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CRELES-RC

Costa Rican Longevity and Healthy Aging Study, Retirement Cohort
Recoded Variables, Wave 2

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Description of recoded variables with exact programming

Additional Information on the Main Form Recoded Variables Wave 2 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 406km2
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
rantro	Has anthropometry measures	If anthropometry measures were taken from the participant
proxy_rc	If a proxy was used	f 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
ocupnow	LastWeekOccupation_10thIOI	Current occupation
ocuplife	MainLifetimeOccupation_10thIOI	Life-long occupation
ipaqscale	Total MET calories per week	Index indicating the total MET Calories consumed per week according to physical activities
ipaqcateg	Categorical Score PA	Categorical variable indicating the level of MET calories consumed per week according to physical activities
factor_princ	First wave sampling weights	Sampling weights for analyzing main questionnaire wave 1 (without the complementary sample).
factorprinc2wave	Second wave sampling weights	Sampling weights for analyzing main questionnaire wave 2 (without the complementary sample).

II. Exact programming for generating new variables-Main Form

****

```
***PROGRAMA VARIABLES RECODIFICADAS ADULTO MAYOR RONDA 2
CRELES50***
*************************************************************************
cd "***"
use ***,clear
*********************************
***** CORRECT AGE PROGRAM *****
*********************************
tostring num_ced, gen(cedula)
sort cedula
merge m:m cedula using nacimredux, keep(master match)
gen fenacim=mdy(mes, dia, anyo)
gen fentrev=dofc(hora1)
gen edadcorrecta=int((fentrev-fenacim)/365.25)
sort idsujeto
*****************************************
* foreigners
gen factor_pas_res=.
replace factor_pas_res=int((fentrev-fentr)/365.25) if num_ced==888888888
tab factor_pas_res
replace edadcorrecta=(age+factor_pas_res) if edadcorrecta==.
drop factor_pas_res=.
drop age
rename edadcorrecta age
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"Si" 0"No", modify
lab val rantro rantro
tab 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!=.)
rename k4 tallacm
gen tallam=tallacm/100 if (tallacm!=996 & tallacm!=997 & tallacm!=998 & tallacm!=.)
```

```
gen imc=round(pesokg /(tallam* tallam))
* replacing missings of weight and height
gen alt_rod = k5
replace alt_rod=. if k5==996
replace alt_rod=. if k5==997
replace alt_rod=. if k5==998
replace alt_rod=(alt_rod/100)
gen sexo_bin = sex
replace sexo_bin=0 if sex==2

reg tallam alt_rod age sexo_bin
predict pta
replace tallam=pta if tallam==.
label var tallam "TallaEnMetros"
gen perpeso=ev16
recode perpeso 0=5
gen k8_metros=(k8/100)
replace k8_metros=. if k8==995
replace k8_metros=. if k8==996
replace k8_metros=. if k8==997
replace k8_metros=. if k8==998
gen k9_metros=(k9/100)
replace k9_metros=. if k9==996
replace k9_metros=. if k9==997
replace k9_metros=. if k9==998
reg pesokg perpeso k8_metros k9_metros age sexo_bin tallam
predict ppe
replace pesokg=ppe if pesokg==.
label var pesokg "PesoEnKg"
gen imc2=round(pesokg /(tallam* tallam))
lab var imc2 "IMC_ConImputaciones"
```

****
Razon cintura-cadera
****
**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,det
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 y 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
tab difcam
* 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
tab desc
* pushing *.
gen demp = 1 if  d4 == 1 |d4 == 3|d4 == 4|d4 == 9
replace demp = 0 if  d4 == 2
tab demp
* raising arms *.
gen dalz = 0 if  d5 == 1
replace dalz = 1 if  d5 >= 2
tab dalz


**********
gen sumadl=difcam + desc + demp + dalz + dcam + dban +  dcom + dacos + dinod  +  dunas
browse if sumadl==.
summ sumadl
tab 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
tab sumiadl
browse if sumiadl==.
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)
summ discfun - disctot
replace discfun=int(((0.40 + discfun)/3.12)*100)
replace discbas=int(((0.31 + discbas)/4.35)*100)
replace discinst=int(((0.28 + discinst)/3.92)*100)
replace disctot=int(((0.33 + disctot)/3.88)*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=2
replace proxy_rc=1 if amp8==1
lab var proxy_rc "SiSeUsoProxy"
lab def proxy_rc 1 "Si uso proxy" 2 "No uso 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
replace b4a=. if b4a==9
replace b4b=. if b4b==9
replace b4c=. if b4c==9
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 "
tab indicog
replace indicog=0 if indicog==. & am3==2
tab indicog
alpha b1a b1b b1c b1d b2a b2b b2c orden b4a b4b b4c b5a b5b b5c, item std
generate(cogniscale) min(8)
lab var cogniscale " Scale of cognitive impairment Mean(standardized items)0-100"
sum cogniscale
replace cogniscale = int(((cogniscale + 6.60)/6.98)*100)
sum cogniscale
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"Si" 0"No", modify
lab val cognidis cognidis
tab cognidis

**********
** Mood**
**********
** Depression index**.

* *Satisfied with life
gen satisfecho=1 if c104==2
replace satisfecho=0 if c104~=2
replace satisfecho=. if c104==.
replace satisfecho=. if c104==9

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

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

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


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

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

*Happy
```

```
gen felicidad=1 if c110==2
replace felicidad=0 if c110~=2
replace felicidad =. if c110==.
replace felicidad =. if c110==9

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

*Staying home
gen nosale=1 if c112==1
replace nosale=0 if c112>=2
replace nosale =. if c112==.
replace nosale =. if c112==9

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

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

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

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

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

*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)
lab var deprescale " Scale of depression Mean(standardized items)0-100"
sum deprescale
replace deprescale= int(((deprescale+.55)/2.92)*100)
sum deprescale
gen depressed= deprescale
recode depressed 0/49=0 50/100=1
lab var depressed "8+ items de 15 en escala de depresión"
lab def depressed 1" Depressed" 0"Normal", modify
lab val depressed depressed
tab depressed

****************************************
*** MERGE MEDICATIONS.DTA***
****************************************
preserve
use Medicina_RC_W2_V1.dta
***VARIABLE antidiab***
gen antidiab=0
replace antidiab=1 if grupo==107
label variable  antidiab  "MedicamentosParaDiabetes"
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  "MedicamentosParaHTA"
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  "MedicinaParaReducirColesterol"
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
restore
sort idsujeto
merge 1:1 idsujeto using Medicina_collapse.dta
drop _merge
```

```
**********************************************************************

* hypertensive onthe 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 the two 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
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
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 c4m==1
replace c4r=0 if c4m==2
replace c4r=. if c4m>=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 "HipertensiónMedida"
lab def htaclasif 0 "Normal (No hblood pressure)" 1 " Controlled HTA " 2 " Uncontrolled
HTA " 3 "Hidden HTA", modify
lab val htaclasif htaclasif

**MERGE SEG00-REGION1**********************
merge m:1 pcd using urbangamdistrito
drop if _merge==2 & result==.
drop _merge
drop pcd
replace urbanR1=urban if cambio_seg==1
replace gamR1=gam if cambio_seg==1
drop urban
drop gam
rename urbanR1 urban
rename gamR1 gam
```

```
lab var gam " Living in the Great Metropolitan Area "
lab def gam 1 "GAM" 0 "Otro", modify
lab val gam gam
lab var urban " Living in the Urban Area "
lab def urban 1"Si" 0"No", modify
lab val urban urban

*******************
** Housing condition **
*******************
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 " Housing condition "
lab def vivind 1"Mal estado" 2"Regular" 3"Buenas condiciones" 9"No valorado", modify
lab val vivind vivind
tab vivind

****************************
** Quality of life **.
****************************
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+tenen9+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+tenen9
alpha tenen1 tenen2 tenen4 tenen5 tenen6 tenen7 tenen8 tenen9, item gen(scalebienes_short)
lab var tenebienes_short " Household assets (0-8)"

***************
** IPAQSCALE **
***************
mvdecode ev14m1 ev14m3 ev14m5, mv(8 9)
```

```
mvdecode ev14m2a ev14m2b ev14m4a ev14m4b ev14m6a ev14m6b ev14m7a ev14m7b,
mv(98 99)

*---------- VIGOROUS ----------
gen DAYSVigor= ev14m1
label variable DAYSVigor " Days per week of vigorous activities "
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 "
gen MINWalk= (ev14m6a *60) + ev14m6b
replace MINWalk =0 if DAYSWalk==0
label variable MINWalk " Minutes per day of walking "

*----------Sentado----------
*Tiempo por dia Sentado
gen MINSeat= (ev14m7a *60) + ev14m7b
label variable MINSeat " Minutes per day seatting"
*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 minutes per week
gen vigor=DAYSVigor*MINVigor
gen moder=DAYSModer*MINModer
gen camin=DAYSWalk*MINWalk
gen seating = 7 * MINSeat

*----------IPAQ ESCALA----------*
* 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 "

*----------------------IPAQ CATEGORIAS--------------------*
gen DAYSPA= DAYSWalk+DAYSModer+DAYSVigor
gen ipaqcateg=1
replace ipaqcateg=2 if DAYSVigor>=3 & MINVigor>=20
replace ipaqcateg=2 if DAYSModer>=5
replace ipaqcateg=2 if DAYSWalk>=5 & MINWalk>=30
replace ipaqcateg=2 if MINWalk>=30
replace ipaqcateg=2 if DAYSPA>=5 & ipaqsc>=600
replace ipaqcateg=3 if DAYSVigor>=3 & vigor*8 >=1500
replace ipaqcateg=3 if DAYSPA>=7 & ipaqsc>=3000

replace ipaqcateg=1 if filtronuevo==1
replace ipaqcateg=. if ipaqsc==.
label variable ipaqcateg " Categorical Score PA "
label define ipaqcateg 1 "Bajo" 2 "Moderado" 3 "Alto", modify
label values ipaqcateg ipaqcateg
tab ipaqcateg
```

Additional Information on the Spouse Recoded Variables Wave 2 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 406km2
urban	Living in the Urban area	Census tracts defined as urban areas by the National Institute of Census and Statistics of Costa Rica
rantro	Has anthropometry measures	If anthropometry measures were taken from the participant
proxy_rc	If a proxy was used	f 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	First wave sampling weights	Sampling weights for analyzing main questionnaire wave 1 (without the complementary sample).
factorcony2wave	Second wave sampling weights	Sampling weights for analyzing main questionnaire wave 2 (without the complementary sample).

II. Exact programming for generating new variables-Spouse

```
*********************************************
***PROGRAMA VARIABLES RECODIFICADAS-CONYUGE***
*********************************************
cd "***"
use "***",replace
*******************************
** CORRECT AGE PROGRAM **
*******************************
tostring num_ced, gen(cedula)
sort cedula
merge m:m cedula using nacimientosene2013, keep(master match)
```

```
gen fenacim=mdy(mes, dia, anyo)
gen fentrev=dofc(hora1)
gen edadcorrecta=int((fentrev-fenacim)/365.25)
* foreigners
gen factor_pas_res=.
replace factor_pas_res=int((fentrev-fentr)/365.25) if num_ced==888888888
replace edadcorrecta=(age+factor_pas_res) if edadcorrecta==. & num_ced==888888888
drop factor_pas_res
drop age fentr
rename edadcorrecta age
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

****************************
**Razon cintura-cadera**  **
****************************
**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==.

********************
**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


**************************************
**Partial and total disability**
**************************************
macro define ADL " dcam - dalz"
macro define DISFUN "difcam -  dalz"
macro define  DISBAS "dcam -  dunas"
alpha $DISFUN,item std gen(discfun) min(2)
summ discfun
replace discfun=int(((0.35 + discfun)/3.41)*100)
summ discfun
lab var discfun"Scale of funcional disability 0-100"

** 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
tab proxy_rc

**MERGE SEG00-REGION1**********************
merge 1:1 idsujeto using base_cambio_residencia_main
lab var gam " Living in the Great Metropolitan Area"
lab def gam 1"GAM" 0"Otro", modify
lab val gam gam
lab var urban " Living in the Urban Area "
```

```
lab def urban 1"Si" 0"No", modify
lab val urban urban
```