Traumatic Brain Injury Model Systems
Live Syllabus

Form I & Form II Variable Pages
Second Quarter 2005

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LIVE SYLLABUS

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Form II Variables

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20Ab	METHOD OF INTERVIEW DATA COLLECTION -PERSON WITH BRAIN INJURY	2
20Ac	METHOD OF INTERVIEW DATA COLLECTION -SIGNIFICANT OTHER	2
20Ad	REASON PERSON WITH BRAIN INJURY NOT PROVIDING DATA	2
20Ae	IDENTITY OF SIGNIFICANT OTHER	2
200	SYSTEM/SUBJECT/FOLLOW-UP ID	2
201	DATE OF FOLLOW-UP	2
207	MARITAL STATUS	2
208	PRIMARY PERSON LIVING WITH	2
209	RESIDENCE	2
209a	ZIP CODE	2
210a	YEARS OF EDUCATION	2
210b	GED	2
211a	EMPLOYMENT STATUS	2
211b	HOURS OF PAID COMPETITIVE EMPLOYMENT	2
211c	DATE OF FIRST COMPETITIVE EMPLOYMENT	2
211d	JOB STABILITY: WEEKS EMPLOYED	2
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VERSION OF FORM I BEING ENTERED
Variable 01
Date of last revision: 04/01/04

DEFINITION:
Version number of the data entry form on which data for the present case was recorded. The version number is found in the upper right corner of the header of the data entry form.

CODE:
Version numbers of Form Is that can be entered into the database are listed in the drop-down menu (e.g., 7.0, 7.5...)

CHARACTERS:
2 numeric

NOTE:
As of 4/1/02, the TBIMS data entry system has the capacity to present data entry screens that match more than one version of the Form I. Obtain the data entry screens that match the Form I you wish to enter by selecting the version number of your Form I from the drop down menu.

*As of 4/1/04, all versions of Form I from V7.5 on are available as data entry screens. If the version of the Form I that you wish to edit or enter into the database is not listed on the drop-down menu, refer to 22j.Editing+entering old data (http:///syllabus/pdf/22j_Editing_entering_old_data.pdf) in Appendix I.

EXAMPLE:
Data for patient was recorded on Form I version 7.5

7.5

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Changed description of number of CHARACTERS to "2" (not including decimal)
2004-04-01	Updated instructions about editing/entering data on forms other than the current form.
2002-07-01	Variable added to syllabus
2002-04-01	Variable added to database

SYSTEM/SUBJECT ID
Variable 100
Date of last revision: 01/01/03

DEFINITION:
A 7-digit number assigned to each patient with brain injury by Project Staff at each center. First 2 digits are system I.D.; last 5 digits are subject I.D.

CODE:
Start coding at:
*0100000 Mt. Sinai School of Medicine. This number was assigned in first round of funding. No data with this ID are in the database.
0200000 Medical College of Virginia
*0300000 The Institute for Rehabilitation Research
0400000 Rehabilitation Institute of Michigan
0500000 Santa Clara Valley Medical Center
0600000 Ohio State University
0700000 Moss Rehabilitation Hospital
0800000 University of Alabama
0900000 Craig Hospital
*1000000 Emory University
1100000 Spaulding Rehabilitation Hospital
1200000 Mayo Clinic
*1300000 University of Missouri
1400000 Mississippi Methodist Rehabilitation Center
*1500000 Kessler Medical Rehabilitation & Education Corp.
1600000 Charlotte Institute
*1700000 Oregon Health Sciences University
1800000 University of Washington
1900000 JFK Johnson Rehabilitation Institute
2000000 University of Pittsburgh
2100000 Univ. of Texas Southwestern Medical Center
2200000 Mount Sinai School of Medicine

* No longer funded

CHARACTERS:
7 numeric

EXAMPLE:
Patient is at Rehabilitation Institute of Michigan, and is patient number 12345.

0412345

VARIABLE HISTORY:

Date of last Revision	Description
2003-01-01	Added codes for 4 new centers.
2003-01-01	Indicated the 5 defunded centers.
1999-01-01	Corrected name for center 17.
1998-08-15	Added codes for 11 new centers.
1997-10-01	Added new codes for OSU and MOSS.

DEFINITION:
The "Dates" set of variables includes the following:

1. Date of injury
2. Date admitted to Model System emergency department
3. Date discharged from acute care
4. Date admitted to inpatient rehabilitation facility
5. Date discharged from inpatient rehabilitation facility
6. Date of death

CODE:
MM/DD/YYYY

08/08/8888 = Not Applicable
09/09/9999 = Unknown

CHARACTERS:
8 date

NOTE:
If a patient completes acute care and inpatient rehabilitation and is then transferred to an alternate level of care (regardless of whether it is a designated Model System facility or not), this is considered the rehabilitation discharge date and the residence at discharge (V109) should reflect this alternate level of care discharge.

An alternate level of care is defined as a transfer of a patient from inpatient rehabilitation to a lower level of care (usually with maintenance therapy) after he/she is medically stable and reaches functional plateau (as determined by a medical doctor and utilization review committee.

If a patient is transferred to an alternate level of care within the designated Model System prior to inpatient rehabilitation, the ALC length of stay should be added to the Model System acute care stay or inpatient rehabilitation stay, which ever is most applicable.

Day hospital treatment should not to be included as part of inpatient rehabilitation stay.

Do not assume that the date of discharge from the acute care hospital is the same as the date of admission to inpatient rehab.

Do not include rehab in a day hospital as part of the inpatient stay.

EXAMPLE:
Date of injury was April 13, 1988.

<u>04/13/1988</u>

VARIABLE HISTORY:

Date of last Revision	Description
2004-10-01	In DEFINITION, numbered the six parts of this item. (In order to make them easier to identify.)
2003-01-01	Deleted 101B: Times of Injury and ER Admission
2002-04-01	Removed typo from first 1/1/02 note.
2002-04-01	Removed second 1/1/02 note (regarding family consent).
2002-01-01	Added NOTE to not assume that date of acute discharge is the same as admission to inpatient rehab.
2002-01-01	Added NOTE about consent from family if patient dies before consent.
1999-04-01	Revised unknown date codes to be compatible with the new software.
1998-08-15	Year expanded to four digits.

Date of last Revision	Description
1995-07-01	Added codes for unknown time less than 8 hours or less than 24 hours to correspond to new inclusion criteria.
1995-07-01	Clarified code 99:99. Now refers only to unknown time of ED admit.
1994-09-13	Deleted these date variables: "admitted to acute care", "first acute rehab services", "admitted to/discharged from an alternate level of care".
1994-09-13	Added notes for clarification of ALC (alternative level of care).
1994-02-01	Added note to clarify what the Date of First Acute Care Rehab Services refers to.

QUESTIONS AND ANSWERS:

QUESTION:	Person entered hospital NOT for TBI. Received a TBI in hospital. How to handle various issues in coding? 05-19-2004
ANSWER:	If in-house TBI meets inclusion criteria, then enroll this person and code accordingly. Please contact if any specific coding questions. 05-20-2004

SHORT TERM REHABILITATION INTERRUPTION
Variable 102
Date of last revision: 04/01/04

DEFINITION:
Dates of short term interruptions (3 days or more) during system inpatient rehabilitation phase only. Patient is off rehabilitation 30 days or less each interruption. If more than 30 days then patient is discharged and last interruption date is date of discharge, and code return.

CODE:
Interruption date and return date: MM/DD/YYYY

08/08/8888 Not applicable
09/09/9999 Unknown

CHARACTERS:
8 date

NOTE:
System re-entry after 30 days is considered a rehospitalization during the follow up year and should be coded in V273 on Form II.

Computer uses interruption data to calculate Net Length of Stay, via the formula below: Net LOS = (Disch date - Adm date) - Days off rehab service.

If more than two short term interruptions, code the two longest.

If discharged from acute hospital to a System alternative care facility, add days in that facility to either time in acute care or time in rehab, whichever is more appropriate.

SOURCE:
UDS, SCVMC

EXAMPLE:
Patient had two rehabilitation interruptions: (July 14 to August 1, 1988) and (August 10 to August 22, 1988).

<u>1st interruption</u>
Interruption date: 07/14/1988
Return date: 08/01/1988

<u>2nd Interruption</u>
Interruption date: 08/10/1988
Return date: 08/22/1988

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Variable added back into database.
2003-01-01	Variable deleted.
2002-01-01	Added NOTE about coding time spent in an alternative care facility following discharge from System acute hospital.
1999-04-20	Added note regarding coding more than two interruptions.
1999-04-02	Revised unknown codes to be compatible with new software.
1998-08-15	Year expanded to four digits.
1996-11-01	Removed interruption status code from example which was previously dropped from variable.
1994-09-13	Dropped interruption status and the 3rd and 4th interruption dates.

Date of last Revision	Description
1994-02-01	Added clarification that this variable refers to rehab phase only and how to code a system readmission after 30 days.
1994-02-01	All references to "transfer" changed to "interruption".

PATIENT BIRTHDATE
Variable 103
Date of last revision: 04/01/03

DEFINITION:
Date of birth. Only patients 16 or older at the time of injury are to be entered into the database.

CODE:
MM/DD/YYYY
09/09/9999 Unknown

CHARACTERS:
8 date

EXAMPLE:
Patient was born on October 31, 1952.

10/31/1952

VARIABLE HISTORY:

Date of last Revision	Description
2003-04-01	Removed code "08/08/8888=N/A" from data collection form starting 4/1/2003.
1999-04-02	Revised unknown codes to be compatible with new software.

QUESTIONS AND ANSWERS:

QUESTION:	We have a patient who just turned 16 but was not 16 at the time of injury. Can we enroll him? 02-18-2005
ANSWER:	No. Patients must be 16 at the time of injury. 02-18-2005

SEX
Variable 104
Date of last revision: 08/20/01

DEFINITION:
Current sex of subject.

CODE:
1 Female
2 Male
9 Unknown

CHARACTERS:
1 numeric

NOTE:
*If transexual, record current sex.

EXAMPLE:
Patient is female.

1

VARIABLE HISTORY:

Date of last Revision	Description
2001-08-20	Added note about transexual.
1994-09-13	Dropped code 7 = other.

RACE
Variable 105
Date of last revision: 04/01/04

DEFINITION:
Self-reported race.

CODE:
1 White
2 Black
3 Asian/Pacific Islander
4 Native American
5 Hispanic origin
7 Other, unclassified
9 Unknown

For a list of the specific racial/ethnic groups that fall within in each of the five categories (above), see the "2000 Census of Population and Housing" (US Department of Commerce, 2003), "Summary 1": 19a.Race Codes (http://www.census.gov/prod/cen2000/doc/sf1.pdf). The race codes are in the "Technical Documentation" section, starting on page 587. This list should be printed and inserted in Appendix F. (For TBIMS purposes, this list of race codes used in the 2000 census is sufficiently similar to the list used in the 1990 census, which was previously in Appendix F of the syllabus.)

CHARACTERS:
1 numeric

NOTE:
Record participant's statement regarding his/her race, or record race of father.

The following Bureau of the Census guidelines are to be used to code mixed race: in the event of a mixed white and other race, the other race is used; in the event of mixed races other than white, the race of the father is used.

Patient's or SO's statement is preferred to hospital record information.

SOURCE:
2000 Census, Department of Commerce: 19a.Race Codes (http://www.census.gov/prod/cen2000/doc/sf1.pdf)

EXAMPLE:
Patient is a Native American

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VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added link to 2000 census report.
2003-10-01	Added NOTE that person's or SO's information is preferred to hospital records.
2001-08-20	Added note about determining race.
1995-01-01	Corrected reference to Appendix F (not E) did not change page date.
1994-09-13	Added code for Hispanic; added reference to Appendix E for coding.

MARITAL STATUS
Variable 107
Date of last revision: 10/01/03

DEFINITION:
Marital status at time just prior to injury.

CODE:
1 Single (a person who has never married)
2 Married (a person who is married, whether legally or by commonlaw definition of seven years cohabitation)
3 Divorced (a person who is legally divorced)
4 Separated (includes both legal separation and living apart from a married partner)
5 Widowed
6 Cohabitation. [CODE NO LONGER USED.]
7 Other
9 Unknown

CHARACTERS:
1 numeric

NOTE:
If separated but living together for >7 years, code as "2=married".

*If married more than once, code to the most recent.

SOURCE:
UAB

EXAMPLE:
Patient was separated from spouse at time of injury.

4

VARIABLE HISTORY:

Date of last Revision	Description
2003-10-01	Added NOTE that if married more than once, code relative to the most recent.
1994-09-13	Dropped code 6 = cohabitation.

PRIMARY PERSON LIVING WITH
Variable 108
Date of last revision: 07/01/95

DEFINITION:
The primary person living with the subject:
-- at time just prior to injury, and
-- at discharge from Rehabilitation

CODE:
01 Alone
02 Spouse (including commonlaw partners of 7 or more years)
03 Parent(s)
04 Sibling(s)
05 Child/children (< 21 years of age)
06 Other relative(s) or adult child(ren) >= 21 years of age
07 Roommate(s)/friend(s)
08 Significant other (partners, not married)
09 Other patients (in hospital or nursing home)
10 Other residents (group living situation)
11 Personal Care Attendant
77 Other (includes correctional facility inmates)
88 Not Applicable patient expired in rehab
99 Unknown

CHARACTERS:
2 numeric

NOTE:
*If the patient is living with more than one person, list the person most involved in the patient's life and care.

SOURCE:
SCVMC

EXAMPLE:
Patient was living with a sibling and a roomate at time of injury, and alone after discharge from Rehabilitation.

At time of injury 04
After rehab discharge 01

VARIABLE HISTORY:

Date of last Revision	Description
1995-07-01	Dropped 2nd and 3rd persons living with, revised code 88 to correspond.
1994-09-13	Dropped "living with at time of acute discharge".
1994-02-01	Deleted reference to Level I data collection.

RESIDENCE
Variable 109
Date of last revision: 01/01/05

DEFINITION:
Where the person with brain injury is living:
-- at the time just prior to injury
-- at discharge from Rehabilitation.

CODE:
01 **Private Residence** (includes house, apartment, mobile home, foster home, condominium, dormitory (school, church, college), military barracks, boarding school, boarding home, rooming house, bunk-house, boys ranch, fraternity/sorority house, commune, migrant farmworkers camp)
02 **Nursing Home** (includes medi-center, residential, institutions licensed as hospitals but providing essentially long-term, custodial, chronic disease care, etc.)
03 **Adult Home** (includes adult foster care, indep. living center, transitional living facility, assisted living, supported living, group home)
04 **Correctional Institution** (includes prison, jail, penitentiary, correctional center, labor camp, halfway house, etc.)
05 **Hotel/Motel** (includes YWCA, YMCA, guest ranch, inn)
06 **Homeless** (includes a shelter for the homeless)
07 **Hospital - Acute Care**
08 **Hospital - Rehabilitation**
09 **Hospital - Other** (includes mental hospital, inpatient drug treatment)
10 **Subacute care** (includes subacute hospital bed, skilled nursing facility)
77 **Other**
88 **Not Applicable** (patient expired in rehab)
99 **Unknown**

CHARACTERS:
2 numeric

NOTE:
If category is not applicable, then field should be coded 88. Do not leave blank.

*If there is uncertainty regarding residence, treat it as a self-report variable. If residence is not clear, a reliable respondent (when possible the person with TBI) should be asked, eg., "Where were you [the person with TBI] living at the time of the injury?". If the response is ambiguous (as may happen, eg., if the person is transient) use probes in order to adequately understand the respondent's belief regarding residence, then code that. Do not probe to obtain additional objective information about the living situation and then (the data collector) use that information in determining the correct code. When residence is at all ambiguous, treat it as a self-report variable.

CHARACTERISTICS OF DATA:
Deleting the category "shelter" from code 01 and moving it to 06 as "shelter for the homeless" as of 10/1/2004 means that prior to this date, persons in that category are in 01 and after that date they are in 06.

EXAMPLE:
Patient lived at home at time of injury, and lived in a transitional living facility after rehabilitation.

At time of injury 01
After rehab discharge 03

VARIABLE HISTORY:

Date of last Revision	Description
2005-01-01	Added NOTE how to determine residence if not clear.
2004-10-01	Deleted "shelter" from code 01. Added "shelter for the homeless" to code 06.
2004-10-01	Deleted "involuntary" from "involuntary inpatient drug treatment program", a category of code "09=Hospital--other".
2001-08-20	Added “Involuntary inpatient drug treatment program” to “Hospital-Other” category.

Date of last Revision	Description
2001-07-01	Zip Code question becomes a separate variable (V109a).
2001-01-01	Zip Code collected.
1996-04-01	Added halfway house to code 4=correctional institution.
1995-07-01	Moved dorm thru farmworkers camp from code 3 to code 1.
1995-07-01	Moved skilled nursing facility from code 2 to code 10.
1995-07-01	Moved all code 11 to code 3.
1995-07-01	Added new code 10=subacute.
1994-09-13	Dropped "residence at time of acute discharge".
1994-09-13	Added "adult foster care" to code 3.
1994-02-01	Deleted references to Level I data collection.

ZIP CODE
Variable 109a
Date of last revision: 07/01/02

DEFINITION:
Zip Code of location where person with brain injury is living:
-- at the time just prior to injury
-- at discharge from Rehabilitation.

PURPOSE: To allow an estimate of the extent and type of health care services available in the participant's vicinity.

CODE:
0 = Variable did not exist (cases admitted to System before 1/1/01)
8 = Not Applicable (patient expired in rehab;*patient lived outside US)
9 = Unknown

CHARACTERS:
5 numeric

NOTE:
If the person has no residence, record the zip code of the area in which he/she is most likely to be.

Record zip code of first place the person goes after discharge, regardless of how long he/she resided there.

EXAMPLE:
Patient resides in Newark, NJ, and returns home after inpatient rehabilitation.

At time of injury: 07102
At time of discharge: 07102

VARIABLE HISTORY:

Date of last Revision	Description
2002-07-01	Changed missing data codes from 5 characters to 1 character.
2002-07-01	Added “patient lived outside US” to code “8”.
2002-01-01	Added code "0=Variable did not exist" (code was already on Form I).
2001-08-20	Purpose added.
2001-08-20	NOTE added about estimating zip code if homeless.
2001-08-20	NOTE added about first place resides.
2001-07-01	Zip Code becomes a separate variable.
2001-01-01	Zip Code added as part of V109.

YEARS OF EDUCATION
Variable 110a
Date of last revision: 04/01/04

DEFINITION:
Number of years of education *successfully completed at the time just prior to injury.

CODE:
01 1 year or less
02 2 years
03 3 years
04 4 years
05 5 years
06 6 years
07 7 years
08 8 years
09 9 years
10 10 years
11 11 years/12 years, no diploma
12 HS diploma
13 Work toward Associate's degrees, no diploma
14 Associate's degrees
15 Work toward Bachelor's degree, no diploma
16 Bachelor's degree
17 Work toward Master's degree, no diploma
18 Master's degree
19 Work toward Doctoral level degree, no diploma
20 Doctoral level degree
66 Var didn't exist at the time of interview
77 Other
99 Unknown

CHARACTERS:
2 numeric

NOTE:
The number of years of education coded may not equal the actual number of years spent in school. For example, *a person who is held back two years in elementary school and then drops out of school in the 10th grade (for a total of 11 full years) would be coded has having completed 9 years;or, a person may take 6 years to complete a BA (for a total of 18 years), but, as indicated, only 16 years are coded.

GED, trade school, and other types of schooling not listed, are not counted toward years of education

If person is not sure of number of years, code the greater number

CHARACTERISTICS OF DATA:
*All data on educational level are available in the calculated variable "EDUCATION". This calculated variable merges data for V110a with data for V110 "Highest grade of school completed", which V110a replaced on 1/1/01.

SOURCE:
*Heaton RK, Miller SW, Taylor MJ, Grant I. Revised Comprehensive Norms for an Expanded Halstead-Reitan Battery: Demographically Adjusted Neuropsychological Norms for African American and Caucasian Adults. Lutz, FL: Psychological Assessment Resources, Inc., 2004, pages 17-18.

EXAMPLE:
Patient finished high school.

12

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added "successfully" prior to "completed" in DEFINITION.
2004-04-01	Added EXAMPLE of being held back in elementary school.
2004-04-01	Updated SOURCE.
2004-04-01	Added information about the calculated education variable, in CHARACTERISTICS OF DATA.
2003-01-01	Changed label of code 01 from "1 year" to "1 year or less".
2003-01-01	Corrected code for "Variable did not exist at time of interview" from "00" to "66".
2001-08-20	NOTE added about recording the higher number, if person is uncertain.
2001-07-01	Added note that actual years of education may not equal the actual number of years in school.
2001-07-01	Added instruction to not count GED, trade school, or other types of education not listed in the syllabus toward years of education.
2001-01-01	Variable added to database (replaced V110:HIGHEST GRADE OF SCHOOL COMPLETED).

DEFINITION:
GED status at time of injury.

CODE:
1 No
2 Yes
3 N/A - HS diploma or attended college
9 Unknown
0 Variable did not exist

CHARACTERS:
1 numeric

NOTE:
*If person has not graduated from high school and has not attended college, then code either "1" or "2", depending on whether or not he/she has a GED. If person has graduated from high school and/or has attended college, then code "3".

EXAMPLE:
At time of interview, participant had a Masters Degree and a GED.

3

VARIABLE HISTORY:

Date of last Revision	Description
2004-01-01	Added NOTE about coding contingent on high school and college.
2003-10-01	Corrected EXAMPLE; changed from “2” to “3”.
2002-01-01	Added code 3=N/A.
2001-11-01	Definition corrected to read "at time of [u]injury"[/u] (rather than [u]follow-up[/u])
2001-08-20	Variable V110b added to database as “GED”.
2001-07-01	V110b renamed in database as “V110a”.
2001-01-01	V110b added to database as “Years of education”.

EMPLOYMENT STATUS
Variable 111a
Date of last revision: 04/01/04

DEFINITION:
Code employment status in the month prior to injury. Code up to two statuses, if applicable.

Determine primary status and secondary status using the following prioritization, regardless of the number of hours worked: competitive employment, degree-oriented education, taking care of house or family, job-directed/on-the-job training, supported employment, sheltered employment, non-directed coursework, volunteer work, retirement (age-related), retirement (disability-related), and no productive activity.

CODE:
02 Full-time student (regular class)
03 Part-time student (regular class)
04 Special Education/other non-regular education
05 Competitively Employed (minimum wage or greater, legal or illegal employment)
07 Taking care of house or family
08 Special employed (sheltered workshop, supportive employment, has job coach)
09 Retired (age)
10 Unemployed (looking for work in the 4 weeks prior to injury)
11 Volunteer work
12 Retired (disability)
13 Unemployed (not looking for work in 4 weeks prior to injury for any reason)
14 Hospitalized without pay during most of 4 weeks prior to injury
15 Retired (other)
77 Other
88 No secondary employment status
99 Unknown

CHARACTERS:
2 numeric

NOTE:
If less than two employment categories are coded, then code 88 in the remaining field. Do not leave field blank.

Competitive subminimum wage employment such as baby-sitting, newspaper delivery, and piecework should be coded 77.

Code "09=Retired (age)" if respondent indicates that retirement was due to age (use respondent's definition).

Ignore non-employment sources of income such as pension, settlement, or disability income support.

If participant works in a foreign country, assume wage is not submiminum unless there is information to the contrary.

If participant is employed for only part of the month prior to the follow-up evaluation, code employment status as during the majority of the work days during that month.

If person had been hired but had not begun work, code as employed.

Code education as full-time or part-time based on self-report.

CHARACTERISTICS OF DATA:
*Starting 7/1/01, data are entered into a new field that uses the additional coding categories implemented on 7/1/01. The old field has been retained in the database. Data for all cases is available in the calculated variable "EMPLOYMENT", which merges these two fields.

EXAMPLE:
Patient was taking care of family at the time of injury, with no other employment status.

07
88

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Moved prioritization list from NOTES to DEFINITION.
2004-04-01	Added information to CHARACTERISTICS OF DATA about the employment calculated variable, which merges current data with data collected before the response categories were expanded.
2004-01-01	Added NOTE to code education as full-time or part-time based on self-report.
2003-10-01	Added to DEFINITION an instruction to use the priority list to determine primary and secondary, if more than two employment statuses.
2003-10-01	Added NOTE to use the priority list to determine primary and secondary, irrespective of relative number of hours worked in the various statuses.
2003-10-01	Added NOTE to code as employed if had been hired but had not started work.
2002-07-01	Added NOTE about minimum wage in foreign country.
2002-07-01	Added NOTE about coding if did not work all days in prior month.
2001-07-01	Replaced “at the time of injury” with “in the month prior to injury”.
2001-07-01	For code 7, replaced “Homemaker” with “Taking care of house or family”.
2001-07-01	For code 10, added “(looking for work in the last 4 weeks)”.
2001-07-01	Added code 12=Retired (disability).
2001-07-01	Added code 13=Unemployed (not looking for work in the last 4 weeks).
2001-07-01	Added code 15=Retired (other).
2001-07-01	Removed [i]source of income support for disability[/i] as a criterion for classification.
2001-07-01	Revised the prioritization list as follows: “taking care of house or family” replaces “home management (homemaker)”, “job-directed/on-the-job training” reverses position with “supported employment”, “volunteer work” replaces “volunteer activity”, “retirement (age-related), retirement (disability-related)” replaces “active leisure/retirement, disability-related retirement”.
2001-07-01	Added NOTE that for the code “09=Retired (age)”, accept the respondent’s statement as to whether age was the cause of retirement.
1999-10-01	Added use of job coach to code 8.
1999-10-01	Added list to prioritize employment status if more than one.
1999-04-02	Added clarification for some codes.
1995-07-01	Dropped reference to variable 112 to make coding consistent between all employment-related variables.
1994-09-13	Dropped "3rd employment status".

QUESTIONS AND ANSWERS:

QUESTION:	I have a 61 year-old man who worked most of his life in an engineering position. A few months ago he was laid off and went to work as a salesman in a large home supply store where he subsequently was injured. In the year after his injury, he returned to this job. However, after 24 weeks, he decided to retire because of fatigue, and because it really wasn't the kind of work he was trained to do. He has no plans to work again. 12-03-2004
ANSWER:	Recall that "employment status" is coded according to the coding priority as shown on the data collection form and in the syllabus. The coding priority is applied in cases when more than one employment status is indicated by the respondent. In your example the person says that he retired due to fatigue (presumably "disability" due to the brain injury) and to the job not being the kind of work he was trained to do (ie., an "other" reason). The coding priority lists "retired (disability)" but does not list "retired (other)", so "retired (disability" is the higher priority and is the correct choice. The other two categories you wonder about--"retired (age)" and "unemployed (not looking)"--can be ruled out because they aren't indicated by the respondent. 12-03-2004

HOURS OF PAID COMPETITIVE EMPLOYMENT
Variable 111b
Date of last revision: 07/01/05

DEFINITION:
Average number of hours per week usually worked at all paid competitive jobs (minimum wage or greater) in the month prior to injury

CODE:
?? Hours per week
888 NA-not currently competitively employed
999 Unknown

CHARACTERS:
3 numeric

NOTE:
Fractions are to be rounded to the nearest whole number. 0.5 should be rounded upward.

Code actual number of hours per week **only** for those cases coded 05 (competitively employed) in either the primary or secondary status of variable 111a (employment status), otherwise this variable must be coded 88.

If patient was employed more than 98 hours per week, code as 98 hours.

If patient works two jobs, add all hours together to code.

CHARACTERISTICS OF DATA:
*When missing data codes were changed from 88 and 99 to 888 and 999 (4/1/05), the TBINDC changed all 88 and 99 codes in the database to 888 and 999. (There were almost no other codes in the 80-100hr/wk range.)

EXAMPLE:
Patient was employed 37.5 hours per week.

38

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Added to CHARACTERISTICS OF DATA that the TBINDC changed all 88 and 99 codes in the database to 888 and 999 when the missing data codes were changed (4/1/05)from 88 and 99 to 888 and 999.
2005-04-01	Changed missing data codes 88 and 99 to 888 and 999.
2005-04-01	Deleted missing data code 66=variable did not exist. (Variable has always existed.)
2005-04-01	Changed field width from 2 characters to 3.
2002-07-01	Changed code 88 to “not currently competitively employed”.
2002-04-01	Added “not competitively employed” to code “88=NA”.
2002-01-01	Clarified instruction to code this variable if “05=competitive employment” is coded for either the primary or secondary status of V111a.
2001-08-20	Added CODE “66=Variable did not exist”.
2001-07-01	In DEFINITION, added “usually worked at all” prior to “paid competitive”.
2001-07-01	In DEFINITION, replaced “employment” with “jobs”.
2001-07-01	In DEFINITION, replaced “at time of injury” with “in the month prior to injury”.
1999-04-02	Added NOTE regarding hours for more than one job.

Date of last Revision	Description
1998-09-01	Added NOTE regarding coding hours greater than 98.
1995-07-01	Added note clarifying when to code variable in relationship to variable V111a.

JOB STABILITY: WEEKS EMPLOYED
Variable 111d
Date of last revision: 01/01/03

DEFINITION:
Number of weeks patient was competitively employed during the year prior to injury.

CODE:
?? Number of weeks
66 Variable did not exist
88 N/A-no competitive employment in the last year
99 Unknown

CHARACTERS:
2 numeric

NOTE:
Include all weeks employed at minimum wage or higher. Legal employment only. Include vacation time and other types of leave if the person was paid during that time. Round partial weeks up to the nearest whole week.

*If employment is infrequent but on a regularly scheduled basis, or if it is related to a specific function, then code the number of weeks during which the person has been employed. But, if days of employment are just random and the person might or might not do it again, then code the total number of weeks in which the person worked. (E.g., if the person worked 2 times a month for 9 months, then in the first situation 39 weeks should be coded. In the second situation 18 weeks should be coded.)

EXAMPLE:
Patient worked October 11 through December 21.

11

VARIABLE HISTORY:

Date of last Revision	Description
2003-01-01	Added NOTE about coding infrequent employment.
2002-07-01	Changed label of code 88 from "not competitively employed" to "no competitive employment in the last year", to indicate that 88 should be used only if person has not been competitively employed at all during year prior to evaluation.
2002-04-01	Added "not competitively employed" to code "88".
2001-08-20	Added "66=Variable did not exist".
2001-07-01	Variable added to database.

ANNUAL EARNINGS
Variable 111i
Date of last revision: 07/01/04

DEFINITION:
Dollar earnings from all jobs held by patient during the year prior to injury.

CODE:
01 $9,999 or less
02 $10,000-$19,999
03 $20,000-$29,999
04 $30,000-$39,999
05 $40,000-$49,999
06 $50,000-$59,999
07 $60,000-$69,999
08 $70,000-$79,999
09 $80,000-$89,999
10 $90,000-$99,999
11 $100,000 or more
66 Variable did not exist
77 Refused
88 N/A, no competitive employment in the last year
99 Unknown

CHARACTERS:
2 numeric

NOTE:
Include only competitive, legal employment. Exclude income support, investment income, and settlements. *Include tips.

This is pre-tax income.

CHARACTERISTICS OF DATA:
In 2003, four Model Systems had difficulty obtaining this information (10% or more missing data).

EXAMPLE:
Patient earned $75,956 in the year prior to injury.

08

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Corrected VARIABLE HISTORY for 7/1/02: changed "year prior to evaluation" to "year prior to injury".
2004-01-01	Added NOTE to include tips.
2002-07-01	Changed code 88 from "not competitively employed" to "no competitive employment", to indicate that 88 should be used only if person has not been competitively employed for the entire year prior to injury.
2002-04-01	Added “not competitively employed” to code 88.
2002-01-01	Added NOTE that this is pretax earnings.
2001-08-20	Added CODE “66=Variable did not exist”.
2001-07-01	Variable added to database.

CENSUS OCCUPATIONAL CATEGORY
Variable 112
Date of last revision: 04/01/04

DEFINITION:
The major census occupational category in which the patient's occupation is included for his/her primary occupation *in the month prior to injury.

CODE:
Code the patient's primary occupation using the categories below. For a list of the specific occupations in each category, see the "1990 Census of Population Occupational Classification System", pages 9-22 of this document: 1990 Census Industrial & Occupational Classification Codes (http://www.bls.gov/nls/quex/r1/y97r1cbka1.pdf). A copy of this list should be in Appendix D of your syllabus binder. *For instructions using this document see: 17a.Instructions for 1990 Census Occupational Codes (http:///syllabus/pdf/Occ_codes_w_govt_URL.pdf) in Appendix D.

01 Executive, Administrative, and Managerial
02 Professional Speciality
03 Technicians and Related Support
04 Sales
05 Administrative Support Including Clerical
06 Private Household
07 Protective Service
08 Service, except Protective and Household
09 Farming, Forestry, and Fishing
10 Precision Production, Craft, and Repair
11 Machine Operators, Assemblers, and Inspectors
12 Transportation and Material Moving
13 Handlers, Equipment Cleaners, Helpers, and Laborers
14 Military Occupations
88 Not Applicable, not coded 05 or 08 for variable 111a
99 Unknown occupation

CHARACTERS:
2 numeric

NOTE:
Code only if variable 111a (employment status) is coded 05 or 08 (competitively employed or special employed) for either either the primary or secondary occupation; otherwise this variable must be coded 88.

CHARACTERISTICS OF DATA:
Four Model Systems have dificulty collecting this information (missing data rates are 10% or higher).

SOURCE:
1990 Occupational Classification System, Alphabetical Index of Industries and Occupations, 1990 Census of Population and Housing, Bureau of the Census, U.S. Department of Commerce, pp 9-22. 1990 Census Industrial & Occupational Classification Codes (http://www.bls.gov/nls/quex/r1/y97r1cbka1.pdf)

EXAMPLE:
Patient was primarily a secretary at the time of injury.

05

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added link to website with occupation codes information.
2004-04-01	Added instructions for using the occupations codes document and a link to the instructions.
2002-01-01	Added NOTE to code this variable if V111a is 05 or 08 in either primary or secondary occupation.
2001-07-01	In DEFINITION, substituted “in the month prior to injury” for “at the time of injury”.
1995-07-01	Added NOTE clarifying when to code variable in relationship to variable V111a.
1994-09-13	Converted to using the 1990 Census codes and only coding major category of occupation instead of specific classification.
1994-02-01	Added "1990" to clarify which codes are being used.
1994-02-01	Added NOTE to refer to Appendix D for codes.
1994-01-01	Removed NOTE referring to a new census code for homemaker.

HISTORY OF TBI
Variable 121
Date of last revision: 04/01/04

DEFINITION:
History of TBI occurring prior to the current TBI for which the patient is being treated.

Traumatic brain injury is defined as damage to brain tissue caused by an external mechanical force as evidenced by: loss of consciousness due to brain trauma, or post traumatic amnesia (PTA), or skull fracture, or objective neurological findings that can be reasonably attributed to TBI on physical examination or mental status examination.

The patient must have been admitted to a hospital for treatment of this previous TBI.

Penetrating wounds with criteria listed above are included. Lacerations and/or bruises of the scalp or forehead without other criteria listed above are excluded. Primary anoxic encephalopathy is excluded.

CODE:
1 No
2 Yes
9 Unknown

CHARACTERS:
1 numeric

NOTE:
*If respondent recalls that the reason for a prior hospitalization included TBI, code "Yes".

EXAMPLE:
Patient has no history of prior TBI.

1

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Moved paragraph about penetrating wounds to DEFINITION, from unlabeled text box.
2004-04-01	Added NOTE about respondent recalling patient having prior TBI.
1994-02-01	DEFINITION clarified to match model system case definition.

PREMORBID CONDITIONS
Variable 122
Date of last revision: 07/01/05

DEFINITION:
The purpose of this variable is to help determine the preinjury functional level of the Model System participant. This variable was taken from the wording of the Long Form of the 2000 Census, which asks about current function. To meet our needs, this question was revised to ask specifically about the patient's specific function prior to the TBI regarding:
a. Blindness, deafness, or a severe vision or hearing impairment, and
b. A condition that substantially limited one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying.

CODE:
1 No
2 Yes
9 Unknown

CHARACTERS:
1 numeric

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Variable added to database.

PREMORBID LIMITATIONS
Variable 123
Date of last revision: 07/01/05

DEFINITION:
The purpose of this variable is to help determine the preinjury functional level of the Model System participant. This variable was taken from the wording of the Long Form of the 2000 Census, which asks about current function. To meet our needs, this question was revised to ask specifically about the patient's difficulty in doing the following activities due to a physical, mental, or emotional condition that has been present for at least 6 months:
a. Learning, remembering, or concentrating
b. Dressing, bathing, or getting around inside the home
c. Going outside the home alone to shop or visit a doctor's office
d. Working at a job or business

CODE:
1 No
2 Yes
9 Unknown

CHARACTERS:
1 numeric

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Variable added to database.

DATE ABLE TO FOLLOW COMMANDS
Variable 130a
Date of last revision: 10/01/03

DEFINITION:
Date that the individual with brain injury is able to follow simple motor commands. The individual has the ability to follow simple motor commands if: 1) follows simple motor commands accurately at least two out of two times within a 24-hour period, or 2) GCS motor component = 6 (follows simple motor commands), two out of two times within a 24-hour period.

CODE:
MM/DD/YYYY= Date patient able to follow simple motor commands
07/07/7777 = Patient never able to follow simple motor commands
09/09/9999 = Unknown

CHARACTERS:
8 date

NOTE:
A patient with severe motor or sensory impairment (i.e. spinal cord injury, locked in syndrome) must demonstrate some ability to follow eye commands such as close your eyes, look to the right or left, blink eyes. If patient is able to follow commands, then following surgery he/she can not follow commands for a period of time, use the first date the patient was able to follow commands.

If the two assessments of ability to follow simple motor commands within a 24-hour period fall across two dates, use the second date.

If patient was always able to follow simple motor commands, code date of admission to emergency room.

*The purpose of this variable is to establish the date of emergence from coma.

EXAMPLE:
Patient first followed simple motor commands accurately at 9 a.m. on November 15, 1990 and again at 3 p.m. on the same day.

11/15/1990

VARIABLE HISTORY:

Date of last Revision	Description
2003-10-01	Added NOTE that the purpose of this variable is to establish the date of emergence from coma.
2003-01-01	Deleted code 08/08/8888=NA.
2003-01-01	Added instruction to code as date of admission to ER if ptn was never unable to follow commands.
1999-10-01	Added NOTE regarding if patient is able to follow commands, declines, then can again follow commands at a later date.
1999-10-01	Added NOTE regarding if two assessments of following commands falls across two dates.
1999-04-02	Revised "unknown" codes to be compatible with new software.
1998-08-15	Year expanded to four digits.
1994-09-13	Dropped reference as this variable being a precondition to collect the physical exam data.

ASSOCIATED INJURY - Spinal Cord Injury
Variable 131h
Date of last revision: 04/01/04

DEFINITION:
Any injury to neural elements within the spinal canal.

CODE:
1 No
2 Yes
9 Unknown

CHARACTERS:
1 numeric

NOTE:
Includes complete and incomplete injuries.

Includes conus medullaris and cauda equina syndromes, but does not include brachial or lumbar plexus injuries occurring outside the spinal canal.

Only spinal cord injuries occurring at the same time as the brain injury should be reported.

SOURCE:
ASIA

EXAMPLE:
Patient had no spinal cord injury.

1

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added "ASIA" to SOURCE box. (From the page for V131, which has now been deleted.)

CODE:
VEHICULAR:
01 = Motor vehicle (does not include auto racing. Auto racing is coded 18).
02 = Motorcycle: 2-wheeled, motorized vehicle including mopeds and motorized dirt bikes
03 = Bicycle (includes tricycles and unicycles)
04 = All-terrain vehicle (ATV) and all-terrain cycle (ATC): includes both 3-wheeled and 4-wheeled recreational vehicles, dune buggy and go-cart.
05 = Other vehicular, unclassified: includes tractor, bulldozer, steam roller, train, road grader, forklift, aircraft

NOTE: If two vehicles are involved, the cause of injury should be coded according to the vehicle on/in which the patient was riding.

VIOLENCE:
10 = Gunshot Wound
11 = Assaults with blunt instrument (non-penetrating)
12 = Other Violence: includes all other penetrating wounds: stabbing, impalement. Also includes explosions (e.g. those caused by bomb, grenade, dynamite, gasoline)

SPORTS:
13 = Water Sports: includes diving, water skiing, surfing (includes body surfing), swimming, boating, etc.
14 = Field/Track Sports: includes football, baseball, softball, basketball, volleyball, field hockey, lacrosse, soccer, rugby, high jump and pole vault
15 = Gymnastic activities: includes trampoline, breakdancing and other gym activities
16 = Winter Sports: includes snow skiing, sled, snow tube, toboggan, snowmobile, etc.
17 = Air Sports: includes hang gliding, parachuting, para-sailing, glider kite, etc. (Does not include airplane. Airplane is coded 05.)
18 = Other unclassified sports: includes wrestling, horseback riding, rodeo (e.g. bronco/bull riding), skateboard, auto racing, etc.

FALLS/FLYING OBJECTS:
19 = Fall: includes jumping and being pushed
20 = Hit by falling/flying object: includes ditch cave-in, avalanche, rock slide

NOTE: If person jumps from a moving vehicle, use code 19 in this variable, however, use appropriate vehicular ecode (E818.?) for variable 133b.

PEDESTRIAN:
21 = Pedestrian

OTHER:
77 = Other unclassified: includes lightning, kicked by an animal, machinery accidents

UNKNOWN:
99 = Unknown

CHARACTERS:
2 numeric

EXAMPLE:
Patient was injured in a diving accident.

13

VARIABLE HISTORY:

Date of last Revision	Description
1999-04-01	Added NOTE on how to code person jumping from moving vehicle.
1996-04-01	Variable added back into database. Retrospective data collection done.
1995-01-01	Variable dropped.

ICD-9-CM EXTERNAL CAUSE OF INJURY CODE
Variable 133b
Date of last revision: 04/01/02

DEFINITION:
Guidelines for Coding: 24b.Guidelines for Coding Cause of Injury and Etiology of Injury (E-codes) (http:///syllabus/pdf/v133b_guide_2.pdf)

CODE:
Abbreviated list of E-codes: 24a.ICD-9-CM E-code categories (http:///syllabus/pdf/v133b_categories_3.pdf)

Complete list of E-codes: E-Code list-complete (http:///syllabus/pdf/ECodes_52.pdf)

888.8 Not Applicable (no other E-codes)
999.9 Unknown

CHARACTERS:
3 numeric
4 numeric

NOTE:
Obtain ICD-9-CM guide from your Medical Records department for a listing of E-codes.

Numbers should be coded just as they appear on the record and not padded with zeros. (Some codes have more digits to the right of the decimal place than others).

*The look-up boxes on the database screen provide the E-Codes and their definitions. When taking E-Codes from the Medical Record, they should be checked to ensure that they reflect the best / most current information available about the cause of the injury. Data collectors may submit E-Codes that differ from those recorded in the Medical Record in cases where they feel the Medical Record E-Codes may not reflect the best / most current information available. There should be clear documentation on the data collection form when an E-Code entered into the database does not reflect the E-Code recorded in the Medical Record. In unusual cases where no E-Code relative to the injury that resulted in traumatic brain injury is recorded in the Medical Record, the data collector should use best judgement and the consultation of other personnel, as necessary, to determine the appropriate E-Code from the TBIMS database list.

If person jumps from a moving vehicle, use appropriate vehicular ecode (E818.?), however, use code "19 = fall/jump" for variable 133a.

SOURCE:
SCVMC

ICD-9-CM 2001: International Classification of Diseases 9th Revision Clinical Modification, AMA Press. Volume 1, 2000, 251-279. ISBN: 1579471501.

EXAMPLE:
Patient injured in diving accident.

E CODES: 883.0 888.8

VARIABLE HISTORY:

Date of last Revision	Description
2002-04-01	Added coding instructions in NOTES.
1999-04-01	Added NOTE on how to code person jumping from moving vehicle.

ETOH BLOOD LEVEL AT INJURY
Variable 134
Date of last revision: 07/01/05

DEFINITION:
Actual Serum Ethanol Level in milligrams per deciliter on admission to emergency room.

CODE:
000 Test completed, no ethanol found
888 Not tested
999 Unknown

CHARACTERS:
3 numeric

NOTE:
Milligram/deciliter is equivalent to milligrams/100 milliliters times 1000 or milligrams% times 1000. Variable is coded in this manner so as to avoid data problems in coding of decimal point.

Use BAL data from first available ED which may or may not be the Model System ED.

CHARACTERISTICS OF DATA:
Some of our acute hospitals do not collect (or record) this information. Some report only positive or negative. In 2003, the overall TBIMS missing data rate was 25% and 10 Model Systems had difficulty obtaining this information (10% or more missing data). In 2004 the missing data rate was 28% and 11 MS's had 10% or more missing data.

SOURCE:
UAB

EXAMPLE:
Patient had a blood ethanol level of 50 milligrams/deciliter on admission to emergency room.

050

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Added more information to CHARACTERISTICS about across-center variation in availability of data.
1999-04-01	Added NOTE regarding use of first available ED BAL data.
1998-09-01	Clarified measurement as “milligrams” not “micrograms”.

INTRACRANIAL CT DIAGNOSIS
Variable 135
Date of last revision: 04/01/05

DEFINITION:
CT diagnoses based on a combination of reports taken from radiographic CT scan results within 7 days of injury.
See: 27a.Guidelines for Completing Variable 135 (http:///syllabus/pdf/27a_Guidelines_V135.pdf) in Appendix N.

CT diagnosis data collection form: 27b.Intracranial CT Diagnosis Data Collection Form (http:///syllabus/pdf/27b_CT_DCF.pdf).

CODE:
[It is not possible to display information in columns in the live syllabus, which is important for displaying the codes for V135. A more neatly formated display of the codes than below is available at: Codes for v135 (http:///syllabus/pdf/V135_Codes_A.pdf).]

A. EXTENT OF INTRACRANIAL COMPRESSION - use only one of the following codes:
0 Variable did not exist when data collected for this case
1 No visible intracranial compression
2 Cisterns are present but midline shift is noted of 1-5 mm.
3 Cisterns compressed or absent with midline shift of 0-5 mm. compression
4 Midline shift of greater than 5 mm.
5 Extent not specified
8 CT not done
9 Unknown if intracranial

B. PATHOLOGY:
0 Variable did not exist when data collected for this case
1 No visible pathology
2 Yes, pathology exists
8 CT not done
9 Unknown if pathology

2. Punctate/petechial hemorrhages, with/without cerebral swelling:
1=No 2=Yes 8=CT not done *9 Unknown if pathology

3. Subarachnoid hemorrhage:
1=No 2=Yes 8=CT not done *9 Unknown if pathology

4. Intraventricular hemorrhage:
1=No 2=Yes 8=CT not done *9 Unknown if pathology

5. Focal cortical parenchymal contusions (non-hemorrhagic/hemorrhagic) or hemorrhage in cerebral cortex; indicate all by laterality and location:
a1. Left, Frontal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
a2. Right, Frontal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
a3. Laterality not specified, Frontal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b1. Left, Temporal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b2. Right, Temporal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b3. Laterality not specified, Temporal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c1. Left, Parietal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c2. Right, Parietal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c3. Laterality not specified, Parietal: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
d1. Left, Occipital: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
d2. Right, Occipital: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
d3. Laterality not specified, Occipital: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
e1. Left, Location not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
e2. Right, Location not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
e3. Laterality and Location not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology

6. Focal noncortical parenchymal contusions (non-hemorrhagic/hemorrhagic) or hemorrhage; includes cerebellum, brainstem, pons, thalamus, basal ganglion and internal capsule: indicate laterality.
a. Left: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b. Right: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c. Laterality not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology

7. Presence of any extra-axial collection
a1. Left, Epidural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
a2. Right, Epidural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
a3. Laterality not specified, Epidural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b1. Left, Subdural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b2. Right, Subdural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
b3. Laterality not specified, Subdural: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c1. Left, location not specified: 1=No 2=Yes 8=CT not done *9 Unknown if pathology
c2. Right, location not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology
c3. Laterality and location not specified: 1=No 2=Yes 8=CT not done 9*Unknown if pathology

C. INTRAPARENCHYMAL FRAGMENTS:

1 No fragment(s)
2 Yes fragment(s)
8 No CT done
9 Unknown if fragments
0 Variable did not exist when data collected for this case

CHARACTERS:
1 numeric

NOTE:
Do not use MRI findings to code this variable.

A properly trained person at the facility who has been certfied by TBIMS procedures may code this variable (see syllabus section 27a).

TRAINING:
Testing and certification of collectors of this variable is required. It is available from the Northern California TBI Model System (contact Jerry Wright at Jerry.Wright@hhs.co.santa-clara.ca.us.)

EXAMPLE:
Patient had a CT scan demonstrating no intracranial compression. There was a right subarachnoid hemorrhage and bone fragments present in the right temporal area.

A. EXTENT OF COMPRESSION: 1

B. PATHOLOGY:
1. 2
2. 1
3. 2
4. 1
5a1. 1
5a2. 1
5a3. 1
5b1. 1
5b2. 1
5b3. 1
5c1. 1
5c2. 1
5c3. 1
5d1. 1
5d2. 1
5d3. 1
5e1. 1
5e2. 1
5e3. 1
6a. 1
6b. 1
6c. 1
7a1. 1
7a2. 1
7a3. 1
7b1. 1
7b2. 1
7b3. 1
7c1. 1
7c2. 1
7c3. 1

C. INTRAPARENCHYMAL FRAGMENTS: 2

VARIABLE HISTORY:

Date of last Revision	Description
2005-04-01	Added code "9=unknown if pathology" to all items in sections B2 through B6.
2005-01-01	Added code 8 (CT not done) to items B2-7.
2004-01-01	Added NOTE that a trained person who is TBIMS certified may code this variable.
1999-10-01	Collapsed coding for fragments.
1999-04-01	Substituted "non-hemorrhagic" for "bland" for description of contusion.
1999-04-01	Added NOTE regarding not using MRI data.
1998-09-01	Corrected NOTE regarding coding no fragments.
1997-01-01	Added CODE 0 for variable not in existence; added NOTE on how to code those cases.
1996-05-15	Dropped laterality for punctate, subarachnoid and intraventricular hemorrhages; dropped location for noncortical contusions. Retrospective coding to be done for all cases with system admissions as of 1/1/94. Use code 0 for all cases prior to that date if data was not collected.
1994-09-13	Revised entire coding scheme.

ICD-9-CM Diagnosis codes for brain injury
Variable 137
Date of last revision: 10/01/99

CODE:
Examples:
310.2 Post-traumatic encephalopathy post concussion syndrome
800 Skull fracture (vault)
801 Skull fracture (base)
803 Other and unqualified skull fractures
804 Multiple fractures involving skull or face with other bones
850 Concussion
851 Cerebral laceration and contusion
852 Subarachnoid, subdural, and extradural hemorrhage following injury
853 Other and unspecified intracranial hemorrhage following injury
854 Intracranial injury of other non-specified nature
905 Late effect of fracture of skull and face bones
907 Late effect of intracranial injury without mention of skull fracture
666.66 Variable didn't exist
888.88 No further code necessary
999.99 Unknown

CHARACTERS:
3 numeric
4 numeric
5 numeric

NOTE:
These codes should be assigned by medical records and recorded on the chart at acute discharge. Numbers should be coded just as they appear on the record and not padded with zeros. The "unknown" code (999.99) used in this syllabus should not be confused with the ICD-9-CM code for "other unspecified complication" (999.9).

If more than six ICD-9-CM codes listed on the medical record, use all codes listed above first. If more than six brain injury related codes, use those which indicate the most significant diagnoses. Codes do not need to be prioritized.

If you suspect errors in ICD-9 coding and can verify correct codes, please use corrected codes.

If there are no brain injury-related codes, ask your medical director for assistance in determining codes.

EXAMPLE:
Patient had a vault skull fracture with no further information specified.

800.
888.88
888.88
888.88
888.88
888.88

VARIABLE HISTORY:

Date of last Revision	Description
1999-10-01	Added NOTE regarding if no brain injury-related codes.
1999-01-01	Added coding clarification and three additional coding fields.

GLASGOW COMA SCALE
Variable 139
Date of last revision: 07/01/05

DEFINITION:
Glasgow Coma Scale scores on admission to Model System emergency department.

CODE:
A. Eye Opening Response:
4 Spontaneous
3 To Voice
2 To Pain
1 None
7 Patient chemically paralyzed or in chemically-induced coma for treatment purposes;*sedated
9 Unknown eye opening response

B. Best Verbal Response:
5 Oriented
4 Confused
3 Inappropriate Speech
2 Incomprehensible Sounds
1 None
7 Patient chemically paralyzed or in chemically-induced coma for treatment purposes;*sedated
8 Patient intubated at time of scoring
9 Unknown verbal response

C. Best Motor Response:
6 Obeys Commands
5 Localizes Pain
4 Withdraws from Pain
3 Flexion to Pain
2 Extension to Pain
1 None
7 Patient chemically paralyzed or in chemically-induced coma for treatment purposes;*sedated
9 Unknown motor response

D. Total GCS Score - add eye opening response, verbal response, and motor response. Add preceding zero to Total if single-digit.
77 Patient chemically paralyzed or in chemically-induced coma for treatment purposes;*sedated
88 Patient intubated at time of scoring
99 Unknown Total GCS score

CHARACTERS:
2 numeric
1 numeric

NOTE:
If only 1 GCS is recorded, use that score for an assessment.

If patient is in barbiturate coma or paralyzed by use of Pavalin at the time of assessment, record individual items as 7 and total as 77. The coma or paralysis must be induced by medical personnel and not by patient. *Other medications indicating sedation include midazolam (VERSED), lorzaepam (ATIVAN), vecuronium (NORCURON), and pentobarbital (NEMBUTAL).

Only code "chemically induced coma" with neuromuscular blocking agents or barbiturates.

If patient is intubated at the time of assessment, record the verbal score as 8 and the total score as 88. For the purposes of analysis, these cases will not be included unless specified for recoding during analysis.

If patient is intubated and in chemically-induced coma or paralysis, code 8 for verbal response and 7's for eye opening, motor response and total GCS.

CHARACTERISTICS OF DATA:
In the days that we were collecting 3 GCSs (highest, lowest, admit), there was the option of using 1 GCS for the other 2 GCSs if they were missing. A cursory check suggests that this was not done consistently.

SOURCE:
Teasdale G, Jennett B (1976) Assessment and Prognosis of Coma After Head Injury, Acta Neurochir 34, 45-55. *For an abstract of this article, see: PubMed:Teasdale et al (1976) (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=961490).

EXAMPLE:
On admission to the Model System emergency department, patient was intubated. The patient had no eye opening or motor responses and made incomprehensible noises.

Eye Opening 1
Verbal Response 8
Motor Response 1
Total 88

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Added to CHARACTERISTICS OF DATA that blanks GCS's were not always filled in with one of the other GCS's.
2004-04-01	Added "sedated" to reasons for coding "7".
2004-04-01	Added list of sedatives in NOTES.
2004-04-01	Added link to PubMed.
2003-01-01	Deleted “highest score” and “lowest score” for variables 139a-d and all related instructions.
1999-10-01	Corrected reference from "for EMS contact" to "first EMS contact".
1999-10-01	Further clarified note which stated for highest and lowest score can use model system EMS and ED GCS.
1999-07-01	Revised definition for highest and lowest scores to be within 24 hours following first EMS contact.
1999-04-01	Added clarification that GCS at ED is Model System ED.
1999-04-01	Added NOTE regarding determining highest and lowest GCS scores when patient is chemically paralyzed and/or intubated.
1999-01-01	Added NOTE regarding chemical paralysis.
1996-04-01	Changed codes for patient intubated from “T” and “TT” to “8” and “88”.
1995-07-01	Highest/lowest now collected within 24 hours of injury; this includes EMS and initial ED score.
1995-07-01	Added CODE 7 for individual items and 77 for total = "chemically induced coma or paralysis".
1995-07-01	Added CODES T=intubated for verbal item and TT=intubated for total.
1995-07-01	Dropped eye swelling and intubation items.
1995-01-01	Dropped 88 and 8=Not applicable codes.
1994-02-01	Added NOTES to clarify which GCS scores to use.
1994-02-01	Changed example to match definitions and be clearer.

REVISED TRAUMA SCORE
Variable 140
Date of last revision: 01/01/04

DEFINITION:
Done at admission to Model System Emergency Dept. only

CODE:
a. Respiratory Rate -- code actual rate per minute (use 3 characters)
888 Unmeasurable (bagged or on mechanical ventilation)
999 Unknown

c. Systolic Blood Pressure -- code actual blood pressure (use 3 characters)
888 Unmeasurable
999 Unknown

CHARACTERS:
3 numeric

NOTE:
Computer will calculate Revised Trauma Score from these data and the GCS (variable 139).

If a range rather than a single score is given for Respiratory Rate or Systolic Blood Pressure, enter the RAW SCORE that (a) produces the worst code, using the coding equivalents below, and (b) is closest to the midpoint of the range. ("Worst code" = numerically lowest code.) See how the EXAMPLE is done, below.

Respiratory Score=4 if respiratory rate is between 10 and 29.
Respiratory Score=3 if respiratory rate is 30 or above.
Respiratory Score=2 if respiratory rate is between 6 and 9.
Respiratory Score=1 if respiratory rate is between 1 and 5.
Respiratory Score=0 if respiratory rate is 0.

Systolic Blood Pressure Score=4 if systolic blood pressure is 90 or above.
Systolic Blood Pressure Score=3 if systolic blood pressure is between 76 and 89.
Systolic Blood Pressure Score=2 if systolic blood pressure is between 50 and 75.
Systolic Blood Pressure Score=1 if systolic blood pressure is between 1 and 49.
Systolic Blood Pressure Score=0 if systolic blood pressure is 0.

EXAMPLE:
Scoring when a single rate (rather than range of rates) is provided
At admission to ED, patient had a respiratory rate of 30/minute and a systolic blood pressure of 80 mm Hg.
a. Respiratory rate 030
c. Systolic blood pressure 080

Determining a single rate when a range of rates is provided
At admission to ED, patient had a respiratory rate of between 8 and 12 per minute.

First step: Determine which scores within the range produce the worst code.
a. Use the respiratory rate coding equivalences (in NOTES) to determine the code equivalences for the scores within with range.
-> Within the range 8-12, the scores 8 and 9 equal code "2" (see line 3 of the coding equivalences)
-> Within the range 8-12, the scores 10, 11, and 12 equal code "4" (see line 1 of the coding equivalences)
b. Determine which of these codes is the worst code.
-> "2" is lower than "4", so "2" is the worst code.
c. Identify the score or scores that equal the worst code.
-> Scores 8 and 9 equal "2", the worst code. (If only one score equals the worst code, enter that score. Do the additional steps below only if more than one score equals the worst code.)

Second step: Having determined which scores equal the worst code, identify which one of these scores is closest to the midpoint of the range. Enter that score into the database.
a. Identify the midpoint of the range.
-> The range is 8-12, which includes 8,9,10,11,12. The midpoint score (the middle score) is 10.
b. Identify which of the scores that equal the worst code is nearest to the midpoint.
-> 8 and 9 equal the worst code. 9 is closer to 10 (the midpoint) than is 8.
c. Enter "9" into the database

VARIABLE HISTORY:

Date of last Revision	Description
2004-01-01	Corrected VARIABLE HISTORY of 1/1/95 to read respiratory “effort” rather than “rate”.
2002-07-01	Revised NOTE regarding the coding of values reported in ranges.
1999-10-01	Clarified note regarding values reported in ranges.
1999-04-20	Added mechanical ventilation to 888 code for respiration.
1999-04-20	Added NOTE regarding values reported in ranges.
1999-04-01	Added clarification that ED refers to Model System ED.
1998-04-15	Corrected description for code 888.
1998-04-15	Removed "bagged" from description for V140c.
1995-01-01	Dropped "respiratory [u]effort[/u]" and "capillary refill".

DATE EMERGED FROM PTA
Variable 144a
Date of last revision: 07/01/04

DEFINITION:
Date of emergence from Post-Traumatic Amnesia (PTA). PTA emergence can defined as 1) two consecutive GOAT scores of 76 or greater within a period of 24-72 hours, 2) two consecutive scores of 11 or greater on the Revised GOAT within a period of 24-72 hours, 3) two consecutive scores of 25 or greater on the Orientation-Log within a period of 24-72 hours, or 4) in the judgement of a qualified clinician (i.e., speech-language pathologist, physician, neuropsychologist), the person has cleared PTA but administration of the GOAT is not possible due to language functioning.

A modified GOAT can be used to assist with this decision. The examiner presents three alternatives, in written form and orally, including the correct choice for each question. The patient is to indicate a choice in some manner, such as nodding or pointing. This procedure can be used for all questions except numbers 4 and 5. The three response alternatives for each question should be arranged vertically in large print on an index card. Errors points are assigned and subtracted from 80 (the maximum score with items 4 and 5 removed). A score of 61 or higher is reflective of orientation. PTA is considered resolved when a score of 61 or greater is achieved on two consecutive occasions within a period of 24-72 hours. Scores from the modified GOAT are for determination of PTA duration only.

In the case of a responsive patient, it is the choice of the neuropsychologist whether to use the GOAT, Revised GOAT (Bode, Heinemann, & Semik, 2000--see SOURCES) or the Orientation-Log (Jackson, Novack, & Dowler, 1998; Novack, Dowler, Bush, Glen, & Schneider, 2000--see SOURCES) to establish the duration of PTA. Alternating use of the scales in an individual patient is not acceptable, however.

Date of emergence from PTA can also be determined via chart review. For those patients who are oriented at rehabilitation admission (as defined by first two GOAT scores after rehab. Admission >75), the following procedure can be used to determine the length of PTA based on hospital records.

1. Obtain all available physician, nursing and therapy notes from the acute hospitalization. In most hospital medical records, physician, nursing and therapy notes are filed in different sections. You may have to specifically request therapy and nursing notes, if you routinely only receive the physician progress notes.
2. Review all notes to determine the first date on which all notes referencing orientation indicate that the patient is fully oriented, oriented X3 (or 4, or OX#, etc.). This is orientation day 1.
3. Review notes from the next calendar day to determine that all relevant notes indicate that the patient is fully oriented.
4. If Orientation Day 2 falls within three calendar days of Orientation Day 1, and if no notes from intervening days indicate less than full orientation, record Orientation Day 1 as the resolution date of PTA.
5. If any note from calendar days intervening between Orientation Days 1 and 2 indicate less than full orientation, use Day 2 as the new starting point (i.e. new Day 1) and repeat procedure from Step 3 above.
6. If there is no Orientation Day 2 (i.e., if the patient is never fully oriented on more than one day; or if more than 3 days elapse after Orientation Day 1 with no further notation about orientation), code date of PTA resolution as unknown. An exception would be if on the day before or the day of transfer to rehabilitation, the patient is specifically noted not to be oriented. If the patient then produces GOATs > 75 on the first two examinations after rehabilitation admission, code the date of PTA resolution in the usual manner

CODE:
MM/DD/YYYY

07/07/7777 Never had amnesia. [Code replaced with date of admission to ER.]
08/08/8888 Not Applicable - ptn still has amnesia or is unconscious as of discharge from TBI system.
09/09/9999 Unknown
Code date of admission to ER if person was never in PTA.

CHARACTERS:
8 date

NOTE:
Computer calculates duration of post traumatic amnesia by subtracting the date of injury from this date. Duration of PTA is calculated only for those cases which emerge from PTA prior to discharge from inpatient rehabilitation.

Neuropsych Committee databusters confirmed that duration of PTA is not to be calculated from date of emergence from coma (V130a).

The date emerged from PTA is the date of the first of the two consecutive GOAT scores >75.

Administer the test every 1 to 3 days until patient emerges from PTA.

CHARACTERISTICS OF DATA:
A few participants have a very long time in PTA. These have been checked and found to be correct.

SOURCE:
GOAT:
Levin, HS, O'Donnell, VM, & Grossman, RG. (1979). The Galveston Orientation and Amnesia Test: A practical scale to assess cognition after head injury. Journal of Nervous and Mental Diseases, 167, 675-684. *Link to PubMed: Levin, HS, O'Donnell, VM, & Grossman, RG for v144a (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=501342)

Revised GOAT:
Bode RK, Heinemann AW, Semik P. Measurement properties of the Galveston Orientation and Amnesia Test (GOAT) and improvement patterns during inpatient rehabilitation. J Head Trauma Rehabil. 2000 Feb;15(1):637-55. *Link to PubMed: Bode RK, Heinemann AW, Semik P. for v144a (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10745181)

Orientation-Log:
Jackson WT, Novack TA, Dowler RN. Effective serial measurement of cognitive orientation in rehabilitation: the Orientation Log.
Arch Phys Med Rehabil. 1998 Jun;79(6):718-20. *Link to PubMed: Jackson WT, Novack TA, Dowler RN for v144a (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9630156)

Novack, TA, Dowler, RN, Bush, BA, Glen, T, Schneider, JJ. Validity of the Orientation Log, Relative to the Galveston Orientation and Amnesia Test. J Head Trauma Rehabil, 2000, 15(3), 957-961. *Link to PubMed:Novack TA, Dowler RN, Bush BA, Glen T, Schneider JJ. for v144a (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=10785625)

*Introduction to O-Log (COMBI) (http://www.tbims.org/combi/olog/index.html).

*O-Log frequently asked questions (COMBI) (http://www.tbims.org/combi/olog/ologfaq.html).

*O-Log Syllabus (COMBI) (http://www.tbims.org/combi/olog/ologsyl.html).

*O-Log Rating Form (COMBI) (http://www.tbims.org/combi/olog/olograt.html).

*O-Log Properties (COMBI) (http://www.tbims.org/combi/olog/ologprop.html).

*O-Log References (COMBI) (http://www.tbims.org/combi/olog/ologref.html).

EXAMPLE:
Patient emerged from PTA on August 22, 1988.

MM/DD/YYYY
08/22/1988

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added links to COMBI.
2004-04-01	Added full references to SOURCES.
2004-04-01	In DEFINITION removed reference to the neuropsychological battery.
2004-04-01	Added links to COMBI.
2004-04-01	Added links to PubMed.
2004-01-01	Added NOTE that NP databusters confirmed current procedure for calculation (approx 9/02).
2003-01-01	Deleted code “07/07/7777=Never had amnesia”.
2003-01-01	Added to NOTES that if person never had PTA, code date of admission to ER.
2002-01-01	Added to DEFINITION the Revised GOAT, Orientation-Log, and modified GOAT.
2002-01-01	SOURCES section added, with references for Revised GOAT and Orientation-Log.
2001-10-01	Clarified DEFINITION and instruction in NOTES that date of emergence from PTA is the date of the first of 2 [u]consecutive[/u] scores greater than 75.
2000-07-01	Added PTA determination based on Chart Review (see 144b on following page).
1999-10-01	Added NOTE to clarify which date to use.
1999-04-02	Revised unknown codes to be compatible with new software.
1998-09-01	Revised definition of PTA.
1998-08-15	Year expanded to four digits.
1995-07-01	Added NOTE regarding calculation of duration of PTA.
1994-09-13	Added reference regarding use of modified GOAT.

METHOD OF PTA DETERMINATION
Variable 144b
Date of last revision: 07/01/05

DEFINITION:
Specification of whether PTA was recognized during data collection through (1) Chart Review, (2) GOAT, *(3) GOAT-R, or *(4) O-Log. N/A code to be used when PTA has not been determined.

CODE:
0 Variable did not exist
1 Chart Review
2 GOAT
*3 GOAT-R
*4 O-log
8 Not Applicable (N/A)

CHARACTERS:
1 numeric

NOTE:
*There is no code for "unknown" because this should never be unknowable. Please contact the TBINDC if you are in a situation in which this variable is truly unknown (and unknowable).

EXAMPLE:
PTA documented through chart review, according to the criteria for variable 144a.

Code 1

VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Added NOTE that there is no code for "unknown" because this should never be unknown.
2002-01-01	Added GOAT-R and O-Log to DEFINITION.
2001-10-01	Added codes “3=GOAT-R” and “4=O-log”.
2001-08-20	Removed code “0=Var didn’t exist” from Form I.
2001-08-20	Added code “0=Variable did not exist”.
2001-01-01	New variable added to TBIMS V4.5 (7/1/2000).
2001-01-01	N/A code added to TBIMS V5.0.

QUESTIONS AND ANSWERS:

QUESTION:	Why isn't there an "unknown" code? 07-01-2005
ANSWER:	This variable should never be unknowable. 07-01-2005

CAUSE(S) OF DEATH
Variable 146
Date of last revision: 07/01/04

DEFINITION:
The first coded cause of death is the primary cause. Thereafter list secondary cause and/or external cause of death, if applicable. For more information, see: 16a.Guidelines coding cause of death (http:///syllabus/pdf/16a_Guidelines_coding_cause_of_death.pdf), in Appendix C.

CODE:
Code the two boxes for the ICD-9-CM codes and the box for the External Cause of Injury Codes (E-codes) as follows.

ICD-9-CM code boxes:
For a list of ICD-9 codes, refer to an ICD-9 code manual at your facility.

777.77 Person expired but cause of death unknown.
888.88 Not Applicable--person alive, or no other internal cause of death indicated, or death due to external causes.
999.99 Unknown if person expired

E-code box:
For an abbreviated list of E-codes, see: 24a.ICD-9-CM E-code categories (http:///syllabus/pdf/v133b_categories_3.pdf) in Appendix K. A complete list of E-codes is available at E-Code list-complete (http:///syllabus/pdf/ECodes_52.pdf).

777.7 Person expired but cause of death unknown.
888.8 Not Applicable--person alive, or death not due to external causes.
999.9 Unknown if person expired

CHARACTERS:
3 numeric
4 numeric
5 numeric

NOTE:
Submit Form I data to the data base on patients which expire anytime after inpatient rehabilitation has begun and prior to definitive discharge from inpatient rehabilitation; even if the patient was transferred back to acute care from rehabilitation prior to expiring.

If autopsy was performed obtain report, document cause(s) of death by use of ICD-9-CM diagnosis codes or E-codes if applicable.

If using death certificate information, usually code the 3rd number. First number is immediate cause, second number is the cause of the immediate cause, and the third number is the more underlying cause.

Numbers should be coded just as they appear on the record and not padded with zeros.

The look-up boxes on the database screen provide the E-Codes and their definitions. When taking E-Codes from the Medical Record, they should be checked to ensure that they reflect the best / most current information available about the cause of the injury. Data collectors may submit E-Codes that differ from those recorded in the Medical Record in cases where they feel the Medical Record E-Codes may not reflect the best / most current information available. There should be clear documentation on the data collection form when an E-Code entered into the database does not reflect the E-Code recorded in the Medical Record. In unusual cases where no E-Code relative to the injury that resulted in traumatic brain injury is recorded in the Medical Record, the data collector should use best judgement and the consultation of other personnel, as necessary, to determine the appropriate E-Code from the TBIMS database list.

SOURCE:
UAB

EXAMPLE:
Patient died of unspecified septicemia (primary cause) and unspecified pneumonia (secondary).

ICD-9-CM codes:038.9 (primary); 486._ (secondary)

E CODE: 888.8

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added "777.7(7)=Person expired but cause of death unknown". Corrected the labels for 888.88 (ICD-9) and 888.8 (E-code). For 888.88, "NA-Person alive, or no other cause of death indicated" has been changed to "NA-Person alive, or no other internal cause of death indicated, or death due to external causes". For 888.8, "NA-Person alive, or no other cause of death indicated" has been changed to "NA-Person alive, or death not due to external causes".
2004-04-01	Added reference to Coding Guidelines in Appendix C.
2002-04-01	Added reference to instructions for E-codes in Appendix K.
1995-01-01	Dropped 3rd ICD-9 code and 2nd and 3rd E-codes.
1994-02-01	Added NOTE clarifying the submission of patients which expire during inpatient rehabilitation.
1994-02-01	Removed reference to Appendix D (coding cause of death) which was never written.

DEFINITION:
Intracranial pressure that is equal to or greater than 20 millimeters of mercury.

CODE:
1 No
2 Yes, less than or equal to 24 hours duration (i.e., intracranial pressure equal to or greater than 20 mm/Hg that fluctuates and improves to less than 20mm/Hg within 24 hours)
3 Yes, greater than 24 hours duration (i.e., intracranial pressure equal to or greater than 20 mm/Hg that fluctuates but peaks at or above 20 mm/Hg for greater than a 24 hour period).
4 Yes, sustained for greater than 24 hours duration (i.e., intracranial pressure remains equal to or greater than 20 mm/Hg continuously for greater than a 24 hours).
8 Not monitored
9 Unknown

CHARACTERS:
1 numeric

NOTE:
Patient must have an ICP monitor in order to code this variable other than 8 - not monitored or 9 - unknown.

If intracranial pressure is measured in cmH2O, use the following conversion formula:
1 mmHg = 13.6 cmH2O

EXAMPLE:
Patient's intracranial pressure fluctuated above and below 20 mm Hg for two days.

3

VARIABLE HISTORY:

Date of last Revision	Description
2004-01-01	On data collection form, removed the underscore from “>” in code 3.
1999-07-01	Revised codes to clarify coding of fluctuating ICP.
1999-07-01	Added note regarding conversion from cmH2O to mmHg.
1999-04-20	Added NOTE to clarify coding.
1994-02-01	Clarified code 2: means less than or equal to 24 hours duration.

DISABILITY RATING SCALE
Variable 151
Date of last revision: 07/01/04

DEFINITION:
Disability Rating Scale ratings are to be completed within 72 hours after rehab admission and within 72 hours before rehab discharge. Indicate ratings for all items. Information about the DRS is available from COMBI at these two links: Introduction to the DRS (http://www.tbims.org/combi/drs/index.html);Definition of DRS items (http://www.tbims.org/combi/drs/drssyl.html)

There are four acceptable versions of the DRS data collection form: 23b.DRS Rating Form (COMBI) (http://tbims.org/combi/drs/drsrat.html), PDF DRS form (COMBI) (http://www.tbims.org/combi/drs/drs.pdf), 23a.Disability Rating Scale Form (SCVMC 9/16/97) (http:///syllabus/pdf/23a_DRS_form_SCVMC_1997.pdf), and23h.DRS Form (SCVMC 9/2003) (http:///syllabus/pdf/23h_DRS_SCVMC_2003.pdf). The version(s) your Center should be in Appendix J.

CODE:
1. Eye Opening:
0 Spontaneous
1 To Speech
2 To Pain
3 None
9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

2. Communication Ability (Verbal, writing, or letter board or sign - e.g. eye blink, head nod):
0 Oriented
1 Confused
2 Inappropriate
3 Incomprehensible
4 None
9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

3. Motor Response:
0 Obeying
1 Localizing
2 Withdrawing
3 Flexing
4 Extending
5 None
9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

Items 4,5,6,7 and 8 can be rated on a .5 scale. For example, if patient's feeding ability falls between 1.0 (Partial) and 2.0 (Minimal), use a rating of 1.5.

4. Feeding (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
9.9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

5. Toileting (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
9.9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

6. Grooming (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
9.9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

7. Level of Functioning (physical and cognitive disability):
0.0 Completely Independent
0.5 Between completely indep and indep in special environ.
1.0 Independent in Special Environment
1.5 Between indep in special environ and mildly depend.
2.0 Mildly Dependent-limited assistance (non-resid helper)
2.5 Between mildly depend. and moderately dependent
3.0 Moderately Dependent-moderate assist (person in home)
3.5 Between moderately dependent and markedly dependent

4.0 Markedly Dependent-assist all major activities, all times
4.5 Between markedly dependent and totally dependent
5.0 Totally Dependent - 24 hour nursing care
9.9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

8. "Employability" (As a full time worker, homemaker, or student):
0.0 Not Restricted
0.5 Between not restricted and selective jobs, competitive
1.0 Selected Jobs, Competitive
1.5 Between selected jobs and sheltered workshop
2.0 Sheltered Workshop, Non-competitive
2.5 Between sheltered workshop and not employable
3.0 Not Employable
9.9 Unknown, or assessment not done, or does not reflect patient's status during the 72 hour window.

CHARACTERS:
1 numeric
2 numeric

NOTE:
If DRS assessments cannot be completed within the 72 hour windows, they should still reflect the patients' status within that time period. If this is not possible and the assessments are done out of the 72 hour window, code with 9's. Every effort should be made to obtain the DRS assessments, however, if any items can not be assessed, use code 9. Do not leave blanks.

An example of an appropriate use of a .5 rating for the "Level of Functioning" item is: at the time of discharge, the patient requires set-up for all activities of daily living, including dressing, eating, grooming, etc. He can be left alone for 2-3 hours, but he needs more than a non-resident helper. Therefore he is more than mildly dependent (rating of 2). On the other hand, he does not need another person at all times, as he can be left alone for short periods, e.g. between lunch and dinner, and is therefore not moderately dependent (rating of 3). He falls between a rating of 2 and 3 and should be rated 2.5.

If a patient has an intermittent acute care stay during inpatient rehabilitation, use the DRS scores from the first rehabilitation admission and the last definitive discharge. In addition, if a patient has an intermittent stay which is longer than 30 days, it is then considered a system discharge and the discharge date from rehabilitation is the system discharge date and the DRS scores should correspond to that date.

There are times, especially in the "Employability" item, when a client does not fit in one category or another, but falls in between two descriptions. This is when to use the .5 rating, i.e., only when a case does not fit fairly well within an existing "whole number" category. The .5 ratings are available to increase the sensitivity of the scale.

Total DRS score is calculated using a computer program.

See:Frequently Asked Questions about DRS (COMBI) (http://www.tbims.org/combi/drs/drsfaq.html)

See:DRS properties (COMBI) (http://www.tbims.org/combi/drs/drsprop.html)

TRAINING:
*It is the responsibility of each center to assure that all staff who perform DRS ratings (Form I and Form II) are trained and certified through the website at "www.tbims.org/combi/drs/". All staff should be re-certified every other year. The Northern California TBI Model System (at Santa Clara Valley Medical Center) will send a reminder to individuals nearing the end of their two-year DRS credentialing. See:DRS training & testing (COMBI) (http://www.tbims.org/combi/drs/drstat.html) in Appendix J.

SOURCE:
Rappaport M, Hall KM, Hopkins K, Belleza T, Cope N. (1982). Disability Rating Scale for severe head trauma patients: Coma to community. Arch Phys Med & Rehabil, 63:118-123. rev 8/87. For an abstract of this article, see: PubMed:Rappaport M, et al (1987). (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7073452).

See:Other References for DRS (COMBI) (http://www.tbims.org/combi/drs/drsref.html).

EXAMPLE:
Patient has the following Disability Rating Scale score

Rehab Admission
1. Eye Opening 2
2. Communication Ability 3
3. Motor Response 3
4. Feeding 2.0
5. Toileting 2.5
6. Grooming 1.0
7. Level of Functioning 3.0
8. Employability 2.0

Rehab Discharge
1. Eye Opening 1
2. Communication Ability 1
3. Motor Response 0
4. Feeding 0.0
5. Toileting 0.0
6. Grooming 0.0
7. Level of Functioning 2.5
8. Employability 1.5

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	To TRAINING, added information about certification from "22f.Data Quality Guidelines".
2004-04-01	Added links to COMBI.
2004-04-01	Added link from source document to PubMed.
1998-09-01	Added NOTE regarding .5 ratings.
1995-01-01	Dropped total score.
1995-01-01	Added note and reference to Appendix J.
1994-09-13	Revised items 4-8 to a .5 scale.
1994-09-13	Dropped all "not applicable" codes.
1994-09-13	Dropped dates of assessment.
1994-09-13	Added NOTE about intermittent stays.
1994-02-01	Removed references to Level I and Acute Discharge rating.
1994-02-01	Added CODES for unknown.
1994-02-01	Added NOTES for coding clarification.

FUNCTIONAL INDEPENDENCE MEASURE (FIM)
Variable 152
Date of last revision: 07/01/04

DEFINITION:
The FIM is a measure of disability. It is intended to measure what the person with the disability actually does, not what he or she ought to be able to do, or might be able to do if certain circumstances were different. It is to be completed within 72 hours after Rehab Admission and again within 72 hours before Rehab Discharge.

FIM data are to be collected according to the current (4/1/04) *IRF-PAI coding instructions IRF-PAI Coding Instructions: 4/1/2004 version (http://www.cms.hhs.gov/providers/irfpps/irfpaimanual040104.pdf), supplemented by any further instructions in your syllabus. Information about the FIM can be found in the IRF-PAI manual in section III, pages 40-57, Appendix H, and pages 29-34. A copy of the FIM-related sections of this manual should be in your syllabus, in Appendix A. If it is not possible for your Center to follow the correct manual, notify the TBINDC.

*Information about the FIM is available from COMBI at these two links: Introduction (COMBI) (http://www.tbims.org/combi/FIM/index.html); Background (COMBI) (http://www.tbims.org/combi/FIM/fimbg.html).

CODE:
7 Complete Independence (Timely, Safely)
6 Modified Independence (Extra time, device)
5 Supervision (pt does 100%)
4 Minimal Assist (subject > 75% of task)
3 Moderate Assist (50 - 74% of task)
2 Maximal Assist (25 - 49% of task)
1 Total Assist (subject 72 hours)
66 Variable did not exist

Items 8b and 9b
7 No accidents
6 No accidents, uses device (e.g.,catheter, ostomy)
5 One accident in the past 7 days
4 Two accidents in the past 7 days
3 Three accidents in the past 7 days
2 Four accidents in the past 7 days
1 Five or more accidents in the past 7 days
9 Unknown / assessed at >72 hours
66 Variable did not exist

Item 14: Primary mode of locomotion on discharge
w Walking
c Wheelchair
9 Unknown

Item 17: Primary mode of comprehension
a Auditory comprehension > 50% of the time
v Visual comprehension > 50% of the time
b Both used equally
9 Unknown

Item 18: Primary mode of expression
v Verbal expression > 50% of the time
n Nonverbal expression > 50% of the time
b Both used equally
9 Unknown

CHARACTERS:
1 numeric
2 numeric
1 alpha-numeric

NOTE:
All FIM items must be scored. Record what patient actually does. If FIM assessment cannot be completed within the 72 hour window, it should still reflect the patients' status within that time period. If this is not possible and the assessments are done out of the 72 hour window, code with 9's. Every effort should be made to obtain the FIM assessments; however, if any items are not assessed, use code 9 -- do not leave blanks.

For admission item #14, if patient is walking and not using wheelchair, code item 14b (wheelchair) "8=not applicable". If patient is unable to walk on admission, code item 14a (walking) "1=total assist". If, at discharge, patient is walking AND using a wheelchair, code 14 (mode) as the more frequently used mode of locomotion. Do not use the code "b=Both" (as is indicated by UDS instructions). If FIM scores provided by your hospital include "b" codes, use all sources of information to determine the more frequent mode of locomotion at the time of evaluation andcode either "w" or "c" as appropriate. If the more frequent mode of locomotion cannot be determined, code "9".

According to the UDS Procedures for Scoring the FIM, "if the subject would be put at risk for injury if tested or does not perform the activity, enter 1". Use this same rule for the TBI Model Systems FIM data collection.

According to the UDS procedures for scoring the FIM, "the mode of locomotion for FIM item #14 (Walk/Wheelchair) must be the same on admission and discharge; if the subject changes the mode of locomotion from admission to discharge (usually wheelchair to walking), record the admission mode and score based on the most frequent mode of locomotion at discharge". Therefore, for the TBI Model Systems FIM data collection for FIM item #14, score both modes of locomotion (Walking and Wheelchair) on admission. The total admission score will be calculated by the computer and based on the UDS procedure described above (i.e., if the discharge mode is walking, the admission score for walking is used; if the discharge mode is wheelchair, the admission score for wheelchair is used.

If patient has an intermittent acute care stay during inpatient rehabilitation, use the FIM scores from the first rehabilitation admission and the last definitive discharge. In addition, if a patient has an intermittent stay which is longer than 30 days, it is then considered a system discharge and the discharge date from rehabilitation is the system discharge date and the FIM scores should correspond to that date.
"Level of assistance" (part a) and "Frequency of accidents" (part b) are recorded for #8 (Bladder Management) and #9 (Bowel Management).

For items 1-6 and 10-15 *at the admission evaluation only*, if patient does not perform the activity and a helper does not perform the activity for the patient, assign code "0=Activity does not occur". If the patient is simply not *observed* performing an activity, do not code "0" until all available sources of information have been consulted (e.g., other clinicians, medical record, family members). If at discharge evaluation an activity is not performed, assign code "1=Total assistance" (do not use the "0" code at the discharge evaluation).

For #8 (Bladder Management), if patient does not void (e.g., renal failure and on hemodialysis), assign code "7=Complete independence".

According to new FIM instructions (effective 1/1/02), all FIM items now have an "assessment time period". The person's score on a given FIM item is determined by his/her functional level during this "assessment time period"--a specified number of days prior to the evaluation. (FIM instructions prior to 1/1/02 did not indicate an assessment time period.) The assessment time period for all FIM items (except 8b and 9b-see below) is 3 days. Scoring reflects the patient's *poorest (most dependent) functioning* during the assessment time period1. The evaluation is therefore not a snap-shot of the patient's performance at the time of evaluation, but a summary of performance over the entire assessment time period.

For items 8b and 9b (number of bladder accidents, number of bowel accidents), the assessment time period is 7 days-that is, the number of accidents is counted across the 7 days prior to the patient's FIM evaluation. Because the admission FIM evaluation must be done at the end of the first 3 days after rehab admission, the assessment time period therefore includes the 4 days prior to rehab admission. If information is not available from this 4-day period, then treat only the 3 days after rehab admission as the assessment time period. No adjustment in scoring of items 8b and 9b is made when the assessment time period is shorter than 7 days.

Wearing of eyeglasses causes Comprehension to be scored "6" only if the person's primary form of comprehension is visual (rather than auditory, which is usually primary).

*See:Properties of the FIM instrument (COMBI) (http://www.tbims.org/combi/FIM/fimprop.html)

1 However, the current training manual qualifies this, as follows: "The patient's score on measures of function should not reflect arbitrary limitations or circumstances imposed by the facility. For example, a patient who can routinely ambulate more than 150 feet throughout the day with supervision (score of 5 for FIM Locomotion: Walk/Wheelchair item), but who is observed to ambulate only 20 feet at night to use the toilet because that is the distance from his/her bed, should receive a Walk score of 5 rather than a lower score" (IRF-PAI Training Manual 1/16/02, page III-4).

TRAINING:
FIM training will follow guidelines from the Uniform Data System (UDS). It is the responsibility of each center to assure that all staff who perform FIM assessments (Form I and Form II) are certified by a recognized credentialing organization (e.g., UDS, e-Rehab) and remain certified for the duration of the time that they collect data/assess patients for the TBIMS National Database.

CHARACTERISTICS OF DATA:
On 4/1/02 new fields were created to accept data collected with the new (1/1/02)IRF-PAI instructions. The old fields are still in the database. At present there are no calculated variables that merge old data and with new data. Calculated variables based on old **OR** new scoring are available.

SOURCE:
Uniform Data System for Medical Rehabilitation
232 Parker Hall
SUNY South Campus
3435 Main Street
Buffalo, New York 14214 3007
(716) 829 2076; FAX (716) 829 2080

The IRF-PAI instructions for the FIM are disseminated through the website of The Centers for Medicare and Medicaid Services. For information about the CMMS, go to: http://www.cms.hhs.gov/researchers/projects/APR/2003/facts.pdf.

EXAMPLE:
[It is not possible to display information in columns in the live syllabus, which is important for displaying the example for V152. A more neatly formated example is available at:FIM example (http:///syllabus/pdf/F1_FIM_Example.pdf).]

Admission Discharge

SELF CARE ITEMS:
2 4 1. Feeding
1 4 2. Grooming
2 3 3. Bathing
3 5 4. Dressing Upper Body
3 5 5. Dressing Lower Body
2 4 6. Toileting

SPHINCTER CONTROL:
3 5 8. Bladder Management
4 5 a. Level of assistance
3 6 b. Frequency of accidents
4 5 9. Bowel Management
4 6 a. Level of assistance
5 5 b. Frequency of accidents

MOBILITY ITEMS:
Transfers technique
3 4 10. Bed, Chair, Wheelchair
4 6 11. Toilet
3 3 12. Tub or Shower
Locomotion
3 14a. Walking on admission
3 14b. Wheelchair on admission
w 3 14. Walking/Wheelchair on discharge (w/c/9)
3 3 15. Stairs

COMMUNICATIONS:
b 7 b 7 17. Comprehension (a/v/b/9)
v 6 v 6 18. Expression (v/n/b/9)

PSYCHOSOCIAL ADJUSTMENT ITEMS:
6 5 22. Social Interaction

COGNITIVE FUNCTION:
5 6 26. Problem Solving
4 5 27. Memory

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added information about training and certification to TRAINING (from 22f.Data Quality Guidelines).
2004-07-01	In DEFINITION fixed the link to the current (4/1/2004) IRF-PAI manual and added a description of where in the manual to look for FIM-related information.
2004-04-01	Updated link to IRF-PAI manual (4/1/04 version).
2004-04-01	Added links to COMBI.
2004-01-01	Added note about scoring Comprehension when person wears eyeglasses.
2003-01-01	In SOURCE, updated the URL at which the IRF-PAI Training Manual can be viewed & printed.
2002-07-01	Revised 1st sentence in code "66" to read "Data not available with new (1/1/02) scoring."
2002-07-01	Updated SOURCE.
2002-07-01	Improved DEFINITION: added first two sentences; added reference to SOURCE; made explicit the requirement to follow current instructions.
2002-07-01	Added NOTE that score is to reflect poorest functioning during the assessment time period.

Date of last Revision	Description
2002-07-01	Added note about admission score for 8b and 9b regarding use of 3-day rather than 7-day assessment period.
2002-04-01	Modified DEFINITION to refer to Center's instruction manual rather than Appendix.
2002-04-01	Corrected code 4 "Minimal Assist" -- ">75%" rather than ">75%".
2002-04-01	Added code "0=Activity does not occur" and NOTE about code "0".
2002-04-01	Added "66=Variable not available [data did not exist].
2002-04-01	Added to CODE 5 that "(pt does 100%)".
2002-04-01	Replaced in CODE 9 "doesn't perform task" with "or, for all items at discharge and for items 8, 8a, 8b,9,9a, 9b, and 17-27 at admission, if the activity does not occur."
2002-04-01	Added function modifier items "a=Level of assistance" and "b=Frequency of accidents" for #8 and 9, CODES for #8b and #9b, NOTE explaining scoring of #8 and 9, and EXAMPLES.
2002-04-01	Added NOTE about "assessment time period".
2002-04-01	Added note about how to score #8b if patient does not urinate.
2002-04-01	Added note about coding 14 (mode of locomotion) if patient both walks and uses wheelchair.
2002-04-01	Updated SOURCE.
2002-04-01	Added NOTE for #8 and 9 to obtain patient's function during last few days prior to discharge from acute hospital (4, 5, 6, or 7 days, depending on number of days after discharge the evaluation is done).
1999-10-01	Revised note and unknown code used if patient does not perform activity.
1999-07-01	FAM items deleted.
1998-04-15	Added note how to code optional FAM items not collected.
1998-04-01	Added note that 12 FAM items are now optional for collection. FIM items must be collected.
1995-07-01	Added code 8=not applicable, walking and not using wheelchair for item #14b (wheelchair admission) only.
1995-07-01	Clarified how to code person not walking at admission.
1995-07-01	Dropped mode of locomotion code "b" at discharge.
1995-03-24	Added unknown code for mode items 14, 17, and 18.
1994-09-13	Added unknown code.
1994-09-13	Added notes for coding clarification.
1994-09-13	Added admission score for walking and wheelchair.
1994-09-13	Deleted dates of assessment.
1994-09-13	Updated source to include FIM Version 4.0 and descriptors for #16, 23, and 25.
1994-02-01	Added codes for unknown.
1994-02-01	Deleted not applicable date code since Level I data collection has been discontinued.
1994-02-01	Added notes for coding data collected out of 72 hour window.
1994-02-01	Updated source to include FIM Version 4.0.

QUESTIONS AND ANSWERS:

QUESTION:	Does the database calculate total admission FIM using walking score or wheelchair score? Is that score directly related to mode of locomotion at discharge? E.g., if walking at d/c then is the walking at adm score used in calculating total score? 11-26-2003
ANSWER:	Walking score at admission is used if peson is walking at dc, and wheelchair at acmission score is used if person is in wheelchair at dc. (This answer can be found in the Data Dictionary in the database.) 11-26-2003

CRANIAL SURGERY - CRANIOTOMY/CRANIECTOMY

Variable 170m1

Date of last revision: 04/01/04

DEFINITION:
Craniotomy and/or craniectomy performed (separate procedures). [Definition to be developed by Medical Committee databusters.] *Burrhole washout is coded as craniotomy.

CODE:
1 Neither craniotomy nor craniectomy
2 Craniotomy
3 Craniectomy
4 Both (separate procedures)
9 Unknown

CHARACTERS:
1 numeric

EXAMPLE:
Craniotomy performed:

2

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added to DEFINITION that burrhole washout is coded as craniotomy.
2004-04-01	Corrected EXAMPLE (code changes from "1" to "2").
2003-01-01	Variable added to dataset.

CHARGES
Variable 176
Date of last revision: 01/10/02

DEFINITION:
Total charges for a) Acute Hospitalization, and b) Inpatient Rehabilitation.

CODE:
Actual dollar cost - round to whole dollars only, no cents.

[N/A code dropped]
999999 Unknown

CHARACTERS:
6 numeric

NOTE:
Add preceding zeros, right-justify numbers.

Include psychology charges in the total inpatient rehabilitation hospital charge, even if the psychology charges are direct billed and not included in the hospital bill.

Charge data should be directly related to acute care and inpatient rehabilitation lengths of stay, therefore: 1) do not include charges for intermittent acute stays during inpatient rehabilitation.

*For interruptions in System care of less than 72 hours, there is enough variation across centers in the nature of charges data that are available, that for purposes of analysis, homogeneity of the data cannot be assumed.

CHARACTERISTICS OF DATA:
In 2003 four Model Systems had difficulty obtaining Acute Charges data; two of these also had difficulty obtaining Rehab Charges data (10% or more missing data).

EXAMPLE:
Total charges for Acute Hospitalization = $12,439.45 and Inpatient Rehabilitation = $4,952.

a.012439

b.004952

VARIABLE HISTORY:

Date of last Revision	Description
2002-01-10	Revised the note regarding nonhomogeneity of data.
2001-08-20	Added note regarding nonhomogeneity of data.
1999-10-01	Added note regarding charge data for intermittent acute hospitalizations.
1999-10-01	Dropped not applicable code.
1999-04-01	Added note regarding including direct billed psychology charges in rehab. hospital charge total.
1995-01-01	Dropped Alternate Level of Care charges.

PAYOR SOURCE
Variable 178
Date of last revision: 10/01/99

DEFINITION:
Code primary (largest) source first, and secondary source for a) Acute Hospitalization and b) Inpatient Rehabilitation.

CODE:
01 = Medicare (unable to determine if traditionally or managed care administered)
02 = Medicaid (unable to determine if traditionally or managed care administered)
03 = Workers' Compensation
04 = Blue Cross/Shield
05 = Private Insurance - Other
06 = HMO (Health Maintenance Organization)
07 = Private Pay
08 = State Crippled Children's
09 = Department of Rehabilitation
10 = No Fault Insurance
11 = PPO
12 = CHAMPUS
14 = Hospital (free bed)
15 = Medicare (traditionally administered)
16 = Medicaid (traditionally administered)
17 = Medicare (managed care administered)
18 = Medicaid (managed care administered)

77 = Other
88 = N/A - no care given or no secondary payor
99 = Unknown

CHARACTERS:
2 numeric

NOTE:
If the payor source is recorded as "Medicaid Pending" at the time of data collection, code as Medicaid, keep track of which cases these are and review cases at the time of follow-up to determine if Medicaid was approved or denied. If Medicaid was denied, determine who paid the bill and code appropriately.

All cases coded as "01 - Medicare" or "02 - Medicaid" prior to 4/2/99 remained in these coding categories. Centers with the ability to perform retrospective recoding, recoded these cases to codes 15 through 18 as appropriate.

This variable should be collected based on who pays the bill. It should be collected just prior to quarterly submission. It should then be verified that it has not changed just prior to the next quarterly submission.

CHARACTERISTICS OF DATA:
In 2003, three Model Systems had difficulty obtaining Acute Payor Source (10% or more missing data). One other Model System had difficulty obtaining secondary rehab payor source.

EXAMPLE:
Acute hospitalization - primary, Medicare traditional, secondary, Blue Cross/Shield.
Inpatient Rehabilitation - primary, private insurance, secondary, none.
a.15 04
b.04 88

VARIABLE HISTORY:

Date of last Revision	Description
1999-10-01	Added note on how variable should be collected.
1999-04-27	Corrected description for code 18.
1999-04-02	Added codes to differentiate between traditional and managed care administered Medicare and Medicaid, added note regarding recoding of old data.
1997-01-01	Added note about Medicaid pending cases.
1995-01-01	Dropped Alternate Level of Care payor source.

QUESTIONS AND ANSWERS:

QUESTION:	We have a subject that was involved in an airplane crash. The primary source of insurance is actually the commercial insurance from the flight school. (Pan American International Flight Academy). The bills are being sent to Phoenix Aviation Mgr. Inc. What type of payor is this? 01-14-2004
ANSWER:	Any given payor may have many kinds of policies, so the name of the payor is often not sufficient information for determining type of policy. In order to determine type of policy, contact a person in your hospital's billing department who is familiar with this person's case. 01-14-2004

PREMORBID DRUG USE
Variable 192a1
Date of last revision: 07/01/04

DEFINITION:
Indices of drug use and abuse prior to injury: During the year before your injury, did you use any illicit or non-prescription drugs?

CODE:
1 No
2 Yes
0 Variable not in existence when data collected for this case
9 Unknown

(DELETED Items 1a-f about specific drugs)

CHARACTERS:
1 numeric

NOTE:
Use patient's response, even if response contradicts other information. This is a self-report variable.

If cannot get patient's response, get family, if not family then medical chart.

*A report on substance use that is based on TBIMS data can be found on COMBI: Problematic Substance Use Identified in the TBIMS National Dataset (http://www.tbims.org/combi/subst/index.html)

CHARACTERISTICS OF DATA:
*Some cases older than 1/1/97 have data for this variable because Centers were encouraged to collect these data retrospectively for older cases.

In 2003, three Model Systems had difficulty obtaining this information (10% or more missing data).

EXAMPLE:
EXAMPLE #1: Person with brain injury used crack and marijuana.

(1) 2

EXAMPLE #2: Person with brain injury did not use any ilicit/non-prescription drugs.

(1) 1

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added to CHARACTERISTICS OF DATA, an explanation for data in cases existing prior to implementation date (1/1/97).
2004-04-01	Added link to report on COMBI using TBIMS data.
2003-01-01	Items 1a-f deleted (specific drugs used).
2001-10-01	Added note about getting data from medical chart, if not available from ptn or SO.
1998-09-01	Added note regarding contradictory information from patient.
1997-01-01	Variable added to database.

PREMORBID ALCOHOL USE
Variable 192a2
Date of last revision: 04/01/05

DEFINITION:
1) During the month before the injury, have you had at least one drink of any alcoholic beverage such as beer, wine, wine coolers, or liquor?
2) During the month before the injury, how many days per week or per month did you drink any alcoholic beverages, on the average?
3) A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. On the days when you drank, about how many drinks did you drink on the average?
4) Considering all types of alcoholic beverages, how many times during the month before the injury did you have five or more drinks on an occasion?

A "drink" is defined in: 20a.Standard Drink Chart (http:///syllabus/pdf/20a_Standard_drink_chart.pdf), in Appendix G.

CODE:
Item 1):
1 No (autofills items 2-4 with 66=NA)
2 Yes
7 Refused (autofills items 2-4 with 77=Refused)
8 Variable did not exist when data collected (autofills items 2-4 with "88=Variable did not exist")
9 Unknown/Don't know/Not sure (autofills items 2-4 with "99=Unknown/Don't know/Not sure")

Item 2):
a) ## enter number of days per week
b) ## enter number of days per month
a)& b) 66 N/A - Not Applicable (Use for item not answered; use for both items if item 1 = No.)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

Item 3) ## enter number of drinks
66 N/A - Not Applicable (use only if item 1 = No)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

Item 4) ## enter number of times
00 None
66 N/A (use only if item 1 = No)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

CHARACTERS:
1 numeric
2 numeric

NOTE:
Base the data recorded for these questions on self-response. Do not be influenced by information about drinking habits that may be available from hospital records, etc.

If cannot get patient's response, get family, if not family then medical chart.

Use the higher score if a range (in # of drinks) is given.

Probe for size of drink, and adjust scoring according to answer received.

A report on substance use that is based on TBIMS data can be found on COMBI:
Problematic Substance Use Identified in the TBIMS National Dataset (http://www.tbims.org/combi/subst/index.html)

CHARACTERISTICS OF DATA:
QFVI was added to the Form I database as one of the premorbid history questions on 1/1/97. The QFVI was dropped from both Form I and Form II on 10/1/99 and replaced with alcohol questions from NHSDA and BRFSS module 13. The QFVI data are available in a separate database.

Some cases older than 1/1/97 have data for this variable because Centers were encouraged to collect these data retrospectively for older cases.

*STARTING 4/1/04 (version 9.5), THE "7" AND "9" CODES WERE REVERSED IN ORDER TO BE CONSISTENT WITH OTHER VARIABLES (7/77=refused, 9/99=unknown/don't know/not sure). WHEN WORKING WITH DATA COLLECTION FORMS 9.4 AND EARLIER KEEP IN MIND THAT 7's ON THE FORM SHOULD APPEAR AS 9's IN THE DATABASE AND VICE VERSA. TAKE THIS INTO ACCOUNT WHEN DATA ON 9.4 OR EARLIER FORMS ARE BEING ENTERED, CORRECTED, OR COMPARED TO DATA IN THE DATABASE. THE DATA ENTRY SCREENS HAVE INSTRUCTIONS ABOUT THIS.

In 2003, three Model Systems had difficulty collecting part 1 of this item (the same three Model Systems that had difficulty collecting V192a1:Premorbid Drug Use). (10% or more missing data). Between six and eight Model Systems had difficulty collecting the the other 3 parts of this item.

SOURCE:
Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System User's Guide. Atlanta: U.S. Department of Health and Human Services, 1998. National Household Survey on Drug Abuse. Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

EXAMPLE:
Prior to his/her injury, person with brain injury had a single glass of wine with dinner every night, but never consumed more than that amount.

1) 2
2a) 66
2b) 30
3) 1
4) 00

VARIABLE HISTORY:

Date of last Revision	Description
2005-04-01	Capitalized the text in CHARACTERISTICS OF DATA entry about reversal of "7" and "9" codes.
2005-01-01	Deleted NOTE that data entry screens are programmed so pull-down menu items 7 and 9 (switched starting with V9.5) now adjust for forms 9.4 and earlier and for form 9.5 and later.
2005-01-01	Added to CHARACTERISTICS OF DATA that "7" and "9" codes on data collection forms 9.4 and earlier are reversed, and that this should be taken into account when working with 9.4 and earlier forms.
2005-01-01	Added NOTE that variable is to be collected from participant if possible, or family, or medical chart.
2004-10-01	Added NOTE that data entry screens are programmed so pull-down menu items 7 and 9 (switched starting with V9.5) now adjust for forms 9.4 and earlier and for form 9.5 and later. Data from all forms can now be entered AS IS. (This change was made in the database last quarter (9.6) but too late to add to syllabus page.)
2004-07-01	Moved NOTE explaining why there are some cases prior to 1/1/97 that have data, to CHARACTERISTICS OF DATA.
2004-07-01	Corrected EXAMPLE so 2a is "66".
2004-04-01	Added "Unknown" to code "Don't know/Not sure"
2004-04-01	Reversed the codes for "Refused" (was 9, now 7) and "Unknown/Don't know/Not sure" (was 7, now 9)
2004-04-01	Added NOTE explaining why there are some cases prior to 1/1/97 that have data.
2004-04-01	Added NOTE that a report on alcohol use based on TBIMS data is on COMBI.
2004-01-01	Added coding instruction for item 2 that 66 should be scored for the item not answered.

Date of last Revision	Description
2004-01-01	Added NOTE box with 2 notes (use self-report; reference to appendix G for definition of “drink”) from the syllabus page for V292a2.
2004-01-01	Added note to code the higher score if a range is given.
2004-01-01	Added note to probe for size of drink, and adjust scoring according to answer received.
2002-04-01	In CODES, corrected autofills so will occur when #1 = 1, 5, 7, 8, or 9. Revised format of autofill information.
2001-01-01	Added/revised coding instructions.
1999-10-01	Dropped QFVI, replaced with alcohol questions from NHSDA and BRFSS module 13.
1997-01-01	Variable added to Form I database.

PREMORBID HISTORY OF PENAL INCARCERATIONS WITH CONVICTION FOR FELONY
Variable 192h
Date of last revision: 07/01/04

DEFINITION:
Did the person with brain injury have any penal incarcerations with conviction for felony prior to his/her injury?

CODE:
1 No
2 Yes
0 Variable not in existence when data collected for this case
9 Unknown

CHARACTERS:
1 numeric

CHARACTERISTICS OF DATA:
*Some cases older than 1/1/97 have data for this variable because Centers were encouraged to collect data retrospectively for older cases.

In 2003, two Model Systems had difficulty obtaining this information (10% or more missing data). These two centers also had difficulty collecting V192a (drug, alcohol) and V192i (special ed).

EXAMPLE:
Person with brain injury did not have any penal incarceration with conviction for felony prior to his/her injury.

1

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added to CHARACTERISTICS OF DATA, an explanation for data in cases existing prior to implementation date (1/1/97).
1997-01-01	Variable added to database.

PREMORBID HISTORY OF LEARNING AND/OR BEHAVIOR PROBLEMS IN SCHOOL

Variable 192i

Date of last revision: 07/01/04

DEFINITION:
*Was the person with brain injury officially classified as Special Education student prior to his/her injury?

CODE:
1 No
2 Yes
0 Variable not in existence when data collected for this case
9 Unknown

CHARACTERS:
1 numeric

CHARACTERISTICS OF DATA:
*Some cases older than 1/1/97 have data for this variable because Centers were encouraged to collect data retrospectively for older cases.

In 2003, two Model Systems had difficulty obtaining this information (10% or more missing data). These two centers also had difficulty collecting V192a (drug, alcohol) and V192h (incarceration).

EXAMPLE:
The person with brain injury had some difficulty with high school. He was held back one grade but did graduate. He was never expelled and was not a special education student.

Special education1

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added to CHARACTERISTICS OF DATA, an explanation for data in cases existing prior to implementation date (1/1/97).
2004-07-01	Changed format of EXAMPLE.
2004-07-01	Deleted references to the dropped items (1,2,4).
2003-01-01	Deleted items 1,2 and 4 (expelled, dropped out, failed to advance to next grade).
1997-01-01	Variable added to database.

VERSION OF FORM II BEING ENTERED
Variable 02
Date of last revision: 07/01/04

DEFINITION:
Version number of the data entry form on which data for the present case was recorded. For the version number, refer to the upper right corner of the header of the data entry form (Form II) on which the data are recorded.

CODE:
Version numbers of Form IIs that can be entered into the database are listed in the drop-down menu (e.g., 7.0, 7.5...)

CHARACTERS:
2 numeric

NOTE:
As of 4/1/02, the TBIMS data entry system has the capacity to present data entry screens that match more than one version of the Form II. Obtain the data entry screens that match the Form II you wish to enter by selecting the version number of your Form II from the drop down menu.

*As of 4/1/04, all versions of Form II from V7.5 on are available as data entry screens. If the version of the Form II that you wish to edit or enter into the database is not listed on the drop-down menu, refer to 22j.Editing+entering old data (http:///syllabus/pdf/22j_Editing_entering_old_data.pdf) in Appendix I.

EXAMPLE:
Data for patient was recorded on Form II version 7.5

7.5

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Variable ID number changed from 001 to 02.
2004-04-01	Added note about editing/entering old data
2004-04-01	Changed description of number of CHARACTERS to "2 (not including decimal)"
2004-04-01	Removed instructions about editing/entering old data.
2002-07-01	Variable added to syllabus.
2002-04-01	Variable added to database.

LIVING STATUS OF PERSON WITH BRAIN INJURY
Variable 20Aa
Date of last revision: 07/01/04

DEFINITION:
Code the living status of the person with brain injury. If patient has died, code the cause of death.

Instructions for coding ICD-9-CM primary and secondary causes of death are in 16a.Guidelines coding cause of death (http:///syllabus/pdf/16a_Guidelines_coding_cause_of_death.pdf) in Appendix C. Instructions for coding the E-code cause of death are in 24b.Guidelines for Coding Cause of Injury and Etiology of Injury (E-codes) (http:///syllabus/pdf/v133b_guide_2.pdf) in Appendix K.

CODE:
Code the two boxes for the ICD-9-CM codes and the box for the External Cause of Injury Codes (E-codes) as follows.

ICD-9-CM code boxes:
For a list of ICD-9 codes, refer to an ICD-9 code manual at your facility.

777.77 Person expired but cause of death unknown
888.88 Not Applicable--person alive, or no other internal cause of death indicated, or death due to external causes
999.99 Unknown if person expired

E-code box:
For an abbreviated list of E-codes, see: 24a.ICD-9-CM E-code categories (http:///syllabus/pdf/v133b_categories_3.pdf) in Appendix K. A complete list of E-codes is available at E-Code list-complete (http:///syllabus/pdf/ECodes_52.pdf).

777.7 Person expired but cause of death unknown
888.8 Not Applicable--person alive or death not due to external causes
999.9 Unknown if person expired

CHARACTERS:
3 numeric
4 numeric
5 numeric

NOTE:
If autopsy was performed obtain report, document cause(s) of death by use of ICD-9-CM diagnosis codes or E-code if applicable. Record date of death in *Variable 201.*

If patient expired, complete only variables 20Aa through 201 then stop.

The look-up boxes on the database screen provide the E-Codes and their definitions. When taking E-Codes from the Medical Record, they should be checked to ensure that they reflect the best / most current information available about the cause of the injury. Data collectors may submit E-Codes that differ from those recorded in the Medical Record in cases where they feel the Medical Record E-Codes may not reflect the best / most current information available. There should be clear documentation on the data collection form when an E-Code entered into the database does not reflect the E-Code recorded in the Medical Record. In unusual cases where no E-Code relative to the injury that resulted in traumatic brain injury is recorded in the Medical Record, the data collector should use best judgement and the consultation of other personnel, as necessary, to determine the appropriate E-Code from the TBIMS database list.

SOURCE:
UAB

ICD-9-CM 2001: International Classification of Diseases 9th Revision Clinical Modification, AMA Press. Volume 1, 2000, 251-279. ISBN: 1579471501.

EXAMPLE:
Patient died of Septicemia (primary cause) and Pneumonia (secondary)

ICD-9-CM CODES: 038.90 primary; 486.00 (secondary)

E CODE: 888.8

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, corrected the labels for 888.88 (ICD-9) and 888.8 (E-code). For 888.88, "NA-Person alive, or no other cause of death indicated" has been changed to "NA-Person alive, or no other internal cause of death indicated, or death due to external causes". For 888.8, "NA-Person alive, or no other cause of death indicated" has been changed to "NA-Person alive, or death not due to external causes".
2004-04-01	Added link to comprehensive list of E-Codes.
2004-04-01	Revised the format of the CODES box.
2002-10-14	Changed data entry mask so parts A and B can accept 3-digit codes without decimals.
2002-04-01	Added note about instructions for E-codes.
2002-04-01	Added reference to Appendix K.
1995-01-01	Dropped 3rd ICD-9 code and 2nd and 3rd E-codes.
1995-01-01	Revised code description for 999.99 and 999.9.
1995-01-01	Added codes 777.77 and 777.7.
1994-08-19	Corrected references to E-codes, corrected description of Not applicable code to be consistent with V146.

METHOD OF INTERVIEW DATA COLLECTION -PERSON WITH BRAIN INJURY
Variable 20Ab
Date of last revision: 04/01/04

DEFINITION:
The manner in which interview data were collected from the person with brain injury.

CODE:
1 In-person interview
2 Telephone interview
3 Questionnaire mailing
7 No data to be collected at this time (e.g., no funding)
8 No interview data provided by person with brain injury

CHARACTERS:
1 numeric

NOTE:
Interview data includes all Form II data collected from the person with brain injury.

If multiple methods are used to collect data, record the method used the most with this participant.

*Code 7 is not shown on Form II because it is a special purpose code and should not be used in normal data collection/submission.

EXAMPLE:
Data were collected via telephone interview.

2

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added NOTE about code 7 not being in Form II.
2004-01-01	Added code 7.
2003-10-01	Corrected example (added code).
2003-10-01	In note, removed reference to (deleted) neuropsych battery and physical exam.
2001-08-20	Note added about how to code if multiple methods are used to collect data.
1996-01-01	Clarified that this variable refers to interview data collection only.
1994-08-19	Added code 8 to be consistent with data collection form.

QUESTIONS AND ANSWERS:

QUESTION:	On the syllabus I have and on the list of Form II Syllabus changes, it is noted "Added code 7" but that code isn't on the new Form II. Should it be? 01-13-2004
ANSWER:	This code is used only for very specific purposes that data collectors will not run into. So, the code should not be on the Form II. 01-15-2004

METHOD OF INTERVIEW DATA COLLECTION -SIGNIFICANT OTHER
Variable 20Ac
Date of last revision: 04/01/04

DEFINITION:
The manner in which interview data is collected from the main significant other.

CODE:
1 In-person interview
2 Telephone interview
3 Questionnaire mailing
7 No data to be collected at this time (e.g., no funding)
8 No interview data provided by a significant other

CHARACTERS:
1 numeric

NOTE:
Interview data includes all Form II data collected from a family member/significant other of the person with brain injury, which includes any patient-related medical/functional/historical information which cannot be reliably obtained from the person with brain injury, or if the person with brain injury cannot be interviewed.

If multiple methods are used to collect data, record the method used the most with this participant.

*Code 7 is not shown on Form II because it is a special purpose code and should not be used in normal data collection/submission.

EXAMPLE:
Data were collected by in-person interview:via telephone interview.

2

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added NOTE about code 7 not being in Form II.
2004-01-01	Added code "7=No data to be collected at this time (e.g., no funding)", to be used by Center that was not funded for a period of time.
2003-10-01	Reinstated variable in database (otherwise, if SO is only source of information, there is no information about method of interview data collection).
2003-10-01	In NOTE, removed reference to CIQ and to significant other-only community integration questions.
2003-01-01	Deleted this variable from database.
2001-08-20	Note added about multiple methods of collecting data.
1996-01-01	Clarified that this variable refers to interview data collection only.
1994-08-19	Added code 8 to be consistent with data collection form.

QUESTIONS AND ANSWERS:

QUESTION:	On the syllabus I have and on the list of Form II Syllabus changes, it is noted "Added code 7" but that code isn't on the new Form II. Should it be? 01-13-2004
ANSWER:	This code is used only for very specific purposes that data collectors will not run into. So, the code should not be on the Form II. 01-15-2004

REASON PERSON WITH BRAIN INJURY NOT PROVIDING DATA
Variable 20Ad
Date of last revision: 04/01/04

DEFINITION:
If no interview data were provided by the person with brain injury, what was the reason?

CODE:
Person with brain injury....

03 is physically or cognitively unable to respond
04 is not available for interview (e.g., not at home, in the hospital or jail, is working or in school and not available for interview)
05 has stated refusal to take part in interview
06 has not responded to contact (i.e., center staff know the whereabouts of the person with brain injury but he/she has not responded to contact)
07 is lost to follow-up (unknown whereabouts of person with brain injury)
08 has a language barrier (person with brain injury does not speak English and no interpreter was available)
09 expired during follow-up year.
77 No data collected at this time (e.g., no funding)
88 Not applicable--interview data was provided by person with brain injury
99 Unknown reason why no interview data was provided by person with brain injury, or unknown reason why no follow-up was attempted.

CHARACTERS:
2 numeric

NOTE:
If in jail, code: 04=not available.

*Code 77 is not shown on Form II because it is a special purpose code and should not be used in normal data collection/submission.

EXAMPLE:
Patient unable to respond because of dysarthria.

03

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Variable added back into database.
2004-04-01	Added NOTE that Code 77 is not shown on Form II because it is a special purpose code and should not be used in normal data collection/submission.
2004-01-01	Added code 77 (So VA can add fup cases retroactively.)
2003-01-01	Variable deleted.
2002-01-01	Added NOTE about if in jail
2000-07-01	Combined "01=physically unable" and "02=cognitively unable" into "03=physically or cognitively unable".
1996-01-01	Revised codes to combine information from v20Ad and V20Ag.

IDENTITY OF SIGNIFICANT OTHER
Variable 20Ae
Date of last revision: 01/01/03

DEFINITION:
The relationship of the significant other to the person with the brain injury.

CODE:
01 spouse
02 parent(s)
03 sibling
04 adult child
05 boyfriend, girlfriend, fiancee
07 other relative
08 friend
09 professional caregiver
77 other
88 not applicable--no significant other interviewed

CHARACTERS:
2 numeric

NOTE:
Ideally, questions should be asked of the person who is closest to the patient, and therefore most able to answer questions reliably

EXAMPLE:
Significant other is a cousin of the person with brain injury.

07

VARIABLE HISTORY:

Date of last Revision	Description
2003-01-01	Changed code 88 so “N/A-no SO interviewed” replaces “N/A-no significant other interview”.

SYSTEM/SUBJECT/FOLLOW-UP ID
Variable 200
Date of last revision: 07/01/04

DEFINITION:
A *9-digit number assigned to each patient with brain injury by Project Staff at each center. First 2 digits are system I.D.; next 5 digits are subject I.D.; last 2 digits identify the follow-up evaluation year.

CODE:
Start coding at:
*010000001 Mt. Sinai School of Medicine. This number was assigned in first round of funding. No data with this ID are in the database.
020000001 Medical College of Virginia
*030000001 The Institute for Rehabilitation & Research
040000001 Rehabilitation Institute of Michigan
050000001 Santa Clara Valley Medical Center
060000001 Ohio State University
070000001 Moss Rehabilitation Hospital
080000001 University of Alabama
090000001 Craig Hospital
*100000001 Emory University
110000001 Spaulding Rehabilitation Hospital
120000001 Mayo Clinic
*130000001 University of Missouri
140000001 Mississippi Methodist Rehabilitation Center
*150000001 Kessler Medical Rehabilitation & Education Corp.
160000001 Charlotte Institute
*170000001 Oregon Health Sciences University
180000001 University of Washington
190000001 JFK Johnson Rehabilitation Institute
200000001 University of Pittsburgh
210000001 Univ. of Texas Southwestern Medical Center
220000001 Mount Sinai School of Medicine

*=Not funded as of 10/2002.

CHARACTERS:
9 numeric

EXAMPLE:
Patient was treated at Rehabilitation Institute of Michigan, and was patient number 12345 for the first follow-up evaluation.

041234501

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Removed "annual" from descriptions of follow-up evaluations.
2004-01-01	In DEFINITION corrected number of digits--changed from 11 to 9.
2003-01-01	Added codes for 4 new centers.
2003-01-01	Indicated the 5 defunded centers.
1999-01-01	Corrected name for center 17.
1998-08-15	Added codes for 12 new centers.
1997-10-01	Added new codes for OSU and MOSS.
1995-01-01	Added 2 digits to number to identify year of annual follow-up evaluation.

DATE OF FOLLOW-UP
Variable 201
Date of last revision: 04/01/05

DEFINITION:
1) Date of Follow-up Evaluation
2) Date of Death

CODE:
1) Date of Follow-up Evaluation
MM/DD/YYYY

05/05/5555 N/A-withdrew authorization
06/06/6666 N/A-deceased
07/07/7777 N/A-other *(including incarceration)
08/08/8888 Not applicable, no follow-up evaluation. [DROPPED]
09/09/9999 Unknown date of follow-up evaluation

2) Date of Death
MM/DD/YYYY

07/07/7777 Person expired but unknown date
08/08/8888 Not applicable, person alive
09/09/9999 Unknown if person expired

CHARACTERS:
8 date

NOTE:
For date of follow-up evaluation, enter date when first data are collected (if data collection is done with more than one contact) with patient or significant other. If no follow-up data are collected from patient or significant other, code the reason (05/05/5555, 06/06/6666, etc).

EXAMPLE:
Follow-up evaluation was conducted on May 13, 1989.

Date of Follow-up Evaluation 05/13/1989
Date of Death 08/08/8888

VARIABLE HISTORY:

Date of last Revision	Description
2005-04-01	Changed the label for 07/07/7777 from "N/A-other" to "N/A-other (including incarceration)"
2004-04-01	Corrected label for code 05/05/5555. Changed "permission" to "authorization".
2004-04-01	In CODES, removed statement that TBINDC will recode the old code 08/08/8888 as the new code 07/07/7777.
2003-04-01	For Date of Follow-up, added codes: “05/05/5555=N/A-withdrew authorization”, “06/06/6666=N/A-deceased”, and “07/07/7777=N/A-other”. No longer use “08/08/8888=N/A-no eval” (is still in database).
2003-04-01	Added note to use new N/A codes.
1999-04-02	Revised unknown date codes to be compatible with new software.
1998-08-15	Year expanded to 4 digits.
1995-07-01	Added note to clarify coding of date of follow-up evaluation.
1995-01-01	Dropped date of injury.

Date of last Revision	Description
1995-01-01	Clarified code descriptions for date of follow-up evaluation and date of death.
1995-01-01	Added date of death code 77/77/77= person expired but unknown date.

MARITAL STATUS
Variable 207
Date of last revision: 07/01/04

DEFINITION:
Marital status at evaluation, *according to the best source of information (person with brain injury unless unavailable or unreliable).

CODE:
1 Single (a person who has never married)
2 Married (a person who is married, whether legally or by commonlaw definition of seven years cohabitation)
3 Divorced (a person who is legally divorced)
4 Separated (includes both legal separation and living apart from a married partner)
5 Widowed
7 Other
9 Unknown

CHARACTERS:
1 numeric

SOURCE:
UAB

EXAMPLE:
Patient was separated from spouse at time of evaluation.

4

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In DEFINITION, added instruction to obtain from the "best source". (This instruction was not added on 8/20/2001 as was stated).
2004-07-01	Removed "annual" from references to follow-up evaluation.
2004-04-01	Removed statement that TBINDC has recoded 08/08/8888 as 07/07/7777.
2004-04-01	Label for code 05/05/5555 changed from "permission" to "authorization".
2001-08-20	Instruction added to obtain from the “Best Source of Information”.
1994-09-13	Dropped code 6=cohabitation.
1994-08-19	Removed note regarding collecting data from subject and SO.
1994-08-19	Corrected descriptions to be consistent with V107.

PRIMARY PERSON LIVING WITH
Variable 208
Date of last revision: 07/01/04

DEFINITION:
The primary person with whom the person with TBI is living with at time of evaluation, *according to the best source of information (person with brain injury unless unavailable or unreliable).

CODE:
01 Alone
02 Spouse (includes commonlaw partners of 7 or more yrs)
03 Parent(s)
04 Sibling(s)
05 Child/children (less than 21 years of age)
06 Other relative(s) or adult child(ren) (greater than 21 years of age)
07 Roommate(s)/friend(s)
08 Significant other (partners, not married)
09 Other patients (in hospital or nursing home)
10 Other residents (group living situation)
11 Personal Care Attendant
77 Other (includes correctional facility inmates)
99 Unknown

CHARACTERS:
2 numeric

NOTE:
If the patient is living with more than one person, list the person most involved in the patient's life and care.

SOURCE:
SCVMC

EXAMPLE:
Patient was living with a roommate at time of evaluation.

07

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In DEFINITION, added instruction to obtain from the "best source". (This instruction was not added on 8/20/2001 as stated).
2004-07-01	Remove references to "annual" evaluation.
2001-08-20	Instruction added to obtain from the “Best Source of Information”.
1995-07-01	Dropped 2nd and 3rd persons living with.
1995-07-01	Dropped code 88.
1994-08-19	Removed note regarding collecting data from subject and SO.
1994-08-19	Added code 88 and added 88's to example.
1994-08-19	Added note about selecting the person to record, if subject is living with more than one person.

RESIDENCE
Variable 209
Date of last revision: 01/01/05

DEFINITION:
Where the person with brain injury is living at time of follow-up evaluation, according to the best source of information (person with brain injury unless unavailable or unreliable).

CODE:
01 **Private Residence** (includes house, apartment, mobile home, foster home, condominium, dormitory [school, church, college], military barracks, boarding school, boarding home, rooming house, bunk-house, boys' ranch, fraternity/sorority house, commune, migrant farmworkers' camp)
02 **Nursing Home** (includes medi-center, residential, institutions licensed as hospitals but providing essentially long-term, custodial, chronic disease care, etc.)
03 **Adult Home** (adult foster care, independent living center, transitional living facility, group home)
04 **Correctional Institution** (includes prison, jail, penitentiary, correctional center, labor camp, etc.) For a list of on-line databases of incarcerated persons, see: 25a.List of online offender databases (http:///syllabus/pdf/25a_Incarceration_databases.pdf) in Appendix L.
05 **Hotel/Motel** (includes YWCA, YMCA, guest ranch, inn)
06 **Homeless** (includes a shelter for the homeless)
07 **Hospital - Acute Care**
08 **Hospital - Rehabilitation**
09 **Hospital - Other** (includes mental hospital, inpatient drug rehabilitation
10 **Subacute care** (includes subacute hospital bed, skilled nursing facility)
77 **Other**
99 **Unknown**

CHARACTERS:
2 numeric

NOTE:
*Cases coded "04" must be coded "07/07/7777" in V201a (Follow-up Evaluation Date) in order to not be included in the Missing Data Report.

*If there is uncertainty regarding residence, treat it as a self-report variable. If residence is not clear, a reliable respondent (when possible the person with TBI) should be asked, eg., "Where were you [the person with TBI] living at the time of the injury?". If the response is ambiguous (as may happen, eg., if the person is transient) use probes in order to adequately understand the respondent's belief regarding residence, then code that. Do not probe to obtain additional objective information about the living situation and then (the data collector) use that information in determining the correct code. When residence is at all ambiguous, treat it as a self-report variable.

EXAMPLE:
Patient lived at home at time of evaluation.

01

VARIABLE HISTORY:

Date of last Revision	Description
2005-01-01	Added NOTE that for cases coded "04", V201a (Follow-up evaluation date) must be coded "07/07/7777" so the case will not be included in the Missing Data Report.
2005-01-01	Added NOTE how to determine residence if not clear.
2004-10-01	Added "Inpatient drug rehabilitation" as a type of code "09=Hospital-other".
2004-10-01	Deleted "shelter" as a category of "01=Private". Added "shelter for the homeless" to code "06=Homeless".
2004-07-01	Added instruction in DEFINITION to obtain from the "best source". (This instruction was not added on 8/20/2001 as stated).

Date of last Revision	Description
2004-04-01	In CODES, added note about availability of incarceration online databases in Appendix L.
2001-08-20	Instruction added to obtain information from “Best Source of Information”.
2001-07-01	Zip Code removed and made into V209a.
2001-01-01	Added Zip Code.
1995-07-01	Revised codes, moved dorm thru farmworkers camp from 3 to 1, moved skilled nursing facility from 2 to 10, moved all 11 to 3, added new code 10=subacute.
1994-09-13	Added "adult foster care” to code 3.
1994-08-19	Removed note regarding collecting data from subject and SO.
1994-08-19	Dropped code 88.

ZIP CODE
Variable 209a
Date of last revision: 07/01/04

DEFINITION:
Zip Code at time of interview, *according to the best source of information (person with brain injury unless unavailable or unreliable).

PURPOSE: To allow an estimate of the extent and type of health care services available in the participant's vicinity.

CODE:
Zip Code collected for residence at time of follow-up evaluation.

0 Variable did not exist (follow-up evaluation before 7/1/01)
8 N/A-person lives outside of the US
9 Unknown

CHARACTERS:
5 numeric

NOTE:
If the person has no residence, record the zip code of the area in which he/she is most likely to be.

EXAMPLE:
Person lives in New York City.

10011

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	Added instruction in DEFINITION to obtain from the "best source". (This instruction was not added on 8/20/2001 as stated).
2002-07-01	Added code “8=NA (lives outside US).
2002-07-01	Changed code “99999” to “9” (so is not in valid range).
2002-04-01	Deleted code “88888=NA (expired in rehab)”.
2002-01-01	Added code “0=variable did not exist”.
2001-08-20	Instruction added to obtain data from “Best Source of Information”.
2001-08-20	Purpose added.
2001-08-20	Note added about estimating zip code if homeless.
2001-07-01	Zip Code made into separate variable.
2001-01-01	Zip Code added to database.

YEARS OF EDUCATION
Variable 210a
Date of last revision: 04/01/04

DEFINITION:
Number of years of education *successfully completed at the time of follow-up interview.

CODE:
01 1 year or less
02 2 years
03 3 years
04 4 years
05 5 years
06 6 years
07 7 years
08 8 years
09 9 years
10 10 years
11 11 years/12 years, no diploma
12 HS diploma
13 Work toward Associate's degrees, no diploma
14 Associate's degrees
15 Work toward Bachelor's degree, no diploma
16 Bachelor's degree
17 Work toward Master's degree, no diploma
18 Master's degree
19 Work toward Doctoral level degree, no diploma
20 Doctoral level degree
66 Var didn't exist at the time this form was filled out
77 Other

CHARACTERS:
2 numeric

NOTE:
The number of years of education coded may not equal the actual number of years spent in school. For example, *a person who is held back two years in elementary school and then drops out of school in the 10th grade (for a total of 11 full years) would be coded as having completed 9 years; a person may take 6 years to complete a BA (for a total of 18 years), but, as indicated , only 16 years are coded.

GED, trade school, and other types of schooling not listed, are not counted toward years of education.

CHARACTERISTICS OF DATA:
All data on educational level are available in the calculated variable "EDUCATION2". This calculated variable merges data for V210a with data for V210 "Highest grade of school completed", which V210a replaced on 1/1/01.

SOURCE:
*Heaton RK, Miller SW, Taylor MJ, Grant I. Revised Comprehensive Norms for an Expanded Halstead-Reitan Battery: Demographically Adjusted Neuropsychological Norms for African American and Caucasian Adults. Lutz, FL: Psychological Assessment Resources, Inc., 2004, 17-18.

EXAMPLE:
At the time of interview, person with disability had completed high school but no work toward an advanced degree.

12

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Added "successfully" prior to "completed" in DEFINITION.
2004-04-01	Added EXAMPLE of being held back in elementary school.
2004-04-01	Updated SOURCE.
2003-01-01	Changed code 01 from “1 year” to “1 year or less”.
2003-01-01	Changed code “01 = Var didn’t exist at the time this form was filled out” to “66= Var didn’t exist at the time this form was filled out”.
2002-01-01	Added SOURCE box; added info about NAFFSA website.
2001-07-01	Note added that actual years of education may not equal the actual number of years in school.
2001-07-01	Note added to not count GED, trade school, or other types of education not listed toward years of education.
2001-01-01	Variable added.

DEFINITION:
GED status at time of follow-up.

CODE:
1 No
2 Yes
3 N/A, has HS diploma or attended college
9 Unknown
0 Variable did not exist

CHARACTERS:
1 numeric

NOTE:
*If person has not graduated from high school and has not attended college, then code either "1" or "2", depending on whether or not he/she has a GED. If person has graduated from high school and/or has attended college, then code "3".

EXAMPLE:
At time of interview, participant had a Masters Degree and a high school diploma.

3

VARIABLE HISTORY:

Date of last Revision	Description
2004-01-01	Added note that coding is contingent on subject's high school/college education.
2003-10-01	Corrected example (changed “1” to “3”).
2002-01-01	Added code “3=N/A”.
2001-08-20	Variable added to database.

EMPLOYMENT STATUS
Variable 211a
Date of last revision: 07/01/04

DEFINITION:
Code primary employment status in the month prior to the evaluation.

Determine primary status by using the following prioritization, regardless of the number of hours worked: competitive employment, degree-oriented education, taking care of house or family, job-directed/on-the-job training, supported employment, sheltered employment, non-directed coursework, volunteer work, retirement (age-related), retirement (disability-related), and no productive activity.

CODE:
02 Full-time student (regular class)
03 Part-time student (regular class)
04 Special education/other non-regular education
05 Competitively employed (minimum wage or greater, legal or illegal employment)
07 Taking care of house or family
08 Special employed (sheltered workshop, supportive employment, has job coach)
09 Retired (age)
10 Unemployed (looking for work in the *last 4 weeks)
11 Volunteer work
12 Retired (disability)
13 Unemployed (not looking for work in the *last 4 weeks, for any reason)
14 Hospitalized without pay during most of the *last 4 weeks
15 Retired (other)
*66 Variable did not exist at time of data collection
77 Other
99 Unknown

CHARACTERS:
2 numeric

NOTE:
If patient is in the hospital at the time of follow-up, employment status is that status existing at the time of admission to the hospital.

Competitive subminimum wage employment such as babysitting, newspaper delivery, and piecework should be coded 77.

Code "09=Retired (age)" if respondent indicates that retirement was due to age (use respondent's definition).

Ignore non-employment sources of income such as pension, settlement, or disability income support.

If participant is in jail, code "77=other".

If participant works in a foreign country, assume wage is not submiminum unless there is information to the contrary.

If participant is employed for only part of the month prior to the follow-up evaluation, code employment status as during the majority of the work days during that month.

If person has been hired but has not begun work, code as employed.

Code education as full-time or part-time based on self-report.

CHARACTERISTICS OF DATA:
Starting 7/1/01, data are entered into a new field that uses the additional coding categories implemented on 7/1/01. The old field has been retained in the database. Data for all cases is available in the calculated variable "EMPLOYMENT2", which merges these two fields.

EXAMPLE:
Patient was a homemaker at the time of evaluation, with no other employment status.

07

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, corrected the labels for codes 10, 13, 14: Replaced "4 weeks prior to injury" with "last 4 weeks".
2004-07-01	Added CODE 66=Variable did not exist at time of data collection. (This code has been used in the database for some time.)
2004-07-01	Removed "annual" from references to follow-up evaluation.
2004-07-01	In Variable History for 1/1/04 regarding "DATABASE" box, corrected a typo so prior text "...added that variable added..." has been changed to "...added that new variable added..."
2004-04-01	Added information to CHARACTERISTICS OF DATA about the employment calculated variable, which merges current data with data collected before the response categories were expanded.
2004-04-01	Moved prioritization list from NOTES to DEFINITION.
2004-04-01	Renamed "DATABASE" box as "CHARACTERISTICS OF DATA".
2004-01-01	Added DATABASE box. Added that the new variable was added and the old variable was kept in the database.
2004-01-01	Added note to code education as full-time or part-time based on self-report.
2003-10-01	Added note to code as employed if hired prior to evaluation but has not yet started work.
2003-01-01	Deleted Secondary Employment variable; instructions adjusted as needed.
2003-01-01	Deleted code "88=No secondary employment status".
2003-01-01	Added note to use priority list to determine primary status, regardless of hours worked.
2002-07-01	Added note about minimum wage in foreign country.
2002-07-01	Added note about coding if did not work all days in prior month.
2001-07-01	Replaced "at annual evaluation" with "in the month prior to the annual evaluation".
2001-07-01	For code 7, replaced "Homemaker" with "Taking care of house or family".
2001-07-01	For code 10, added "(looking for work in the last 4 weeks)".
2001-07-01	Added code "12=Retired (disability)".
2001-07-01	Added code "13=Unemployed (not looking for work in the last 4 weeks)".
2001-07-01	Added code "14 =Hospitalized without pay during most of the last 4 weeks".
2001-07-01	Added code "15=Retired (other)".
2001-07-01	Removed [i]source of income support for disability[/i] as a criterion for classification.
2001-07-01	Revised the prioritization list as follows: "taking care of house or family" replaces "home management (homemaker)", "job-directed/on-the-job training" reverses position with "supported employment", "volunteer work" replaces "volunteer activity", "retirement (age-related), retirement (disability-related)" replaces "active leisure/retirement, disability-related retirement".
2001-07-01	Added note that for the code"09=Retired (age)", accept the respondent's statement as to whether age was the cause of retirement.
1999-10-01	Added use of job coach to code 8.
1999-10-01	Added list to prioritize employment status if more than 1.
1999-04-02	Added clarification for some codes.
1995-07-01	Dropped reference to variable 112 so coding is consistent among employment-related vars.
1994-09-13	Dropped third employment status.
1994-08-19	Removed note regarding collecting data from subject and SO.
1994-08-19	Added code 88 and added 88's to example.
1994-08-19	Added notes to be consistent with V111a.

QUESTIONS AND ANSWERS:

QUESTION:	I have a 61 year-old man who worked most of his life in an engineering position. A few months ago he was laid off and went to work as a salesman in a large home supply store where he subsequently was injured. In the year after his injury, he returned to this job. However, after 24 weeks, he decided to retire because of fatigue, and because it really wasn't the kind of work he was trained to do. He has no plans to work again. 12-03-2004
ANSWER:	Recall that "employment status" is coded according to the coding priority as shown on the data collection form and in the syllabus. The coding priority is applied in cases when more than one employment status is indicated by the respondent. In your example the person says that he retired due to fatigue (presumably "disability" due to the brain injury) and to the job not being the kind of work he was trained to do (ie., an "other" reason). The coding priority lists "retired (disability)" but does not list "retired (other)", so "retired (disability" is the higher priority and is the correct choice. The other two categories you wonder about--"retired (age)" and "unemployed (not looking)"--can be ruled out because they aren't indicated by the respondent. 12-03-2004

HOURS OF PAID COMPETITIVE EMPLOYMENT
Variable 211b
Date of last revision: 07/01/05

DEFINITION:
Average number of hours per week usually worked in all paid competitive jobs (minimum wage or greater) in the month prior to evaluation.

CODE:
?? Hours per week
888 NA-not currently competitively employed
999 Unknown

CHARACTERS:
3 numeric

NOTE:
Fractions are to be rounded to the nearest whole number. 0.5 should be rounded upward.

Code actual number of hours per week **only** for those cases coded 05 (competitively employed) in V211a (employment status), otherwise this variable must be coded 88.

If patient was employed more than 98 hours per week, code as 98 hours.

If patient works two jobs, add all hours together to code.

Skip this question if the person is not currently competitively employed.

CHARACTERISTICS OF DATA:
*When missing data codes were changed from 88 and 99 to 888 and 999 (4/1/05), the TBINDC changed all 88 and 99 codes in the database to 888 and 999. (There were almost no other codes in the 80-100hr/wk range.)

EXAMPLE:
Patient was employed 37.5 hours per week.

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VARIABLE HISTORY:

Date of last Revision	Description
2005-07-01	Added to CHARACTERISTICS OF DATA that the TBINDC changed all 88 and 99 codes in the database to 888 and 999 when the missing data codes were changed (4/1/05) from 88 and 99 to 888 and 999.
2005-04-01	Changed missing data codes 88 and 99 to 888 and 999.
2005-04-01	Deleted missing data code 66=variable did not exist. (Variable has always existed.)
2005-04-01	Changed number of characters from 2 to 3.
2004-07-01	Deleted references to primary and secondary employment status.
2004-07-01	Deleted references to "annual" evaluation.
2002-07-01	Added “currently” to code “8=NA”.
2002-07-01	Added instruction to skip this question if the person is not currently competitively employed.
2002-04-01	Added “not competitively employed” to code “8=NA”.
2002-01-01	Clarified instruction to code this variable if “05=competitive employment” is coded for either the primary or secondary status of V211a.
2001-08-20	Added code “66=Variable did not exist”.

Date of last Revision	Description
2001-07-01	In the definition, added “usually worked in all” prior to “paid competitive”; replaced “employment” with “jobs”; added “in the month prior to the” before “annual evaluation”.
1999-04-02	Added note regarding coding hours greater than 98 and hours for more than one job.
1996-11-01	Corrected note.
1995-07-01	Added note clarifying when to code variable in relationship to variable V211a.
1994-08-19	Removed note regarding collecting data from subject and SO.

DATE OF FIRST COMPETITIVE EMPLOYMENT
Variable 211c
Date of last revision: 04/01/04

DEFINITION:
Date the person with brain injury began competitive employment after discharge from inpatient rehabilitation.

CODE:
??/??/???? Month, day, year
06/06/6666 Variable did not exist
08/08/8888 NA - no post-injury competitive employment
08/08/8899 NA - competitive employment started prior to last * evaluation
09/09/9999 Unknown

CHARACTERS:
8 date

NOTE:
The first day of work in which reimbursement was at or above the minimum wage.

If the exact date is unknown, estimate to the nearest half-month and code the day in the middle of that half month.

Do not include illegal activity.

Length of employment does not matter (e.g., employed for 1 day counts).

If on disability payments and return to work, count this as the first day (if competitive).

Ask this question if the person has been competitively employed since the last evaluation even if not currently competitively employed.

EXAMPLE:
Began paid, competitive work sometime in the first half of March 2000.

03/08/2000

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Removed reference to "annual" evaluation.
2002-07-01	Changed 08/08/8888 from “not competitively employed” to ”no post-injury competitive employment”.
2002-07-01	Added note to ask this question even if participant is not currently competitively employed.
2002-01-01	Added code to syllabus “06/06/6666 Variable did not exist” [already added to database?].
2001-08-20	Added notes.
2001-07-01	Variable added to database.

JOB STABILITY: WEEKS EMPLOYED
Variable 211d
Date of last revision: 07/01/04

DEFINITION:
AT 1 YEAR FOLLOW-UP: Number of weeks of competitive employment during the year after injury.

AT OTHER FOLLOW-UPS: Number of weeks of competitive employment *in the last year.

CODE:
?? Number of weeks
66 Variable did not exist
88 N/A-no competitive employment *in the last year.
99 Unknown

CHARACTERS:
2 numeric

NOTE:
Include all weeks employed at minimum wage or higher.

Legal employment only.

Include vacation time and other types of leave if the person was paid during that time.

Partial weeks are rounded up to the nearest whole week.

Ask this question if the person has been competitively employed since the last evaluation, even if not currently competitively employed.

If employment is infrequent but on a regularly scheduled basis, or if it is related to a specific function, then code the number of weeks during which the person was employed. But, if days of employment were just random and the person might or might not do it again, then code the total number of weeks in which the person worked. (E.g., if the person worked 2 times a month for 9 months, then in the first situation 39 weeks should be coded. In the second situation 18 weeks should be coded.)

EXAMPLE:
Patient worked October 11 through December 21.

11

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In DEFINITION and CODES, changed time period from "since the last evaluation" to "in the last year"
2004-07-01	Removed reference to "annual" evaluation.
2003-01-01	Added note about coding infrequent employment.
2002-07-01	Added note to ask this question even if person is not currently competitively employed.
2002-07-01	Changed code 88 to “no competitive employment since last evaluation”, from “not competitively employed”.
2002-04-01	Added “not competitively employed during prior year” to code “8=NA”.
2002-01-01	Added code “66=Variable did not exist”.
2001-07-01	Variable added to database.

ANNUAL EARNINGS
Variable 211i
Date of last revision: 04/01/04

DEFINITION:
Annualized income from competitive employment, based on all competitive employment at the time of the evaluation. Calculate the person's income for the next year as if he/she were to continue to earn at the rate at the time of the follow-up evaluation. Do not take into account anticipated future changes in income--no matter how large or how temporary the present rate of earning.

CODE:
01 $9,999 or less
02 $10,000-$19,999
03 $20,000-$29,999
04 $30,000-$39,999
05 $40,000-$49,999
06 $50,000-$59,999
07 $60,000-$69,999
08 $70,000-$79,999
09 $80,000-$89,999
10 $90,000-$99,999
11 $100,000 or more
66 Variable did not exist
77 Refused
88 N/A- not currently competitively employed
99 Unknown

CHARACTERS:
2 numeric

NOTE:
Include only competitive, legal, above-minimum wage employment.

Include salary, commissions, tips, and bonuses.

Exclude income support, investment income, and settlements.

This question may be asked along with V292c.

Ask this question only if person is currently competitively employed, because this is a measure of projected income based on current competitive employment.

CHARACTERISTICS OF DATA:
In 2003, one Model System had difficulty obtaining this information.

EXAMPLE:
Until this month, employment income was $675 a week from a full-time job. Employment income is now $255 a week from part-time work and about $425 a month from a home business.

02

VARIABLE HISTORY:

Date of last Revision	Description
2004-04-01	Removed reference to "annual" evaluation.
2004-01-01	Added note to include tips.
2004-01-01	Added note explaining why to include only participants who are competitively employed.
2002-07-01	Changed code 8 to "not currently competitively employed".

Date of last Revision	Description
2002-07-01	Added note to ask this question only if person is currently competitively employed.
2002-04-01	Added "not competitively employed" to code 8=NA.
2002-01-01	Definition modified to instruct not to take into account known future changes in earning.
2002-01-01	Removed note added in 10/1/01 regarding taking into account future changes in income.
2002-01-01	Added note that this variable can be collected along with V292c.
2002-01-01	Replaced code "66=Not due" with "66=Variable did not exist" (error in syllabus, not forms).
2001-10-01	Definition modified to emphasize this is an annualized estimate based on current jobs.
2001-10-01	Note added to take into account definite future changes in income.
2001-07-01	Variable added to database.

Date of last Revision	Description
2004-04-01	Added link to website with occupation codes information.
2004-04-01	Added instructions for using the occupations classification document and an link to the instructions.
2004-04-01	In DEFINITION and EXAMPLE, removed "annual".
2004-01-01	Deleted note refering to primary and secondary employment status (secondary employment was no longer as of 1/1/03).
2002-01-01	Added note to code this variable if V211a is 05 or 08 in either primary or secondary occupation.
1995-07-01	Added note clarifying when to code variable in relationship to variable V211a.
1994-09-13	Converted to using the 1990 Census codes and only coding major category of occupation instead of specific classification.
1994-08-19	Removed note regarding collecting data from subject and SO.
1994-08-19	Added "1970" to clarify which codes are being used.
1994-08-19	Added note to refer to Appendix D for codes.

CENSUS OCCUPATIONAL CATEGORY
Variable 212
Date of last revision: 04/01/04

DEFINITION:
The major census occupational category in which the patient's occupation is included for his/her primary occupation in the month prior to the follow-up evaluation.

CODE:
Code the patient's primary occupation using the categories below. For a list of the specific occupations in each category, see the "1990 Census of Population Occupational Classification System", pages 9-22 of this document: 1990 Census Industrial & Occupational Classification Codes (http://www.bls.gov/nls/quex/r1/y97r1cbka1.pdf). A copy of this list should be in Appendix D of your syllabus binder. *For instructions using this document see: 17a.Instructions for 1990 Census Occupational Codes (http:///syllabus/pdf/Occ_codes_w_govt_URL.pdf) in Appendix D.

01 Executive, Administrative, and Managerial
02 Professional Speciality
03 Technicians and Related Support
04 Sales
05 Administrative Support Including Clerical
06 Private Household
07 Protective Service
08 Service, except Protective and Household
09 Farming, Forestry, and Fishing
10 Precision Production, Craft, and Repair
11 Machine Operators, Assemblers, and Inspectors
12 Transportation and Material Moving
13 Handlers, Equipment Cleaners, Helpers, and Laborers
14 Military Occupations
88 Not Applicable, not coded 05 or 08 for variable 111a
99 Unknown occupation

CHARACTERS:
2 numeric

NOTE:
Code only if V211a (employment status) is coded 05 or 08 (competitively employed or special employed)*; otherwise this variable must be coded 88.

SOURCE:
1990 Occupational Classification System, Alphabetical Index of Industries and Occupations, 1990 Census of Population and Housing, Bureau of the Census, U.S. Department of Commerce. 1990 Census Industrial & Occupational Classification Codes (http://www.bls.gov/nls/quex/r1/y97r1cbka1.pdf)

EXAMPLE:
Patient was primarily a sales clerk at the time of the follow-up evaluation.

04

VARIABLE HISTORY:

SUBSEQUENT TRAUMATIC BRAIN INJURY
Variable 221
Date of last revision: 08/15/98

DEFINITION:
Subsequent traumatic brain injury in a patient who is identified in Form I as having a traumatic brain injury. This must be diagnosed by a physician. The injury does not have to be so severe as to require rehospitalization.

Traumatic brain injury is to be defined as:
1) Loss of consciousness due to new brain trauma,
2) Post-traumatic amnesia due to new brain trauma, or
3) Objective neurologic finding that can be reasonably attributed to subsequent brain injury on physical or mental status examination

Any one of the above criteria will suffice.

CODE:
Use the month and year that the subsequent brain injury occurred.

*MM/YYYY
66/6666 Variable did not exist
77/7777 Patient had a subsequent brain injury during the current follow-up year, but the date is not known
88/8888 Not applicable, no subsequent brain injury
99/9999 Unknown if subsequent brain injury

If patient had more than one subsequent brain injury during the current follow-up year, enter the date of the first one.

CHARACTERS:
6 date

EXAMPLE:
Patient experienced a subsequent brain injury on January 18, 1991.

01/1991

VARIABLE HISTORY:

Date of last Revision	Description
1998-08-15	Year expanded to four digits.
1994-09-13	Revised coding to enter date instead of just yes/no.
1994-08-19	Definition clarified per Medical Committee.
1994-08-19	Dropped date of subsequent TBI from syllabus page, it has never been collected.

DISABILITY RATING SCALE
Variable 251
Date of last revision: 07/01/04

DEFINITION:
*Disability Rating Scale ratings are to be completed at every follow-up evaluation. Indicate ratings for all items. Information about the DRS is available from COMBI at these two links: Introduction to the DRS (http://www.tbims.org/combi/drs/index.html);Definition of DRS items (http://www.tbims.org/combi/drs/drssyl.html)

There are four acceptable versions of the DRS data collection form: 23b.DRS Rating Form (COMBI) (http://tbims.org/combi/drs/drsrat.html), PDF DRS form (COMBI) (http://www.tbims.org/combi/drs/drs.pdf), 23a.Disability Rating Scale Form (SCVMC 9/16/97) (http:///syllabus/pdf/23a_DRS_form_SCVMC_1997.pdf), and23h.DRS Form (SCVMC 9/2003) (http:///syllabus/pdf/23h_DRS_SCVMC_2003.pdf). The version(s) your Center uses should be found in Appendix J.

2.0 Mildly Dependent-limited assistance (non-resid helper)
2.5 Between mildly depend. and moderately dependent
3.0 Moderately Dependent-moderate assist (person in home)
3.5 Between moderately dependent and markedly dependent
4.0 Markedly Dependent-assist all major activities, all times
4.5 Between markedly dependent and totally dependent
5.0 Totally Dependent - 24 hour nursing care
9.9 Unknown, or assessment not done

8. "Employability" (As a full time worker, homemaker, or student):
0.0 Not Restricted
0.5 Between not restricted and selective jobs, competitive
1.0 Selected Jobs, Competitive
1.5 Between selected jobs and sheltered workshop
2.0 Sheltered Workshop, Non-competitive
2.5 Between sheltered workshop and not employable
3.0 Not Employable
9.9 Unknown, or assessment not done

CHARACTERS:
1 numeric
2 numeric

NOTE:
An example of an appropriate use of a .5 rating for the "Employability" item is: the individual, upon being discharged from inpatient rehabilitation, was placed with his former employer, who modified the job requirements because of reduced performance after the TBI (rating of 1). The individual, had he had to start over with a new, unfamiliar job, may have been more suited for a non-competitive sheltered workshop environment (rating of 2), but is able to function successfully in his present position due to extenuating circumstances. He falls between a rating of 1 and 2 and should be rated 1.5. There are times, especially in the "Employability" item, when a client does not fit in one category or another, but falls in between two descriptions. This is when to use the .5 rating, i.e., only when a case does not fit fairly well within an existing "whole number" category. The .5 ratings are available to increase the sensitivity of the scale.

Total score is calculated using a computer program.

Every effort should be made to obtain the DRS assessments, however, if any items cannot be assessed, use code 9. Do not leave blanks.

See: Frequently Asked Questions about DRS (COMBI) (http://www.tbims.org/combi/drs/drsfaq.html)

See: DRS properties (COMBI) (http://www.tbims.org/combi/drs/drsprop.html)

TRAINING:
*It is the responsibility of each center to assure that all staff who perform DRS ratings (Form I and Form II) are trained and certified through the website at "www.tbims.org/combi/drs/". All staff should be re-certified every other year. The Northern California TBI Model System (at Santa Clara Valley Medical Center) will send a reminder to individuals nearing the end of their two-year DRS credentialing. See:DRS training & testing (COMBI) (http://www.tbims.org/combi/drs/drstat.html) in Appendix J.

SOURCE:
Rappaport M, Hall KM, Hopkins K, Belleza T, Cope N. (1982). Disability Rating Scale for severe head trauma patients: Coma to community. Arch Phys Med & Rehabil, 63:118-123, rev 8/87. For an abstract of this article, see: PubMed:Rappaport M, et al (1987). (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=7073452)

See: Other References for DRS (COMBI) (http://www.tbims.org/combi/drs/drsref.html)

CODE:
1. Eye Opening:
0 Spontaneous
1 To Speech
2 To Pain
3 None
7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown, or assessment not done

2. Communication Ability (Verbal, writing, or letter board or sign - e.g. eye blink, head nod):
0 Oriented
1 Confused
2 Inappropriate
3 Incomprehensible
7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown, or assessment not done

3. Motor Response:
0 Obeying
1 Localizing
2 Withdrawing
3 Flexing
4 Extending
5 None
7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown, or assessment not done

Items 4,5,6,7 and 8 can be rated on a .5 scale. For example, if patient's feeding ability falls between 1.0 (Partial) and 2.0 (Minimal), use a rating of 1.5.

4. Feeding (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
7.7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9.9 Unknown, or assessment not done

5. Toileting (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
7.7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9.9 Unknown, or assessment not done

6. Grooming (cognitive ability only):
0.0 Complete
0.5 Between complete and partial
1.0 Partial
1.5 Between partial and minimal
2.0 Minimal
2.5 Between minimal and none
3.0 None
7.7 Not due this year [Code no longer used; data now collected in all follow-up years.]
9.9 Unknown, or assessment not done

7. Level of Functioning (physical and cognitive disability):
0.0 Completely Independent
0.5 Between completely indep and indep in special environ.
1.0 Independent in Special Environment
1.5 Between indep in special environ and mildly depend.

EXAMPLE:
Patient has the following Disability Rating Scale scores:

1. Eye Opening 1
2. Communication Ability 1
3. Motor Response 0
4. Feeding 0.0
5. Toileting 0.0
6. Grooming 0.0
7. Level of Functioning 1.5
8. "Employability"1.5

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	To TRAINING, added instructions regarding certification that are found in "22f.Data Quality Guidelines".
2004-07-01	In setting up the Live Syllabus, instructions for collection of Form I data had been copied into the DEFINITION. Corrected these instructions.
2004-07-01	Removed references to "annual" evaluation.
2004-07-01	In CODES, added back in the codes for "Not due this year", followed by statement that the codes are no longer used.
2004-04-01	Added link from source article to PubMed.
2004-04-01	Added links to COMBI.
2003-01-01	Deleted “less dynamic schedue” instruction (not needed due to less frequent data collection).
2003-01-01	Deleted code "7=Not due this year".
2002-04-01	Corrected code for “Not due this year” for #4-6: changed from “7” to “7.7” (was correct on Form II and in database).
2002-01-01	Added code “7 =Not due this year” for #1-6.
2001-07-01	Added instruction that the first 6 items of the DRS have been classified as “less dynamic” variables and are to be obtained in years 1,2,5,10, and every 5 years thereafter.
1998-09-01	Added note regarding .5 ratings.
1995-01-01	Dropped total score.
1995-01-01	Added NOTE and reference to Appendix J.
1994-09-13	Removed comment about completing DRS annually until two normal ratings have occurred.
1994-09-13	Revised items 4-8 to a .5 scale.
1994-09-13	Dropped date of assessment.

DEFINITION:
The FIM is a measure of disability. It is intended to measure what the person with the disability actually does, not what he or she ought to be able to do, or might be able to do if certain circumstances were different.

FIM data are to be collected according to the current (4/1/04) *IRF-PAI coding instructions IRF-PAI Coding Instructions: 4/1/2004 version (http://www.cms.hhs.gov/providers/irfpps/irfpaimanual040104.pdf), supplemented by any further instructions in your syllabus. Information about the FIM can be found in the IRF-PAI manual in section III, pages 40-57, Appendix H, and pages 29-34. A copy of the FIM-related sections of this manual should be in your syllabus, in Appendix A. If it is not possible for your Center to follow the correct manual, notify the TBINDC.

*Information about the FIM is available from COMBI at these two links: Introduction (COMBI) (http://www.tbims.org/combi/FIM/index.html); Background (COMBI) (http://www.tbims.org/combi/FIM/fimbg.html).

CODE:
7 Complete Independence (Timely, Safely)
6 Modified Independence (Extra time, device)
5 Supervision
4 Minimal Assist (subject does 75% or more of task)
3 Moderate Assist (50 - 74% of task)
2 Maximal Assist (25 - 49% of task)
1 Total Assist (subject does less than 25% of task)
8 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown

Items 8b and 9b
7 No accidents
6 No accidents, uses devise (catheter, ostomy)
5 One accident in the past 7 days
4 Two accidents in the past 7 days
3 Three accidents in the past 7 days
2 Four accidents in the past 7 days
1 Five or more accidents in the past 7 days
8 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown - assessment not done
66 Variable did not exist

Item 14: Primary mode of locomotion
w Walking
c Wheelchair
8 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown

Item 17: Primary mode of comprehension
a Auditory comprehension > 50% of the time
v Visual comprehension > 50% of the time
b Both used equally
8 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown

Item 18: Primary mode of expression
v Verbal expression > 50% of the time
n Nonverbal expression > 50% of the time
b Both used equally
8 Not due this year [Code no longer used; data now collected in all follow-up years.]
9 Unknown

CHARACTERS:
1 numeric
2 numeric
1 alpha-numeric

NOTE:
All FIM items must be scored. Record what patient actually does. Every effort should be made to obtain the FIM assessments, however, if any items are not assessed, use code 9. Do not leave blanks.

According to the UDS Procedures for Scoring the FIM, "if the subject would be put at risk for injury if tested or does not perform the activity, enter 1". Use this same rule for the TBI Model Systems FIM data collection.

If at follow-up evaluation, patient is walking AND using a wheelchair, code 14 (mode) as the more frequently used mode of locomotion. Do not use the code "b=Both" (as is indicated by UDS instructions). Use all sources of information to determine the more frequent mode of locomotion at the time of evaluation and code either "w" or "c" as appropriate. If more frequent mode of locomotion cannot be determined, code "9".

For #8 (Bladder Management), if patient does not void (e.g., renal failure and on hemodialysis), assign code "7=Complete independence".

According to new FIM instructions (effective 1/1/02), all FIM items now have an "assessment time period". The person's score on a given FIM item is determined by his/her functional level during this "assessment time period"--a specified number of days prior to the evaluation. (FIM instructions prior to 1/1/02 did not indicate an assessment time period.) The assessment time period for all FIM items (except 8b and 9b-see below) is 3 days. Scoring reflects the patient's *poorest (most dependent) functioning* during the assessment time period1. The evaluation is therefore not a snap-shot of the patient's performance at the time of evaluation, but a summary of performance over the entire assessment time period.

Wearing of eyeglasses causes Comprehension to be scored "6" only if the person's primary form of comprehension is visual (rather than auditory, which is usually primary).

"Level of assistance" (part a) and "Frequency of accidents" (part b) are recorded for #8 (Bladder Management) and #9 (Bowel Management). For items 8b and 9b, the assessment time period is 7 days-that is, the number of accidents is counted across the 7 days prior to the patient's FIM evaluation. If information is not available from the entire 7-day period, then record over the number of days (at least the 3 days prior to evaluation) for which information is available. No adjustment in scoring is made when the when the assessment time period is shorter than 7 days.

*See:Properties of the FIM instrument (COMBI) (http://www.tbims.org/combi/FIM/fimprop.html)

1 However, the current training manual qualifies this, as follows: "The patient's score on measures of function should not reflect arbitrary limitations or circumstances imposed by the facility. For example, a patient who can routinely ambulate more than 150 feet throughout the day with supervision (score of 5 for FIM Locomotion: Walk/Wheelchair item), but who is observed to ambulate only 20 feet at night to use the toilet because that is the distance from his/her bed, should receive a Walk score of 5 rather than a lower score" (IRF-PAI Training Manual 1/16/02, page III-4).

TRAINING:
FIM training will follow guidelines from the Uniform Data System (UDS). It is the responsibility of each center to assure that all staff who perform FIM assessments (Form I and Form II) are certified by a recognized credentialing organization (e.g., UDS, e-Rehab) and remain certified for the duration of the time that they collect data/assess patients for the TBIMS National Database.

CHARACTERISTICS OF DATA:
On 4/1/02 new fields were created to accept data collected with the new (1/1/02)IRF-PAI instructions. The old fields are still in the database. At present there are no calculated variables that merge old data and with new data. Calculated variables based on old **OR** new scoring are available.

SOURCE:
Uniform Data System for Medical Rehabilitation
232 Parker Hall
SUNY South Campus
3435 Main Street
Buffalo, New York 14214 3007
(716) 829 2076; FAX (716) 829 2080

The IRF-PAI instructions for the FIM are disseminated through the website of The Centers for Medicare and Medicaid Services. For information about the CMMS, go to: http://www.cms.hhs.gov/researchers/projects/APR/2003/facts.pdf.

EXAMPLE:
SELF CARE ITEMS:
2 1. Feeding
1 2. Grooming
2 3. Bathing
3 4. Dressing Upper Body
3 5. Dressing Lower Body
2 6. Toileting

SPHINCTER CONTROL:
4 8. Bladder Management
4 a. Level of assistance
5 b. Frequency of accidents
5 9. Bowel Management
6 a. Level of assistance
5 b. Frequency of accidents

MOBILITY ITEMS
Transfers technique:
3 10. Bed, Chair, Wheelchair
4 11. Toilet
3 12. Tub or Shower

Locomotion:
3 14. Walking/Wheelchair (1/2/9)
3 15. Stairs

COMMUNICATIONS:
7 17. Comprehension (1/2/3/9)
6 18. Expression (1/2/3/9)

PSYCHOSOCIAL ADJUSTMENT ITEMS:
6 22. Social Interaction

COGNITIVE FUNCTION:
5 26. Problem Solving
4 27. Memory

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In TRAINING, added instructions regarding certification that are found in "22f.Data Quality Guidelines".
2004-07-01	In CODES, added back in the code for "Not due this year", plus a statement that the code is no longer used.
2004-07-01	In DEFINITION fixed the link to the current (4/1/2004) IRF-PAI manual and added a description of where to look in the manual for FIM-related information.
2004-04-01	Updated link to IRF-PAI manual (4/1/04 version).
2004-04-01	Added links to COMBI.
2004-01-01	Added note about scoring Comprehension when person wears eyeglasses.
2003-01-01	Deleted "less dynamic schedue" instruction (because FIM is now collected in all years due to reduced schedule).
2003-01-01	Deleted codes for "Not due", because data are now being collected in all follow-up years (due to less dynamic follow-up schedule).
2002-07-01	Updated SOURCE.
2002-07-01	Improved DEFINITION: added first two sentences; added reference to SOURCE; made explicit the requirement to follow current instructions.
2002-07-01	Added note to record what participant actually does.
2002-07-01	Added note about coding of #8 if participant does not void.
2002-07-01	Added note about assessment time period, including that score is to reflect poorest functioning.

Date of last Revision	Description
2002-07-01	Added note about coding 8a, 8b, 9a, 9b, including coding of 8b and 9b if information is not available for the full 7-day assessment time period.
2002-07-01	Added code "66=Variable did not exist".
2002-04-01	Corrected the "mode" codes for #14, 17, 18 (alphabetic rather than numeric).
2002-04-01	In DEFINITION, added reference Center's instruction manual.
2002-04-01	For #8 and #9, added function modifier items "a=Level of assistance" and "b=Frequency of accidents", the codes for 8b and 9b, and examples for 8a,b & 9a,b.
2002-04-01	Added note about coding 14 (mode of locomotion) if patient both walks and uses wheelchair.
2002-04-01	Corrected code 4 "Minimal Assist" that ptn does greater than or equal to 75% rather than greater than 75%.
2002-04-01	Updated SOURCE.
2002-01-01	Added code "8=Not due" to #14 & 18 in these pages.
2001-07-01	Added definition of FIM.
2001-01-01	Changed collection schedule to years 1,2,5,10 and every 5 years thereafter.
1999-10-01	Revised note and unknown code used if patient does not perform activity.
1999-07-01	Deleted FAM items.
1998-04-15	Added note how to code optional FAM items not collected.
1998-04-01	Added note that the 12 FAM items are now optional for collection.
1995-07-01	Dropped mode of locomotion code "b" for item #14.
1995-03-24	Added unknown code for mode items 14,17 and 18.
1994-09-13	Added unknown code.
1994-09-13	Added notes for coding clarification.
1994-09-13	Deleted date of assessment.
1994-09-13	Updated source to include FIM Version 4.0.
1994-09-13	Updated descriptors for #16, 23, and 25.

REHOSPITALIZATION
Variable 273
Date of last revision: 04/01/05

DEFINITION:
The reason for each patient rehospitalization since inpatient rehabilitation discharge or in the past year (whichever is shorter).

CODE:
Code one reason for each rehospitalization

0 Rehabilitation (inpatient)
1 Seizures
2 Neurologic disorder (non-seizure)
3 Psychiatric
4 Infectious
5 Orthopedic
6 General Health Maintenance or OB/GYN
7 Other not specified above
8 Not applicable--no rehospitalizations or no further rehospitalizations
9 Unknown--rehospitalized but reason is unknown
* 66 Variable did not exist at time of data collection. [Used only with variables 273(3-5)]
99 Unknown if rehospitalized

CHARACTERS:
2 numeric

NOTE:
This variable includes all types of hospitalizations (i.e., an inpatient stay in any hospital, whether part of a TBI Model System or not).

If more than two hospitalizations, have your Medical Director prioritize which two to code.

Data for follow-ups prior to 10/1/99 will be recoded from text field to the categories above.

Prior to 1/1/02 the code "9=unknown" did not distinguish between "unknown if rehospitalized" and "unknown reason for rehospitalization". On 1/1/02 "9=unknown" was clarified to mean "unknown reason for rehospitalization". On 1/1/04 the code "99=unknown if rehospitalized" was added. Thus, between 1/1/02 and 1/1/04 there was no way to record rehospitalization for unknown reason.

EXAMPLE:
Patient has been hospitalized twice since the last evaluation. Once for seizures related to TBI, and once for complications of diabetes.

1 6

VARIABLE HISTORY:

Date of last Revision	Description
2005-04-01	Added code "66=variable did not exist at time of data collection" for variables 273(3-5).
2004-04-01	Added to DEFINITION to ask for the last year (not since last evaluation).
2004-04-01	Added three more variables for recording types of rehospitalizations (for a total of 5).
2004-04-01	Improved wording of NOTE about "unknown" codes.
2004-01-01	Added code 99.
2004-01-01	Added note that prior to 1/1/02 the code “9=unknown” did not distinguish between “unknown if rehospitalized” and “unknown reason for rehospitalization” (etc)..
2004-01-01	Changed field width from 1 to 2.

Date of last Revision	Description
2002-01-01	Added clarification to code 9.
1999-10-01	Dropped date fields and changed reason for rehospitalization from text field to a categorical variable.
1999-04-02	Revised unknown date codes to be compatible with new software.
1998-09-01	Added clarification of how to code if more than two rehospitalizations.
1998-08-15	Year expanded to 4 digits.
1995-01-01	Dropped rehospitalizations #3-#6.

DRUG USE
Variable 292a1
Date of last revision: 07/01/04

DEFINITION:
Index of drug use; asked of best source at every follow-up evaluation. "During the last 12 months (or during the time since your injury -- if year 1 follow-up) did you use any illicit or non-prescription drugs?"

CODE:
1 No
2 Yes
*7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
8 No other drug use. [Code no longer used; data not collected on use of specific drugs.]
9 Unknown

CHARACTERS:
1 numeric

NOTE:
*A report on substance use that is based on TBIMS data can be found on COMBI: Problematic Substance Use Identified in the TBIMS National Dataset (http://www.tbims.org/combi/subst/index.html)

EXAMPLE:
Person with brain injury used marijuana in past year.

2

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added back in code for "Not due this year", plus a statement that the code is no longer used.
2004-07-01	Removed references to "annual" follow-up.
2004-04-01	Added NOTE regarding the report in COMBI that uses TBIMS data on substance use.
2003-01-01	Deleted v292a1 1a-f (questions about specific drugs used).
2003-01-01	Removed references to this variable as being asked of the person with TBI and added instruction to ask of best source at every annual evaluation.
2003-01-01	Deleted code “7=This variable not due this year”
2003-01-01	Deleted the question that identified respondent as the person with TBI or significant other.
1999-10-01	Revised time period from 6-12 months to 12 months.
1997-01-01	Expanded variable, moved alcohol questions to separate variable.

DEFINITION:
A "drink" is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. (See: 20a.Standard Drink Chart (http:///syllabus/pdf/20a_Standard_drink_chart.pdf) in Appendix G.)

1) During the past month, have you had at least one drink of any alcoholic beverage such as beer, wine, wine coolers, or liquor?

2) During the past month, how many days per week or per month did you drink any alcoholic beverages, on the average?

3) A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. On the days when you drank, about how many drinks did you drink on the average?

4) Considering all types of alcoholic beverages, how many times during the past month did you have five or more drinks on an occasion?

CODE:

Item 1):
1 No (autofills items 2-4 with 66=N/A)
2 Yes
5 Not due this year [Code no longer used; data now collected in all follow-up years.]
7 Refused (autofills items 2-4 with 7=Refused)
8 Variable did not exist when data collected (autofills items 2-4 with 88=Variable did not exist).
9 Unknown/Don't know/Not sure (autofills items 2-4 with 99=Unknown/Don't know/Not sure)

Item 2):
a) ## enter number of days per week
b) ## enter number of days per month
a)& b)
55 Not due this year. [Code no longer used; data now collected in all follow-up years.]
66 N/A-Not Applicable (use for item not answered; use for both items if item 1=No)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

Item 3):
enter number of drinks
55 Not due this year. [Code no longer used; data now collected in all follow-up years.]
66 N/A - Not Applicable (use only if item 1=no)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

Item 4):
enter number of times
00 None
55 Not due this year. [Code no longer used; data now collected in all follow-up years.]
66 N/A (use only if item 1 = no)
77 Refused
88 Variable did not exist when data collected
99 Unknown/Don't know/Not sure

CHARACTERS:
2 numeric
1 numeric

NOTE:
Base the data recorded for these questions on self-response. Do not be influenced by information about drinking habits that may be available from hospital records, etc.

If cannot get patient's response, get family, if not family then medical chart.

Code the higher score if a range is given.

Probe for size of drink and adjust scoring according to answer received.

A report on substance use that is based on TBIMS data can be found on COMBI: Problematic Substance Use Identified in the TBIMS National Dataset (http://www.tbims.org/combi/subst/index.html)

CHARACTERISTICS OF DATA:
The QFVI was added to the Form II database starting 3/21/91. The QFVI was added to the Form I database as one of the premorbid history questions on 1/1/97. The QFVI was dropped from both Form I and Form II on 10/1/99 and replaced with alcohol questions from NHSDA and BRFSS module 13. The QFVI data are available in a separate database.

*STARTING 4/1/04 (version 9.5), THE "7" AND "9" CODES WERE REVERSED IN ORDER TO BE CONSISTENT WITH OTHER VARIABLES (7/77=refused, 9/99=unknown/don't know/not sure). WHEN WORKING WITH DATA COLLECTION FORMS 9.4 AND EARLIER, KEEP IN MIND THAT 7's ON THE FORM SHOULD APPEAR AS 9's IN THE DATABASE AND VICE VERSA. TAKE THIS INTO ACCOUNT WHEN DATA ON 9.4 OR EARLIER FORMS ARE BEING ENTERED, CORRECTED, OR COMPARED WITH DATA IN THE DATABASE. THE DATA ENTRY SCREENS HAVE INSTRUCTIONS ABOUT THIS.

SOURCE:
Centers for Disease Control and Prevention. *Behavioral Risk Factor Surveillance System User's Guide.* Atlanta: U.S. Department of Health and Human Services, 1998. National Household Survey on Drug Abuse. Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

EXAMPLE:
During the past month, person with brain injury had a single glass of wine with dinner every night, but never consumed more than that amount.

1) 2
2a) 66
2b) 30
3) 1
4) 00

VARIABLE HISTORY:

Date of last Revision	Description
2005-04-01	Capitalized the text in CHARACTERISTICS OF DATA entry about reversal of "7" and "9" codes.
2005-01-01	Added to CHARACTERISTICS OF DATA that "7" and "9" codes on data collection forms 9.4 and earlier are reversed, and that this should be taken into account when working with 9.4 and earlier forms.
2005-01-01	Deleted NOTE that data entry screens are programmed so pull-down menu items 7 and 9 (switched starting with V9.5) now adjust for forms 9.4 and earlier and for form 9.5 and later.
2005-01-01	Added NOTE that variable is to be collected from participant if possible, or family, or medical chart.
2004-10-01	Added NOTE that data entry screens are programmed so pull-down menu items 7 and 9 (switched starting with V9.5) now adjust for forms 9.4 and earlier and for form 9.5 and later. Data from all forms can now be entered AS IS. (This change was made in the database last quarter (9.6) but too late to add to syllabus page.)
2004-07-01	Corrected EXAMPLE so 2a is "66".
2004-07-01	In CODES, added back in the code for "Not due this year" plus statement that this code is no longer used.

Date of last Revision	Description
2004-04-01	Added "Unknown" to code "Don't know/Not sure"
2004-04-01	Reversed the codes for "Refused" (was 9, now 7) and "Unknown/Don't know/Not sure" (was 7, now 9)
2004-04-01	Added a NOTE that a report on alcohol use based on TBIMS data is on COMBI.
2004-01-01	Added coding instruction for item 2 that 66 should be scored for the item not answered.
2004-01-01	Added note to code the higher score if a range is given.
2004-01-01	Added note to probe for size of drink and adjust scoring according to answer received.
2003-10-01	Added note that scores for these questions should be based on self-reports and should not be influenced by information available clinically in the Model System.
2003-10-01	Added note referring to Appendix G for more information.
2003-01-01	Removed references to this variable as being asked of the person with TBI.
2003-01-01	Deleted codes for “This variable not due this year”.
2003-01-01	Deleted the question that identifies respondent as the person with TBI or significant other.
2002-04-01	In CODES, corrected autofills so will occur when #1 = 1, 5, 7, 8, or 9. Revised format of autofill information.
2001-01-01	Added/revised coding instructions.
1999-10-01	Dropped QFVI, replaced with alcohol questions from NHSDA and BRFSS module 13.
1997-01-01	Moved drug question to separate variable.
1996-04-01	Added code for additional CIQ questions not due this year.
1994-09-13	Added Appendix G including standard drink chart.
1994-08-12	Added note for coding someone who does not drink at all.
1994-08-12	Corrected example.
1994-08-12	Added full reference for Cahalan/Cisin article.
1991-03-21	QFVI added to Form II.

DEFINITION:
Indicates the primary mode of motorized vehicular transportation, according to the best source of information (person with brain injury unless unavailable or unreliable).

CODE:
1 Drives vehicle
2 Rides with someone else
3 Public transit
4 Special bus or van service
5 NA-no/negligible motorized transportation
*7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
8 Not Applicable
9 Unknown

CHARACTERS:
1 numeric

NOTE:
This variable incorporates V293b.

EXAMPLE:
Person with brain injury uses scheduled public bus service five days per week.

3

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added back in the code for "Not due this year" plus a statement that this code is no longer used.
2003-01-01	Deleted code “7=NA, these questions not due this year” (because the new reduced data collection schedule results in their being due every year).
2003-01-01	Deleted the question that identifies respondent as the person with TBI or significant other.
2002-10-14	Added “motorized” to variable label and to definition.
2002-10-14	Added code “5 NA-no/negligible motorized transportation”.
2001-07-01	V292b became a “Best source of information” variable, incorporating V293b. (This "best source" variable was originally named V300b, but reverted to V292b before a change in the database occurred.)
1998-04-15	Split “N/A” code into “N/A, not due this year” and “N/A, no SO”.
1996-04-01	Added code for additional CIQ questions not due this year.
1996-04-01	Dropped items 3 & 4.
1996-04-01	Revised codes 1 & 2.
1995-07-01	Dropped item “2=advanced notice for transportation required”.
1994-08-19	Clarified what "little/no advanced notice" refers to.
1994-08-19	Corrected example.
1994-08-19	Clarified that items 2-4 refer to the primary mode of transportation.

INCOME AND SOURCE
Variable 292c
Date of last revision: 01/01/05

DEFINITION:
Family income of person with brain injury and sources * of non-employment income for person with brain injury at follow-up evaluation as reported by the best source of information, which is the person with brain injury unless he or she is considered unreliable or is not available.

(1) What is your total family income (approximate combined income of all members of the household)?

(2a) Do you receive income from the following sources? (This applies only to the person with the brain injury.)
(a) Supplemental Security Income (SSI)
(b) Supplemental Security Disability (SSD)
(c) Temporary Assistance to Needy Families (TA or TANF) (Formerly, Aid to Families with Dependent Children - AFDC)
(d) State/Local Welfare (incl. General Relief, Home Relief)
(e) Unemployment Insurance
(f) Workers' Compensation
(g) Private Insurance
(h) Income from Settlement
(i) Other non-employment sources

(2b (a-i)) DELETED - How much income a month do you receive from each source?

CODE:
Item (1):
01 $9,999 or less
02 $10,000-$19,999
03 $20,000-$29,999
04 $30,000-$39,999
05 $40,000-$49,999
06 $50,000-$59,999
07 $60,000-$69,999
08 $70,000-$79,999
09 $80,000-$89,999
10 $90,000-$99,999
11 $100,000 or more
55 Data collected before codes 06-11 existed; data exist in calculated variable "income".
66 Not due this year. [Code no longer used; data now collected at all follow-ups.]
77 Refused
88 N/A-no *income
99 Unknown

Items (2a: a-i):
1 No
2 Yes
7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
9 Unknown

CHARACTERS:
2 numeric
1 numeric

NOTE:
For source: "Settlement", exclude legal fees to be paid out of the settlement.

This variable can be collected along with V211I.

CHARACTERISTICS OF DATA:
All data on income level are available in the calculated variable "income". In this variable, new data (starting 7/1/01) are merged with old data by transforming the new codes (06-11) into the old code "06".

In 2003, the TBIMS had difficulty obtaining this information (24% missing data). Eleven Model Systems had 10% or more missing data.

EXAMPLE:
Person with brain injury has an annual family income of $16,500, and receives $1,274.35 a month from an account established with money obtained through a lawsuit associated with the injury.

(1) 02
(2a) (1) 1
(2) 1
(3) 1
(4) 1
(5) 1
(6) 1
(7) 1
(8) 2
(9) 1

VARIABLE HISTORY:

Date of last Revision	Description
2005-01-01	Changed label of code "88" from "N/A-no salary" to "N/A-no income" On data collection form, changed "N/A-not employed" to "N/A-no income".
2004-07-01	In DEFINITION, removed reference to amount of income from supplemental sources.
2004-07-01	In CODES, added back the codes for "Not due this year" plus a statement that the codes are no longer used.
2004-04-01	Added CODES for (2a).
2004-04-01	Corrected number of characters (was 10 iems, 1 character each).
2004-04-01	Corrected example so item (1) has two characters (rather than one).
2004-04-01	Replaced reference to "annual evaluation" with "follow-up evaluation".
2004-01-12	Added to code label for code 55: “data exist in calculated variable “inc”"".
2003-01-01	Deleted v292c2b variables (amount of income from non-employment sources) and made appropriate changes in syllabus.
2003-01-01	Deleted code “66=Not due” (because this variable is always collected in the new,less frequent follow-up schedule).
2003-01-01	Deleted the question that identifies respondent as the person with TBI or significant other.
2002-04-01	Corrected example so code is “99998” rather than “8”.
2002-04-01	Added code “55= Data collected before codes 06-11 existed”. (Data on such cases are available only in a calculated variable that merges current data with data based on the original 01-06 codes.)
2002-04-01	Updated CODE 3 label to replace "AFDC" with "TA".
2002-01-01	Added note that this variable can be collected along with V211i.
2002-01-01	In example, changed “0’” to “8” in 2b when 2a = 1(No).
2002-01-01	Added note about calculated variable that includes new and old cases.
2002-01-01	Added code “99995 Variable did not exist”.
2002-01-01	Corrected syllabus: code 99998 changed from "NA not due this year” to “NA no income from this source”, which matches Form II.
2001-10-01	Added income codes to match V211I.
2001-08-20	Added note about excluding legal fees from settlement amount.

Date of last Revision	Description
2001-07-01	Added amount of income obtained monthly from each non-employment source.
2001-07-01	Integrated with V293c to create a “best source of information” variable. (Initially, was named V300c, but reverted to V292c plus V292c1 before variable was renamed in the database.)
1998-04-15	Changed code N/A, not due this year or no SO.
1996-04-01	Added code 7 for additional CIQ questions not due this year.
1994-08-19	Clarified #1 by adding "total" family income.
1994-08-19	Removed statement from #2 "in addition to employment income".

DEFINITION:
Determine if the person with brain injury has been arrested during the past year.

(1) In the past year, have you been arrested?
(2) If yes for #1, how many times? [DROPPED]
(3) If yes for #1, how many were drug/alcohol related? [DROPPED]

CODE:
Item (1)
1 No
2 Yes
*7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
9 Unknown

CHARACTERS:
1 numeric

NOTE:
If person is arrested post-injury for a crime allegedly committed pre-injury, code as "1=No".

EXAMPLE:
Person with brain injury reports he/she was arrested and charged for breaking and entering.

2

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added back in the code for "Not due this year" plus a statement that this code is no longer used.
2004-04-01	Removed deleted items from CHARACTERS box.
2004-04-01	Improved wording in NOTE about coding if person arrested for pre-injury crime. Does not affect data already collected. (Previously stated: "If person is arrested post-injury for a crime allegedly committed pre-injury, record the arrest as occurring pre-injury.")
2003-10-01	Changed lookback period from “since the last interview” to “In the past year”.
2003-01-01	Deleted variables 292e2 (number of arrests) and 292e3 (number of arrests that were for drug-related offenses).
2003-01-01	Replaced “during the last year” with “Since the last interview in [month, year]”.
2003-01-01	Removed references to this variable being asked of the person with TBI.
2003-01-01	Deleted code “7=This variable not collected this year”.
2003-01-01	Deleted notes related to number of arrests and number that were drug/alcohol related.
2003-01-01	Deleted the question identifying respondent as the person with TBI or significant other.
2001-08-20	Added note about pre-injury crimes in which the arrest is post-injury.
1998-04-01	Changed code description and example to reflect how to code when no arrests are drug/ETOH related.
1997-04-01	Expanded items 2-3 to 2 characters, clarified wording #3.
1997-01-01	Expanded variable.
1996-04-01	Added code for additional CIQ questions not due this year.

Date of last Revision	Description
1994-08-19	Added clarification to description to refer to current follow-up period.
1994-08-19	Corrected example.

QUESTIONS AND ANSWERS:

QUESTION:	In coding 292e we noticed that the note about coding this as a pre-injury arrest is no longer accurate now that 192e has been deleted. 01-30-2004
ANSWER:	This will be corrected in next quarter's syllabus. [Change made 4/1/04.] 02-02-2004

PSYCHIATRIC PROBLEMS
Variable 292f
Date of last revision: 07/01/04

DEFINITION:
Determine if the person with brain injury has had any of the following psychiatric problems during the past year; according to the best source of information, which is the person with brain injury unless she or he is considered unreliable or is unavailable:
(1) Suicide attempt(s).
(2) Psychiatric hospitalization(s).

CODE:
Item (1): Attempted suicide in the past year?
1 No
2 Yes
7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
0 Variable not in existence when data collected on this case
9 Unknown

Item (2): Any psychiatric hospitalizations in the past year?
1 No
2 Yes
7 Not due this year. [Code no longer used; data now collected in all follow-up years.]
0 Variable not in existence when data collected on this case
9 Unknown

CHARACTERS:
1 numeric

EXAMPLE:
Person with brain injury reports he/she has not attempted suicide, has not had any psychiatric hospitalizations.

(1) 1
(2) 1

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added back in the code for "Not due this year" plus a statement that this code is no longer used.
2003-10-01	Replaced “Since the last interview in [month,year]”, with “In the past year”.
2003-01-01	Replaced “during the last year” with “Since the last interview in [month, year].
2003-01-01	Deleted code “7=This variable not collected this year”.
2003-01-01	Deleted the question identifying respondent as the person with TBI or significant other.
2001-08-20	Variable V292f and V293f combined to create V300d (best source of information). But, V300d not added to database. Instead, the variable number was reverted to V292f (in combination with V292f1).
1997-01-01	Variable added to database.

SATISFACTION WITH LIFE SCALE (SWLS) -FOR PERSON WITH BRAIN INJURY
Variable 292g
Date of last revision: 07/01/04

DEFINITION:
The person with brain injury should rate his/her satisfaction with life at the time of the follow-up evaluation by indicating his/her level of agreement with the five questions below.

(1) In most ways my life is close to my ideal.
(2) The conditions of my life are excellent.
(3) I am satisfied with my life.
(4) So far I have gotten the important things I want in life.
(5) If I could live my life over, I would change almost nothing.

For more information, see: Introduction to the SWLS (COMBI) (http://www.tbims.org/combi/swls/index.html).

CODE:
1 Strongly disagree
2 Disagree
3 Slightly disagree
4 Neither agree nor disagree
5 Slightly agree
6 Agree
7 Strongly agree
*8 Not due this year. [Code no longer used; data now collected in all follow-up years.]
0 Variable not in existence when data collected
9 Unknown
10 N/A - no data from person w/ TBI

CHARACTERS:
2 numeric

NOTE:
See:SWLS Frequently Asked Questions/Tips (COMBI) (http://www.tbims.org/combi/swls/swlsfaq.html)

See: (http:///syllabus/pdf/)

CHARACTERISTICS OF DATA:
In 2003, the TBIMS had difficulty obtaining this information (11% missing data). Five Model Systems had missing data rates of 10% or more. Data managers report that missing data are due to some persons with TBI being unable to provide information for the Form II, combined with the requirement that the SWLS must not be answered by anyone other than the person with TBI. A new code was been added to this item to identify these cases.

SOURCE:
Diener E, Emmons R, Larsen J, Griffin S. (1985). The Satisfaction With Life Scale. J Personality Assessment, 49(1), 71-75.

Pavot W, Deiner E. (1993). Review of the Satisfaction With Life Scale. Psychological Assessment. 5(3), 164-172.

(http:///syllabus/pdf/)

EXAMPLE:
1. In most ways my life is close to my ideal. [2]
2. The conditions of my life are excellent. [4]
3. I am satisfied with my life. [6]
4. So far I have gotten the important things I want in life. [6]
5. If I could live my life over, I would change almost nothing. [2]

VARIABLE HISTORY:

Date of last Revision	Description
2004-07-01	In CODES, added back in the code for "Not due this year" plus a statement that this code is no longer used.
2004-07-01	Removed reference to "annual" evaluation.
2004-04-01	Added links to COMBI.
2003-10-01	Added CODE "10=N/A-no data from person w/ TBI"
2003-01-01	Deleted code "8=This variable not collected this year".
1998-04-01	Dropped quality of life and health questions, added Satisfaction With Life Scale (self-assessment by person with brain injury).
1997-01-01	Quality of Life and Health - new variable added to database.

GLASGOW OUTCOME SCALE - EXTENDED
Variable 296
Date of last revision: 01/01/05

DEFINITION:
The Glasgow Outcome Scale-Extended is given at the time of follow up evaluation. For information about the GOS-E, see:Introduction to the GOS-E (COMBI)
(http://tbims.org/combi/gose/index.html). For coding instructions, see: 28a.Instructions for Rating GOS-E (http:///syllabus/pdf/28a_Instructions_GOS-E.pdf) in Appendix O.

CODE:
Total score:
1 DEAD
2 VEGETATIVE STATE
3 LOWER SEVERE DISABILITY
4 UPPER SEVERE DISABILITY
5 LOWER MODERATE DISABILITY
6 UPPER MODERATE DISABILITY
7 LOWER GOOD RECOVERY
8 UPPER GOOD RECOVERY
9 UNKNOWN
0 VARIABLE DID NOT EXIST

Subscores:
Scores for 1,2a,2b,2c,3a,3b,4a,4b,5a,6a,6c,7a,7c,8a:
1 NO
2 YES
8 N/A-deceased
9 UNKNOWN

Scores for 5b:
1 Reduced work capacity
2 Able to work only in a sheltered workshop or non-competitive job, or currently unable to work
9 Unknown

Scores for 6b:
1 Participate a bit less: at least half as often as before injury
2 Participate much less: less than half as often
3 Unable to participate: rarely, if ever, take part
9 Unknown

Scores for 7b:
1 Occasionally - less than weekly
2 Frequent or constant - once a week or more but tolerable
3 Constant - daily and intolerable
9 Unknown

CHARACTERS:
1 numeric

NOTE:
Every effort should be made to obtain the GOS-E assessment, however, if it can not be assessed, use code 9. Do not leave blank.

Collect and record all subscale scores unless instructed to skip some of them by the skip instructions on the Form II.

*For scoring instructions if any subscale items are "unknown", see Appendix 28b (http:///syllabus/pdf/28b_GOSE_unk_items.pdf)

GOS-E is a "best source" variable. Not necessary to ask the 2 "supplemental" questions about seizures and source of
disability (not present on data collection form).

DATA ENTRY: Enter into the database all subscale scores that do not autofill. For each case that you enter, check to be sure that the autofilled total score in the database is the same as the total score that has been recorded on the Form II. Notify your Data Manager of any discrepancies.

DATA MANAGERS: If errors in calculating the total score turn up on the Form II, provide your data collector(s) with more training in scoring the GOS-E and in calculating the total score. Contact the TBINDC if you have questions.

For additional information about the GOS-E see:

Frequently Asked Questions for GOS-E (COMBI) (http://www.tbims.org/combi/gose/gosefaq.html)

Properties of the GOS-E instrument (COMBI) (http://www.tbims.org/combi/gose/goseprop.html)

CHARACTERISTICS OF DATA:
On 7/1/00 a field for data with the new scoring was created. The old field (data prior to 7/1/00) is also in the database. GOS-E data can be collapsed onto the GOS scale if analyses require.

SOURCE:
JT Wilson, L Pettigrew, G Teasdale. Structured Interviews for the Glasgow Outcome Scale and the Extended Glasgow Outcome Scale: Guidelines for their use. Journal of Neurotrauma, Vol. 15 No. 8, 1998. For an abstract of this article, see:PubMed link: JT Wilson, et. atl. (1998) (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=9726257)

For additional references, see:GOS-E References (COMBI) (http://www.tbims.org/combi/gose/goseref.html)

EXAMPLE:
Patient has constant, daily childish psychological problems.

5 (Lower Moderate Disability)

VARIABLE HISTORY:

Date of last Revision	Description
2005-01-01	Moved items from CODE to NOTE.
2005-01-01	Moved item about comparability of GOS variables and GOSE variables from NOTE to CHARACTERISTICS OF DATA.
2005-01-01	Added NOTE about Appendix 28b instructions for handling items coded "unknown".
2005-01-01	Deleted NOTE about adding subscale boxes for the convenience of data collectors. (Data collectors should now fill out all boxes other than those skipped according to instructions on the data collection form.)

Date of last Revision	Description
2004-07-01	Clarified instructions in CODE for double-checking the accuracy of the total score.
2004-07-01	Added NOTE to use the procedure in CODE to check the accuracy of the total score.
2004-07-01	Removed instruction to enter only the overall score into the database.
2004-04-01	Added database procedure that double-checks data collector's coding of overall rating score
2004-04-01	Added instructions in NOTES for double-check procedure.
2004-04-01	In syllabus, added "unknown" codes for 5b, 6b, 7b.
2004-04-01	Added link from source publication to PubMed.
2004-04-01	Added links to COMBI.
2003-10-01	Added answer boxes to individual items. (To assist in data collection; individual item data are not entered into the database.)
2003-01-01	Deleted subscore variables.
2002-10-14	Now shows the codes for 5b,6b,7b as different than the codes for the other items.
2002-10-14	Removed initial question from data collection form that asked if ptn is deceased.
2002-10-14	Added note that the two supplemental items are no longer on the data collection form.
2002-07-01	Added "8=N/A-deceased" to item codes.
2002-01-01	Added note that the 2 "supplemental" questions are not required.
2001-10-01	New administration and scoring instructions added to Form II.
2001-10-01	Revised the reference to Appendix O in DEFINITION.
2001-10-01	Added new overview and instructions in Appendix O.
2001-10-01	Removed references to the GOS-E Structured Interview (superceded by new instructions in Form II).
2001-10-01	Added note that GOS-E is a "best souce" variable.
2001-08-20	Corrected code labels, as follows: Added DEAD=1; Changed VEGETATIVE STATE 1->2, LSD 2->3, USD 3->4, LMD 4->5, UMD 5->6, LGR 6->7, UGR 7->8, UNK 8->9.
2001-07-01	Instructions for data collection have been modified so questions 2b,5b,6b,7b, and 8b are not asked (coded 8=N/A) if participant has no disability.
2001-07-01	Added codes "8=N/A, no disability" and "9=unknown".
2001-07-01	Corrected code labels: added "Upper GR" to 8a(1); added "Lower GR" to 8a(2).
2001-01-01	Subscores to be entered into database.
2000-07-01	Adopted extended version of Glasgow Outcome Scale (Glasgow Outcome Scale-Extended).
1999-04-02	Added note regarding scoring persons not employed prior to injury.
1998-09-01	Added ABIC checklist for scoring GOS, amended example and source.
1998-04-01	Variable added to database.

QUESTIONS AND ANSWERS:

QUESTION:	In the GOS-E, if one or more items are "9=unknown", should the overall score be "9=unknown"? 05-01-2004
ANSWER:	Not necessarily. The hierarchical nature of the GOS-E items causes lower items in the scale to not contribute to the overall score if the person is able to perform the task described by a higher item. For more information see the email sent 10/12/2004, which will be added to the syllabus as a NOTE on 1/1/2005. 10-12-2004
QUESTION:	It would be good if you could recreate the coding as in 8.1, because it's very useful for checking the accuracy with which data collectors assign the overall score. 03-01-2004
ANSWER:	That has been added to the data entry screens as a check on the accuracy of data collector's calculation of the overall score. 03-31-2004

SUPERVISION RATING SCALE (SRS)
Variable 297
Date of last revision: 01/01/05

DEFINITION:
The Supervision Rating Scale is used to rate the amount of supervision that the person with brain injury actually receives by choosing one of the thirteen categories below. This rating is determined by the interviewer with information from the person with TBI and/or others at the time of the follow-up evaluation. "Supervision" means that someone is responsible for being with the person with brain injury. For more information, see:Introduction to SRS (COMBI) (http://www.tbims.org/combi/srs/index.html).

A copy of the SRS data collection form is available at: SRS Rating Form (COMBI) (http://www.tbims.org/combi/srs/srsrat.html).

CODE:
Level 1 - INDEPENDENT
01 - The person with brain injury lives alone or independently. Other persons can live with the person with brain injury, but they cannot take responsibility for supervision (for example, a child or elderly person). *If person is independent and living with one or more other adults, code "1".

02 - The person with brain injury is unsupervised overnight. The person with brain injury lives with one or more persons who could be responsible for supervision (for example, a spouse or roommate), but they are all sometimes absent overnight.

Level 2 - OVERNIGHT SUPERVISION
03 - The person with brain injury is only supervised overnight. One or more supervising persons are always present overnight but they are all sometimes absent for the rest of the day.

Level 3 - PART-TIME SUPERVISION
04 - The person with brain injury is supervised overnight and part-time during waking hours, but is allowed on independent outings. One or more supervising persons are always present overnight and are also present during part of waking hours every day. However, the person with brain injury is sometimes allowed to leave the residence without being accompanied by someone who is responsible for supervision.

05 - The person with brain injury is supervised overnight and part-time during waking hours, but unsupervised during working hours. Supervising persons are all sometimes absent for enough time for them to work full-time outside the home.

06 - The person with brain injury is supervised overnight and during most waking hours. Supervising persons are all sometimes absent for periods longer than one hour, but less than the time needed to hold a full-time job away from home.

07 - The person with brain injury is supervised overnight and during almost all waking hours. Supervising persons are all sometimes absent for periods shorter than one hour.

Level 4 - FULL-TIME INDIRECT SUPERVISION
08 - The person with brain injury is under full-time indirect supervision. At least one supervising person is always present, but the supervising person does not check on the person with brain injury more than once every 30 minutes.

09 - Same as #8 plus requires overnight safety precautions (for example, a deadbolt on outside door).

Level 5 - FULL-TIME DIRECT SUPERVISION
10 - The person with brain injury is under full-time direct supervision. At least one supervising person is always present and the supervising person checks on the person with brain injury more than once every thirty minutes.

11 - The person with brain injury lives in a setting in which the exits are physically controlled by others (for example, a locked ward).

12 - Same as #11 plus a supervising person is designated to provide full-time line-of-sight supervision (for example, an escape watch or suicide watch).

13 - The person with brain injury is in physical restraints.

OTHER CODES
00 - Variable did not exist (cases prior to 4/1/98).
99 - Unknown

CHARACTERS:
2 numeric

NOTE:
For more information see:
Frequently Asked Questions for SRS (COMBI) (http://www.tbims.org/combi/srs/srsfaq.html)
Properties of SRS (COMBI) (http://www.tbims.org/combi/srs/srsprop.html)

CHARACTERISTICS OF DATA:
Errors on the Form II data collection form starting 7/1/00 were corrected on 7/1/01 as follows:

Heading: "Overnight supervision" replaces "Independent at night".
Label for 03: "Supervised only at night" replaces "Usually supervised during day".
Label for 04: "Supervised at night and selected day times" replaces "Supervision always at night and at selected day times".
Label for 05: "Supervised and night and part-time during day; not supervised during working hours (full time)" replaces "Supervised at night, and most day times, except during work".
Heading: "Full time indirect supervision" replaces "Full time supervision".
Label for 08: "Full time indirect supervision; does not check more than once every 30 minutes" replaces "Full time direct supervision, at least every 30 minutes".
Label for 09: "Same as 08, and requires overnight safety precautions (lock, etc." replaces "Same as 08, and requires special safety precautions (lock, etc.)".
Label for 10: "Full time direct supervision; checked more than once every thirty minutes" replaces "Full time supervision, more than once every thirty minutes".
Label for 11: "Full time direct supervision in confined, controlled setting" replaces "Full time supervision in confined, controlled setting".

Data collected using the incorrect codes were deleted from V297, trichotomized to eliminate the effect of the label errors, and are stored in a separate database. Current data are also saved as a trichotomized variable ("SRScalc") and can be merged with the deleted data, upon request. The trichotomization is: 01=independent (01); 02=part-time supervision (02-07); 03=full-time supervision (08-13).

*In October 2004 it was determined that certain Model Systems had been coding independent persons as "2" if living with one or more adults (e.g., spouse). Most but not all such cases can be corrected by the Model Systems. Starting with database 9.8 the TBINDC will: (1) archive the current, flawed variable, (2) make available a new variable in which codes 1 and 2 are collapsed into a single category (thereby making all SRS data consistent across all centers), and (3) fix the current variable by deleting incorrectly coded cases that cannot be corrected. (It is expected that about 130 cases will be deleted.) Data will continue to be entered into the current variable.

SOURCE:
Boake, C. Supervision Rating Scale: A measure of functional outcome from brain injury. Archives of Physical Medicine and Rehabilitation. 1996;77(8):765-772. For an abstract, see:PubMed link to Boake et. al (1996) (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=8702369)

EXAMPLE:
The patient is supervised overnight and during the day, however his spouse works full-time outside the home during the day.

05

VARIABLE HISTORY:

Date of last Revision	Description
2005-01-01	In CODE, added instruction to code "1" if person is independent and living with other person(s).
2005-01-01	Added to CHARACTERISTICS OF DATA an explanation of how the database will handle cases that were coded "2" rather than "1" and cannot be corrected.
2004-07-01	Removed reference to "annual" evaluation.
2004-04-01	Added link to PubMed.
2004-04-01	Added links to COMBI.

Date of last Revision	Description
2001-07-01	Corrected errors that were implemented on 7/1/00 in the Form II, as follows: the heading [u]"Overnight supervision"[/u] replaces [u]"Independent at night"[/u]; for code 03 the label "Supervised only at night" replaces "Usually supervised during day"; for code 04 the label "Supervised at night and selected day times" replaces "Supervision always at night and at selected day times"; for code 05 the label "Supervised and night and part-time during day; not supervised during working hours (full time)" replaces "Supervised at night, and most day times, except during work"; the heading [u]"Full time indirect supervision"[/u] replaces [u]"Full time supervision"[/u]; for code 08 the label "Full time indirect supervision; does not check more than once every 30 minutes" replaces "Full time direct supervision, at least every 30 minutes"; for code 09 the label "Same as 08, and requires overnight safety precautions (lock, etc.)" replaces "Same as 08, and requires special safety precautions (lock, etc.)"; for code 10 the label "Full time direct supervision; checked more than once every thirty minutes" replaces "Full time supervision, more than once every thirty minutes"; for code 11 the label "Full time direct supervision in confined, controlled setting" replaces "Full time supervision in confined, controlled setting".
1998-09-01	Dropped code "77=not due", added code "00=variable did not exist".
1998-04-01	Variable added to database.

Appendices & Ancillary Documents