

UNIVERSIDAD DE COSTA RICA

CRELES Pre-1945

Costa Rican Longevity and Healthy Aging Study
Recoded Variables, Wave 3

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Coverage: Costa Rica, population aged 60+ in 2005

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Additional Information on the Recoded Variables Wave 3 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 variables in the recoded variables data file (RecodedVariables_w3.dta)

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.
ingc	Income of Spouse(Thousand colones)	Income of the spouse of the Interviewee
ingtotal	Total Income of interviewee(Thousand colones)	Total Income of the interviewee
tenebienes	Household assets 0-10	Index adding the number of assets between 0-10
ranthro	Has anthropometry measures	If anthropometry measures were taken from the participant
rdieta	Has diet information	If diet information was taken from the participant
proxy	If a proxy was used	If the interviewee needed another person to help them answer the questionnaire
imc2	BMI	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 account 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 standardized 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 standardized so the score is located between 0 and 100.
htaclasif	Hypertension Measure	A categorical variable stating the status of the person's blood pressure
antidiab	Taking diabetes medicine	Categorical variable, where 1 states if participant was taking medication for diabetes.
antihta	Taking hypertension medicine	Categorical variable, where 1 states if participant was taking medication for hypertension.
diuret	Taking diuretics	Categorical variable, where 1 states if participant was taking diuretics.
grasa	>=40 g/day saturated fats	Categorical variable, where 1 states if participant had greater than or equal to 40 grams of saturated fat per day.
ipaqcateg	Categorical score Physical Activity	Categorical variable, where 1 states if participant engaged in low levels of physical activity, 2 for moderate levels, and 3 for high levels of physical activities.

ipaqscale	Total MET calories per week	Numerical variable that calculates the number of MET calories the person uses per day.
seating	Sedentary scale	Numerical variable that contains the number of minutes per week the participant spends seated.
indicebienes	Household assets categories	Categorical variable, where 1 states if participant had a high level of assets in the household, 2 for medium level, and 3 for a low level.

Nutrients (Details on calculating the nutrients is found in the "Sampling and Methods" document)

hatcalor	Total energy, kcal/d
hatprot	Protein, g/d
hatcarbo	Carbohydrate, g/d
hatxgibd	Glycemic index
hatxglb	Glycemic load, g/d
hattfat	Total fat, g/d
hatxsatf	Saturated fat, g/d
hatxmonf	Monounsaturated fat, g/d
hatxpolf	Polyunsaturated fat, g/d
hatxome6_wo	Omega-6 fatty acids, g/d
hatxpfn3_wo	Omega-3 fatty acids, g/d
hatxttfa	Trans fat, g/d
hatchol	Cholesterol, mg/d
hataofib	Dietary fiber, g/d
hatxatoc	Alpha-Tocopherol, mg/d
hatxgtoc	Gamma-Tocopherol, mg/d
hatcalc	Calcium, mg/d
hatxfe03	Iron, mg/d
hatalco	Alcohol intake, g/d
hicalorias	consumes more than 3000 calories perday
localorias	consumes less than 1500 calories perday
carbs	consumes more than 400g of carbs perday

II. Exact programming for generating new variables

***Body Mass index imc2**

*missing values 996 to 999

mvdecode k3 - k11, mv(999)

mvdecode k3 - k11, mv(998)

mvdecode k3 - k11, mv(997)

mvdecode k3 - k11, mv(996)

recode k13 0 90/99=.

recode k14 0 90/99=.

gen pesokg= k3/2.2

gen tallam=k4/100

gen imc=round(pesokg /(tallam* tallam))

*inputing some of the 150 missings of weight and height

reg tallam k5 age sex

predict pta

replace tallam=pta if tallam==.

label var tallam "Height in meters"

gen perpeso=ev16

recode perpeso 0=.

reg pesokg perpeso k8 k9 age sex tallam

predict ppe

replace pesokg=ppe if pesokg==.

label var pesokg "Weight in Kg"

gen imc2=round(pesokg /(tallam* tallam))

summ imc*

*Note 130 imputed data

lab var imc2 "BMI"

** DISABILITY based on Activities of Daily Living (ADL)**.

gen dcam = 1 if d6 == 1

replace dcam = 0 if d6 == 2

label variable dcam "Bedroom"

gen dban = 1 if d8 == 1

replace dban = 0 if d8 == 2

label variable dban "Showering"

```
gen dcom = 1 if d11 == 1
replace dcom = 0 if d11 == 2
label variable dcom "Eating"
```

```
gen dacos = 1 if d13 == 1
replace dacos = 0 if d13 == 2
label variable dacos "Bedding"
```

```
gen dinod = 1 if d16 == 1
replace dinod = 0 if d16 == 2
label variable dinod "Toileting"
```

```
gen dunas = 1 if d19 == 1
replace dunas = 0 if d19 == 2
label variable dunas "Toenails"
```

```
*****
```

```
*Other activities
```

```
gen difcam = 1 if d1 == 2
replace difcam = 1 if d2 == 1 | d2 == 3 | d2 == 4 | d2 == 9
replace difcam = 0 if d2 == 2
label variable difcam "Walking"
```

```
gen desc = 1 if d1 == 2
replace desc = 1 if d3 == 1 | d3 == 3 | d3 == 4 | d3 == 9
replace desc = 0 if d3 == 2
label variable desc "Climbing stairs"
```

```
gen demp = 1 if d4 == 1 | d4 == 3 | d4 == 4 | d4 == 9
replace demp = 0 if d4 == 2
label variable demp "Pushing objects"
```

```
gen dalz = 0 if d5 == 1
replace dalz = 1 if d5 >= 2
label variable dalz "Rising arms"
```

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

```
*****
```

```
**Instrumental ADLs
```

```
*****
```

```
gen dcook = 1 if d21 == 1
replace dcook = 0 if d21 == 2
label variable dcook "Cooking"
```

```
gen ddine = 1 if d23 == 1
replace ddine = 0 if d23 == 2
label variable ddine "Handling money"
```

```
gen dcomp = 1 if d25 == 1
replace dcomp = 0 if d25 == 2
label variable dcomp "Shopping"
```

```
gen dmed = 1 if d27 == 1
replace dmed = 0 if d27 == 2
label variable dmed "Taking medicines"
```

```
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"
tab riskadl
```

```
summ discfun - disctot
replace discfun=int(((0.90 + discfun)/2.22)*100)
replace discbas=int(((0.48 + discbas)/2.99)*100)
replace discinst=int(((0.601 + discinst)/2.304)*100)
replace disctot=int(((0.64 + disctot)/2.60)*100)
summ discfun - disctot
```

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

```
*****Use of a proxy***
gen proxy= am3
replace proxy=3 if b1a==.
lab def proxy 1 "No proxy" 2 "Yes, minimental" 3 "Yes, observation"
lab val proxy proxy
lab var proxy "Proxy used"
```

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

```
**Remembering order in the numbers**
gen orden=1 if b3==97531
replace orden=0 if b3~=97531
```

```
**Minimental Index of cognition**
gen indicog=b1a+b1b+b1c+b1d+b2a+b2b+b2c+orden+b4a+b4b+b4c+b5a+b5b+b5c+b6
```

*Those with proxy assumed zero for the Index
recode indicog .= 0 if indicog==. & am3==2

*Alpha scale
alpha b1a b1b b1c b1d b2a b2b b2c orden b4a b4b b4c b5a b5b b5c b6, item std
generate(cogniscale) min(8)

*Nice Chrombach Alpha = 0.77

*Normalized with parametters of the first wave: min 3.63, rage 4.148
replace cogniscale = int((cogniscale + 3.631)/4.148*100)

*****imputation for those with proxy and no minimental, using the serie b8 - b18

*auxiliar scale

alpha b8 - b18, it gen(auxscale) st

*Good alpha 0.91

reg cognis auxscale if proxy ~=3

*R-sqr is no high... 0.21

predict hatsca if proxy==3

replace hatsca= round(hatsca)

replace cogniscale=hatsca if proxy==3 & cognisca ==.

drop auxsca hatsca

Categorice scale

gen deterioro=3 if indicog<10

replace deterioro=2 if indicog>=10 & indicog<=13

replace deterioro=1 if indicog>=14 & indicog<.

lab var deterioro "Cognitive decline"

lab def deterioro 1"None" 2"Moderate" 3"Severe"

lab val deterioro deterioro

gen cognidis= cogniscale

recode cognidis 0/74=1 75/100=0

lab var cognidis "Severe cognition disability (<75% scale or <12 items)"

tab deter cognidi,miss

** Geriatric depression**

gen satisfecho=1 if c104==2

replace satisfecho=0 if c104~=2

replace satisfecho=. if c104==.

replace satisfecho=. if c104==9

gen actividad=1 if c105==1

replace actividad=0 if c105>=2

replace activi =. if c105==.

replace activi =. if c105==9

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

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

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

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

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

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

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

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

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

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

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

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

```
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)
```

*Cronbach Alpha of 0.83

```
*Normalizing with wave 1 parameters
replace deprescale= int((deprescale+.52)/2.876*100)
```

```
gen depressed= deprescale
recode depressed 0/49=0 50/100=1
```

*The old count scale (too much lost to missing)

```
gen
depression=satisfecho+actividad+vida+aburrir+animo+preocupa+felicidad+desampa+nosal
e+memoria+maravivir+inut+energico+noespera+otrosituacion
```

```
gen depresivo=1 if depression<6
replace depresivo=2 if depression>=6 & depression<=9
replace depresivo=3 if depression>9
replace depresivo=. if depression==.
```

* HYPERTENSION

```
gen c138br=0 if (c138b<90)
replace c138br=1 if (c138b>=90 & c138b<990)
tab c138br, miss
tabulate c138br, summarize(c138b)
```

hypertensive on the second measure if diastolic >=90.

```
gen h28br=0 if (h28b< 90)
replace h28br=1 if (h28b>=90 & h28b<990)
tab h28br, miss
tabulate h28br, summarize(h28b)
```

```

*adding both of the variables*.
gen cantdia=c138br + h28br
replace cantdia=c138br if h28br==.
replace cantdia=h28br if c138br==.
replace cantdia=. if c138br==. & h28br==.
lab def cantdia 0 "No HTA diast" 1 "HTA with one measure" 2 "HTA with both measure",
modify
lab val cantdia cantdia
tab cantdia, miss

```

```

* hypertensive on the first measure if systolic>=140*.
gen c138ar=0 if (c138a< 140)
replace c138ar=1 if (c138a>=140 & c138a <990)
tab c138ar, miss
tabulate c138ar, summarize(c138a)

```

```

* hypertensive on the second measure if systolic>=140*.
gen h28ar=0 if (h28a< 140)
replace h28ar=1 if (h28a>=140 & h28a <990)
tab h28ar, miss
tabulate h28ar, summarize(h28a)

```

```

*Adding the two variables*.
gen cantsis=c138ar + h28ar
replace cantsis=c138ar if h28ar==.
replace cantsis=h28ar if c138ar==.
replace cantsis=. if c138ar==. & h28ar==.
lab val cantsis cantdia
tab cantsis, miss

```

***Hypertensive at cutoff point**.

```

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

```

```

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

```

***Hypertensive for general prevalence taking into account the medication and the measurements **.

```

gen hiperten= HTA3de4
replace hiperten= 1 if antihta==1

```

Categories for hypertension.

```

gen htaclasif= hiperten
replace htaclasif=2 if HTA3de4==1 & (antihta==1)

```

```

replace htaclasif=3 if (HTA3de4==1 & antihta==0) & hiperten~=
lab def htaclasif 0 " Normal(No hblood pressure)" 1 " Controlled HTA " 2 "Uncontrolled HTA "
3 "Hidden HTA", modify
lab val htaclasif htaclasif
tab htaclas

```

```

drop c138br - HTA3de4

```

```

save tempo,replace

```

```

*****
***  Nutrients in diet
*****

```

```

use diet_w3.dta,clear

```

```

*portions
recode dla1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dla3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dla5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dla7b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dla9b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlb1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlb3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlb5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlb7b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlb9b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlc1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlc3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlc5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlc7b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlc9b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dld1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dld3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dld5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dle1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dle3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dle5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dle7b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlf1b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlf3b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlf5b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1
recode dlf7b 1=.15 2=.5 3=.85 4=2 5=4 6=7.5 7=12 .=1

```

```

*frequencies
recode dla1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 .=0
recode dla3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 .=0
recode dla5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 .=0
recode dla7c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 .=0
recode dla9c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 .=0

```

```

recode dlb1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlb3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlb5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlb7c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlb9c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlc1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlc3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlc5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlc7c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlc9c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dld1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dld3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dld5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dle1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dle3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dle5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dle7c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlf1c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlf3c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlf5c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0
recode dlf7c 1=.08 2=.14 3=.43 4=.8 5=1 6=2.5 7=4.5 8=6 . =0

```

* Daily portion

gen	dl1	=	dla1c	*	dla1b
gen	dl2	=	dla3c	*	dla3b
gen	dl3	=	dla5c	*	dla5b
gen	dl4	=	dla7c	*	dla7b
gen	dl5	=	dla9c	*	dla9b
gen	df1	=	dlb1c	*	dlb1b
gen	df2	=	dlb3c	*	dlb3b
gen	df3	=	dlb5c	*	dlb5b
gen	df4	=	dlb7c	*	dlb7b
gen	dg5	=	dlb9c	*	dlb9b
gen	dh1	=	dlc1c	*	dlc1b
gen	dh2	=	dlc3c	*	dlc3b
gen	dh3	=	dlc5c	*	dlc5b
gen	dh4	=	dlc7c	*	dlc7b
gen	dh5	=	dlc9c	*	dlc9b
gen	dp1	=	dld1c	*	dld1b
gen	dp2	=	dld3c	*	dld3b
gen	dp3	=	dld5c	*	dld5b
gen	db1	=	dle1c	*	dle1b
gen	db2	=	dle3c	*	dle3b
gen	db3	=	dle5c	*	dle5b
gen	db4	=	dle7c	*	dle7b
gen	dd1	=	dlf1c	*	dlf1b
gen	dd2	=	dlf3c	*	dlf3b
gen	dd3	=	dlf5c	*	dlf5b
gen	dd4	=	dlf7c	*	dlf7b

*Oil and fat brand

```
replace d4a = 10 if d4 == ".bonela" | d4 == "bonela" | d4 == "Bonella" | d4 == "bonella" |  
d4 == "bonolia"  
replace d4a = 11 if d4 == "Crisco" | d4 == "crisco"  
replace d4a = 12 if d4 == "Doral" | d4 == "doral"  
replace d4a = 13 if d4 == ".en su punto" | d4 == "en su .puntO" | d4 == "En su punto" | d4  
== "en su puntO" | d4 == "en su punto"  
replace d4a = 14 if d4 == "giraso" | d4 == "giraSOL" | d4 == "girasoL" | d4 == "girasol" | d4  
== "girol" | d4 == "soflawer" | d4 == "Sunflower"  
replace d4a = 15 if d4 == "IdeaL" | d4 == "Ideal" | d4 == "ideal"  
replace d4a = 16 if d4 == "corn oil" | d4 == "maceite" | d4 == "mazceite" | d4 == "mazeite"  
replace d4a = 17 if d4 == "Oliva Salat" | d4 == "Aceite d oliva salat" | d4 == "carbonell" | d4  
== "Estra virgin" | d4 == "Extra virgin" | d4 == "oliva" | d4 == "oliver" | d4 == "Salad" | d4  
== "SalaT" | d4 == "salat" | d4 == "salath" | d4 == "ibarra" | d4 == "la espanola" | d4  
== "Lupi" | d4 == "lupi"  
replace d4a = 29 if d4 == "ACeite gensa" | d4 == "aceite.vegetal" | d4 == "florencia" | d4  
== "Molinos" | d4 == "MoteLLa" | d4 == "muzceite" | d4 == "No sabe" | d4 == "no sabe" |  
d4 == "no sabe el no cocina" | d4 == "pam" | d4 == "trebol" | d4 == "yo soy" | d4 == "SEN  
SAT"  
replace d4a = 18 if d4 == "price smart" | d4 == "pricemart" | d4 == "pricesmart"  
replace d6a = 5 if d6 == "Cerdo" | d6 == "cerdo" | d6 == "cerdo con gallina" | d6  
== "manteca de cerdo" | d6 == "manteca de chancho"  
replace d6a = 6 if d6 == "en su pulma" | d6 == "En su punto" | d6 == "en su punto"  
replace d6a = 7 if d6 == "Numar" | d6 == "numaR" | d6 == "numar"  
replace d6a = 9 if d6 == "n/s" | d6 == "palmera" | d6 == "VegetaL"
```

```
lab define pMarcaManteca 5 cerdo 6 ensupunto 7 numar 9 Otra,add  
lab define pMarcaAceite 10 bonela 11 crisco 12 doral 13 ensupunto 14 "girasol-  
sunflower" 15 ideal 16 mazceite 17 "oliva (salat etc)" 18 pricemart 29 otro,add
```

tab1 d4a d6a

*Vitamins

```
recode dv1 2/9=0  
recode dvv1 1/9=1  
recode dvv2 1/9=1  
recode dvv3 1/9=1  
recode dvv4 1/9=1  
recode dvv5 1/9=1  
recode dvv6 1/9=1  
recode dvv7 1/9=1  
recode dvs1 2/9=0  
recode dvs2 2/9=0  
recode dvs3 2/9=0  
recode dvs4 2/9=0
```

*Fried food outside

```
recode d8 5=4 7=1
```

```
*Fat consumption
```

```
gen ms=dla11  
recode ms 2/4=0  
gen mt=dla11  
recode mt 1 3 4=0 2=1
```

```
gen mreg=dla12  
recode mreg 1 3=1 2=0 .=0  
gen mlt=dla12  
recode mlt 1 3=0 2=1 .=0
```

```
*Margarin brands
```

```
gen mb=999  
replace mb=500 if dla11==1 & dla12==1 & dla13==4  
replace mb=501 if dla11==2 & dla12==2 & dla13==4  
replace mb=502 if dla11==2 & (dla12==1 | dla12==3) & dla13>=3 & dla13<=5  
replace mb=0 if dla11==4 | dla12==. | dla13==.
```

```
gen mb2=recode(mb,0,455,500,501,502)  
replace mb2=999 if mb==455 | mb>502
```

```
*Oil brands
```

```
gen oil=d4a  
replace oil=d6a+30 if oil==.
```

```
recode oil 1=100 2=101 3=113 4=116 5=21 6=6 7=118 8=117 10=21 11=118 12=106  
13=108 14=21 15=21 16=111 17=10 18=118 29=999 31=97 32=97 33=97 34=98  
35=88 36=87 39=88
```

```
gen oil2=recode(oil,6,21,88,89,90,97,100,101,108,116)  
replace oil2=0 if oil<6 | oil==10 | (oil>21 & oil<88) | oil==91 | oil==98 | (oil>101 & oil<108)  
| (oil>108 & oil<116) | oil==118 | oil==.
```

```
tab1 mb2 oil2
```

```
* Dummy variables for regressions
```

```
xi i.mb2 i.oil2  
gen _loil2_89=0  
gen _loil2_90=0
```

```
*****
```

```
*The nutrient equations
```

gen hatcalor = 282.4745 +14.8041*dv1 +22.37166*dvv1 +37.01733*dvv2 +5.709211*dvv3
+37.85644*dvv4 +77.26546*dvv5 +11.4845*dvv6 +83.00654*dvv7 +37.61245*dvs1
+76.0135*dvs2 +124.0787*dvs4 +20.33712*dvs3 +16.49567*d2 +165.6511*dl1
+253.7908*dl2 +126.4006*dl3 +280.695*dl4 +117.9637*df4 +145.7176*df1
+138.9844*df3 +158.2297*dh1 +271.2645*dh2 +511.8927*dh4 +560.5762*dh5
+75.2741*dp1 +266.3281*dd2 +125.227*db2 +80.49324*dd1 +275.5611*dd3
+369.626*dd4 +195.8705*db1 +473.2239*dh3 +302.5258*df2 +360.9103*dp2
+165.0842*dg5 +167.0205*dp3 +174.1423*db3 +75.69301*db4 +24.46006*dl5 -
183.466*ms -102.9418*mt +107.8614*mreg +1.954031*mlt +111.4272*d8
+161.1934*_lmb2_500 +72.62541*_lmb2_501 +164.0886*_lmb2_502
+98.65015*_lmb2_999 +44.13391*_lmb2_6 +27.77402*_lmb2_21 -16.59204*_lmb2_88
+3.09786*_lmb2_89 +48.28318*_lmb2_90 -28.16045*_lmb2_97 +36.08754*_lmb2_100
+63.7992*_lmb2_101 +218.9822*_lmb2_108 -29.2733*_lmb2_116

gen hatprot = 11.84913 +0.2417413*dv1 +0.3837644*dvv1 +0.9944347*dvv2 -
0.7214018*dvv3 +1.368766*dvv4 +2.911602*dvv5 -0.9025517*dvv6 +4.314906*dvv7
+1.020037*dvs1 +0.6802057*dvs2 +4.885317*dvs4 +3.157877*dvs3 -0.0154805*d2
+9.001477*dl1 +4.758722*dl2 +6.902683*dl3 +11.19574*dl4 +2.825311*df4
+1.705592*df1 +2.758431*df3 +8.48798*dh1 +20.132*dh2 +35.8399*dh4 +38.99698*dh5
+2.323909*dp1 +3.562533*dd2 +0.6475294*db2 +1.119382*dd1 +5.81278*dd3
+1.431797*dd4 +0.4917973*db1 +23.71177*dh3 +5.898434*df2 +9.109938*dp2
+6.836088*dg5 +3.562776*dp3 +2.23791*db3 -0.646424*db4 +0.3140323*dl5 -
16.97671*ms -13.23659*mt +10.16877*mreg +7.606533*mlt +3.25644*d8
+7.98923*_lmb2_500 +4.341624*_lmb2_501 +8.188574*_lmb2_502 +2.053194*_lmb2_999
+0.3075194*_lmb2_6 +1.179485*_lmb2_21 -0.6477064*_lmb2_88 +0.8115046*_lmb2_89
+1.953795*_lmb2_90 -1.311861*_lmb2_97 +1.351628*_lmb2_100 +2.887386*_lmb2_101
+6.428965*_lmb2_108 -0.1211258*_lmb2_116

gen hatcarbo = 57.05819 +5.664863*dv1 +4.288663*dvv1 +5.599929*dvv2
+4.378898*dvv3 +8.936024*dvv4 +12.84492*dvv5 +5.122266*dvv6 +6.083877*dvv7
+7.162513*dvs1 +10.53409*dvs2 +13.36558*dvs4 +5.099116*dvs3 +4.075323*d2
+16.33867*dl1 +15.209*dl2 +10.01838*dl3 +24.07854*dl4 +25.98102*df4 +34.38027*df1
+33.27865*df3 +4.615128*dh1 +3.000736*dh2 +15.92821*dh4 +63.19286*dh5
+13.78538*dp1 +33.61603*dd2 +30.51114*db2 +13.04159*dd1 +14.57956*dd3
+9.754826*dd4 +43.46295*db1 +35.929*dh3 +24.23272*df2 +44.73631*dp2
+21.8572*dg5 +29.23927*dp3 +14.50609*db3 -3.564784*db4 -1.960631*dl5
+31.66515*ms +37.64514*mt -26.57*mreg -40.61195*mlt +6.212257*d8
+8.670325*_lmb2_500 +0.9714393*_lmb2_501 +15.1048*_lmb2_502
+14.64285*_lmb2_999 +12.79845*_lmb2_6 +1.867916*_lmb2_21 -2.222144*_lmb2_88 -
1.635181*_lmb2_89 +6.423699*_lmb2_90 -5.888822*_lmb2_97 +5.42352*_lmb2_100
+7.908743*_lmb2_101 +65.72325*_lmb2_108 -7.252961*_lmb2_116

gen hatxglb = 39.77912 +4.906323*dv1 +4.387455*dvv1 +6.570177*dvv2 +1.921813*dvv3
+4.640682*dvv4 +8.643867*dvv5 +4.06649*dvv6 +1.487291*dvv7 +6.046044*dvs1
+8.713427*dvs2 +11.92026*dvs4 +3.986101*dvs3 +3.547011*d2 +9.246546*dl1
+9.141397*dl2 +6.657577*dl3 +20.06934*dl4 +17.08083*df4 +29.58338*df1
+25.34944*df3 +2.533363*dh1 +2.763887*dh2 +12.93263*dh4 +47.61343*dh5
+14.17132*dp1 +28.45167*dd2 +27.2971*db2 +8.936703*dd1 +12.18189*dd3
+6.786436*dd4 +39.88624*db1 +27.52153*dh3 +15.62057*df2 +26.7416*dp2

+9.859383*dg5 +25.547*dp3 +8.632901*db3 -2.803525*db4 -0.7816834*dl5
+18.73982*ms +22.95929*mt -14.05044*mreg -24.69634*mlt +4.9516*d8
+5.341575*_lmb2_500 +0.9263421*_lmb2_501 +10.2839*_lmb2_502 +12.3603*_lmb2_999
+5.728906*_loil2_6 -0.1921765*_loil2_21 -5.336891*_loil2_88 -1.69668*_loil2_89
+2.826326*_loil2_90 -4.376979*_loil2_97 +4.15406*_loil2_100 +6.226088*_loil2_101
+62.03888*_loil2_108 -6.223433*_loil2_116

gen hatxgibd = 75.13074 +0.0760886*dv1 +0.4962824*dvv1 +0.4149556*dvv2 -
0.2916959*dvv3 -0.1915632*dvv4 -0.4440635*dvv5 +0.2867645*dvv6 -2.051566*dvv7
+0.0066446*dvs1 +0.3854802*dvs2 +0.425664*dvs4 -0.082142*dvs3 +0.0975888*d2 -
1.058547*dl1 -0.3341708*dl2 -0.2942295*dl3 +0.1527805*dl4 -0.8749487*df4
+0.7936691*df1 -0.1290635*df3 -0.2055291*dh1 +0.4359611*dh2 -0.5108569*dh4 -
0.0941877*dh5 +1.04046*dp1 +0.6438442*dd2 +1.231081*db2 -0.3238167*dd1 -
0.0335771*dd3 -0.0405685*dd4 +1.572578*db1 +0.1128729*dh3 -0.7454146*df2
+0.1139762*dp2 -2.026144*dg5 +1.109484*dp3 -0.8644478*db3 -0.0257653*db4
+0.0948334*dl5 -1.637292*ms -1.61015*mt +2.260522*mreg +2.174643*mlt
+0.0195775*d8 -0.5330579*_lmb2_500 -0.550531*_lmb2_501 -0.7687953*_lmb2_502
+0.0867766*_lmb2_999 -0.1791045*_loil2_6 -0.4081955*_loil2_21 +0.1664894*_loil2_88
+0.1376757*_loil2_89 -0.2717617*_loil2_90 +0.1304706*_loil2_97 +0.0765907*_loil2_100 -
0.1649332*_loil2_101 +4.245451*_loil2_108 -0.0806422*_loil2_116

gen hattfat = 1.66946 -0.810902*dv1 +0.4236911*dvv1 +1.293335*dvv2 -0.5412167*dvv3
-0.3409598*dvv4 +2.12078*dvv5 -0.5852187*dvv6 +5.572156*dvv7 +0.5557004*dvs1
+3.815863*dvs2 +6.248994*dvs4 -1.274122*dvs3 +0.0762835*d2 +7.36912*dl1
+19.9299*dl2 +6.7638*dl3 +16.26439*dl4 +1.216784*df4 +1.727532*df1 +1.240177*df3
+11.50975*dh1 +18.63979*dh2 +32.90024*dh4 +17.41664*dh5 +1.019861*dp1
+13.76518*dd2 +0.8381392*db2 +2.912958*dd1 +22.17391*dd3 +37.14088*dd4
+2.384187*db1 +26.73008*dh3 +22.09214*df2 +16.84176*dp2 +5.924533*dg5
+3.707616*dp3 +1.95708*db3 -0.5956425*db4 +3.443423*dl5 -24.79649*ms -
20.39143*mt +18.13133*mreg +13.07551*mlt +8.398066*d8 +9.895901*_lmb2_500
+5.168005*_lmb2_501 +8.147114*_lmb2_502 +3.408424*_lmb2_999 +0.0942594*_loil2_6
+1.808202*_loil2_21 -0.6729644*_loil2_88 +0.6551708*_loil2_89 +1.907798*_loil2_90 -
0.0103707*_loil2_97 +1.262144*_loil2_100 +2.311642*_loil2_101 -5.907235*_loil2_108
+0.0383806*_loil2_116

gen hatxsatf = -2.397033 -0.6155995*dv1 -0.1359158*dvv1 +0.1425468*dvv2 -
1.033104*dvv3 -0.7569095*dvv4 +0.9156571*dvv5 +0.43247*dvv6 +0.8696401*dvv7
+0.3608442*dvs1 +0.4979135*dvs2 +2.106216*dvs4 -1.119391*dvs3 +0.0423672*d2
+4.675495*dl1 +12.15101*dl2 +3.905389*dl3 +8.83447*dl4 +0.3316845*df4
+0.6560496*df1 +0.2054093*df3 +3.987101*dh1 +6.743929*dh2 +15.6573*dh4
+6.545384*dh5 +0.4582372*dp1 +8.026749*dd2 +0.4221097*db2 +1.244351*dd1
+5.645416*dd3 +5.121618*dd4 +1.384229*db1 +11.33626*dh3 +5.295122*df2
+6.096947*dp2 +1.640576*dg5 +0.6431185*dp3 +0.5739374*db3 -0.2727081*db4
+0.9268007*dl5 -12.98034*ms -10.9221*mt +10.09109*mreg +7.916179*mlt
+3.685372*d8 +4.764343*_lmb2_500 +1.635231*_lmb2_501 +3.104231*_lmb2_502
+1.001748*_lmb2_999 -0.7258581*_loil2_6 -0.3341612*_loil2_21 +8.019417*_loil2_88 -
0.1554235*_loil2_89 +0.1166269*_loil2_90 +8.821963*_loil2_97 +0.5463877*_loil2_100
+0.9609064*_loil2_101 +1.982017*_loil2_108 -0.1987693*_loil2_116

gen hatxmonf = 2.710103 -0.3081234*dv1 +0.048856*dvv1 +0.63248*dvv2 -
0.9590563*dvv3 +0.6930654*dvv4 +1.251295*dvv5 -0.4939966*dvv6 +3.411121*dvv7
+0.1441278*dvs1 +1.253707*dvs2 +3.204944*dvs4 -0.4126148*dvs3 +0.0151172*d2
+1.653991*dl1 +5.145839*dl2 +1.97021*dl3 +5.010246*dl4 +0.3918431*df4
+0.4933581*df1 +0.5871877*df3 +4.228095*dh1 +7.903036*dh2 +12.03862*dh4
+5.937624*dh5 +0.3658824*dp1 +3.413131*dd2 +0.2393455*db2 +0.9846073*dd1
+6.063343*dd3 +29.94475*dd4 +0.9957114*db1 +8.47164*dh3 +12.47082*df2
+5.643301*dp2 +1.58554*dg5 +1.022371*dp3 +1.088539*db3 -0.1964142*db4
+1.084566*dl5 -8.850922*ms -6.799239*mt +6.415995*mreg +4.240468*mlt
+3.179078*d8 +3.398398*_Imb2_500 +1.086492*_Imb2_501 +2.755036*_Imb2_502
+1.704899*_Imb2_999 -2.422076*_Iol2_6 -3.441554*_Iol2_21 +0.0939655*_Iol2_88 -
2.380517*_Iol2_89 -2.008366*_Iol2_90 -0.1653344*_Iol2_97 -2.924419*_Iol2_100 -
3.775703*_Iol2_101 -4.377768*_Iol2_108 -3.34767*_Iol2_116

gen hatxpolf = 2.291613 +0.1567912*dv1 +0.4920168*dvv1 +0.3359603*dvv2
+0.6471953*dvv3 -0.4452783*dvv4 +0.1097966*dvv5 -0.5288235*dvv6 +2.208121*dvv7
+0.0420318*dvs1 +1.029269*dvs2 +0.6381451*dvs4 +0.5044632*dvs3 +0.0079391*d2
+0.254181*dl1 +1.252234*dl2 +0.3670033*dl3 +1.348723*dl4 +0.4114075*df4
+0.5051883*df1 +0.5229172*df3 +2.865935*dh1 +3.300248*dh2 +2.605211*dh4
+4.167213*dh5 +0.1774442*dp1 +1.434888*dd2 +0.1302527*db2 +0.6180121*dd1
+9.872823*dd3 +1.988524*dd4 -0.0307265*db1 +4.951806*dh3 +3.965409*df2
+4.557933*dp2 +2.237972*dg5 +1.771546*dp3 +0.2385104*db3 -0.1210519*db4
+0.9395028*dl5 -1.660326*ms -1.370331*mt +0.2525803*mreg -0.2371216*mlt
+1.302627*d8 +1.452014*_Imb2_500 +2.450703*_Imb2_501 +2.242617*_Imb2_502
+0.9036473*_Imb2_999 +3.227818*_Iol2_6 +5.228712*_Iol2_21 -8.258329*_Iol2_88 -
1.976688*_Iol2_89 -0.8172204*_Iol2_90 -8.478968*_Iol2_97 +2.190577*_Iol2_100
+5.166956*_Iol2_101 -3.19834*_Iol2_108 +2.537515*_Iol2_116
replace hatxpolf = 0 if hatxpolf <0

gen hatxome6_wo = 2.100731 +0.1487594*dv1 +0.4535706*dvv1 +0.270096*dvv2
+0.6469768*dvv3 -0.4511759*dvv4 +0.0406017*dvv5 -0.4938251*dvv6 +1.381639*dvv7
+0.0361507*dvs1 -0.0515184*dvs2 +0.6264412*dvs4 +0.4644923*dvs3 +0.0081359*d2
+0.1965561*dl1 +1.048654*dl2 +0.2917073*dl3 +1.164969*dl4 +0.3427627*df4
+0.3551929*df1 +0.4216551*df3 +2.647756*dh1 +3.13613*dh2 +2.116492*dh4
+2.63989*dh5 +0.1731458*dp1 +1.320854*dd2 +0.121357*db2 +0.5793242*dd1
+8.913568*dd3 +1.753298*dd4 +0.0024804*db1 +4.440157*dh3 +3.581894*df2
+4.288691*dp2 +1.981917*dg5 +1.675844*dp3 +0.1971716*db3 -0.1241255*db4
+0.8677324*dl5 -1.449158*ms -1.175562*mt +0.2257159*mreg -0.209092*mlt
+1.243947*d8 +1.270971*_Imb2_500 +2.162515*_Imb2_501 +2.010245*_Imb2_502
+0.6763599*_Imb2_999 +3.38625*_Iol2_6 +5.46421*_Iol2_21 -7.750478*_Iol2_88 -
1.858103*_Iol2_89 -0.7935646*_Iol2_90 -7.970438*_Iol2_97 +1.582744*_Iol2_100
+3.942889*_Iol2_101 -3.280423*_Iol2_108 +1.843016*_Iol2_116
replace hatxome6_wo = 0 if hatxome6_wo <0

gen hatxpf3_wo = 0.1646092 +0.0213504*dv1 +0.0568321*dvv1 +0.0482313*dvv2
+0.0008705*dvv3 -0.0206876*dvv4 +0.0446744*dvv5 -0.0356049*dvv6 +0.0498902*dvv7
+0.0126583*dvs1 +0.0081017*dvs2 +0.0359546*dvs4 +0.0439599*dvs3 -0.0000839*d2
+0.0583219*dl1 +0.2036261*dl2 +0.0783259*dl3 +0.1892502*dl4 +0.0665549*df4
+0.1497626*df1 +0.1018958*df3 +0.2161374*dh1 +0.1666482*dh2 +0.4882574*dh4
+1.519043*dh5 +0.0042823*dp1 +0.1151544*dd2 +0.0109262*db2 +0.0376168*dd1

+0.9567263*dd3 +0.2336431*dd4 -0.0322986*db1 +0.512736*dh3 +0.3618904*df2
+0.2656472*dp2 +0.2556643*dg5 +0.0990273*dp3 +0.0433345*db3 +0.0022178*db4
+0.0708483*dl5 -0.1991509*ms -0.1874883*mt +0.0180818*mreg -0.0384722*mlt
+0.0593783*d8 +0.1817508*_Imb2_500 +0.2924046*_Imb2_501 +0.2403584*_Imb2_502
+0.2351873*_Imb2_999 -0.1426619*_Ioil2_6 -0.2197551*_Ioil2_21 -0.4939594*_Ioil2_88 -
0.1036605*_Ioil2_89 -0.008093*_Ioil2_90 -0.4939767*_Ioil2_97 +0.6244751*_Ioil2_100
+1.234329*_Ioil2_101 +0.1095451*_Ioil2_108 +0.7092027*_Ioil2_116
replace hatxpf3_wo = 0 if hatxpf3_wo <0

gen hatxttfa = -0.9557066 -0.1213035*dv1 +0.0989324*dvv1 +0.1392511*dvv2
+0.2935468*dvv3 -0.0009217*dvv4 -0.080337*dvv5 +0.0087195*dvv6 -0.0668237*dvv7
+0.0381534*dvs1 -0.0565002*dvs2 +0.167947*dvs4 -0.1529011*dvs3 +0.0052777*d2
+0.5782162*dl1 +1.071729*dl2 +0.4053195*dl3 +0.8400016*dl4 +0.0443156*df4
+0.0412772*df1 -0.0557522*df3 +0.363656*dh1 +0.6251869*dh2 +2.037468*dh4
+0.4945248*dh5 +0.0124591*dp1 +0.6862475*dd2 +0.039909*db2 +0.0533377*dd1
+0.5275779*dd3 -0.0559437*dd4 +0.0397417*db1 +1.594919*dh3 +0.2754302*df2
+0.357429*dp2 +0.4013623*dg5 +0.2681104*dp3 +0.0583778*db3 +0.003968*db4
+0.3732768*dl5 -1.122336*ms -1.160522*mt +1.144808*mreg +0.9862417*mlt
+0.1748321*d8 +0.2422022*_Imb2_500 +0.1249066*_Imb2_501 +0.1307131*_Imb2_502 -
0.0616022*_Imb2_999 -0.0891191*_Ioil2_6 +0.2027613*_Ioil2_21 -0.4621683*_Ioil2_88
+4.717629*_Ioil2_89 +4.069573*_Ioil2_90 -0.1951223*_Ioil2_97 +1.350318*_Ioil2_100 -
0.0775806*_Ioil2_101 -0.2748133*_Ioil2_108 +0.9649963*_Ioil2_116
replace hatxttfa = 0 if hatxttfa <0

gen hatchol = 13.27221 -1.928218*dv1 -2.79208*dvv1 +4.671201*dvv2 -13.08727*dvv3 -
7.60512*dvv4 +4.1256*dvv5 +11.22194*dvv6 -7.126969*dvv7 +3.801144*dvs1
+32.10461*dvs2 +19.02042*dvs4 -2.244947*dvs3 +0.2857373*d2 +29.49425*dl1
+62.88481*dl2 +22.55668*dl3 +45.3918*dl4 +3.341122*df4 +0.5843977*df1
+3.34277*df3 +217.2804*dh1 +80.06222*dh2 +119.1123*dh4 +96.40377*dh5
+0.7460234*dp1 +83.31275*dd2 +0.669689*db2 +2.301897*dd1 +32.26651*dd3 -
0.4393239*dd4 +3.567363*db1 +90.20775*dh3 +13.34256*df2 +16.15789*dp2
+2.532802*dg5 +1.076242*dp3 +5.69627*db3 -1.076791*db4 -0.996765*dl5 -
105.2663*ms -90.05433*mt +67.50686*mreg +58.24165*mlt +9.84043*d8
+46.98539*_Imb2_500 +27.92758*_Imb2_501 +38.52926*_Imb2_502
+15.00495*_Imb2_999 -2.473028*_Ioil2_6 +7.772429*_Ioil2_21 -2.84482*_Ioil2_88
+0.6998019*_Ioil2_89 +5.220676*_Ioil2_90 +4.587444*_Ioil2_97 +7.680812*_Ioil2_100
+18.98817*_Ioil2_101 +15.07805*_Ioil2_108 +0.9292628*_Ioil2_116

gen hataofib = 5.566223 +0.8361611*dv1 +0.7269704*dvv1 +0.5038339*dvv2 -
0.1027804*dvv3 +0.8002951*dvv4 +1.679291*dvv5 +0.5812444*dvv6 +1.670968*dvv7
+0.4300916*dvs1 +0.5177427*dvs2 +0.0226258*dvs4 +0.7389661*dvs3 -0.0399689*d2
+0.3902829*dl1 +0.493341*dl2 +0.8610855*dl3 +1.644719*dl4 +4.332993*df4
+3.553507*df1 +4.010719*df3 +0.2955846*dh1 -1.008588*dh2 +1.240207*dh4
+6.05507*dh5 +0.6510587*dp1 +1.076533*dd2 +0.4990092*db2 +0.4889296*dd1
+0.6151608*dd3 +1.056052*dd4 -0.2628425*db1 +3.267988*dh3 +6.252604*df2
+2.749507*dp2 +4.461346*dg5 +0.7672174*dp3 +0.7833693*db3 -0.2033318*db4 -
0.1166237*dl5 +3.968576*ms +3.575131*mt -4.361739*mreg -4.893942*mlt
+0.4135511*d8 +1.277027*_Imb2_500 +1.58321*_Imb2_501 +2.369869*_Imb2_502
+2.546927*_Imb2_999 +1.094191*_Ioil2_6 +0.1892594*_Ioil2_21 -0.9717765*_Ioil2_88 -

0.0447514*_Ioil2_89 +0.5014297*_Ioil2_90 -0.9103512*_Ioil2_97 +0.1724366*_Ioil2_100
+0.4933026*_Ioil2_101 +6.864412*_Ioil2_108 -0.4057234*_Ioil2_116

gen hatxatoc = 3.908524 +0.6634384*dv1 -6.349829*dvv1 -2.271451*dvv2
+10.18574*dvv3 +139.902*dvv4 +5.854016*dvv5 +1.374944*dvv6 +17.66887*dvv7 -
4.112655*dvs1 +5.909277*dvs2 -2.295978*dvs4 -0.4748004*dvs3 -0.0321942*d2
+0.2099508*dl1 +0.7309334*dl2 +0.7245813*dl3 +0.8847065*dl4 +1.900607*df4
+2.232293*df1 +0.8096236*df3 +4.248705*dh1 -1.907097*dh2 +2.922144*dh4
+2.933258*dh5 -0.0825228*dp1 +0.1889293*dd2 -0.0868875*db2 +0.0498523*dd1
+3.12212*dd3 +2.652058*dd4 +0.1862996*db1 +1.859704*dh3 +6.010533*df2 -
1.433121*dp2 -0.0411942*dg5 +1.092678*dp3 -1.171165*db3 -0.1995083*db4 -
0.319017*dl5 +6.41579*ms +6.740824*mt -6.504356*mreg -6.887788*mlt +0.6363513*d8
+0.9733395*_Imb2_500 +0.2538261*_Imb2_501 -0.1061236*_Imb2_502
+1.314184*_Imb2_999 -3.242962*_Ioil2_6 +0.3411924*_Ioil2_21 -3.138355*_Ioil2_88 -
3.45958*_Ioil2_89 -2.017582*_Ioil2_90 -3.121232*_Ioil2_97 -3.78483*_Ioil2_100 -
2.192153*_Ioil2_101 +22.09013*_Ioil2_108 -2.465216*_Ioil2_116
replace hatxatoc = 0 if hatxatoc <0

gen hatxgtoc = 0.1741183 -0.0045971*dv1 +0.418645*dvv1 +0.3164162*dvv2
+0.7796609*dvv3 -0.0839323*dvv4 -0.0451171*dvv5 -0.1948589*dvv6 +0.1941382*dvv7
+0.240085*dvs1 +0.1083708*dvs2 +0.0156733*dvs4 -0.3492244*dvs3 +0.0051215*d2
+0.06894*dl1 +0.2416261*dl2 +0.1413175*dl3 +0.411391*dl4 +0.2190527*df4
+0.0817597*df1 +0.5145836*df3 +1.273242*dh1 +0.1710434*dh2 +0.3659343*dh4
+1.167924*dh5 +0.0509119*dp1 +0.6831514*dd2 +0.0725685*db2 +0.1008673*dd1
+1.246597*dd3 +0.1055095*dd4 -0.0948246*db1 +1.432377*dh3 +4.091731*df2
+1.059282*dp2 +1.842547*dg5 +0.6248496*dp3 +0.0948153*db3 -0.0408645*db4
+0.3992895*dl5 +0.682176*ms +0.4609306*mt -1.274385*mreg -1.1561*mlt
+0.2412889*d8 +0.7863263*_Imb2_500 +1.335071*_Imb2_501 +0.7902181*_Imb2_502
+1.06997*_Imb2_999 +2.502036*_Ioil2_6 -1.347096*_Ioil2_21 -2.95954*_Ioil2_88
+2.40017*_Ioil2_89 +2.62493*_Ioil2_90 -2.887681*_Ioil2_97 +2.512993*_Ioil2_100
+3.256031*_Ioil2_101 -0.4538006*_Ioil2_108 +2.391199*_Ioil2_116
replace hatxgtoc = 0 if hatxgtoc <0

gen hatcalc = 114.046 +49.31*dv1 +28.65423*dvv1 +9.996522*dvv2 -18.51717*dvv3
+13.36392*dvv4 +457.4085*dvv5 -7.666257*dvv6 -24.74657*dvv7 -2.786404*dvs1
+25.94623*dvs2 +173.912*dvs4 +58.1203*dvs3 -0.1410864*d2 +307.1093*dl1
+113.7207*dl2 +176.0862*dl3 +247.7042*dl4 +73.915*df4 +23.28492*df1 +22.99408*df3
+37.19488*dh1 +1.516326*dh2 +32.79992*dh4 +139.3884*dh5 +53.99901*dp1
+17.04464*dd2 +20.85946*db2 +14.36923*dd1 +23.66755*dd3 +14.15069*dd4
+5.819585*db1 +98.07526*dh3 +42.13094*df2 +94.43182*dp2 +51.32763*dg5
+7.687733*dp3 +15.72591*db3 -3.709126*db4 -6.477997*dl5 +72.31845*ms
+85.34965*mt -38.74943*mreg -52.78375*mlt +24.01509*d8 -7.062703*_Imb2_500 -
31.12852*_Imb2_501 -13.44942*_Imb2_502 -25.53706*_Imb2_999 +86.62488*_Ioil2_6
+23.9361*_Ioil2_21 +16.03965*_Ioil2_88 +14.94242*_Ioil2_89 +29.6173*_Ioil2_90 -
5.111807*_Ioil2_97 +26.06781*_Ioil2_100 +39.73321*_Ioil2_101 +11.92959*_Ioil2_108
+2.302009*_Ioil2_116

gen hatxfe03 = 4.380596 +0.3709486*dv1 -0.238136*dvv1 +0.6530246*dvv2 -
0.0975955*dvv3 +0.4589737*dvv4 +0.8538487*dvv5 +1.280601*dvv6 +0.7794828*dvv7
+0.0263716*dvs1 +0.343544*dvs2 +0.7546966*dvs4 +0.0661982*dvs3 -0.0112274*d2

```

+1.912354*dl1 +0.2885883*dl2 +0.4538257*dl3 +0.9999309*dl4 +0.5245958*df4
+0.6434082*df1 +0.6611587*df3 +1.042409*dh1 +1.180009*dh2 +3.815537*dh4
+5.52807*dh5 +0.9973352*dp1 +1.330466*dd2 +0.2666287*db2 +0.5884901*dd1
+1.171713*dd3 +0.7824749*dd4 -0.0311748*db1 +3.846064*dh3 +1.400131*df2
+1.659712*dp2 +1.710887*dg5 +1.15394*dp3 +0.2795954*db3 -0.1445434*db4
+0.2114865*dl5 +2.482318*ms +1.84599*mt -2.0186*mreg -2.622536*mlt +0.2314871*d8
+0.1338747*_lmb2_500 +0.7693491*_lmb2_501 +1.312044*_lmb2_502
+1.147716*_lmb2_999 -0.1094419*_loil2_6 -0.0461774*_loil2_21 -0.7428168*_loil2_88 -
0.3035666*_loil2_89 +0.3890432*_loil2_90 -0.749925*_loil2_97 -0.0906192*_loil2_100 -
0.1794593*_loil2_101 +1.711314*_loil2_108 -0.605942*_loil2_116

```

```

gen hatalco = 0.4165709 +0.503476*dv1 -0.148371*dvv1 +0.0450142*dvv2 -
0.3386806*dvv3 +0.4202638*dvv4 -0.0304142*dvv5 -0.2137262*dvv6 -0.2029265*dvv7
+0.0068858*dvs1 -0.2183363*dvs2 -0.0316865*dvs4 +0.1811371*dvs3 -0.0031518*d2 -
0.0431169*dl1 -0.0474452*dl2 +0.0892851*dl3 +0.0516877*dl4 +0.0741221*df4
+0.0244203*df1 -0.0073127*df3 +0.0230687*dh1 -0.0352065*dh2 +0.3768208*dh4
+0.006165*dh5 -0.0232592*dp1 -0.0240552*dd2 -0.0192295*db2 -0.0379734*dd1 -
0.1084823*dd3 +0.2713907*dd4 +0.0318582*db1 -0.2906251*dh3 +0.2132037*df2
+0.1861404*dp2 -0.0162291*dg5 -0.085853*dp3 +12.87505*db3 +14.09037*db4 -
0.0354945*dl5 -0.2614084*ms +0.1528096*mt -0.4788945*mreg -0.1033165*mlt -
0.0624632*d8 +0.7443275*_lmb2_500 +0.3725732*_lmb2_501 -0.1040531*_lmb2_502
+0.993417*_lmb2_999 +0.0121781*_loil2_6 -0.0525642*_loil2_21 -0.1777144*_loil2_88 -
0.1167196*_loil2_89 -0.1079738*_loil2_90 -0.0698593*_loil2_97 -0.0993417*_loil2_100 -
0.2047666*_loil2_101 +2.712429*_loil2_108 -0.1195146*_loil2_116
replace hatalco = 0 if hatalco <0

```

```

ren _me rdieta
recode rdieta 1=0 3=1
lab var rdieta "Has diet information"

```

```

gen hicalorias=.
replace hicalorias=1 if hatcalor >=3000
replace hicalorias=0 if hatcalor <3000
replace hicalorias=. if hatcalor ==.
lab var hicalorias ">= 3000 daily calorie intake"

```

```

gen localorias=.
replace localorias=1 if hatcalor <1500
replace localorias=0 if hatcalor >=1500
replace localorias=. if hatcalor ==.
lab var localorias "<1500 daily calorie intake"

```

```

gen carbs=.
replace carbs=1 if hatcarbo >=400
replace carbs=0 if hatcarbo <400
replace carbs=. if hatcarbo ==.
lab var carbs ">= 400g daily carbohydrates"

```

```

gen grasa=.
replace grasa=1 if hatxsatf >=40
replace grasa=0 if hatxsatf <40
replace grasa=. if hatxsatf ==.
lab var grasa ">= 40 g/day saturated fats"

```

```

*****
**** WEALTH household asets (tenebienes)**
*****

```

```

recode j32 9=.
recode j31 9=.
recode j30 9=.

```

```

gen indiv=j30+j31+j32
gen vivind = indiv
recode vivind 1/5 =1 6/8=2 9=3 .=9

```

```

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

```

```

replace tenen1=0 if vivind <3
replace tenen1=1 if vivind==3

```

```

replace tenen2=1 if j18==1
replace tenen2=0 if j18==2

```

```

replace tenen3=1 if j19==1 | j19==3
replace tenen3=0 if j19==2 | j19==4

```

```

replace tenen4=1 if j26==1
replace tenen4=0 if j26==2

```

```

replace tenen5=1 if j27==1
replace tenen5=0 if j27==. |j27==9

```

```

replace tenen6=1 if j20==1
replace tenen6=0 if j20==0

```

```

replace tenen7=1 if j28>=1 & j28<=3
replace tenen7=0 if j28==0

```

```

replace tenen8=1 if j21==1 | j22==1
replace tenen8=0 if j21==2 & j22==2

```

```

replace tenen9=1 if j23==1
replace tenen9=0 if j23==2

```

```
replace tenen10=1 if j29>=1 & j29<=3
replace tenen10=0 if j29==0
```

```
**The hh asset index**
```

```
gen
tenebienes=tenen1+tenen2+tenen3+tenen4+tenen5+tenen6+tenen7+tenen8+tenen9+tene
n10
```

```
ren scalebienes bienes_r2
alpha tenen*, item gen(scalebienes) min(6)
```

```
replace scalebienes=bienes_r2/10 if scalebienes==.
drop bienes_r2
replace tenebienes = scalebien if tenebien==.
gen indicebienes=scalebienes
```

```
recode indicebienes .7/.99=2 0/.6999=3
lab var indicebienes "Household assets categories"
lab def indicebienes 1"High" 2"Medium" 3"Low", modify
lab val indicebienes indicebienes
tab indicebienes, miss
```

```
replace scalebie=scalebie*10
replace scalebie=int(scalebie)
lab var scalebie "Scale of assets in the hh"
```

```
*****
```

```
* income
```

```
*****
```

```
gen ing=hn4
replace ing=. if hn4==9999
```

```
*Ingp: pension income**
```

```
gen ingp=hn5
replace ingp=. if hn5==9999
gen pensionado=am12
recode pensionado 2=0
recode pensionado 9=.
```

```
*Generating income for the spouse**
```

```
*9999 is substitute for 0.01
```

```
*Final income is ignored if all the incomes were ignore.
```

```
foreach var of varlist hn13-hn16 {
recode `var' 9999=0.01
}
gen ingc=int(hn13)+int(hn14)+int(hn15)+int(hn16)
```

```
foreach var of varlist hn13-hn16 {
  recode `var' 0.01=9999
}
```

****Generating total income for the interviewee: ingtotal****

```
gen ingt=g2
replace ingt=0 if g2==. & (g1m==2 | g1m==4)
```

```
replace ingt=7.5 if g2==9999 & g4==2
replace ingt=27.5 if g2==9999 & g4==1
replace ingt=50 if g2==9999 & g5==2
replace ingt=60 if g2==9999 & g5==1
replace ingt=. if ingt==9999
```

```
foreach var of varlist hn6 hn7 {
  recode `var' 9999=0.01
}
gen ingotro=int(hn6)+int(hn7)
foreach var of varlist hn6 hn7 {
  recode `var' 0.01=9999
}
```

```
replace ingotro=. if hn6==9999 & hn7==9999
```

```
foreach var of varlist ing ingp ingt ingotro{
  recode `var' .=0.01
}
```

```
gen ingtotal=int(ing)+int(ingp)+int(ingt)+int(ingotro)
gen ingcouple=ingtotal
replace ingcouple= ingtotal + ingc if ingc!=.
gen ingprom=ingcouple
replace ingprom = ingcouple/2 if ingc!=.
```

**** Physical activity with IPAQ module-- new for wave 3**

*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 activ

```
gen DAYSVigor= ev14m1
```

```
gen MINVigor= (ev14m2a *60) + ev14m2b
```

replace MINVigor=0 if DAYSVigor==0

*-----MODERATE-----

gen DAYSModer= ev14m3

gen MINModer= (ev14m4a*60) + ev14m4b

replace MINModer =0 if DAYSModer==0

*-----CAMINA-----

gen DAYSWalk= ev14m5

gen MINWalk= (ev14m6a *60) + ev14m6b

replace MINWalk =0 if DAYSWalk==0

*-----Sentado-----

*Tiempo por dia Seatdo

gen MINSeat= (ev14m7a *60) + ev14m7b

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

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

-----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==.
```

```
gen CASEID = idsujeto
```