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# CRELES-RC

## Costa Rican Longevity and Healthy Aging Study, Retirement Cohort
## Recoded Variables, Wave 1

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# Description of recoded variables with exact programming

## Additional Information on the Main Form Recoded Variables Wave 1 data file

This document includes details of some variables that were constructed by the project staff on the basis of other variables originally in the data files. In the first section is a short description of the variables and in the second section the exact programming that was used to generate the variable using STATA software.

## I. Short description of created and recoded variables

| Created variable | Variable label | Description |
|---|---|---|
| age | Correct age at date of the interview | Missing values were replaced with the correct age according to their national ID, using their birth date. |
| gam | Living in the Great Metropolitan Area | Living in the capital city of San José and surrounding metropolitan's area. Includes an area of 406km$^2$ |
| urban | Living in the Urban area | Census tracts defined as urban areas by the National Institute of Census and Statistics of Costa Rica |
| eduyear | Education years approved | Number of year of education approved |
| educlevel | Level of education | Level of education based on the years approved for each level |
| tenebienes | Household assets 0-10 | Index adding the number of assets between 0-10 |
| tenebienes_short | Household assets 0-8 | Index adding the number of assets between 0-8 |
| rsangre | Has Blood sample | If blood sample was collected for the interviewee |
| rantro | Has anthropometry measures | If anthropometry measures were taken from the participant |
| proxy_rc | If a proxy was used | If the interviewee needed another person to help them answer the questionnaire |
| imc | BMI | Weight divided by height squared |

| | | |
|---|---|---|
| imc2 | BMI_WithImputations | Weight divided by height squared, with missing values of height and weight imputed |
| discfun | Scale of functional disability 0-100 | Based on the capacity to walk several blocks, use the stairs, push objects and raise arms |
| discbas | Scale of basic disability 0-100 | ADL scale based on the capacity to walk across the room, bathe, eat, go to bed, use toilet and cut nails |
| discinst | Scale of instrumental disability 0-100 | IADL scale based on the capacity to cook, manage money, shop and take medicines |
| disctot | Scale of general disability 0-100 | Takes into acount the functional, basic and instrumental disability |
| riskadl | cannot 5+ of 14 ADL IADL | A categorical variable, where 1 is if the person cannot perform 5 or more out of 14 ADLs and IADLs |
| indicog | Correct answers on the cognitive impairment scale | Based on the questions made to measure cognitive impairment |
| cogniscale | Scale of cognitive impairment Mean(standardized items)0-100 | The cognitive impairment scale standarized so the score is between 0 and 100. |
| cognidis | Severe cognition disability (<75% scale or <12 items) | A categorical variable, where 1 states that the person has severe cognitive impairment. |
| depressed | 8+ items out 15 depression scale | Categorical variable, where 1 states 8 or more symptoms of depression out of 15. |
| deprescale | Scale of depression Mean(standardized items)0-100 | A scale of depression standarized so the score is located between 0 and 100. |
| htaclasif | Hypertension Measure | A categorical variable stating the status of the person's blood pressure |
| diabhemo | Diabetes measured by level of hemoglobin | A categorical variable stating the status of the person's level of hemoglobin |

| | | |
|---|---|---|
| msnum_rc | number of metabolic syndrome 4 components except waist | Including as components: HDL, total cholesterol, hypertension and diabetes |
| mesynd_rc | metabolic syndrome | A dummy variable stating if the person has metabolic syndrome or not. |
| ocupnow | LastWeekOccupation_10thIOI | Current occupation |
| ocuplife | MainLifetimeOccupation_10thIOI | Life-long occupation |
| factor_princ | Target´s sampling weights | Sampling weights for analyzing main questionnaire (without the complementary sample). |
| factor_cort | Sampling weights of main and complementary sample | Sampling weights that should be used when analyzing the main and complementary datasets as a single dataset |

## II. Exact programming for generating new variables-Main Form

```
************************************************
***PROGRAMA VARIABLES RECODIFICADAS-Main Form***
************************************************

cd "***"
use "***",clear

**************************
**Same age for foreigners**
**************************

replace edadcorrecta=id3 if id1==888888888

***New variable age***
gen age=edadcorrecta
lab var age "Correct age at date of the interview"

******************************
**Years of aducation: eduyear**
******************************
gen eduyear= a2b
recode eduyear .=3 9=3
replace eduyear=0 if a2a==0
replace eduyear= eduyear+6 if a2a==2 | a2a==3
replace eduyear= eduyear+11 if a2a==4 | a2a==5
tab eduyear a2a
*replace eduyear= eduyr_cen if eduyear==.
lab var eduyear "Education years approved"

**Level of education: educlevel
```

```
gen educlevel= 0 if eduyear==0
replace educlevel=1 if eduyear<=6 & eduyear>=1
replace educlevel=2 if eduyear>6 & eduyear<=11
replace educlevel=3 if eduyear>11
lab var educlevel "Level of education"
lab def educlevel 0"None" 1"Elementary(1-6 years)" 2"Secondary (7-11
years)" 3"Post-Secondary (12-16+ years)"
lab val educlevel educlevel

*****************************************
**Has anthropometry measures: (RANTRO)**
*****************************************

gen rantro= k2
replace rantro= 1 if k2== 2
replace rantro= 0 if k2== 3
replace rantro= 0 if rantro==.
lab var rantro "Accepted anthropometry"
lab def rantro 1"Yes" 0"No", modify
lab val rantro rantro


*******************************
***Body Mass index imc2 (IMC2)**
*******************************
**calculating the body mass index**.
**using anthropometry complete data, without adjusting for Missing
values**.

codebook k3
gen pesokg= (k3/2.2) if (k3!=996 & k3!=997 & k3!=998 & k3!=.)
gen tallacm= k4 if (k4!=996 & k4!=997 & k4!=998 & k4!=.)
gen tallam=tallacm/100
gen imc=round(pesokg /(tallam* tallam))

*replacing missings of weight and height

rename amp2 sex
gen edad = id3
reg tallam k5 edad sex
predict pta
replace tallam=pta if tallam==.
label var tallam "Talla en metros"

gen perpeso=ev16
recode perpeso 0=5 /*0: NS/NR*/
reg pesokg perpeso k8 k9 edad sex tallam
predict ppe
replace pesokg=ppe if pesokg==.
label var pesokg "Peso en Kg"

gen imc2=round(pesokg /(tallam* tallam))
drop pta perpeso ppe
lab var imc2 "BMI_WithImputations"
```

```
**************************
**Waist-to-hip-ratio**
**************************

**cintura/cadera
**k6:Waist circumference/k7: Hip circumference**.
*1 men, 0.8 women*.
gen rcintcad = k6/k7
replace rcintcad=. if k6>=996 | k6==.| k7>=996 | k7==.
summ rcintcad

gen riskrcicad=1 if rcintcad>=1
replace riskrcicad= 0 if rcintcad<1
replace riskrcicad=. if rcintcad==.
tabulate  riskrcicad, summarize(rcintcad)

sum rcintcad
tab  riskrcicad

gen cinturar=k6
replace cinturar=. if k6>=996 | k6==.
summ cinturar, detail

gen caderar = k7
replace caderar=. if k7>=996 | k7==.
summ caderar
lab var cinturar "cintura en cm"
lab var caderar "cadera en cm"


**Abdominal girth or central obesity (IDF consensus)

gen waist=0
replace waist=1 if (cinturar >=94 & sex==1) |(cinturar >=80 & sex==2)
replace waist=. if cinturar ==.

gen waistold=0
replace waistold=1 if (cinturar >=102 & sex==1) |(cinturar >=88 &
sex==2)
replace waistold=. if cinturar ==.

lab var waist "Abdominal girth >= 94/80  M/F"

tab sex,summ(waist)


************************
**ADL and IADL(riskadl)**
************************
**Activities of Daily Living (ADL)**.

*Instrucciones para corregir por pases y filtros*

replace d1a=1 if d1==2
replace d2=3 if d1==2
replace d3=3 if d1==2
```

```
replace d6=2 if d1a==2 & d5==1
replace d8=2 if d1a==2 & d5==1
replace d11=2 if d1a==2 & d5==1
replace d13=2 if d1a==2 & d5==1
replace d16=2 if d1a==2 & d5==1

*walking across room* .
gen dcam = 1 if  d6 == 1
replace dcam = 0 if  d6 == 2 | d6==.

*bathing*.
gen dban = 1 if  d8 == 1
replace dban = 0 if  d8 == 2 | d8==.

*eating*.
gen dcom = 1 if  d11 == 1
replace dcom = 0 if  d11 ==2 | d11==.

*laying down*.
gen dacos = 1 if  d13 == 1
replace dacos = 0 if  d13 == 2 | d13==.

*toileting*.
gen dinod = 1 if  d16 == 1
replace dinod = 0 if  d16 == 2 | d16==.

*cutting toe-nails*.
gen dunas = 1 if  d19 == 1
replace dunas = 0 if  d19 == 2

********************
**Other activities**
********************

*walking*.
gen difcam = 1 if  d1 == 2
replace difcam = 1 if d1a==1
replace difcam = 0 if d1a==2
replace difcam = 1 if  d2 == 1 |d2 == 3 |d2 == 4 | d2 == 9
replace difcam = 0 if  d2 == 2


*climbing stairs*.
gen  desc = 1 if  d1 == 2
replace desc = 0 if d1a==2
replace desc = 1 if  d3 == 1|d3 == 3|d3 == 4|d3 == 9
replace desc = 0 if  d3 == 2


*pushing*.
gen demp = 1 if  d4 == 1 |d4 == 3|d4 == 4|d4 == 9
replace demp = 0 if  d4 == 2

*raising arms*.
gen dalz = 0 if  d5 == 1
replace dalz = 1 if  d5 >= 2
```

```
*****************************
gen sumadl=difcam + desc + demp + dalz + dcam + dban +  dcom + dacos +
dinod  +  dunas
summ sumadl

**************
**20.  IADL**
*************

**Instrumental activities of daily Living(AIVD)**.

*cooking*.
gen dcook = 1 if  d21  == 1
replace dcook = 0 if  d21  == 2

*money*.
gen ddine = 1 if  d23  == 1
replace ddine = 0 if  d23  == 2

*shopping*.
gen dcomp = 1 if  d25  == 1
replace dcomp = 0 if  d25  == 2

*taking madication*.
gen dmed = 1 if  d27 == 1
replace dmed = 0 if  d27 == 2

gen sumiadl= dcook + ddine + dcomp +dmed

gen riskadl=sumadl + sumiadl
recode riskadl 0/4=0 5/14=1
lab var riskadl "cannot 5+ of 14 ADL IADL"
lab def riskadl 0"Less" 1"Cannot 5+ of 14"
lab val riskadl riskadl
tab riskadl

***********************************
**Partial and total disability**
***********************************

macro define ADL " dcam - dalz"
macro define DISFUN "difcam -  dalz"
macro define  DISBAS "dcam -  dunas"
macro define  DISINS "dcook -  dmed"

alpha $DISFUN,item std gen(discfun) min(2)
alpha $DISBAS,item std gen(discbas) min(3)
alpha $DISINS,item  std gen(discinst)  min(2)
alpha $ADL $DISINS,item std gen(disctot) min(7)


*Se mantienen los mismos parámetros de alpha con fines comparativos
segun GB
summ discfun - disctot
replace discfun=int(((0.49 + discfun)/2.75)*100)
replace discbas=int(((0.30 + discbas)/4.76)*100)
replace discinst=int(((0.28 + discinst)/4.23)*100)
```

```
replace disctot=int(((0.35 + disctot)/4.03)*100)
summ discfun - disctot

gen dfunciona = discfun
recode dfunciona 0/39=0 40/100=1
gen dbasica = discbas
recode dbasica 0/39=0 40/100=1
gen dinstru = discinst
recode dinstru 0/39=0 40/100=1
gen dtotal = disctot
recode dtotal 0/39=0 40/100=1

gen algodis= dbas + dins +dfun
 recode algodis 1/3=1

sum dfunc - algodi
 tab dtotal algodis

lab var     discfun     "Scale of funcional disability 0-100"
lab var     discbas     "Scale of basic disability 0-100"
lab var     discinst    "Scale of instrumental disability 0-100"
lab var     disctot     "Scale of general disability 0-100"

*****************************************************
**Mental Health: Cognitive impairment and depression*
*****************************************************
************************
**Cognitive impairment**
************************

**If proxy was used**.

gen proxy_rc= proxy

lab var proxy_rc "If a proxy was used"
lab def proxy_rc 1 "Yes, a proxy was used" 2 "No proxy", modify
lab val proxy_rc proxy_rc

***************************************
**Cognitive impairment index (cognidis)**
***************************************

**Digit sequence**.

gen orden=1 if  b3==97531
replace orden=0 if  b3~=97531

**Cognitive impairment index is generated**.

gen indicog=b1a+b1b+b1c+b1d+b2a+b2b+b2c+orden+b4a+b4b+b4c+b5a+b5b+b5c
lab var indicog "Correct answers on the cognitive impairment scale"

recode indicog .= 0 if indicog==. & am3==2

*factor b1a b1b b1c b1d b2a b2b b2c orden b4a b4b b4c b5a b5b b5c b6,
pcf.
```

```
alpha b1a b1b b1c b1d b2a b2b b2c orden b4a b4b b4c b5a b5b b5c, item
std generate(cogniscale) min(8)

sum cogniscale
replace cogniscale = int((cogniscale + 7.184)/7.581*100)

***THE PREVIOUS RESULTS ARE NOT COMPARABLE TO CRELES-OLD BECAUSE IN
CRELES-RC THERE IS NO B6-B18 BATTERY**

gen cognidis= cogniscale
recode cognidis 0/74=1 75/100=0
lab var cognidis "Severe cognition disability (<75% scale or <12
items)"
lab def cognidis 1"Yes" 0"No", modify
lab val cognidis cognidis

********
**Mood**
********

**Depression index**.

*Satisfecho con la vida (0 bueno, 1 malo)
*Satisfied with life
gen satisfecho=1 if c104==2
replace satisfecho=0 if c104~=2
replace satisfecho=. if c104==.
replace satisfecho=. if c104==9

* disminuyo actividades
* activities decreases
gen actividad=1 if c105==1
replace actividad=0 if c105>=2
replace activi =. if c105==.
replace activi =. if c105==9

*Vida vacía
*empty life
gen vida=1 if c106==1
replace vida=0 if c106>=2
replace vida =. if c106==.
replace vida =. if c106==9

*Aburrida
*boring
gen aburrir=1 if c107==1
replace aburrir=0 if c107>=2
replace aburrir =. if c107==.
replace aburrir =. if c107==9

*Buen ánimo
*Good mood
gen animo=1 if c108==2
replace animo=0 if c108~=2
replace animo =. if c108==.
replace animo =. if c108==9
```

```
*Preocupado
*Worried
gen preocupa=1 if c109==1
replace preocupa=0 if c109>=2
replace preocupa =. if c109==.
replace preocupa =. if c109==9

*Feliz
*Happy
gen felicidad=1 if c110==2
replace felicidad=0 if c110~=2
replace felicidad =. if c110==.
replace felicidad =. if c110==9

*Desamparado
*helpless
gen desampa=1 if c111==1
replace desampa=0 if c111>=2
replace desampa =. if c111==.
replace desampa =. if c111==9

*No salir
*Staying home
gen nosale=1 if c112==1
replace nosale=0 if c112>=2
replace nosale =. if c112==.
replace nosale =. if c112==9

*Mala Memoria
*Memory problems
gen memoria=1 if c113==1
replace memoria=0 if c113>=2
replace memoria =. if c113==.
replace memoria =. if c113==9

*Marivolloso vivir
*wonderful life
gen maravivir=1 if c114==2
replace maravivir=0 if c114~=2
replace maravivir =. if c114==.
replace maravivir =. if c114==9

*Inútil
*Useless
gen inut=1 if c115==1
replace inut=0 if c115>=2
replace inut =. if c115==.
replace inut =. if c115==9

*Energía
*Energy
gen energico=1 if c116==2
replace energico=0 if c116~=2
replace energico =. if c116==.
replace energico =. if c116==9

*Sin esperanza
```

```
*Hopeless
gen noespera=1 if c117==1
replace noespera=0 if c117>=2
replace noespera =. if c117==.
replace noespera =. if c117==9

*Otros en mejor situación
*Other in better position
gen otrosituacion=1 if c118==1
replace otrosituacion=0 if c118>=2
replace otrosituacion =. if c118==.
replace otrosituacion =. if c118==9

alpha satisfecho actividad vida aburrir animo preocupa felicidad
desampa nosale memoria maravivir inut energico noespera otrosituacion,
item std generate(deprescale) min(8)
*Muy buena escala con alfa = 0.83 en R3 y en C-50 R1 = 0.85

sum deprescale
replace deprescale= int((deprescale+.545)/2.725*100)

gen depressed= deprescale
recode depressed 0/49=0 50/100=1
lab var depressed "8+ items out 15 depression scale"
lab def depressed 1"Depressed" 0"Normal", modify
lab val depressed depressed


save MainForm_recodedvariables_RC_W1_V1.dta, replace

**************************
***MERGE MEDICATIONS.DTA***
**************************


**clear

preserve

use Medicina.dta

***VARIABLE antidiab***

gen antidiab=0
replace antidiab=1 if grupo==107
label variable  antidiab  "Medicamentos para diabetes"
lab def antidiab 0"No" 1"Si", modify
lab val antidiab antidiab

***VARIABLE antihta***
gen antihta=0
replace antihta=1 if grupo==304
label variable  antihta  "Medicamentos para HTA"
lab def antihta 0"No" 1"Si", modify
lab val antihta antihta

***VARIABLE lowcholesterol***
```

```
gen lowcholesterol=0
replace lowcholesterol=1 if grupo==308
label variable  lowcholesterol  "Lowering cholesterol medicine"
lab def lowcholesterol 0"No" 1"Si", modify
lab val lowcholesterol lowcholesterol

sort idsujeto

collapse (max) antidiab=antidiab (max) antihta=antihta (max)
lowcholesterol, by(idsujeto)

save Medicina_collapse.dta, replace
*clear

restore

sort idsujeto

drop _merge
merge idsujeto using Medicina_collapse.dta
tab _merge

**********************************************************************
*hypertensive on the first measure if diastolic>=90*.
gen c138br=.
replace c138br=0 if (c138b<=89)
replace c138br=1 if (c138b>=90 & c138b~=.)
replace c138br=. if c138b==.
tab c138br, miss
tabulate  c138br, summarize(c138b)

*hypertensive on the second measure if diastolic >=90*.
gen h28br=.
replace h28br=0 if (h28b<=89)
replace h28br=1 if (h28b>=90 & h28b~=.)
replace h28br=. if (h28b==.)
tab h28br, miss
tabulate  h28br, summarize(h28b)

*adding both of the variables*.
gen cantdia=.
replace cantdia=c138br + h28br
replace cantdia=c138br if h28br==.
replace cantdia=h28br if c138br==.
replace cantdia=. if c138br==. & h28br==.
tab cantdia, miss
tabulate  cantdia, summarize(diastolica)
lab def cantdia 0 "No HTA diast" 1 "HTA por una medicion" 2 "HTA por
ambas medic", modify
lab val cantdia cantdia

* hypertensive on the first measure if sistolic>=140*.
gen c138ar=.
replace c138ar=0 if (c138a<=139)
replace c138ar=1 if (c138a>=140 & c138a~=.)
replace c138ar=. if (c138a==.)
tab c138ar, miss
```

```
tabulate  c138ar, summarize(c138a)

* hypertensive on the second measure if sistolic>=140*.
gen h28ar=.
replace h28ar=0 if (h28a<=139)
replace h28ar=1 if (h28a>=140 & h28a~=.)
replace h28ar=. if (h28a==.)
tab h28ar, miss
tabulate  h28ar, summarize(h28a)

*Adding the two variables*.
gen cantsis=.
replace cantsis=c138ar + h28ar
replace cantsis=c138ar if h28ar==.
replace cantsis=h28ar if c138ar==.
replace cantsis=. if c138ar==. & h28ar==.
tab cantsis, miss
tabulate cantsis, summarize(sistolica)
lab def cantsis 0 "No HTA sist" 1 "HTA por una medicion" 2 "HTA por
ambas medic", modify
lab val cantsis cantsis


***Hypertensive at cutoff point**.

gen cantHTA= cantdia + cantsis
replace cantHTA= . if cantdia==. & cantsis==.
tab cantHTA

gen HTA3de4=.
replace HTA3de4= 0 if cantHTA<=2
replace HTA3de4= 1 if cantHTA>=3 & cantHTA~=.

*****Self reported High pressure*.

gen c4r=1 if c4==1
replace c4r=0 if c4==2
replace c4r=. if c4>=8

***Hypertensive for general prevalence taking into account the
medication and the measurements **.
gen hiperten= HTA3de4
replace hiperten= 1 if HTA3de4==0 & antihta==1
replace hiperten= 1 if HTA3de4==. & antihta==1

tab hiperten

***Categories for hypertension***.
gen htaclasif= hiperten
replace htaclasif=1 if (HTA3de4==0 & antihta==1)
replace htaclasif=2 if HTA3de4==1 & (antihta==1 | c4r==1)
replace htaclasif=3 if (HTA3de4==1  & antihta==0) & hiperten~=.
lab var htaclasif "Hypertension Measure"
lab def htaclasif 0 "Normal (No hblood pressure)" 1 "Controlled HTA" 2
"Uncontrolled HTA" 3 "Hidden HTA", modify
lab val htaclasif htaclasif
```

```
*********************************************
**DEFINITON ACCORDING TO GLYCATED HEMOGLOBIN**.
*********************************************
**Using the variables: riskemog y diab**

drop _merge
sort idsujeto
merge idsujeto using biomarcprincipal.dta
tab _merge

**rsangre**

recode _merge 1=0 3=1, gen(rsangre)
lab var rsangre "Has blood information"
lab def rsangre 1"Yes" 0"No", modify
lab val rsangre rsangre

gen riskemog=1 if hba1c>=6.5
replace riskemog=0 if hba1c<6.5
replace riskemog=. if hba1c==.

*diabetes*
gen diab=1 if c10==1
replace diab=0 if c10>=2
replace diab=. if c10>=8

*diabeteemog calculates the prevalence using the biomarkers*
*self-report and medicines*

gen diabetesemog=diab
replace diabetesemog=1 if riskemog==1
replace diabetesemog=. if riskemog==.

**clasification of diabetes with glycated hemoglobina**
gen diabemogclasif=diabetesemog
replace diabemogclasif=1 if ((diab==1 | antidiab==1) & riskemog==0)
replace diabemogclasif=2 if ((diab==1 | antidiab==1) & riskemog==1)
replace diabemogclasif=3 if (diab==0 & riskemog==1)

lab def diabemogclasif 0"Not diabetic" 1"Controlled diad"
2"Uncontrolled diab" 3"Hidden diab"
lab val diabemogclasif diabemogclasif

gen diabhemo=diabemogclasif
lab var diabhemo "Diabetes measured by level of hemoglobin"
lab def diabhemo 0"Not diabetic" 1"Controlled diad" 2"Uncontrolled
diab" 3"Hidden diab"
lab val diabhemo diabhemo

**GENERATE METABOLIC SYNDROME***

******************
** HDL colesterol**
******************

gen riskhdlr= 0
replace riskhdlr=1 if hdl<=40 & sex==1
```

```
replace riskhdlr=1 if hdl<=50 & sex==2
replace riskhdlr=. if hdl==.

tabulate  riskhdlr, summarize(hdl)
sum hdl
tab   riskhdlr

gen msnum_rc=0 /*No es comparable con la variable creles_pre1945*/
replace msnum_rc=msnum_rc+1 if colesterol>=250 & colesterol!=.
replace msnum_rc=msnum_rc+1 if riskhdlr==1
replace msnum_rc=msnum_rc+1 if htaclasif>=1 & htaclasif<=3
replace msnum_rc=msnum_rc+1 if diabemogclasif>=1 & diabemogclasif<=3
replace msnum_rc=. if htaclasif==. | diabemogclasif==.

lab var msnum_rc "Number of metabolic syndrome 4 components except
waist"

gen mesynd_rc=0
replace mesynd_rc=1 if waist==1 & msnum_rc>=2
replace mesynd_rc=. if waist==. | msnum_rc==.
lab var mesynd_rc "Metabolic syndrome"
lab def mesynd_rc 1"Yes" 0"No"
lab val mesynd_rc mesynd_rc

**MERGE SEG00-REGION1**

drop _merge

sort seg
merge seg using seg00-region1.dta
tab _merge
drop if _merge==2

lab var gam "Living in the Great Metropolitan Area"
lab def gam 1"GAM" 0"Other"
lab val gam gam

lab var urban "Living in the Urban Area"
lab def urban 1"Si" 0"No"
lab val urban urban

********************
**Quality of life**
********************
**Generating the index of household asets (tenebienes(0-10))**.

*We are using values of tenen from wave1 as starting point

recode j32 4=3
recode j31 4=3
recode j30 4=3

replace j31=j30 if j1<5 & j30~=9 & j31==9
replace j32=j30 if j1<5 & j30~=9 & j32==9
gen indviv=(j30+j31+j32) if j1<5
replace indviv=. if (j30==. & j31==. & j32==. )
replace indviv=. if (j30==9 & j31==9 & j32==9 )
```

```
gen vivind=.
replace vivind=1 if indviv<6
replace vivind=2 if indviv<9 & indviv>5
replace vivind=3 if indviv==9
replace vivind=9 if indviv>9 & indviv<.
lab var vivind "Condicion de la vivienda"
lab def vivind 1"Mal estado" 2"Regular" 3"Buenas condiciones" 9"No
valorado", modify
lab val vivind vivind
tab vivind

**Housing condition**.

gen tenen1=0
replace tenen1=1 if vivind==3
replace tenen1=. if vivind==.

*Separate cooking space
gen tenen2=0
replace tenen2=1 if j18==1
replace tenen2=. if j18==. |j18==9

*Cooking fuel
gen tenen3=0
replace tenen3=1 if j19==1 | j19==3
replace tenen3=. if j19==. |j19==9

*Drinking water
gen tenen4=0
replace tenen4=1 if j26==1
replace tenen4=. if j26==. |j26==9

*Toilet
gen tenen5=0
replace tenen5=1 if j27==1
replace tenen5=. if j27==. |j27==9

*Refrigeratore
gen tenen6=0
replace tenen6=1 if j20==1
replace tenen6=. if j20==. |j20==9

*Television
gen tenen7=0
replace tenen7=1 if j28>=1 & j28<=3
replace tenen7=. if j28==. |j28==9

*Cell phones
gen tenen8=0
replace tenen8=1 if j21==1 | j22==1
replace tenen8=. if j21==. & j22==.
replace tenen8=. if j21==9 & j22==9

*Washing machine
gen tenen9=0
replace tenen9=1 if j23==1
```

```
replace tenen9=. if j23==. |j23==9

*Number of vehicles
gen tenen10=0
replace tenen10=1 if j29>=1 & j29<=3
replace tenen10=. if j29==. |j29==9

gen
tenebienes=tenen1+tenen2+tenen3+tenen4+tenen5+tenen6+tenen7+tenen8+tene
n9+tenen10
alpha tenen*, item gen(scalebienes)
lab var tenebienes "Household assets (0-10)"

**Generating the index of household asets (tenebienes2(0-8))**.

gen
tenebienes_short=tenen1+tenen2+tenen4+tenen5+tenen6+tenen7+tenen8+tenen
9
alpha tenen1 tenen2 tenen4 tenen5 tenen6 tenen7 tenen8 tenen9, item
gen(scalebienes_short)
lab var tenebienes_short "Household assets (0-8)"

***************
** IPAQSCALE **
***************
*missing values
mvdecode ev14m1 ev14m3 ev14m5, mv(8 9)
mvdecode ev14m2a ev14m2b ev14m4a ev14m4b ev14m6a ev14m6b ev14m7a
ev14m7b, mv(98 99)

*----------VIGOROUS----------
*Cantidad de dias que realiza act. Vigorosas
*DAYS VIGOROUS
gen DAYSVigor= ev14m1
label variable DAYSVigor "Days per week of vigorous activities"

*Minutos por dia de actividades vigorosas
*MINUTES PER DAY VIGOROUS
gen MINVigor= (ev14m2a *60) + ev14m2b
replace MINVigor=0 if DAYSVigor==0
label variable MINVigor "Minutes per day of vigorous activities"

*--------------------MODERATE--------------------
gen DAYSModer= ev14m3
label variable DAYSModer "Days per week of moderate activities"

gen MINModer= (ev14m4a*60) + ev14m4b
replace MINModer =0 if DAYSModer==0

label variable MINModer "Minutes per day of moderate activities"

*---------------------CAMINA--------------------
gen DAYSWalk= ev14m5
label variable DAYSWalk "Days per week of walking"

*Tiempo por dia de caminar
gen MINWalk= (ev14m6a *60) + ev14m6b
```

```
replace MINWalk =0 if DAYSWalk==0
label variable MINWalk "Minutes per day of walking"

*---------------------Sentado--------------------
*Tiempo por dia Seatdo
gen MINSeat= (ev14m7a *60) + ev14m7b
label variable MINSeat "Minutes per day seatting"

*Los minutos de actividad fisica se truncan a un maximo de 3 horas (180
min)por dia
*Los minutos Sentados se truncan a 840 al dia (14 horas)
*TRUNCATIONS: max 3 hours (180 min) per day each activity
*max 14 hours (840 min) seatting

recode MINVigor  180/1300=180
recode MINModer 180/1300=180
recode MINWalk 180/1300=180
recode MINSeat 840/1300=840

*Total de minutos por semana
*Total minutes per week
gen vigor=DAYSVigor*MINVigor
gen moder=DAYSModer*MINModer
gen camin=DAYSWalk*MINWalk
gen seating = 7 * MINSeat
lab var "Sedentary scale--Minutes/week seating"

*Correcci—n por el filtro
*Correction because of the filter (zero activities)
replace vigor=0   if filtronuevo ==1
replace moder=0  if filtronuevo ==1
replace camin=0  if filtronuevo ==1
replace seating=840 if filtronuevo ==1

*---------------------IPAQ SCALE-----------------------

* MET = metabolic calories equivalent
* Assuming for each minute: 3.3 walking, 4.0 moderate and 8.0 vigorous

gen ipaqscale=(3.3* camin) + (4* moder)+(8* vigor)
label variable ipaqscale "Total MET calories per week"
summ ipaqsc seat
histogram ipaqs
*---------------------IPAQ categories--------------------*

gen DAYSPA= DAYSWalk+DAYSModer+DAYSVigor
gen ipaqcateg=1

replace ipaqcate=2 if DAYSVigor>=3 & MINVigor>=20
replace ipaqcate=2 if DAYSModer>=5
replace ipaqcate=2 if DAYSWalk>=5 & MINWalk>=30
replace ipaqcate=2 if MINWalk>=30
replace ipaqcate=2 if DAYSPA>=5 & ipaqsc>=600

replace ipaqcate=3 if DAYSVigor>=3 & vigor*8 >=1500
replace ipaqcate=3 if DAYSPA>=7 & ipaqsc>=3000
```

```
replace ipaqcate=1 if filtronuevo==1
replace ipaqcate=. if ipaqsc==.

label variable ipaqcate "Categorical Score PA"
label define ipaqcate 1 "Low" 2 "Moderate" 3 "High"
label values ipaqcate ipaqcate

drop DAYSVigor - camin DAYSPA

save, replace

**DO-FILE FOR OCCUPATION CODES "Variables nuevas Grupo Ocupación"

*** Etiquetas para las variables recodificadas

lab var h6ap "NumericalCodingOfCurrentOccupation_10th_IOI"
lab var h11ap "NumericalCodingOfLifetimeOccupation_10th_IOI"

*** Creo variable que agrupe por primer digito h6ap:

gen h6apgroup=.
format %8.0g h6apgroup

label var h6apgroup
"OcupationCodeAccordingToInternationalOccupationIndex"

replace h6apgroup=1 if h6ap>=1000 & h6ap<=1999
replace h6apgroup=2 if h6ap>=2000 & h6ap<=2999
replace h6apgroup=3 if h6ap>=3000 & h6ap<=3999
replace h6apgroup=4 if h6ap>=4000 & h6ap<=4999
replace h6apgroup=5 if h6ap>=5000 & h6ap<=5999
replace h6apgroup=6 if h6ap>=6000 & h6ap<=6999
replace h6apgroup=7 if h6ap>=7000 & h6ap<=7999
replace h6apgroup=8 if h6ap>=8000 & h6ap<=8999
replace h6apgroup=9 if h6ap>=9000 & h6ap<=9997
replace h6apgroup=98 if h6ap==9998
replace h6apgroup=99 if h6ap==9999


*** Etiquetas en ingles:

label define h6apgroup 1 "Management level in public administration and
private companies" /*
*/ 2 "Professional, scientific and intellectual" /*
*/ 3 "Technical and mid-level professional" /*
*/ 4 "Administrative Support" /*
*/ 5 "Sales and direct services to people" /*
*/ 6 "Qualified agricultural occupations, farming and fishing" /*
*/ 7 "Skilled occupations of arts-and-crafts, construction, mechanics
and mechanical arts, printing and manufacturing" /*
*/ 8 "Installation and operation of facilities and machines" /*
*/ 9 "Unskilled occupations" /*
*/ 98 "Unknown" 99 "NR", modify

label values h6apgroup h6apgroup

tab h6apgroup
```

```
*** Total 1157 casos
*** Creo variable que agrupe por primer digito h11ap:

gen h11apgroup=.
format %8.0g h11apgroup

label var h11apgroup
"OcupationCodeAccordingToInternationalOccupationIndex"

replace h11apgroup=1 if h11ap>=1000 & h11ap<=1999
replace h11apgroup=2 if h11ap>=2000 & h11ap<=2999
replace h11apgroup=3 if h11ap>=3000 & h11ap<=3999
replace h11apgroup=4 if h11ap>=4000 & h11ap<=4999
replace h11apgroup=5 if h11ap>=5000 & h11ap<=5999
replace h11apgroup=6 if h11ap>=6000 & h11ap<=6999
replace h11apgroup=7 if h11ap>=7000 & h11ap<=7999
replace h11apgroup=8 if h11ap>=8000 & h11ap<=8999
replace h11apgroup=9 if h11ap>=9000 & h11ap<=9997
replace h11apgroup=98 if h11ap==9998
replace h11apgroup=99 if h11ap==9999


*** Etiquetas en ingles:

label define h11apgroup 1 "Management level in public administration
and private companies" /*
*/ 2 "Professional, scientific and intellectual" /*
*/ 3 "Technical and mid-level professional" /*
*/ 4 "Administrative Support" /*
*/ 5 "Sales and direct services to people" /*
*/ 6 "Qualified agricultural occupations, farming and fishing" /*
*/ 7 "Skilled occupations of arts-and-crafts, construction, mechanics
and mechanical arts, printing and manufacturing" /*
*/ 8 "Installation and operation of facilities and machines" /*
*/ 9 "Unskilled occupations" /*
*/ 98 "Unknown" 99 "NR", modify

label values h11apgroup h11apgroup

tab h11apgroup
*** Total 1769 casos

**Correcciones**

 summ h6apgroup h11apgroup
 replace h11apgroup = h6apgroup if h10==1
 summ h6apgroup h11apgroup

 ren h6apgroup ocupnow
 ren h11apgroup ocuplife

 lab var ocuplife "MainLifetimeOccupation_10thIOI"
 lab var ocupnow "LastWeekOccupation_10thIOI"

save, replace
```

## Additional Information on the Spouse Recoded Variables Wave 1 data file

## I. Short description of created and recoded variables

| Created variable | Variable label | Description |
|---|---|---|
| age | Correct age at date of the interview | Missing values were replaced with the correct age according to their national ID, using their birth date. |
| gam | Living in the Great Metropolitan Area | Living in the capital city of San José and surrounding metropolitan's area. Includes an area of 406km$^2$ |
| urban | Living in the Urban area | Census tracts defined as urban areas by the National Institute of Census and Statistics of Costa Rica |
| rsangre | Has Blood sample | If blood sample was collected for the interviewee |
| rantro | Has anthropometry measures | If anthropometry measures were taken from the participant |
| proxy_rc | If a proxy was used | If the interviewee needed another person to help them answer the questionnaire |
| imc | BMI | Weight divided by height squared |
| discfun | Scale of functional disability 0-100 | Based on the capacity to walk several blocks, use the stairs, push objects and raise arms |
| factor_cony | Spouse´s sampling weights | Sampling weights for analyzing spouse's and couple's characteristics. |

## II. Exact programming for generating new variables-Spouse

```
*******************************************
***PROGRAMA VARIABLES RECODIFICADAS-SPOUSE***
*******************************************

cd "***"
use "***"

**************************
**Same age for foreigners**
**************************
```

```
replace edadcorrecta=id3 if id1==888888888

***New variable age***
gen age=edadcorrecta
lab var age "Correct age at date of the interview"

*****************************************
**Has anthropometry measures: (RANTRO)**
*****************************************

gen rantro= k2
replace rantro= 1 if k2== 2
replace rantro= 0 if k2== 3
replace rantro= 0 if rantro==.
lab var rantro "Accepted anthropometry"
lab def rantro 1"Yes" 0"No", modify
lab val rantro rantro


*******************************
***Body Mass index imc2 (IMC)**
*******************************
**calculating the body mass index**.

codebook k3
gen pesokg= (k3/2.2) if (k3!=996 & k3!=997 & k3!=998 & k3!=.)
gen tallacm= k4 if (k4!=996 & k4!=997 & k4!=998 & k4!=.)
gen tallam=tallacm/100
gen imc=round(pesokg /(tallam* tallam))
lab var imc "BMI"


rename amp2 sex

****************************
**Waist-to-hip-ratio**
****************************

**cintura/cadera
**k6:Waist circumference/k7: Hip circumference**.
*1 men, 0.8 women*.
gen rcintcad = k6/k7
replace rcintcad=. if k6>=996 | k6==.| k7>=996 | k7==.
summ rcintcad

gen riskrcicad=1 if rcintcad>=1
replace riskrcicad= 0 if rcintcad<1
replace riskrcicad=. if rcintcad==.
tabulate  riskrcicad, summarize(rcintcad)

sum rcintcad
tab  riskrcicad

gen cinturar=k6
replace cinturar=. if k6>=996 | k6==.
summ cinturar, detail
```

```
gen caderar = k7
replace caderar=. if k7>=996 | k7==.
summ caderar
lab var cinturar "cintura en cm"
lab var caderar "cadera en cm"


**Abdominal girth or central obesity (IDF consensus)

gen waist=0
replace waist=1 if (cinturar >=94 & sex==1) |(cinturar >=80 & sex==2)
replace waist=. if cinturar ==.

gen waistold=0
replace waistold=1 if (cinturar >=102 & sex==1) |(cinturar >=88 &
sex==2)
replace waistold=. if cinturar ==.

lab var waist "Abdominal girth >= 94/80  M/F"

tab sex,summ(waist)


*************************
**ADL and IADL(riskadl)**
*************************
**Activities of Daily Living (ADL)**.

*Instrucciones para corregir por pases y filtros*

replace d1a=1 if d1==2
replace d2=3 if d1==2
replace d3=3 if d1==2

replace d6=2 if d1a==2 & d5==1
replace d8=2 if d1a==2 & d5==1
replace d11=2 if d1a==2 & d5==1
replace d13=2 if d1a==2 & d5==1
replace d16=2 if d1a==2 & d5==1

*walking across room* .
gen dcam = 1 if  d6 == 1
replace dcam = 0 if  d6 == 2 | d6==.

*bathing*.
gen dban = 1 if  d8 == 1
replace dban = 0 if  d8 == 2 | d8==.

*eating*.
gen dcom = 1 if  d11 == 1
replace dcom = 0 if  d11 ==2 | d11==.

*laying down*.
gen dacos = 1 if  d13 == 1
replace dacos = 0 if  d13 == 2 | d13==.
```

```
*toileting*.
gen dinod = 1 if  d16 == 1
replace dinod = 0 if  d16 == 2 | d16==.


*cutting toe-nails*.
*gen dunas = 1 if  d19 == 1
*replace dunas = 0 if  d19 == 2


**********
**Other activities**
**********

*walking*.
gen difcam = 1 if  d1 == 2
replace difcam = 1 if d1a==1
replace difcam = 0 if d1a==2
replace difcam = 1 if  d2 == 1 |d2 == 3 |d2 == 4 | d2 == 9
replace difcam = 0 if  d2 == 2


*climbing stairs*.
gen  desc = 1 if  d1 == 2
replace desc = 0 if d1a==2
replace desc = 1 if  d3 == 1|d3 == 3|d3 == 4|d3 == 9
replace desc = 0 if  d3 == 2


*pushing*.
gen demp = 1 if  d4 == 1 |d4 == 3|d4 == 4|d4 == 9
replace demp = 0 if  d4 == 2

*hay tres casos que tienen poca informacion y generan missing an las
variables anteriores

*raising arms*.
gen dalz = 0 if  d5 == 1
replace dalz = 1 if  d5 >= 2

****************************
/*
gen sumadl=difcam + desc + demp + dalz + dcam + dban +  dcom + dacos +
dinod  +  dunas
summ sumadl

**************
**20.  IADL**
*************

**Instrumental activities of daily Living(AIVD)**.

*cooking*.
gen dcook = 1 if  d21  == 1
replace dcook = 0 if  d21  == 2

*money*.
```

```
gen ddine = 1 if  d23  == 1
replace ddine = 0 if  d23  == 2

*shopping*.
gen dcomp = 1 if  d25  == 1
replace dcomp = 0 if  d25  == 2

*taking madication*.
gen dmed = 1 if  d27 == 1
replace dmed = 0 if  d27 == 2

gen sumiadl= dcook + ddine + dcomp +dmed

gen riskadl=sumadl + sumiadl
recode riskadl 0/4=0 5/14=1
lab var riskadl "cannot 5+ of 14 ADL IADL"
lab def riskadl 0"Less" 1"Cannot 5+ of 14"
lab val riskadl riskadl
tab riskadl
*/

***********************************
**Partial and total disability**
***********************************

macro define ADL " dcam - dalz"
macro define DISFUN "difcam -  dalz"
macro define  DISBAS "dcam -  dunas"
macro define  DISINS "dcook -  dmed"

alpha $DISFUN,item std gen(discfun) min(2)
*alpha $DISBAS,item std gen(discbas) min(3) no se pueden calcular
*alpha $DISINS,item  std gen(discinst)  min(2)
*alpha $ADL $DISINS,item std gen(disctot) min(7)

summ discfun
replace discfun=int(((0.46 + discfun)/2.96)*100)
*replace discbas=int(((0.30 + discbas)/4.76)*100) no se pueden calcular
*replace discinst=int(((0.28 + discinst)/4.23)*100)
*replace disctot=int(((0.35 + disctot)/4.03)*100)
summ discfun

lab var     discfun     "Scale of funcional disability 0-100"
*lab var    discbas     "Scale of basic disability 0-100"
*lab var    discinst    "Scale of instrumental disability 0-100"
*lab var    disctot     "Scale of general disability 0-100"

*****************************************************
**Mental Health: Cognitive impairment and depression*
*****************************************************
************************
**Cognitive impairment**
************************x

**If proxy was used**.

gen proxy_rc= am3
```

```
lab var proxy_rc "If a proxy was used"
lab define proxy_rc 2 "Yes, a proxy was used" 1 "No proxy", modify
lab val proxy_rc proxy_rc

**MERGE SEG00-REGION1**

drop _merge

sort seg
merge seg using seg00-region1.dta
tab _merge
drop if _merge==2

lab var gam "Living in the Great Metropolitan Area"
lab def gam 1"GAM" 0"Other"
lab val gam gam

lab var urban "Living in the Urban Area"
lab def urban 1"Si" 0"No"
lab val urban urban

**MERGE BIOMARCADORES**

drop _merge
sort idsujeto
merge idsujeto using biomarconyug.dta
tab _merge, m

**rsangre**
drop if _merge==2

recode _merge 1=0 3=1, gen(rsangre)
lab var rsangre "Has blood information"
lab def rsangre 1"Yes" 0"No", modify
lab val rsangre rsangre

save, replace
```

## Additional Information on the Short Form Recoded Variables Wave 1 data file

## I. Short description of created and recoded variables

| Created variable | Variable label | Description |
|---|---|---|
| age | Correct age at date of the interview | Missing values were replaced with the correct age according to their national ID, using their birth date. |
| gam | Living in the Great Metropolitan Area | Living in the capital city of San José and surrounding metropolitan's area. Includes an area of 406km$^2$ |
| urban | Living in the Urban area | Census tracts defined as urban areas by the National Institute of Census and Statistics of Costa Rica |
| eduyear | Education years approved | Number of year of education approved |
| educlevel | Level of education | Level of education based on the years approved for each level |
| tenebienes_short | Household assets 0-8 | Index adding the number of assets between 0-8 |
| rantro | Has anthropometry measures | If anthropometry measures were taken from the participant |
| proxy_rc | If a proxy was used | If the interviewee needed another person to help them answer the questionnaire |
| imc_short | BMI | Weight divided by height squared, with height from self-report |
| discfun | Scale of functional disability 0-100 | Based on the capacity to walk several blocks, use the stairs, push objects and raise arms |
| discbas | Scale of basic disability 0-100 | ADL scale based on the capacity to walk across the room, bathe, eat, go to bed, use toilet and cut nails |
| factor_princ | Target´s sampling weights | Sampling weights for analyzing main questionnaire (without the complementary sample). |

| | | |
|---|---|---|
| factor_cort | Sampling weights of main and complementary sample | Sampling weights that should be used when analyzing the main and complementary datasets as a single dataset |

## II. Exact programming for generating new variables

```
*********************************************
***PROGRAMA VARIABLES RECODIFICADAS-SHORTFORM***
*********************************************

cd "***"
use "***"

****************************************
**Same age for foreigners**
****************************************

replace edadcorrecta=id3 if id1==888888888

***New variable age***
gen age=edadcorrecta
lab var age "Correct age at date of the interview"

*****************************
**Years of aducation: eduyear**
*****************************

gen eduyear= a2b
recode eduyear .=3 9=3
replace eduyear=0 if a2a==0
replace eduyear= eduyear+6 if a2a==2 | a2a==3
replace eduyear= eduyear+11 if a2a==4 | a2a==5
tab eduyear a2a
*replace eduyear= eduyr_cen if eduyear==.
lab var eduyear "Education years approved"

**Level of education: educlevel

gen educlevel= 0 if eduyear==0
replace educlevel=1 if eduyear<=6 & eduyear>=1
replace educlevel=2 if eduyear>6 & eduyear<=11
replace educlevel=3 if eduyear>11
lab var educlevel "Level of education"
lab def educlevel 0"None" 1"Elementary(1-6 years)" 2"Secondary (7-11
years)" 3"Post-Secondary (12-16+ years)"
lab val educlevel educlevel

*************************************
**Has anthropometry measures: (RANTRO)**
*************************************
```

```
gen rantro= k2
replace rantro= 1 if k2== 2
replace rantro= 0 if k2== 3
replace rantro= 0 if rantro==.
lab var rantro "Accepted anthropometry"
lab def rantro 1"Yes" 0"No", modify
lab val rantro rantro

*********************************
***Body Mass index imc_short ***
*********************************
**calculating the body mass index**.

codebook k3
gen pesokg= (k3/2.2) if (k3!=996 & k3!=997 & k3!=998 & k3!=.)
gen tallacm= ev17 if (ev17!=999 & ev17!=.)
gen tallam=tallacm/100
gen imc_short=round(pesokg /(tallam* tallam))
lab var imc_short "BMI"

rename amp2 sex

*********************************
**ADL and IADL (discfun-discbas**
*********************************
**Activities of Daily Living (ADL)**.
replace d1a=1 if d1==2
replace d2=3 if d1==2
replace d3=3 if d1==2

replace d6=2 if d1a==2 & d5==1
replace d8=2 if d1a==2 & d5==1
replace d11=2 if d1a==2 & d5==1
replace d13=2 if d1a==2 & d5==1
replace d16=2 if d1a==2 & d5==1

*walking across room* .
gen dcam = 1 if  d6 == 1
replace dcam = 0 if  d6 == 2 | d6==.

*bathing*.
gen dban = 1 if  d8 == 1
replace dban = 0 if  d8 == 2 | d8==.

*eating*.
gen dcom = 1 if  d11 == 1
replace dcom = 0 if  d11 ==2 | d11==.

*laying down*.
gen dacos = 1 if  d13 == 1
replace dacos = 0 if  d13 == 2 | d13==.

*toileting*.
gen dinod = 1 if  d16 == 1
replace dinod = 0 if  d16 == 2 | d16==.

*cutting toe-nails*.
```

```
gen dunas = 1 if  d19 == 1
replace dunas = 0 if  d19 == 2

********************
**Other activities**
********************

*walking*.
gen difcam = 1 if  d1 == 2
replace difcam = 1 if d1a==1
replace difcam = 0 if d1a==2
replace difcam = 1 if  d2 == 1 |d2 == 3 |d2 == 4 | d2 == 9
replace difcam = 0 if  d2 == 2


*climbing stairs*.
gen  desc = 1 if  d1 == 2
replace desc = 0 if d1a==2
replace desc = 1 if  d3 == 1|d3 == 3|d3 == 4|d3 == 9
replace desc = 0 if  d3 == 2


*pushing*.
gen demp = 1 if  d4 == 1 |d4 == 3|d4 == 4|d4 == 9
replace demp = 0 if  d4 == 2

*hay tres casos que tienen poca informacion y generan missing an las
variables anteriores

*raising arms*.
gen dalz = 0 if  d5 == 1
replace dalz = 1 if  d5 >= 2

*****************************
gen sumadl=difcam + desc + demp + dalz + dcam + dban +  dcom + dacos +
dinod  +  dunas
summ sumadl

**************
**20.  IADL**
*************
/*
**Instrumental activities of daily Living(AIVD)**.

*cooking*.
gen dcook = 1 if  d21  == 1
replace dcook = 0 if  d21  == 2

*money*.
gen ddine = 1 if  d23  == 1
replace ddine = 0 if  d23  == 2

*shopping*.
gen dcomp = 1 if  d25  == 1
replace dcomp = 0 if  d25  == 2

*taking madication*.
```

```
gen dmed = 1 if  d27 == 1
replace dmed = 0 if  d27 == 2

gen sumiadl= dcook + ddine + dcomp +dmed

gen riskadl=sumadl + sumiadl
recode riskadl 0/4=0 5/14=1
lab var riskadl "cannot 5+ of 14 ADL IADL"
lab def riskadl 0"Less" 1"Cannot 5+ of 14"
lab val riskadl riskadl
tab riskadl
*/
**********************************
**Partial and total disability**
**********************************

macro define ADL " dcam - dalz"
macro define DISFUN "difcam -  dalz"
macro define  DISBAS "dcam -  dunas"
macro define  DISINS "dcook -  dmed"

alpha $DISFUN,item std gen(discfun) min(2)
alpha $DISBAS,item std gen(discbas) min(3)
*alpha $DISINS,item  std gen(discinst)  min(2) no se puede calcular,
variables d21-d27 no existen en corto
*alpha $ADL $DISINS,item std gen(disctot) min(7)

summ discfun - discbas
replace discfun=int(((0.35 + discfun)/3.48)*100)
replace discbas=int(((0.28 + discbas)/5.00)*100)
*replace discinst=int(((0.28 + discinst)/4.23)*100) no se puede
calcular
*replace disctot=int(((0.30 + disctot)/4.38)*100)
summ discfun - discbas

lab var     discfun     "Scale of funcional disability 0-100"
lab var     discbas     "Scale of basic disability 0-100"
*lab var    discinst    "Scale of instrumental disability 0-100"
*lab var    disctot     "Scale of general disability 0-100"

**************************************************
**Mental Health: Cognitive impairment and depression*
**************************************************
************************
**Cognitive impairment**
************************

**If proxy was used**.
gen proxy_rc=2
replace proxy_rc=1 if idsujeto==18220574

lab var proxy_rc "If a proxy was used"
lab def proxy_rc 1 "Yes, a proxy was used" 2 "No proxy", modify
lab val proxy_rc proxy_rc


**MERGE SEG00-REGION1**
```

```
drop _merge

sort seg
merge seg using seg00-region1.dta
tab _merge
drop if _merge==2

lab var gam "Living in the Great Metropolitan Area"
lab def gam 1"GAM" 0"Other"
lab val gam gam

lab var urban "Living in the Urban Area"
lab def urban 1"Si" 0"No"
lab val urban urban

******************
**Quality of life**
******************
**Generating the index of household asets (tenebienes)**.

*We are using values of tenen from wave1 as starting point

recode j32 4=3
recode j31 4=3
recode j30 4=3

replace j31=j30 if j1<5 & j30~=9 & j31==9
replace j32=j30 if j1<5 & j30~=9 & j32==9
gen indviv=(j30+j31+j32) if j1<5
replace indviv=. if (j30==. & j31==. & j32==. )
replace indviv=. if (j30==9 & j31==9 & j32==9 )

gen vivind=.
replace vivind=1 if indviv<6
replace vivind=2 if indviv<9 & indviv>5
replace vivind=3 if indviv==9
replace vivind=9 if indviv>9 & indviv<.
lab var vivind "Condicion de la vivienda"
lab def vivind 1"Mal estado" 2"Regular" 3"Buenas condiciones" 9"No
valorado", modify
lab val vivind vivind
tab vivind

**Housing condition**.

gen tenen1=0
replace tenen1=1 if vivind==3
replace tenen1=. if vivind==.

*Separate cooking space
gen tenen2=0
replace tenen2=1 if j18==1
replace tenen2=. if j18==. |j18==9

*Cooking fuel
*gen tenen3=0
```

```
*replace tenen3=1 if j19==1 | j19==3
*replace tenen3=. if j19==. |j19==9

*Drinking water
gen tenen4=0
replace tenen4=1 if j26==1
replace tenen4=. if j26==. |j26==9

*Toilet
gen tenen5=0
replace tenen5=1 if j27==1
replace tenen5=. if j27==. |j27==9

*Refrigeratore
gen tenen6=0
replace tenen6=1 if j20==1
replace tenen6=. if j20==. |j20==9

*Television
gen tenen7=0
replace tenen7=1 if j28>=1 & j28<=3
replace tenen7=. if j28==. |j28==9

*Cell phones
gen tenen8=0
replace tenen8=1 if j21==1 | j22==1
replace tenen8=. if j21==. & j22==.
replace tenen8=. if j21==9 & j22==9

*Washing machine
gen tenen9=0
replace tenen9=1 if j23==1
replace tenen9=. if j23==. |j23==9

*Number of vehicles
*gen tenen10=0
*replace tenen10=1 if j29>=1 & j29<=3
*replace tenen10=. if j29==. |j29==9

*gen
tenebienes=tenen1+tenen2+tenen3+tenen4+tenen5+tenen6+tenen7+tenen8+tene
n9+tenen10
*alpha tenen*, item gen(scalebienes)
*lab var tenebienes "Household assets (0-10)"

**Generating the index of household asets (tenebienes2(0-8))**.

gen
tenebienes_short=tenen1+tenen2+tenen4+tenen5+tenen6+tenen7+tenen8+tenen
9
alpha tenen1 tenen2 tenen4 tenen5 tenen6 tenen7 tenen8 tenen9, item
gen(scalebienes_short)
lab var tenebienes_short "Household assets (0-8)"

save, replace
```