes urban distinctions and is unique in differentiating between central and fringe counties of large metropolitan areas. Smaller metropolitan counties are subdivided by population. Non-metropolitan counties are divided simply into micropolitan and non-core categories.

File: Core

Link: https://www.hcup-us.ahrq.gov/db/vars/pl_nchs/nrdnote.jsp

REHABTRANSFER:

Variable	Description	Value	Value Description
REHABTRANSFER	A combined record involving transfer to rehabilitation, evaluation, or other aftercare	0	Not a combined record or a combined record not involving rehabilitation, evaluation, or other aftercare
		1	Combined record involving transfer to rehabilitation, evaluation, or other aftercare

Note: REHABTRANSFER is one of two data elements that identify transfers, same-day stays, and combined transfer records in the NRD. Readmission analyses do not usually allow the hospitalization at the receiving hospital to be counted as a readmission. To eliminate this possibility, pairs of records representing a transfer are collapsed into a single "combined" record in the NRD. Transfer records are defined as having all of the following characteristics:

- Discharge date of the first inpatient stay equaled the admission date of a subsequent inpatient stay.
- The first record had a discharge disposition of transfer to an acute care hospital.
- The second record was from a different hospital and had an admission source indicating a transfer.

Pairs of discharges are classified as a same-day stay if the discharge date for one inpatient stay was the same as the admission date of a second stay for the same patient (same as transfers), but there was no indication of a transfer by the discharge disposition or admission source. Same-day stays may or may not have involved different hospitals. Same-day stays may indicate that a patient was discharged too soon and then needed to be return to the hospital on the same day. However, it was also possible that these were transfer records with an incorrect or missing discharge disposition and admission source.

Records that were part of transfers and same-day stays were combined into a single record. These combined records account for about three percent of records in the NRD and are identified by the data element SAMEDAYEVENT.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/rehabtransfer/nrdnote.jsp>

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**SAMEDAYEVENT:**

| Variable     | Description                                             | Value | Value Description                                               |
|--------------|---------------------------------------------------------|-------|-----------------------------------------------------------------|
| SAMEDAYEVENT | Identifies transfer and same-day stay collapsed records | 0     | Not a transfer or other same-day stay                           |
|              |                                                         | 1     | Transfer involving two discharges from different hospitals      |
|              |                                                         | 2     | Same-day stay involving two discharges from different hospitals |

|  |  |   |                                                                                     |
|--|--|---|-------------------------------------------------------------------------------------|
|  |  | 3 | Same-day stay involving two discharges at the same hospital                         |
|  |  | 4 | Same-day stay involving three or more discharges at the same or different hospitals |

Note: The same of REHABTRANSFER note (see above).

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/samedayevent/nrdnote.jsp>

#### **RESIDENT:**

| Variable | Description                                                                             | Value | Value Description |
|----------|-----------------------------------------------------------------------------------------|-------|-------------------|
| RESIDENT | Identifies patient as a resident of the State in which he or she received hospital care | 0     | Nonresident       |
|          |                                                                                         | 1     | Resident          |

Note: The NRD includes discharges for residents and nonresidents of the State in which they were treated. Although most patients seek treatment at hospitals in their State of residence, there are occasions when patients are treated at hospitals in another State. Hospitals that specialize in a certain types of care may attract patients from across the United States. In addition, hospitals near State borders frequently treat patients that reside in neighboring States. The data element RESIDENT identifies a discharge as a resident of the State in which he or she received hospital care.

File: Core

Link: <https://www.hcup-us.ahrq.gov/db/vars/resident/nrdnote.jsp>

#### **ZIPINC\_QRTL:**

| Variable    | Description                                                            | Value | Value Description                                 |
|-------------|------------------------------------------------------------------------|-------|---------------------------------------------------|
| ZIPINC_QRTL | Median household income for patient's ZIP Code (based on current year) | 1     | 0-25th percentile                                 |
|             |                                                                        | 2     | 26th to 50th percentile (median)                  |
|             |                                                                        | 3     | 51st to 75th percentile                           |
|             |                                                                        | 4     | 76th to 100th percentile                          |
|             |                                                                        | .     | Other (includes ZIP equal blank A, C, M, F and B) |

Note: This categorical variable (ZIPINC\_QRTL) provides a quartile classification of the estimated median household income of residents in the patient's ZIP Code. The quartiles are identified by values of 1 to 4, indicating the poorest to wealthiest populations. These values are derived from ZIP Code-demographic data obtained from Claritas. Because these estimates are updated annually, the value ranges for the ZIPINC\_QRTL categories vary by year

File: Core

Link: [https://www.hcup-us.ahrq.gov/db/vars/zipinc\\_qrtl/nrdnote.jsp](https://www.hcup-us.ahrq.gov/db/vars/zipinc_qrtl/nrdnote.jsp)

