APPENDIX TO IHIS DATA BRIEF NO. 3

SUPPLEMENTARY MATERIALS

Section 1. Variables Used to Define Age Group and Injury

Table 1. Variables Used to Measure Injury – Person-Level

IHIS Name	Description	Codes
YEAR	Survey year	2004 to 2014
STRATA	Stratum for variance estimation	
PSU	Primary sampling unit (PSU) for variance estimation	
SAMPWEIGHT	Sample Person Weight	
AGE	Age	0 to 85 (top coded)
INJURY3MO	Whether or not the person had an injury or poisoning episode that was serious enough that she/he sought medical advice or treatment in the past 3 months.	1: No 2: Yes
INJURY3MONO	The number of injury or poisoning episodes the person experienced in the past 3 months.	1 to 5
INJCAUSANIM	The number of times a person's injury/poisoning episode was caused by an animal or insect bite	1 to 5
INJCAUSBURN	The number of times a person's injury/poisoning episode caused by fire, a burn, or a scald	1 to 5
INJCAUSCUT	The number of times a person's injury/poisoning episode caused by a cut or piercing	1 to 5
INJCAUSFALL	The number of times a person's injury/poisoning episode caused by a fall	1 to 5
INJCAUSMACH	The number of times a person's injury/poisoning episode caused by machinery	1 to 5
INJCAUSOVER	The number of times a person's injury/poisoning episode caused by overexertion or strenuous movements	1 to 5
INJCAUSTRAN	The number of times a person's injury/poisoning episode caused by some sort of transportation	1 to 5
INJCAUSTRIK	The number of times a person's injury/poisoning episode caused by being struck by an object or a person	1 to 5
INJCAUSPOIN	The number of times a person's injury/poisoning episode caused by poisoning	1 to 5
INJCAUSOTH	The number of times a person's injury/poisoning episode caused by something other reasons	1 to 5

Table 2. Variables Used Measure Injury – Episode-Level

IHIS Name	Description	Codes
IRBODY1	The first part of the body that was affected by the injury.	01-29
IRBODY2	The second part of the body that was affected by the injury.	01-29
IRBODY3	The third part of the body that was affected by the injury.	01-29
IRBODY4	The fourth part of the body that was affected by the injury.	01-29
IRTYPE1A	The first type of injury on the first affected part of the body.	01-09
IRTYPE1B	The second type of injury on the first affected part of the body.	01-09
IRTYPE2A	The first type of injury on the second affected part of the body.	01-09
IRTYPE2B	The second type of injury on the second affected part of the body.	01-09
IRTYPE3A	The first type of injury on the third affected part of the body.	01-09
IRTYPE3B	The second type of injury on the third affected part of the body.	01-09
IRTYPE4A	The first type of injury on the fourth affected part of the body.	01-09
IRTYPE4B	The second type of injury on the fourth affected part of the body.	01-09
IRMEDEMER	Whether or not the injured person received medical advice, treatment, or follow up care from a visit to an emergency department or emergency room for this injury or poisoning.	1: No 2: Yes
IRMEDEMVE	Whether or not the injured person received medical advice, treatment, or follow up care for this injury or poisoning from an emergency vehicle.	1: No 2: Yes
IRMEDHOSP	Whether or not the person was hospitalized for at least one night as a result of this injury/poisoning.	1: No 2: Yes

***Please Note*:** When creating an extract from the IHIS website, you will need to select "Hierarchical," to the right of the "Select Samples" button. You will receive a hierarchical data extract – that is, a data file with a record structure in which all of the household information is on a single record, followed by one record for each person living in that household, followed by one record for each injury sustained by a person living in that household. The code in Section 2 of this appendix assumes you are working with a hierarchical data extract.

Section 2. Stata Code

```
use
Z:\ihis\staff\Dongjuan\Injury_Data_Brief\New_Injury_Data_Brief\fixed_2007HeadInjury_variabes\Injury_data_Brief_dat
a_from_IHIS_Internal_02_05_2016\ihis_00006.dta,clear

keep if rectype=="3"
drop nhispid
gen nhispid = substr(nhisiid,1,16)

list if nhispid=="0020140289210101"
/*this person had five injuries, however, the data on nature of injury and help-seeking behaviors are missing*/

///*** Nature of Injury ***///

//**Hip Fracure**//
gen     INatHipFrac=.
replace INatHipFrac=0 if irbody1 <96 & irbody1 >0
replace INatHipFrac=1 if (irbody1 ==15 & (irtype1a==1 | irtype1b==1)) |(irbody2 ==15 & (irtype2a==1 |
irtype2b==1))|(irbody3 ==15 & (irtype3a==1 | irtype3b==1))|(irbody4 ==15 & (irtype4a==1 | irtype4b==1))
tab INatHipFrac,missing
/*
INatHipFrac |      Freq.     Percent       Cum.
------------+-----------------------------------
          0 |     25,721       96.69      96.69
          1 |        177        0.67      97.35
          . |        704        2.65     100.00
------------+-----------------------------------
      Total |     26,602     100.00
*/

//**Head (not face) Injury**//
gen     INatHeadInj=.
replace INatHeadInj=0 if irbody1 <96 & irbody1 >0
replace INatHeadInj=1 if irbody1 ==14 | irbody2==14 | irbody3==14 |  irbody4==14
tab INatHeadInj,missing
/*
INatHeadInj |      Freq.     Percent       Cum.
------------+-----------------------------------
          0 |     23,802       89.47      89.47
          1 |      2,096        7.88      97.35
          . |        704        2.65     100.00
------------+-----------------------------------
      Total |     26,602     100.00
*/

//**Other Fracture excluding hip fracture **//
gen     INatOtherFrac=.
replace INatOtherFrac=0 if irbody1 <96 & irbody1 >0
```

```
replace INatOtherFrac=1 if (irbody1 !=15 & (irtype1a==1 | irtype1b==1)) |(irbody2 !=15 & (irtype2a==1 |
irtype2b==1))|(irbody3 !=15 & (irtype3a==1 | irtype3b==1))|(irbody4 !=15 & (irtype4a==1 | irtype4b==1))
replace INatOtherFrac=0 if INatHipFrac==1
tab INatOtherFrac,missing
/*
INatOtherFr |
       ac |      Freq.     Percent       Cum.
------------+-----------------------------------
        0 |     20,840      78.34      78.34
        1 |      5,058      19.01      97.35
        . |        704       2.65     100.00
------------+-----------------------------------
    Total |     26,602     100.00
*/

gen     INatOtherInj=.
replace INatOtherInj=0 if irbody1 <96 & irbody1 >0
replace INatOtherInj=1 if INatHipFrac==0 & INatHeadInj==0 & INatOtherFrac==0
tab INatOtherInj,missing
/*
INatOtherIn |
       j |      Freq.     Percent       Cum.
------------+-----------------------------------
        0 |      7,191      27.03      27.03
        1 |     18,707      70.32      97.35
        . |        704       2.65     100.00
------------+-----------------------------------
    Total |     26,602     100.00
*/

tab INatHipFrac if missing( INatHipFrac ) & missing( INatHeadInj ) & missing( INatOtherFrac ) & missing( INatOtherInj
),missing
/*
INatHipFrac |      Freq.     Percent       Cum.
------------+-----------------------------------
        . |        704     100.00     100.00
------------+-----------------------------------
    Total |        704     100.00

There are total 704 missing data (with 547 unique person ID) on these four nature of injury variables*/


///*** Medical Care-Seeking Behaviors ***///

gen     er_visit = .
replace er_visit = 1 if irmedemer == 2
replace er_visit = 0 if irmedemer == 1
tab er_visit irmedemer, missing
/*
```

```
        |          Visit to emergency room/department
 er_visit | Not menti  Mentioned    Refused  Not ascer  Don't kno |     Total
-----------+---------------------------------------------------------+----------
      0 |    13,121         0         0         0         0 |    13,121
      1 |         0    13,302         0         0         0 |    13,302
      . |         0         0        82         4        93 |       179
-----------+---------------------------------------------------------+----------
   Total |    13,121    13,302        82         4        93 |    26,602
*/

gen     emer_veh = .
replace emer_veh = 1 if irmedemve == 2
replace emer_veh = 0 if irmedemve == 1
tab emer_veh irmedemve, missing
/*
        |    Received medical care from an emergency vehicle
 emer_veh |       No       Yes    Refused  Not ascer  Don't kno |     Total
-----------+---------------------------------------------------------+----------
      0 |    21,159         0         0         0         0 |    21,159
      1 |         0     5,284         0         0         0 |     5,284
      . |         0         0        73         4        82 |       159
-----------+---------------------------------------------------------+----------
   Total |    21,159     5,284        73         4        82 |    26,602

*/
gen     hosp = .
replace hosp = 1 if irmedhosp == 2
replace hosp = 0 if irmedhosp == 1
tab hosp irmedhosp, missing
/*

        | Visit to hospital (stayed at least 1 night)
     hosp | Not menti  Mentioned    Refused  Don't kno |     Total
-----------+---------------------------------------------+----------
      0 |    24,555         0         0         0 |    24,555
      1 |         0     1,922         0         0 |     1,922
      . |         0         0        68        57 |       125
-----------+---------------------------------------------+----------
   Total |    24,555     1,922        68        57 |    26,602

*/

tab hosp  if  missing( er_visit) & missing( emer_veh ) & missing( hosp ),missing
/*
     hosp |      Freq.     Percent       Cum.
------------+-----------------------------------
        . |        103      100.00      100.00
------------+-----------------------------------
    Total |        103      100.00
```

There are total 103 missing data on these three help-seeking behavior variables*/

///***Collapse by unique person id (serial and year): treating missing data as ZERO***///
collapse (sum) INatHipFrac INatHeadInj INatOtherFrac INatOtherInj er_visit emer_veh hosp, by(nhispid)

///*** Create binary variables for Nature of Injury ***///
gen INatHipFrac_YN=0
replace INatHipFrac_YN=1 if INatHipFrac>0

gen INatHeadInj_YN=0
replace INatHeadInj_YN=1 if INatHeadInj>0

gen INatOtherFrac_YN=0
replace INatOtherFrac_YN=1 if INatOtherFrac>0

gen INatOtherInj_YN=0
replace INatOtherInj_YN=1 if INatOtherInj>0

///*** Create binary variables for Help-seeking Behaviors ***///
gen   ER_YN=0
replace ER_YN=1 if er_visit > 0 | emer_veh > 0

gen   Hosp_YN=0
replace Hosp_YN=1 if hosp > 0

keep nhispid INatHipFrac_YN INatHeadInj_YN INatOtherFrac_YN INatOtherInj_YN ER_YN Hosp_YN
gen injury = 1

///*** Merge this with the person-level injury variables and other person charactersitics which saved in ihis_00021.dta***///
merge 1:1 nhispid using Z:\ihis\staff\Dongjuan\Injury_Data_Brief\New_Injury_Data_Brief\fixed_2007HeadInjury_variabes\Injury_data_Brief_data_from_IHIS_Internal_02_05_2016\ihis_00021.dta

replace injury = 0 if injury == .
drop _merge

gen   age5=0 if age<5
replace age5=1 if age>=5 & age<10
replace age5=2 if age>=10 & age<25
replace age5=3 if age>=25 & age<65
replace age5=4 if age>=65
label define age5define 0 "Age<5" 1 "Age5-9" 2 "Age10-24" 3 "Age25-64" 4 "Age>=65"
label values age5 age5define

tab injury3mono if injury3mo==2,missing

```
/*
 Number of injury episodes, |
           past 3 months |      Freq.     Percent        Cum.
-------------------------+-----------------------------------
 1 injury/poisoning episode |     23,703       94.90       94.90
2 injury/poisoning episodes |      1,037        4.15       99.05
3 injury/poisoning episodes |        161        0.64       99.70
4 injury/poisoning episodes |         38        0.15       99.85
5 injury/poisoning episodes |         38        0.15      100.00
-------------------------+-----------------------------------
                  Total |     24,977      100.00
*/

tab injury3mo injury, m
/*
Injured during past 3 |       injury
           months |         0         1 |     Total
----------------------+----------------------+----------
               No |   998,849         0 |   998,849
              Yes |         0    24,977 |    24,977
----------------------+----------------------+----------
            Total |   998,849    24,977 | 1,023,826
*/

//** create binary variables for cause of injury**//
gen      injcausanim_YN=1 if injcausanim >0 & injcausanim <9
replace  injcausanim_YN=0 if injcausanim ==0
tab injcausanim injcausanim_YN,m

gen      injcausburn_YN=1 if injcausburn >0 & injcausburn <9
replace  injcausburn_YN=0 if injcausburn ==0
tab injcausburn injcausburn_YN,m

gen      injcauscut_YN=1 if injcauscut >0 & injcauscut <9
replace  injcauscut_YN=0 if injcauscut ==0
tab injcauscut injcauscut_YN,m

gen      injcausfall_YN=1 if injcausfall >0 & injcausfall <9
replace  injcausfall_YN=0 if injcausfall ==0
tab injcausfall injcausfall_YN,m

gen      injcausmach_YN=1 if injcausmach >0 & injcausmach <9
replace  injcausmach_YN=0 if injcausmach ==0
tab injcausmach injcausmach_YN,m

gen      injcausover_YN=1 if injcausover >0 & injcausover <9
replace  injcausover_YN=0 if injcausover ==0
tab injcausover injcausover_YN,m
```

```
gen      injcaustran_YN=1 if injcaustran >0 & injcaustran <9
replace  injcaustran_YN=0 if injcaustran ==0
tab injcaustran injcaustran_YN,m

gen      injcaustrik_YN=1 if injcaustrik >0 & injcaustrik <9
replace  injcaustrik_YN=0 if injcaustrik ==0
tab injcaustrik injcaustrik_YN,m

gen      injcauspoin_YN=1 if injcauspoin >0 & injcauspoin <9
replace  injcauspoin_YN=0 if injcauspoin ==0
tab injcauspoin injcauspoin_YN,m

gen      injcausoth_YN=1 if injcausoth >0 & injcausoth <9
replace  injcausoth_YN=0 if injcausoth ==0
tab injcausoth injcausoth_YN,m

svyset [pweight = perweight], strata(strata) psu(psu) vce(linearized)

/*Table 1: Ranked injury causes by age group, 2004-2014 IHIS*/
svy, subpop( if age<5           ):   mean injcaus*_YN
svy, subpop( if age>=5 & age <10  ):   mean injcaus*_YN
svy, subpop( if age>=10 & age <25 ):   mean injcaus*_YN
svy, subpop( if age>=25 & age <65 ):   mean injcaus*_YN
svy, subpop( if age >=65         ):   mean injcaus*_YN

/*Figure 1: Non-fatal injury incidence per 1,000 persons by age group, 2004-2014 IHIS*/
svy, subpop( if age<5           ):   proportion injury3mo
svy, subpop( if age>=5 & age<10   ):   proportion injury3mo
svy, subpop( if age>=10 & age<25  ):   proportion injury3mo
svy, subpop( if age>=25 & age<65  ):   proportion injury3mo
svy, subpop( if age>=65          ):   proportion injury3mo
svy: tab age5 injury3mo , row se ci

/*Figure 2: Time trends in non-fatal injury incidence per 1,000 persons by age group, 2004-2014 IHIS*/
svy, subpop( if age<5           ): proportion  injury3mo,   over (year)
svy, subpop( if age>=5 & age<10  ): proportion  injury3mo,   over (year)
svy, subpop( if age>=10 & age<25 ): proportion  injury3mo,   over (year)
svy, subpop( if age>=25 & age<65 ): proportion  injury3mo,   over (year)
svy, subpop( if age>=65         ): proportion  injury3mo,   over (year)


/*Figure 3: Non-fatal injury incidence per 1,000 persons by type of injury and age group, 2004-2014 IHIS */
svy, subpop( if age<5           ):   mean INat*YN
svy, subpop( if age>=5 & age <10  ):   mean INat*YN
svy, subpop( if age>=10 & age <25 ):   mean INat*YN
svy, subpop( if age>=25 & age <65 ):   mean INat*YN
svy, subpop( if age >=65         ):   mean INat*YN

svy, subpop( if injury3mo==2 ): tab age5 INatHipFrac_YN, row se ci
```

```
svy, subpop( if injury3mo==2 ): tab age5 INatHeadInj_YN, row se ci
svy, subpop( if injury3mo==2 ): tab age5 INatOtherFrac_YN, row se ci
svy, subpop( if injury3mo==2 ): tab age5 INatOtherInj_YN, row se ci

/*Figure 4: Non-fatal injury incidence rate per 1,000 persons by post-injury care-seeking behavior and age, 2004-2014 IHIS */
svy, subpop( if injury3mo==2  & age<5          ): proportion  ER_YN,   over (year)
svy, subpop( if injury3mo==2  & age>=5 & age<10  ): proportion  ER_YN,   over (year)
svy, subpop( if injury3mo==2  & age>=10         ): proportion  ER_YN,   over (year)

svy, subpop( if injury3mo==2  & age<65         ): proportion  Hosp_YN,   over (year)
svy, subpop( if injury3mo==2  & age>=65         ): proportion  Hosp_YN,   over (year)

svy, subpop( if injury3mo==2  & age<5          ): proportion   ER_YN
svy, subpop( if injury3mo==2  & age>=5 & age<10  ): proportion   ER_YN
svy, subpop( if injury3mo==2  & age>=10         ): proportion   ER_YN

svy, subpop( if injury3mo==2  & age<65         ): proportion  Hosp_YN,
svy, subpop( if injury3mo==2  & age>=65         ): proportion  Hosp_YN,
```