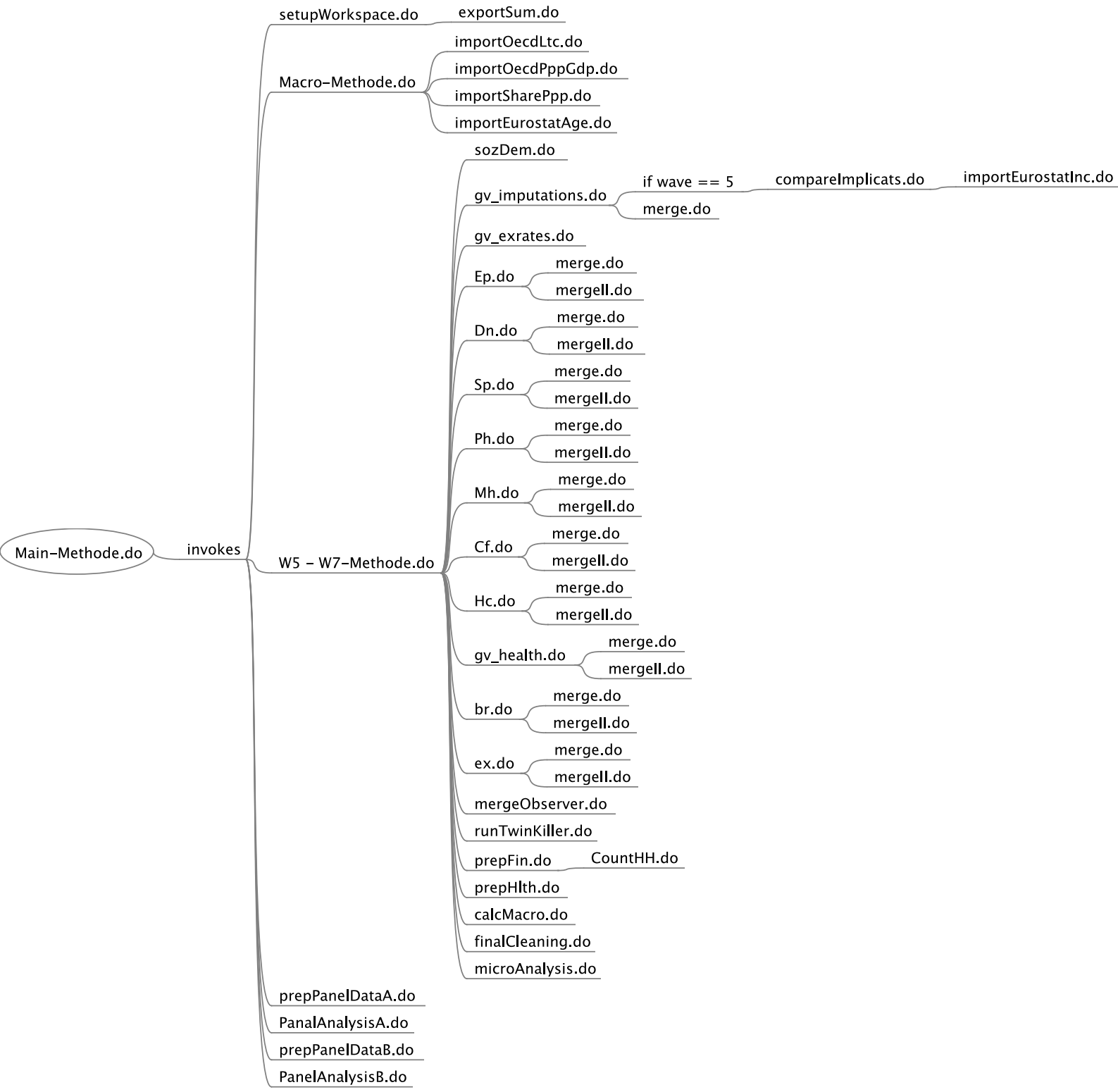
```
/*
Description:
//  this do-file invokes subsequent do-file to merge: OECD, Eurostat and SHARE Datasets found in /workspace/dta/in
    invokes subsequent do-file to run regression analysis on data
    invokes subsequent do-file to save data output

Run instructions:
    first run:  modify directory line : 29
                run /workspace/do/setupWorkspace.do     line : 33


Acknowledgments:

    this dofile and the subsequent dofiles it envokes use in part code written by:
        Cristoph Wolf and Merih Ates as student guidelines for the Seminar "empirisches Forschungspraktikum II"
        Behaghel, Langer & Müller for a paper submited in the seminar "empirisches Forschungspraktikum II"
        Nicolas J. Cox posted on statalist.org

    The analytical strategie for this research was in part supervised by / discused with Danny Khoi On and Hartmut Lanzinger

    I would like to extend special thanks to Danny Khoi On and Hartmut Lanzinger


*/
clear
set more off

capture log close
cd "/Users/carlfelix/Documents/Uni/Bachelor-Arbeit/Data/Stata/workspace" //modify to your current working driectory here

// setup workspace

//do "do/setupWorkspace.do"

// prepare data
//

// macro
```

```
// macro
do "do/Macro-Methode.do"

// micro
/*
do "do/W1-Methode.do"
do "do/W2-Methode.do"
do "do/W3-Methode.do"
do "do/W4-Methode.do"
*/
do "do/W5-Methode.do"
do "do/W6-Methode.do"
do "do/W7-Methode.do"

//Main Analysis A : Panel regression - micro level
//
log using "doc/PanelRegressionA.smcl", replace

clear

do "do/prepPanelDataA.do"

do "do/PanalAnalysisA.do"

log c

//Main Analysis B : Panel regression - macro level
//
log using "doc/PanelRegressionB.smcl", replace

clear

do "do/prepPanelDataB.do"

do "do/PanelAnalysisB.do"

log c

```


Main-Methode.do
invokes
setupWorkspace.do
exportSum.do
Macro-Methode.do
importOecdLtc.do
importOecdPppGdp.do
importSharePpp.do
importEurostatAge.do
W5 - W7-Methode.do
sozDem.do
gv_imputations.do
if wave == 5
compareImplicats.do
importEurostatInc.do
merge.do
gv_exrates.do
Ep.do
merge.do
mergeII.do
Dn.do
merge.do
mergeII.do
Sp.do
merge.do
mergeII.do
Ph.do
merge.do
mergeII.do
Mh.do
merge.do
mergeII.do
Cf.do
merge.do
mergeII.do
Hc.do
merge.do
mergeII.do
gv_health.do
merge.do
mergeII.do
br.do
merge.do
mergeII.do
ex.do
merge.do
mergeII.do
mergeObserver.do
runTwinKiller.do
prepFin.do
CountHH.do
prepHlth.do
calcMacro.do
finalCleaning.do
microAnalysis.do
prepPanelDataA.do
PanalAnalysisA.do
prepPanelDataB.do
PanelAnalysisB.do

```
ssc install coefplot


ssc install estout, replace
do "do/exportSum.do"

```

```
log using "doc/macro.smcl", replace

//import macro data
do "do/importOecdLtc.do"
do "do/importOecdPppGdp.do"
do "do/importSharePpp.do"
do "do/importEurostatAge.do"

//merge macro data
use "dta/cache/oecdLtcFin", clear
merge m:1 countryYearId using "dta/cache/oecdPppGdp.dta"
drop _merge
save "dta/cache/macroData.dta", replace
merge m:1 countryid using "dta/cache/sharePpp.dta"
drop _merge
save "dta/cache/macroData.dta", replace
merge m:1 countryYearId using "dta/cache/eurostatAge.dta"
drop _merge
save "dta/cache/macroData.dta", replace
use "dta/cache/macroData.dta", clear
keep if v8=="Per capita, current prices" & function ==
"Long-term care (health)"
keep if unit=="Euro" | unit == "Czech Koruna" | unit == "Czech
Koruna" | unit == "Danish Krone" | unit == "Swiss Franc" | unit
== "Swedish Krona"

//  net Value == spending weighted for ppp in euros
g spendingPpp = .
forvalue i=3/9 {
replace spendingPpp = value/pppk200`i'
}
forvalue i=10/17 {
replace spendingPpp = value/pppk20`i'
}

// calculate mean LTC by gov and total
tab country spendingPpp if financingscheme ==
"Government/compulsory schemes" & spendingPpp != . & time == 2013
g c = 0
replace c = 1 if financingscheme == "Government/compulsory
schemes" & spendingPpp != . & time == 2013
sort c
by c: egen mean2013 = mean(spendingPpp)
tab mean2013
drop c mean2013

// adjusted value of total consumption per capita older 65 and
efficency wedge
```

```
42  // adjusted value of total consumption per capita older 65 and
    efficency wedge
43  replace spendingPpp =  spendingPpp * weightAge  * effWedge
44  keep countryid countryYearId year strYear financingscheme
    spendingPpp
45  order countryid countryYearId year strYear financingscheme
    spendingPpp
46
47  save "dta/cache/macroData.dta", replace
48  use "dta/cache/macroData.dta", clear
49
50  g j = .
51  replace j = 6 if financingscheme == "Voluntary health care
    payment schemes"
52  replace j = 2 if financingscheme == "Household out-of-pocket
    payments"
53  replace j = 3 if financingscheme == "Social health insurance
    schemes"
54  replace j = 4 if financingscheme == "Compulsory contributory
    health insurance schemes"
55  replace j = 5 if financingscheme == "Compulsory private
    insurance schemes"
56  replace j = 1 if financingscheme == "All financing schemes"
57  replace j = 7 if financingscheme == "Government/compulsory
    schemes"
58  replace j = 8 if financingscheme == "Government schemes"
59  drop financingscheme
60
61  reshape wide spendingPpp , i(countryYearId) j(j)
62
63  la var spendingPpp6 "Voluntary health care payment schemes"
64  la var  spendingPpp2 "Household out-of-pocket payments"
65  la var  spendingPpp3 "Social health insurance schemes"
66  la var  spendingPpp4 "Compulsory contributory health insurance
    schemes"
67  la var  spendingPpp5 "Compulsory private insurance schemes"
68  la var  spendingPpp1 "All financing schemes"
69  la var  spendingPpp7 "Government/compulsory schemes"
70  la var  spendingPpp8 "Government schemes"
71
72  g public = spendingPpp7
73  la var  public "Government/compulsory schemes"
74
75  g probPub = spendingPpp7 / spendingPpp1
76  la var  probPub "Share of Government/compulsory schemes of all
    financing schemes"
77
78  gen publicOne =public[_n-1]
79  la var  publicOne "t-1 : Government/compulsory schemes"
80  gen probPubOne = probPub[_n-1]
```

```
gen probPubOne = probPub[_n-1]
la var  probPubOne  "t-1 : Share of Government/compulsory schemes of all financing schemes"

g value = public
drop strYear
reshape wide spendingPpp1 - spendingPpp8 public publicOne probPub  probPubOne  countryYearId value, i(countryid) j(year)

// difference spending 2017 - 2013
g v = value2016 - value2012
la var v "public spenidng - differnece 2012 : 2016"
g vPr = value2012/v
la var vPr "public spenidng - differnece 2012 : 2016 in % of 2012"

// differenc spending t - t-3
g diff2013 = .
replace diff2013 = value2013 - value2010 if value2010 != .
replace diff2013 = value2013 - value2011 if value2010 == . & value2011 != .
replace diff2013 = value2013 - value2012 if value2010 == . & value2011 == . & value2012 != .
g diff2015 = value2015 - value2013
g diff2017 = value2017 - value2015
// differenc spending in %
g relDiff2013 = .
replace relDiff2013 = diff2013/value2010 if value2010 != .
replace relDiff2013 = diff2013/value2011 if value2010 == . & value2011 != .
replace relDiff2013 = diff2013/value2012 if value2010 == . & value2011 == . & value2012 != .
g relDiff2015 = diff2015/value2013
g relDiff2017 = diff2017/value2015

g quickDiff13 = .
g quickDiff15 = .
g quickDiff17 = .
// differenc spending catergorial
replace quickDiff13 = -1 if relDiff2013 < -0.05
replace quickDiff13 = 0 if relDiff2013 > -0.05 & relDiff2013 < 0.05
replace quickDiff13 = 1 if relDiff2013 > 0.05

replace quickDiff15 = -1 if relDiff2015 < -0.05
replace quickDiff15 = 0 if relDiff2015 > -0.05 & relDiff2015 < 0.05
replace quickDiff15 = 1 if relDiff2015 > 0.05

```

```
119
120  replace quickDiff17 = -1 if relDiff2017 < -0.05
121  replace quickDiff17 = 0 if relDiff2017 > -0.05 & relDiff2017 <
     0.05
122  replace quickDiff17 = 1 if relDiff2017 > 0.05
123
124  reshape long
125  // cluster countrys by spending
126
127
128
129  keep countryYearId spendingPpp1 - spendingPpp8 public publicOne
     probPub probPubOne v vPr diff2013 diff2015 diff2017
130  drop if countryYearId == ""
131
132  save "dta/cache/macroData.dta", replace
133
134
```

```
1  import delimited "dta/in/Oecd/OecdLtcFinancing.csv", clear
2  save "dta/cache/oecdLtcFin", replace
3  use "dta/cache/oecdLtcFin", clear
4
5
6  // country identifier
7  g countryid = .
8  replace countryid = 1 if country == "Austria"
9  replace countryid = 2 if country == "Germany"
10 replace countryid = 3 if country == "Sweden"
11 replace countryid = 4 if country == "Spain"
12 replace countryid = 5 if country == "Italy"
13 replace countryid = 6 if country == "France"
14 replace countryid = 7 if country == "Denmark"
15 replace countryid = 8 if country == "Greece"
16 replace countryid = 9 if country == "Switzerland"
17 replace countryid = 10 if country == "Belgium"
18 replace countryid = 11 if country == "Czech Republic"
19 replace countryid = 13 if country == "Luxembourg"
20 replace countryid = 16 if country == "Slovenia"
21 replace countryid = 17 if country == "Estonia"
22
23 g str = ""
24 replace str = "A" if financingscheme == "All financing schemes"
25 replace str = "B" if financingscheme == "Compulsory contributory
   health insurance schemes"
26 replace str = "C" if financingscheme == "Compulsory private
   insurance schemes"
27 replace str = "D" if financingscheme == "Government schemes"
28 replace str = "E" if financingscheme == "Government/compulsory
   schemes"
29 replace str = "F" if financingscheme == "Household out-of-pocket
   payments"
30 replace str = "G" if financingscheme == "Social health insurance
   schemes"
31 replace str = "H" if financingscheme == "Voluntary health care
   payment schemes"
32 replace str = "I" if financingscheme == "Voluntary health
   insurance schemes"
33 save "dta/cache/oecdLtcFin", replace
34 use "dta/cache/oecdLtcFin", clear
35
36
37 keep if function == "Long-term care (health)" | function ==
   "Current expenditure on health (all functions)"
38 keep if financingscheme == "Government/compulsory schemes"
39 keep if v8 == "Per capita, current prices, current PPPs"
40 keep if time == 2013
```

```
40  keep if time == 2013
41  drop if countryid == .
42  keep value function country
43  g c = 0
44  replace c = 1 if function == "Long-term care (health)"
45  drop function
46  reshape wide value, i(country) j(c)
47
48  egen mean1 = sum(value1)
49  egen mean0 = sum(value0)
50  // percent of LTC of total health consuption
51  g percent = value1 / value0
52  g percentT = mean1 / mean0
53
54  use "dta/cache/oecdLtcFin", clear
55  // select LTC
56  keep if function == "Long-term care (health)"
57  // country year identifier
58  drop if countryid == .
59  tostring year, generate(strYear)
60  gen countryYearId = country+strYear
61  gen countryYearIdA = country+strYear+str
62  g spending = value
63  save "dta/cache/oecdLtcFin", replace
64
```

```
import delimited "dta/in/OECD/OecdPppForGdp.csv", clear
save "dta/cache/OecdPppGdp.dta", replace
use "dta/cache/OecdPppGdp.dta", clear
g countryid = .
replace countryid = 1 if country == "Austria"
replace countryid = 2 if country == "Germany"
replace countryid = 3 if country == "Sweden"
replace countryid = 4 if country == "Spain"
replace countryid = 5 if country == "Italy"
replace countryid = 6 if country == "France"
replace countryid = 7 if country == "Denmark"
replace countryid = 8 if country == "Greece"
replace countryid = 9 if country == "Switzerland"
replace countryid = 10 if country == "Belgium"
replace countryid = 11 if country == "Czechia"
replace countryid = 13 if country == "Luxembourg"
replace countryid = 16 if country == "Slovenia"
replace countryid = 17 if country == "Estonia"
drop if countryid == .
tostring year, generate(strYear)
gen countryYearId = country+strYear
g Ppp = value

drop value

keep countryYearId countryid Ppp
save "dta/cache/OecdPppGdp.dta", replace

```

```
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_gv_exrates.dta", replace
save "dta/cache/sharePpp.dta", replace
use "dta/cache/sharePpp.dta", clear

// ppp & exrate
keep country pppk2017 pppk2016 pppk2015 pppk2014 pppk2013 pppk2012 pppk2011 pppk2010 pppk2009 pppk2008 pppk2007 pppk2006 pppk2005 pppk2004 pppk2003 /*
*/ nomx2003 nomx2004 nomx2005 nomx2006 nomx2007 nomx2008 nomx2009 nomx2010 nomx2011 nomx2012 nomx2013 nomx2014 nomx2015 nomx2016 nomx2017

// country identifier
gen     countryid =   .
    replace countryid = country - 10 if country <= 13
    replace countryid = country - 11 if country > 14 & country <= 20
    replace countryid = 10 if country == 23
    replace countryid = 11 if country == 28
    replace countryid = 12 if country == 29
    replace countryid = 13 if country == 31
    replace countryid = 14 if country == 32
    replace countryid = 15 if country == 33
    replace countryid = 16 if country == 34
    replace countryid = 17 if country == 35
    replace countryid = 18 if country == 47
    replace countryid = 19 if country == 48
    replace countryid = 20 if country == 51
    replace countryid = 21 if country == 53
    replace countryid = 22 if country == 55
    replace countryid = 23 if country == 57
    replace countryid = 24 if country == 59
    replace countryid = 25 if country == 61
    replace countryid = 26 if country == 63
    replace countryid = 27 if country == 25

    lab def countryid   1 "1. Austria"           2 "2. Germany"           3 "3. Sweden"          ///
                        4 "4. Spain"             5 "5. Italy"             6 "6. France"          ///
                        7 "7. Denmark"           8 "8. Greece"            9 "9. Switzerland"     ///
                       10 "10. Belgium"         11 "11. Czechia"         12 "12. Poland"         ///
                       13 "13. Luxembourg"      14 "14. Hungary"         15 "15. Portugal"       ///
                       16 "16. Slovenia"        17 "17. Estonia"         18 "18. Croatia"        ///
```

```
                        16 "16. Slovenia"        17 "17.
    Estonia"        18 "18. Croatia"        ///
                        19 "19. Lithuania"       20 "20.
    Bulgaria"       21 "21. Cyprus"         ///
                        22 "22. Finland"         23 "23. Latvia"
            24 "24. Malta"          ///
                        25 "25. Romania"         26 "26.
    Slovakia"       27 "27. Israel"
// efficency wedges by mendiros et al
g effWedge = .
replace effWedge = 0.87 if countryid == 1
replace effWedge = 0.88 if countryid == 2
replace effWedge = 0.90 if countryid == 3
replace effWedge = 0.88 if countryid == 4
replace effWedge = 0.89 if countryid == 5
replace effWedge = 0.94 if countryid == 6
replace effWedge = 0.87 if countryid == 7
replace effWedge = . if countryid == 8
replace effWedge = 0.85 if countryid == 9
replace effWedge = 0.90 if countryid == 10
replace effWedge = 0.78 if countryid == 11
replace effWedge = 0.84 if countryid == 12
replace effWedge = 0.90 if countryid == 13
replace effWedge = 0.81 if countryid == 14
replace effWedge = 0.86 if countryid == 15
replace effWedge = 0.85 if countryid == 16
replace effWedge = 0.85 if countryid == 17
replace effWedge = 0.85 if countryid == 18
replace effWedge = 0.76 if countryid == 19
replace effWedge = 0.86 if countryid == 20
replace effWedge = 0.91 if countryid == 21
replace effWedge = 0.88 if countryid == 22
replace effWedge = 0.83 if countryid == 23
replace effWedge = 0.89 if countryid == 24
replace effWedge = 0.85 if countryid == 25
replace effWedge = 0.72 if countryid == 26

la var effWedge "efficency Wedge of Health care : acording to
    João Medeiros and Christoph Schwierz 2015"

    lab val countryid countryid
    lab var countryid "Country identifier"

keep if  countryid <= 11 |  countryid == 13 |  countryid == 16 |
     countryid == 17
drop if countryid == .
drop country
/*
bysort countryid: egen counter=count(make)
```

```
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_gv_exrates.dta", replace
save "dta/cache/sharePpp.dta", replace
use "dta/cache/sharePpp.dta", clear

// ppp & exrate
keep country pppk2017 pppk2016 pppk2015 pppk2014 pppk2013 pppk2012 pppk2011 pppk2010 pppk2009 pppk2008 pppk2007 pppk2006 pppk2005 pppk2004 pppk2003 /*
*/ nomx2003 nomx2004 nomx2005 nomx2006 nomx2007 nomx2008 nomx2009 nomx2010 nomx2011 nomx2012 nomx2013 nomx2014 nomx2015 nomx2016 nomx2017

// country identifier
gen     countryid =   .
    replace countryid = country - 10 if country <= 13
    replace countryid = country - 11 if country > 14 & country <= 20
    replace countryid = 10 if country == 23
    replace countryid = 11 if country == 28
    replace countryid = 12 if country == 29
    replace countryid = 13 if country == 31
    replace countryid = 14 if country == 32
    replace countryid = 15 if country == 33
    replace countryid = 16 if country == 34
    replace countryid = 17 if country == 35
    replace countryid = 18 if country == 47
    replace countryid = 19 if country == 48
    replace countryid = 20 if country == 51
    replace countryid = 21 if country == 53
    replace countryid = 22 if country == 55
    replace countryid = 23 if country == 57
    replace countryid = 24 if country == 59
    replace countryid = 25 if country == 61
    replace countryid = 26 if country == 63
    replace countryid = 27 if country == 25

    lab def countryid   1 "1. Austria"           2 "2. Germany"           3 "3. Sweden"          ///
                        4 "4. Spain"             5 "5. Italy"             6 "6. France"          ///
                        7 "7. Denmark"           8 "8. Greece"            9 "9. Switzerland"     ///
                       10 "10. Belgium"         11 "11. Czechia"         12 "12. Poland"         ///
                       13 "13. Luxembourg"      14 "14. Hungary"         15 "15. Portugal"       ///
                       16 "16. Slovenia"        17 "17. Estonia"         18 "18. Croatia"        ///
```

```
                        16 "16. Slovenia"        17 "17.
    Estonia"        18 "18. Croatia"        ///
                        19 "19. Lithuania"       20 "20.
    Bulgaria"       21 "21. Cyprus"         ///
                        22 "22. Finland"         23 "23. Latvia"
            24 "24. Malta"          ///
                        25 "25. Romania"         26 "26.
    Slovakia"       27 "27. Israel"
// efficency wedges by mendiros et al
g effWedge = .
replace effWedge = 0.87 if countryid == 1
replace effWedge = 0.88 if countryid == 2
replace effWedge = 0.90 if countryid == 3
replace effWedge = 0.88 if countryid == 4
replace effWedge = 0.89 if countryid == 5
replace effWedge = 0.94 if countryid == 6
replace effWedge = 0.87 if countryid == 7
replace effWedge = . if countryid == 8
replace effWedge = 0.85 if countryid == 9
replace effWedge = 0.90 if countryid == 10
replace effWedge = 0.78 if countryid == 11
replace effWedge = 0.84 if countryid == 12
replace effWedge = 0.90 if countryid == 13
replace effWedge = 0.81 if countryid == 14
replace effWedge = 0.86 if countryid == 15
replace effWedge = 0.85 if countryid == 16
replace effWedge = 0.85 if countryid == 17
replace effWedge = 0.85 if countryid == 18
replace effWedge = 0.76 if countryid == 19
replace effWedge = 0.86 if countryid == 20
replace effWedge = 0.91 if countryid == 21
replace effWedge = 0.88 if countryid == 22
replace effWedge = 0.83 if countryid == 23
replace effWedge = 0.89 if countryid == 24
replace effWedge = 0.85 if countryid == 25
replace effWedge = 0.72 if countryid == 26

la var effWedge "efficency Wedge of Health care : acording to
    João Medeiros and Christoph Schwierz 2015"

    lab val countryid countryid
    lab var countryid "Country identifier"

keep if  countryid <= 11 |  countryid == 13 |  countryid == 16 |
     countryid == 17
drop if countryid == .
drop country
/*
bysort countryid: egen counter=count(make)
```

```
log using "doc/W5.smcl", replace

/*


do file welle 5 :   bereinigt Datensatz:

                    health status index

                    need for LTC, unmet LTC
                    recieved care formal & unformal
                    care financing type

                    Soz dem : Age, Gender, job situation, mariage status
                    income PPP AE - äquvalenzeinkommen gewichtet nach purchasing power parity
                    assets PPP AE

*/


//  SHARE Wave 5 :  visit, mvdecode, merge different modules
//
//


//sozDem Variables Welle 5
//
clear
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_cv_r.dta"
//Berechne : gender age2015 mobirth int_year int_month country mergeid partnerinhh yrbirth
g y = 2013
do "do/sozDem.do"
g wave = 5
g hhid = hhid5
keep gender mobirth int_year int_month country mergeid partnerinhh yrbirth hhid hhsize age sqAge
//erstelle finalen Datensatz
save  "dta/cache/dieDaten.dta",replace
clear


//sozDem : gv_imputations    Welle 5
//
clear
```

```
43  clear
44  use
    "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_gv_im
    putations.dta"
45  //Berechne : nursinghome  mstat cjs thinc2 hrass yearsOfEdu
    eurod mstat maxgrip informalHelp
46  g wave = 5
47  save "dta/cache/dataset.dta", replace
48  do  "do/gv_imputations.do"
49  save "dta/cache/dataset.dta", replace
50  //merge
51  do "do/merge.do"
52  gen merge5__ = _merge
53  drop _merge
54  save "dta/cache/mergeDoc.dta", replace /*erstelle merge
    dokumentation : füge merge info hinzu */
55  use "dta/cache/dieDaten.dta", clear
56  drop _merge
57  save "dta/cache/dieDaten.dta", replace
58  clear
59
60  //monetary weights   Welle 5
61  //
62  clear
63  use
    "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_gv_ex
    rates.dta"
64  //Berechne : exrate ppp
65  save "dta/cache/dataset.dta", replace
66  do  "do/gv_exrates.do"
67  save "dta/cache/dataset.dta", replace
68  //merge
69  use "dta/cache/dieDaten.dta", clear
70  merge m:1 country using "dta/cache/dataset.dta"
71  drop if _merge == 2
72  drop _merge
73  save "dta/cache/dieDaten.dta", replace
74  clear
75
76
77  //sozDem : Employement Welle 5
78  //
79  use
    "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_ep.dt
    a"
80  //Berechne : stopWrkHlth incPubLTC incPrvLTC
81  do "do/Ep.do"
82  save "dta/cache/dataset.dta", replace
83  //merge dateien
```

```
//merge dateien
do "do/merge.do"
gen merge5ep = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//sozDem : Education Welle 5
//
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_dn.dta"
//Berechne : dn010_ dn014_ mStatus
do "do/Dn.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge5dn = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//socialSupport Welle 5
//
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_sp.dta"
//Berechne : recived Care
g wave = 5
do "do/Sp.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge5sp = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//physical Health Welle 5
//
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_ph.dta"
//Berechne : careLev selfRatedHealth selfRatedHealthDum limInActv sumDisease sumDrugForSth
g wave = 5
```

```
g wave = 5
save "dta/cache/dataset.dta", replace
do "do/Ph.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5ph = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//mental Health  Welle 5
//
clear
use
"dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_mh.dt
a"
//Berechne : z mental health
g wave = 5
save "dta/cache/dataset.dta", replace
do  "do/Mh.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5mh = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//cognitive Function     Welle 5
//
clear
use
"dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_cf.dt
a"
//Berechne : zCogFct
g wave = 5
save "dta/cache/dataset.dta", replace
do  "do/Cf.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5cf = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear
```

```
clear

//health care Welle 5
//
clear
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_hc.dta"
//Berechne : lTCInsurancePub lTCInsurancePrvMdt lTCInsurancePrvVlt recPrfCare outOfPocketPay inLtcFacility
g wave = 5
save "dta/cache/dataset.dta", replace
do "do/Hc.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5hc = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

clear



//Health imputed     Welle 5
//
clear
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_gv_health.dta"
g chronic2 = chronic2w5
//Berechne : casp phactiv sphus chronic2
save "dta/cache/dataset.dta", replace
do  "do/gv_health.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear


//Risk behaviour     Welle 6
//
clear
```

```
clear
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_br.dta"
//Berechne : br
g wave = 5
save "dta/cache/dataset.dta", replace
do  "do/br.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//expectancy     Welle n
//
clear
use "dta/in/sharew5_rel7-0-0_ALL_datasets_stata/sharew5_rel7-0-0_ex.dta"
//Berechne :
save "dta/cache/dataset.dta", replace
do  "do/ex.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge5__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear




//  review merge documentation, prepare dataset for : descriptive Analysis
//
//

//merge documentation
//
use "dta/cache/mergeDoc.dta", clear
g wave = 5
do "do/mergeObserver.do"

```

```
254
255 //merge documentation : drop dupplicates
256 //
257 do "do/runTwinKiller.do"
258
259 //prepeare data for descriptive analysis : fin
260 //
261 do "do/prepFin.do"
262 save "dta/cache/dieDaten.dta", replace
263
264 //prepeare data for descriptive analysis : health
265 //
266 do "do/prepHlth.do"
267 save "dta/cache/dieDaten.dta", replace
268
269
270
271
272 // descriptive Analysis, save outcome
273 //
274 //
275
276 use "dta/cache/dieDaten", clear
277
278
279 // clac Macro indicators Wave 5
280 //
281 do "do/calcMacro.do"
282 save "dta/cache/MacroNo5.dta", replace
283 export delimited using "dta/out/MacroW5", replace
284
285 /*
286 do final Cleaning =
287     keep contries   : Austria, Germany, Sweden, Spain, Italy,
    France, Denmark, Switzerland, Belgium, Luxembourg, Slovineia,
    Estonia;
288     keep variables  :                   mergeid int_year country
    countryid health careLev needsLtc unmetCare recPrfCare
    recivedCare
289                                         inLtcFacility careForm
    careFinContext/*
290     M2 - soz backgroung */              gender /*age*/age sqAge
    /*relationship status*/ mStatus /*edu*/yearsOfEdu/*
291                                         employment status*/
    jobSit /*income & assets*/ income Assets /*
292     M3 - Care financing context */      outOfPocketPay
    lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub /*
293 */ */
294 use "dta/cache/dieDaten", clear
```

```
294 use "dta/cache/dieDaten", clear
295 do "do/finalCleaning.do"
296
297 //descriptive Analysis 1:
298 sum
299 //descriptive Analysis 2:
300 sum if needsLtc == 1
301 g wave = 5
302 save "dta/cache/W5.dta", replace
303 export delimited using "dta/out/W5", replace
304
305 //  prepare dataset for : multivariat Analysis, export dataset
    (import if im going to do macro analysis in stata - so far i
    have perpared macro Data in R)
306 //
307 //
308 use "dta/cache/W5.dta", clear
309 do "do/microAnalysis.do"
310
311 // post file micro
312 postfile MicroAnalysis countryid N beta_careLev se_careLev
    beta_age se_age using "dta/cache/results_microW5.dta", replace
313
314
315 forvalues i = 1/12 {
316     quietly regress health careLev i.careForm/*
317 */ gender c.age i.mStatus i.jobSit income Assets/*
318 */ i.careFinContext if newid ==`i'
319     mat results = r(table)
320     local countryid = countryid         // the cntry variable in
    the new dataset should contain the same cntry values
321     local N = e(N)                      // number of
    observations for each country (or: for each regression)
322     local beta_careLev = results[1,1]   // beta_hasLtc captures
    the regression coefficient of hasLtc for the corresponding
    cntry/regression
323     local se_careLev = results[1,2]     // se_hasLtc captures
    the corresponding std. err.
324     local beta_cage = results[2,1]      // beta_cage captures
    the regression coefficient of cage for the corresponding
    cntry/regression
325     local se_cage = results[2,2]        // se_cage captures the
    corresponding std. err.
326     post MicroAnalysis (`i') (`N') (`beta_careLev') (`beta_cage')
     (`se_careLev') (`se_cage')
327 }
328
```

```
log using "doc/W6.smcl", replace

/*


do file welle 6 :   bereinigt Datensatz:

                    health status index

                    need for LTC, unmet LTC
                    recieved care formal & unformal
                    care financing type

                    Soz dem : Age, Gender, job situation, mariage status
                    income PPP AE - äquvalenzeinkommen gewichtet nach purchasing power parity
                    assets PPP AE

*/


//  SHARE Wave 6 :  visit, mvdecode, merge different modules
//
//


//sozDem Variables Welle 6
//
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_cv_r.dta"
//Berechne : gender age2016 mobirth int_year int_month country mergeid partnerinhh yrbirth
g y = 2015
do "do/sozDem.do"
g wave = 6
g hhid = hhid6
keep gender mobirth int_year int_month country mergeid partnerinhh yrbirth hhid hhsize age sqAge
//erstelle finalen Datensatz
save  "dta/cache/dieDaten.dta",replace
clear


//sozDem : gv_imputations    Welle 6
//
clear
```

```
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_gv_imputations.dta"
//Berechne : nursinghome  mstat cjs thinc2 hrass yearsOfEdu eurod mstat maxgrip informalHelp
g wave = 6
save "dta/cache/dataset.dta", replace
do  "do/gv_imputations.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6__ = _merge
drop _merge
save "dta/cache/mergeDoc.dta", replace /*erstelle merge dokumentation : füge merge info hinzu */
use "dta/cache/dieDaten.dta", clear
drop _merge
save "dta/cache/dieDaten.dta", replace
clear

//monetary weights   Welle 6
//
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_gv_exrates.dta"
//Berechne : exrate ppp
save "dta/cache/dataset.dta", replace
do  "do/gv_exrates.do"
save "dta/cache/dataset.dta", replace
//merge
use "dta/cache/dieDaten.dta", clear
merge m:1 country using "dta/cache/dataset.dta"
drop if _merge == 2
drop _merge
save "dta/cache/dieDaten.dta", replace
clear


//sozDem : Employement Welle 6
//
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_ep.dta"
//Berechne : stopWrkHlth incPubLTC incPrvLTC
do "do/Ep.do"
save "dta/cache/dataset.dta", replace
//merge dateien
```

```
//merge dateien
do "do/merge.do"
gen merge6ep = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//sozDem : Education Welle 6
//
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_dn.dta"
//Berechne : dn010_ dn014_ mStatus
do "do/Dn.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge6dn = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//socialSupport Welle 6
//
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_sp.dta"
//Berechne : recived Care
g wave = 6
do "do/Sp.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge6sp = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//physical Health Welle 6
//
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_ph.dta"
//Berechne : careLev selfRatedHealth selfRatedHealthDum limInActv sumDisease sumDrugForSth
g wave = 6
```

```
g wave = 6
save "dta/cache/dataset.dta", replace
do "do/Ph.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6ph = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//mental Health  Welle 6
//
clear
use
"dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_mh.dt
a"
//Berechne : z mental health
g wave = 6
save "dta/cache/dataset.dta", replace
do  "do/Mh.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6mh = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//cognitive Function     Welle 6
//
clear
use
"dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_cf.dt
a"
//Berechne : zCogFct
g wave = 6
save "dta/cache/dataset.dta", replace
do  "do/Cf.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6cf = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear
```

```
clear

//health care Welle 6
//
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_hc.dta"
//Berechne : lTCInsurancePub lTCInsurancePrvMdt lTCInsurancePrvVlt recPrfCare outOfPocketPay inLtcFacility
g wave = 6
save "dta/cache/dataset.dta", replace
do "do/Hc.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6hc = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

clear



//Health imputed     Welle 6
//
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_gv_health.dta"
g chronic2 = chronic2w6
//Berechne : casp phactiv sphus chronic2
save "dta/cache/dataset.dta", replace
do  "do/gv_health.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear


//Risk behaviour     Welle 6
//
clear
```

```
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_br.dta"
//Berechne : br
g wave = 6
save "dta/cache/dataset.dta", replace
do  "do/br.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//expectancy     Welle n
//
clear
use "dta/in/sharew6_rel7-0-0_ALL_datasets_stata/sharew6_rel7-0-0_ex.dta"
//Berechne :
save "dta/cache/dataset.dta", replace
do  "do/ex.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge6__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear




//  review merge documentation, prepare dataset for : descriptive Analysis
//
//

//merge documentation
//
use "dta/cache/mergeDoc.dta", clear
g wave = 6
do "do/mergeObserver.do"

```

```
254
255 //merge documentation : drop dupplicates
256 //
257 do "do/runTwinKiller.do"
258
259 //prepeare data for descriptive analysis : fin
260 //
261 do "do/prepFin.do"
262 save "dta/cache/dieDaten.dta", replace
263
264 //prepeare data for descriptive analysis : health
265 //
266 do "do/prepHlth.do"
267 save "dta/cache/dieDaten.dta", replace
268
269
270
271
272 // descriptive Analysis, save outcome
273 //
274 //
275
276 use "dta/cache/dieDaten", clear
277
278
279 // clac Macro indicators Wave 6
280 //
281 do "do/calcMacro.do"
282 save "dta/cache/MacroNo6.dta", replace
283 export delimited using "dta/out/MacroW6", replace
284
285 /*
286 do final Cleaning =
287     keep contries   : Austria, Germany, Sweden, Spain, Italy,
    France, Denmark, Switzerland, Belgium, Luxembourg, Slovineia,
    Estonia;
288     keep variables  :                   mergeid int_year country
    countryid health careLev needsLtc unmetCare recPrfCare
    recivedCare
289                                         inLtcFacility careForm
    careFinContext/*
290     M2 - soz backgroung */              gender /*age*/age sqAge
    /*relationship status*/ mStatus /*edu*/yearsOfEdu/*
291                                         employment status*/
    jobSit /*income & assets*/ income Assets /*
292     M3 - Care financing context */      outOfPocketPay
    lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub /*
293 */ */
294 use "dta/cache/dieDaten", clear
```

```
294 use "dta/cache/dieDaten", clear
295 do "do/finalCleaning.do"
296
297 //descriptive Analysis 1:
298 sum
299 //descriptive Analysis 2:
300 sum if needsLtc == 1
301 g wave = 6
302 save "dta/cache/W6.dta", replace
303 export delimited using "dta/out/W6", replace
304
305 //  prepare dataset for : multivariat Analysis, export dataset
    (import if im going to do macro analysis in stata - so far i
    have perpared macro Data in R)
306 //
307 //
308 use "dta/cache/W6.dta", clear
309 do "do/microAnalysis.do"
310
311 postfile MicroAnalysis countryid N beta_careLev se_careLev
    beta_age se_age using "dta/cache/results_microW6.dta", replace
312
313
314 forvalues i = 1/12 {
315     quietly regress health careLev i.careForm/*
316 */ gender c.age i.mStatus i.jobSit income Assets/*
317 */ i.careFinContext if newid ==`i'
318     mat results = r(table)
319     local countryid = countryid         // the cntry variable in
    the new dataset should contain the same cntry values
320     local N = e(N)                      // number of
    observations for each country (or: for each regression)
321     local beta_careLev = results[1,1]   // beta_hasLtc captures
    the regression coefficient of hasLtc for the corresponding
    cntry/regression
322     local se_careLev = results[1,2]     // se_hasLtc captures
    the corresponding std. err.
323     local beta_cage = results[2,1]      // beta_cage captures
    the regression coefficient of cage for the corresponding
    cntry/regression
324     local se_cage = results[2,2]        // se_cage captures the
    corresponding std. err.
325     post MicroAnalysis (`i') (`N') (`beta_careLev') (`beta_cage')
     (`se_careLev') (`se_cage')
326 }
327
328 postclose MicroAnalysis
```

```
log using "doc/W7.smcl", replace

/*


do file welle 7 :   bereinigt Datensatz:

                    health status index

                    need for LTC, unmet LTC
                    recieved care formal & unformal
                    care financing type

                    Soz dem : Age, Gender, job situation, mariage status
                    income PPP AE - äquvalenzeinkommen gewichtet nach purchasing power parity
                    assets PPP AE

*/


//  SHARE Wave 7 :  visit, mvdecode, merge different modules
//
//


//sozDem Variables Welle 7
//
clear
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_cv_r.dta"
//Berechne : gender age2017 mobirth int_year int_month country mergeid partnerinhh yrbirth
g y = 2017
do "do/sozDem.do"
g wave = 7
g hhid = hhid7
keep gender mobirth int_year int_month country mergeid partnerinhh yrbirth hhid hhsize age sqAge
//erstelle finalen Datensatz
save  "dta/cache/dieDaten.dta",replace
clear


//sozDem : gv_imputations    Welle 7
//
clear
```

```
43  clear
44  use
    "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_gv_im
    putations.dta"
45  //Berechne : nursinghome  mstat cjs thinc2 hrass yearsOfEdu
    eurod mstat maxgrip informalHelp
46  g wave = 7
47  save "dta/cache/dataset.dta", replace
48  do  "do/gv_imputations.do"
49  save "dta/cache/dataset.dta", replace
50  //merge
51  do "do/merge.do"
52  gen merge7__ = _merge
53  drop _merge
54  save "dta/cache/mergeDoc.dta", replace /*erstelle merge
    dokumentation : füge merge info hinzu */
55  use "dta/cache/dieDaten.dta", clear
56  drop _merge
57  save "dta/cache/dieDaten.dta", replace
58  clear
59
60  //monetary weights   Welle 7
61  //
62  clear
63  use
    "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_gv_ex
    rates.dta"
64  //Berechne : exrate ppp
65  save "dta/cache/dataset.dta", replace
66  do  "do/gv_exrates.do"
67  save "dta/cache/dataset.dta", replace
68  //merge
69  use "dta/cache/dieDaten.dta", clear
70  merge m:1 country using "dta/cache/dataset.dta"
71  drop if _merge == 2
72  drop _merge
73  save "dta/cache/dieDaten.dta", replace
74  clear
75
76
77  //sozDem : Employement Welle 7
78  //
79  use
    "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_ep.dt
    a"
80  //Berechne : stopWrkHlth incPubLTC incPrvLTC
81  do "do/Ep.do"
82  save "dta/cache/dataset.dta", replace
83  //merge dateien
```

```
//merge dateien
do "do/merge.do"
gen merge7ep = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//sozDem : Education Welle 7
//
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_dn.dta"
//Berechne : dn010_ dn014_ mStatus
do "do/Dn.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge7dn = _merge
drop _merge
save "dta/cache/dataset.dta", replace
do "do/mergeII.do"
clear

//socialSupport Welle 7
//
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_sp.dta"
//Berechne : recived Care
g wave = 7
do "do/Sp.do"
save "dta/cache/dataset.dta", replace
//merge dateien
do "do/merge.do"
gen merge7sp = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//physical Health Welle 7
//
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_ph.dta"
//Berechne : careLev selfRatedHealth selfRatedHealthDum limInActv sumDisease sumDrugForSth
g wave = 7
```

```
g wave = 7
save "dta/cache/dataset.dta", replace
do "do/Ph.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7ph = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//mental Health  Welle 7
//
clear
use
"dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_mh.dt
a"
//Berechne : z mental health
g wave = 7
save "dta/cache/dataset.dta", replace
do  "do/Mh.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7mh = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

//cognitive Function     Welle 7
//
clear
use
"dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_cf.dt
a"
//Berechne : zCogFct
g wave = 7
save "dta/cache/dataset.dta", replace
do  "do/Cf.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7cf = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear
```

```
clear

//health care Welle 7
//
clear
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_hc.dta"
//Berechne : lTCInsurancePub lTCInsurancePrvMdt lTCInsurancePrvVlt recPrfCare outOfPocketPay inLtcFacility
g wave = 7
save "dta/cache/dataset.dta", replace
do "do/Hc.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7hc = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear

clear



//Health imputed     Welle 7
//
clear
use "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_gv_health.dta"
g chronic2 = chronic2w7
//Berechne : casp phactiv sphus chronic2
save "dta/cache/dataset.dta", replace
do  "do/gv_health.do"
save "dta/cache/dataset.dta", replace
//merge
do "do/merge.do"
gen merge7__ = _merge
drop _merge
save "dta/cache/merge.dta", replace
do "do/mergeII.do"
clear


//Risk behaviour     Welle 6
//
clear
```

```
211 clear
212 use
    "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_br.dt
    a"
213 //Berechne : br
214 g wave = 7
215 save "dta/cache/dataset.dta", replace
216 do  "do/br.do"
217 save "dta/cache/dataset.dta", replace
218 //merge
219 do "do/merge.do"
220 gen merge7__ = _merge
221 drop _merge
222 save "dta/cache/merge.dta", replace
223 do "do/mergeII.do"
224 clear
225
226 //expectancy     Welle n
227 //
228 clear
229 use
    "dta/in/sharew7_rel7-0-0_ALL_datasets_stata/sharew7_rel7-0-0_ex.dt
    a"
230 //Berechne :
231 save "dta/cache/dataset.dta", replace
232 do  "do/ex.do"
233 save "dta/cache/dataset.dta", replace
234 //merge
235 do "do/merge.do"
236 gen merge7__ = _merge
237 drop _merge
238 save "dta/cache/merge.dta", replace
239 do "do/mergeII.do"
240 clear
241
242
243
244
245 //  review merge documentation, prepare dataset for :
    descriptive Analysis
246 //
247 //
248
249 //merge documentation
250 //
251 use "dta/cache/mergeDoc.dta", clear
252 g wave = 7
253 do "do/mergeObserver.do"
254
```

```
254
255 //merge documentation : drop dupplicates
256 //
257 do "do/runTwinKiller.do"
258
259 //prepeare data for descriptive analysis : fin
260 //
261 do "do/prepFin.do"
262 save "dta/cache/dieDaten.dta", replace
263
264 //prepeare data for descriptive analysis : health
265 //
266 do "do/prepHlth.do"
267 save "dta/cache/dieDaten.dta", replace
268
269
270
271
272 // descriptive Analysis, save outcome
273 //
274 //
275
276 use "dta/cache/dieDaten", clear
277
278
279 // clac Macro indicators Wave 7
280 //
281 do "do/calcMacro.do"
282 save "dta/cache/MacroNo7.dta", replace
283 export delimited using "dta/out/MacroW7", replace
284
285 /*
286 do final Cleaning =
287     keep contries   : Austria, Germany, Sweden, Spain, Italy,
    France, Denmark, Switzerland, Belgium, Luxembourg, Slovineia,
    Estonia;
288     keep variables  :                   mergeid int_year country
    countryid health careLev needsLtc unmetCare recPrfCare
    recivedCare
289                                         inLtcFacility careForm
    careFinContext/*
290     M2 - soz backgroung */              gender /*age*/age sqAge
    /*relationship status*/ mStatus /*edu*/yearsOfEdu/*
291                                         employment status*/
    jobSit /*income & assets*/ income Assets /*
292     M3 - Care financing context */      outOfPocketPay
    lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub /*
293 */ */
294 use "dta/cache/dieDaten", clear
```

```
294 use "dta/cache/dieDaten", clear
295 do "do/finalCleaning.do"
296
297 //descriptive Analysis 1:
298 sum
299 //descriptive Analysis 2:
300 sum if needsLtc == 1
301 g wave = 7
302 save "dta/cache/W7.dta", replace
303 export delimited using "dta/out/W7", replace
304
305 //  prepare dataset for : multivariat Analysis, export dataset
    (import if im going to do macro analysis in stata - so far i
    have perpared macro Data in R)
306 //
307 //
308 use "dta/cache/W7.dta", clear
309 do "do/microAnalysis.do"
310
311 postfile MicroAnalysis countryid N beta_careLev se_careLev
    beta_age se_age using "dta/cache/results_microW7.dta", replace
312
313
314 forvalues i = 1/12 {
315     quietly regress health careLev i.careForm/*
316 */ gender c.age i.mStatus i.jobSit income Assets/*
317 */ i.careFinContext if newid ==`i'
318     mat results = r(table)
319     local countryid = countryid         // the cntry variable in
    the new dataset should contain the same cntry values
320     local N = e(N)                      // number of
    observations for each country (or: for each regression)
321     local beta_careLev = results[1,1]   // beta_hasLtc captures
    the regression coefficient of hasLtc for the corresponding
    cntry/regression
322     local se_careLev = results[1,2]     // se_hasLtc captures
    the corresponding std. err.
323     local beta_cage = results[2,1]      // beta_cage captures
    the regression coefficient of cage for the corresponding
    cntry/regression
324     local se_cage = results[2,2]        // se_cage captures the
    corresponding std. err.
325     post MicroAnalysis (`i') (`N') (`beta_careLev') (`beta_cage')
     (`se_careLev') (`se_cage')
326 }
327
328 postclose MicroAnalysis
```

```
// code missings
mvdecode partnerinhh, mv(999999)
mvdecode mobirth, mv(999999)
mvdecode int_year, mv(999999)
mvdecode mergeid, mv(999999)
mvdecode partnerinhh, mv(999999)
mvdecode gender, mv(999999)
mvdecode yrbirth, mv(999999)
mvdecode age_int, mv(999999)
// calc age at interview
g age = .
replace age = int_year - yrbirth if int_year != -9
replace age = y - yrbirth if int_year == -9
replace int_year = y if int_year == -9
g sqAge = age*age
la var age "age in years"
la var sqAge "age^2 in years"

```

```
// compare income imputations and macro data
if wave == 5{
do "do/compareImplicats.do"
}

// open cache dataset
use "dta/cache/dataset.dta", replace
// marriage status
g livWthPrt = 0
replace livWthPrt = 1 if  mstat == 1 | mstat == 2
g widowed = 0
replace widowed = 1 if mstat == 6
g seperated = 0
replace seperated = 1 if mstat == 3 | mstat == 5
la var livWthPrt "dummyVar : true = married && living together || registered partenship && living together"
la var widowed "dummyVar : true = widowed"
la var seperated "dummyVar : true = married && not living together || divorced"

// code missing values
mvdecode eurod, mv(-99)
mvdecode maxgrip, mv(-99)

// job situation
g employed = 0
replace employed = 1 if cjs == 2
g retired = 0
replace retired = 1 if cjs == 1
// informal LTC
g informalHelp = 0
replace informalHelp = 1 if rhfo >= 1

// keep implicat income hoghest corr with macro data
keep if implicat == 1
if wave == 1{
g thinc2 = thinc
}
// education
g yearsOfEdu =  yedu
la var yearsOfEdu "bildung in jahren"
keep mergeid nursinghome  mstat cjs thinc2 hrass yearsOfEdu eurod  mstat maxgrip informalHelp

save "dta/cache/dataset.dta", replace

```

```
do "do/importEurostatInc.do"
use "dta/cache/dataset.dta", clear


g hhid = hhid5
g inc = thinc2 * pppk2013

keep mergeid hhid country age implicat inc

reshape wide inc age, i(mergeid) j(implicat)

forvalues i = 2/5{
replace age`i' = . if age`i' == age1
}

g age = age1

gen adult =0
replace adult = 1 if age >= 18
gen olderThan14 = 0
replace olderThan14 = 1 if age >= 14 & age < 18
gen youngerThan14 = 0
replace youngerThan14 = 1 if age < 14
do "do/CountHH.do"
sort hhid
by hhid: gen n1 = _n
by hhid: gen n2 = _N
by hhid: gen nAdlt = _n if adult == 1
by hhid: gen nTeen = _n if olderThan14 == 1
by hhid: gen nKid = _n if youngerThan14 ==1
by hhid: gen adultsHH = sum(adult)
by hhid: gen TeenHH = sum(olderThan14)
by hhid: gen KidHH = sum(youngerThan14)
by hhid: egen tAdultsHH = max(adultsHH)
by hhid: egen tTeenHH = max(TeenHH)
by hhid: egen tKidHH = max(KidHH)
gen prsGwt = 0
replace prsGwt = tAdultsHH + tTeenHH*0.5 + tKidHH*0.3

sort country
forvalues i = 1/5{
g hhinc`i' = inc`i' / prsGwt
by country: egen ctryMnInc`i' = mean(hhinc`i')
by country: egen ctryMdInc`i' = median(hhinc`i')
}

by country: gen twinKill = _n
drop if twinKill != 1
drop twinKill
```

```
49  drop twinKill
50
51  keep country  ctryMnInc1 - ctryMnInc5 ctryMdInc1 - ctryMdInc5
52  g countryid = .
53  replace countryid = country - 10 if country <= 13
54      replace countryid = country - 11 if country > 14 & country <=
     20
55      replace countryid = 10 if country == 23
56      replace countryid = 11 if country == 28
57      replace countryid = 12 if country == 29
58      replace countryid = 13 if country == 31
59      replace countryid = 14 if country == 32
60      replace countryid = 15 if country == 33
61      replace countryid = 16 if country == 34
62      replace countryid = 17 if country == 35
63      replace countryid = 18 if country == 47
64      replace countryid = 19 if country == 48
65      replace countryid = 20 if country == 51
66      replace countryid = 21 if country == 53
67      replace countryid = 22 if country == 55
68      replace countryid = 23 if country == 57
69      replace countryid = 24 if country == 59
70      replace countryid = 25 if country == 61
71      replace countryid = 26 if country == 63
72      replace countryid = 27 if country == 25
73
74      lab def countryid   1 "1. Austria"           2 "2. Germany"
              3 "3. Sweden"          ///
75                          4 "4. Spain"            5 "5. Italy"
               6 "6. France"          ///
76                          7 "7. Denmark"          8 "8. Greece"
             9 "9. Switzerland"     ///
77                         10 "10. Belgium"        11 "11.
    Czechia"        12 "12. Poland"         ///
78                         13 "13. Luxembourg"     14 "14.
    Hungary"        15 "15. Portugal"       ///
79                         16 "16. Slovenia"       17 "17.
    Estonia"        18 "18. Croatia"        ///
80                         19 "19. Lithuania"      20 "20.
    Bulgaria"       21 "21. Cyprus"         ///
81                         22 "22. Finland"        23 "23. Latvia"
           24 "24. Malta"          ///
82                         25 "25. Romania"        26 "26.
    Slovakia"       27 "27. Israel"
83  drop country
84  drop if country == .
85  merge 1:1 countryid using "dta/cache/eurostatInc.dta"
86  drop if _merge != 3
```

```
import delimited "dta/in/Eurostat/ilc_di04_1_Data.csv", clear
save "dta/cache/eurostatInc.dta", replace
use "dta/cache/eurostatInc.dta", clear

// select meassure = €
keep if unit == "Euro"

// gen country identifier
g country = geo
g countryid = .
replace countryid = 1 if country == "Österreich"
replace countryid = 2 if country == "Deutschland (bis 1990 früheres Gebiet der BRD)"
replace countryid = 3 if country == "Sweden"
replace countryid = 4 if country == "Spanien"
replace countryid = 5 if country == "Italien"
replace countryid = 6 if country == "Frankreich"
replace countryid = 7 if country == "Dänemark"
//replace countryid = 8 if country == "Greece"
replace countryid = 9 if country == "Schweiz"
replace countryid = 10 if country == "Belgien"
//replace countryid = 11 if country == "Czechia"
replace countryid = 13 if country == "Luxemburg"
replace countryid = 16 if country == "Slowenien"
replace countryid = 17 if country == "Estland"
drop if countryid == .

replace country = "Germany" if country == "Deutschland (bis 1990 früheres Gebiet der BRD)"
drop geo

// label meassure
g measuer = .
replace measuer = 1 if indic_il == "Durchschnittliches Äquivalenzgesamtnettoeinkommen"
replace measuer = 2 if indic_il == "Medianes Äquivalenzgesamtnettoeinkommen"
drop if time != 2013

// destring value
destring value, gen(valES) ignore("," ":")
drop value
g value = valES

// select hh type
keep if hhtyp == "Insgesamt"
keep country countryid measuer value
reshape wide value, i(countryid) j(measuer)
```

```
44  reshape wide value, i(countryid) j(measuer)
45  g meanV = value1
46  g medianV = value2
47  keep country countryid meanV medianV
48  save "dta/cache/eurostatInc.dta", replace
49
50
```

```
1  use "dta/cache/dieDaten.dta", clear
2  merge 1:1 mergeid using "dta/cache/dataset.dta"
3  save "dta/cache/dieDaten.dta", replace
4  keep mergeid _merge
5
```

```
1  // get PPPs
2  keep  country pppc2003 pppc2004 pppc2005 pppc2006 pppc2007
   pppc2008 pppc2009 pppc2009 pppc2010 pppc2011 pppc2012 pppc2013
   pppc2014 pppc2015 pppc2016 pppc2017
3
```

```
// code missing values
mvdecode ep069d1, mv(-2 ,-1)/*reason stopt working health problems*/
//mvdecode ep671d12, mv(-2 ,-1) /*income source = public long term care*/
mvdecode ep089d5, mv(-2 ,-1) /*regular paments recived ltc insurance */
mvdecode ep005_, mv(-2 ,-1) /*current job situation*/


// job sit
gen jobSit = ep005_
la var jobSit "current job situation"
label define jobSit 1 "Retired" 2 "Employed or self-employed" 3 "Unemployed" 4 "Permanently sick or disabled" 5 "Homemaker" 97 "Other"
label value jobSit jobSit
// retierd due to health problems
gen stopWrkHlth = ep069d1
la var stopWrkHlth "dummyVar : reason stopt working health problems"
//gen incPubLTC = ep671d12
//la var incPubLTC "dummyVar : income source = public long term care"
gen incPrvLTC = ep089d5
la var incPrvLTC "dummyVar : regular paments recived ltc insurance"
keep mergeid exrate jobSit stopWrkHlth incPrvLTC //incPubLTC

```

```
save "dta/cache/dataset.dta", replace
use "dta/cache/mergeDoc.dta", clear
merge 1:1 mergeid using "dta/cache/dataset.dta"
drop _merge
save "dta/cache/mergeDoc.dta", replace
use "dta/cache/dieDaten.dta", clear
drop _merge
save "dta/cache/dieDaten.dta", replace

```

```
1  // code missing values
2  mvdecode  dn014_, mv(-1,-2)
3  mvdecode dn010_, mv(-1,-2)
4  //replace dn041_ = -2 if dn041_>20
5  //mvdecode dn041_, mv(-1,-2,-3)
6  //gen yearsOfEdu = dn041_
7  // marriage status
8  g mStatus = dn014_
9  label define mStatus 1 "Married and living together with spouse"
   2 "Registered partnership" 3 "Married, living separated from
   spouse"/*
10 */ 4 "Never married" 5 "Divorced" 6 " Widowed"
11 label value mStatus mStatus
12
13 keep mergeid dn010_ dn014_ mStatus
14
```

```
if wave == 4 {
gen recivedCare = 0

forvalues i = 1/7 {
replace recivedCare = 1 if sp021d`i'sn == 1
}
forvalues i = 1/9 {
replace recivedCare = 1 if sp021d`i'sp == 1
}
forvalues i = 19/32 {
replace recivedCare = 1 if sp021d`i'sp == 1
}
forvalues i = 34/37 {
replace recivedCare = 1 if sp021d`i'sp == 1
}
la var recivedCare "recived personal care"
keep  mergeid recivedCare
}
if wave == 5 {
gen recivedCare = 0

forvalues i = 1/33 {
replace recivedCare = 1 if sp021d`i' == 1
}


la var recivedCare "recived personal care"
keep  mergeid recivedCare


}
else{
// code missing values
mvdecode sp004d1_1, mv(-2,-1)
mvdecode sp004d1_2, mv(-2,-1)
mvdecode sp004d1_3, mv(-2,-1)

gen recivedCare = 0
replace recivedCare = 1 if sp004d1_1 == 1 | sp004d1_2 == 1 |
sp004d1_3 == 1
la var recivedCare "recived personal care"
keep  mergeid recivedCare
}

```

```
if wave != 6 & wave != 7 {
//generiere variable adl = summe aller ADLs
gen adl =0
replace adl = adl+1 if(ph049d1==1)
replace adl = adl+1 if(ph049d2==1)
replace adl = adl+1 if(ph049d3==1)
replace adl = adl+1 if(ph049d4==1)
replace adl = adl+1 if(ph049d5==1)
replace adl = adl+1 if(ph049d6==1)

//generiere variable iadl = summe aller IADLs
gen iAdl =0
replace iAdl = iAdl+1 if(ph049d7==1)
replace iAdl = iAdl+1 if(ph049d8==1)
replace iAdl = iAdl+1 if(ph049d9==1)
replace iAdl = iAdl+1 if(ph049d10==1)
replace iAdl = iAdl+1 if(ph049d11==1)
replace iAdl = iAdl+1 if(ph049d12==1)
replace iAdl = iAdl+1 if(ph049d13==1)
/*
replace iAdl = iAdl+1 if(ph049d14==1)
replace iAdl = iAdl+1 if(ph049d15==1)
*/
//var die Adl und iAdls beinhaltet
replace adl =3 if adl>=3
replace iAdl =3 if iAdl>=3
gen limitaion=adl*10 +iAdl

//generiere Index care dependency nach Laférre aus Adls & iAdls
gen careLev =0
la var careLev "Level of need for LTC"
replace careLev = 1 if limitaion==1
replace careLev = 2 if limitaion==10|limitaion==2|limitaion==3
replace careLev = 3 if limitaion==20|limitaion==11
replace careLev = 4 if limitaion==12|limitaion==13|limitaion>=21

gen careLevNtZero =0
replace careLevNtZero = 1 if careLev >0
la var careLevNtZero "dummy : true = any need for LTC"
//build index für ph

// code missing values
mvdecode ph003_, mv(-1 -2)
mvdecode ph004_, mv(-1 -2)
mvdecode ph005_, mv(-1 -2)

```

```
46
47  //
48  gen selfRatedHealth = 0
49  replace selfRatedHealth =1 if ph003_ == 5
50  replace selfRatedHealth =2 if ph003_ == 4
51  replace selfRatedHealth =3 if ph003_ == 3
52  replace selfRatedHealth =4 if ph003_ == 2
53  replace selfRatedHealth =5 if ph003_ == 1
54  la var selfRatedHealth "self rated health - 5 = very good ... 1
    = bad"
55  gen selfRatedHealthDum = 0
56  replace selfRatedHealthDum = 1 if ph003_ == 1 | ph003_ == 2 /* !
    check wether convention 1 = excellent || 1 = excellent & very
    good*/
57  //la var selfRatedHealth
58  gen chronDeseas = ph004_
59
60  gen limInActv = ph005_
61
62  gen sumDisease = 0
63
64  g cancer = 0
65  forvalues i = 1/22 {
66  replace cancer = 1 if ph008d`i' == 1
67  }
68  replace cancer = 1 if ph008dot == 1
69
70  g weightLoss = 0
71  replace weightLoss = 1 if ph065_ == 1 & ph066_ == 1
72  replace weightLoss = 1 if ph065_ == 1 & ph066_ == 4
73  la var weightLoss "dummyVar :  unitentional weight loss"
74
75  g fall = 0
76  replace fall = 1 if ph089d1 == 1
77  g fearFall = 0
78  replace fearFall = 1 if ph089d2 == 1
79  g FHR = .
80  la var FHR "Fhr = ((1+BRij) * (1+AOHSij))/GS" // atella
    [1323-1325] (2012)
81  g AOHS = 0
82  replace AOHS = AOHS + 1 if ph006d2 == 1 //high blood preassure
83  replace AOHS = AOHS + 1 if ph006d3 == 1 //high cholesterol
84  replace AOHS = AOHS + 1 if ph006d20 == 1 //osteoporsis
85
86  g pf = 0
87  replace pf = pf + 1 * (62.4)/100 if ph006d2 == 1 //Hypertension
88  replace pf = pf + 1 * (56.1)/100 if ph006d1 == 1 //heart Attack
```

```
replace pf = pf + 1 * (56.1)/100 if ph006d1 == 1 //heart Attack
replace pf = pf + 1 * (48.2)/100 if ph006d4 == 1 //stroke
replace pf = pf + 1 * (49.2)/100 if ph006d12 == 1 //Parkinson
replace pf = pf + 1 * (58.0)/100 if ph006d5 == 1 //Diabetis
replace pf = pf + 1 * (57.1)/100 if ph006d11 == 1 //Ulcer in
stomach or duodenum 50.2
replace pf = pf + 1 * (50.2)/100 if ph006d19 == 1 //Rheumatoid
arthritis
replace pf = pf + 1 * (49.4)/100 if ph087d1 == 1 //Back
impairments
replace pf = pf + 1 * (49.3)/100 if ph006d20 == 1 //osteoporosis
replace pf = pf + 1 * (67.4)/100 if cancer == 1 //cancer
replace pf = pf + 1 * (65.4)/100 if ph006d6 == 1 //chronic lung
disease
// desises degree of sevrerity smith 2000 in brackets

g mh = 0
replace mh = mh + 1 * (73.6)/100 if ph006d2 == 1 //Hypertension
replace mh = mh + 1 * (73.3)/100 if ph006d1 == 1 //
replace mh = mh + 1 * (71.2)/100 if ph006d4 == 1 //
replace mh = mh + 1 * (67.7)/100 if ph006d12 == 1 //
replace mh = mh + 1 * (73.2)/100 if ph006d5 == 1 //
replace mh = mh + 1 * (70.3)/100 if ph006d11 == 1 //
replace mh = mh + 1 * (72.8)/100 if ph006d19 == 1 //
replace mh = mh + 1 * (70.8)/100 if ph087d1 == 1 //
replace mh = mh + 1 * (69.9)/100 if ph006d20 == 1 //
replace mh = mh + 1 * (72.2)/100 if cancer == 1 //
replace mh = mh + 1 * (70.8)/100 if ph006d6 == 1 //
// desises degree of sevrerity smith 2000 in brackets

g cF = 0
replace cF = cF +1 if ph006d16 == 1 //ALzheimer


keep mergeid careLev selfRatedHealth selfRatedHealthDum limInActv
 AOHS FHR pf mh cF ph003_ adl iAdl weightLoss fall fearFall
//sumDisease sumDrugForSth
}
else{
//generiere variable adl = summe aller ADLs
gen adl =0
replace adl = adl+1 if(ph049d1==1)
replace adl = adl+1 if(ph049d2==1)
replace adl = adl+1 if(ph049d3==1)
replace adl = adl+1 if(ph049d4==1)
replace adl = adl+1 if(ph049d5==1)
```

```
127  replace adl = adl+1 if(ph049d5==1)
128  replace adl = adl+1 if(ph049d6==1)
129
130  //generiere variable iadl = summe aller IADLs
131  gen iAdl =0
132  replace iAdl = iAdl+1 if(ph049d7==1)
133  replace iAdl = iAdl+1 if(ph049d8==1)
134  replace iAdl = iAdl+1 if(ph049d9==1)
135  replace iAdl = iAdl+1 if(ph049d10==1)
136  replace iAdl = iAdl+1 if(ph049d11==1)
137  replace iAdl = iAdl+1 if(ph049d12==1)
138  replace iAdl = iAdl+1 if(ph049d13==1)
139  replace iAdl = iAdl+1 if(ph049d14==1)
140  replace iAdl = iAdl+1 if(ph049d15==1)
141
142  //var die Adl und iAdls beinhaltet
143  replace adl =3 if adl>=3
144  replace iAdl =3 if iAdl>=3
145  gen limitaion=adl*10 +iAdl
146
147  //generiere Index care dependency nach Laférre aus Adls & iAdls
148  gen careLev =0
149  la var careLev "Level of need for LTC"
150  replace careLev = 1 if limitaion==1
151  replace careLev = 2 if limitaion==10|limitaion==2|limitaion==3
152  replace careLev = 3 if limitaion==20|limitaion==11
153  replace careLev = 4 if limitaion==12|limitaion==13|limitaion>=21
154
155  gen careLevNtZero =0
156  replace careLevNtZero = 1 if careLev >0
157  la var careLevNtZero "dummy : true = any need for LTC"
158  //build index für ph
159
160  mvdecode ph003_, mv(-1 -2)
161  mvdecode ph004_, mv(-1 -2)
162  mvdecode ph005_, mv(-1 -2)
163
164  gen selfRatedHealth = 0
165  replace selfRatedHealth =1 if ph003_ == 5
166  replace selfRatedHealth =2 if ph003_ == 4
167  replace selfRatedHealth =3 if ph003_ == 3
168  replace selfRatedHealth =4 if ph003_ == 2
169  replace selfRatedHealth =5 if ph003_ == 1
170  la var selfRatedHealth "self rated health - 5 = very good ... 1
     = bad"
171  gen selfRatedHealthDum = 0
```

```
171 gen selfRatedHealthDum = 0
172 replace selfRatedHealthDum = 1 if ph003_ == 1 | ph003_ == 2 /* !
    check wether convention 1 = excellent || 1 = excellent & very
    good*/
173 //la var selfRatedHealth
174 gen chronDeseas = ph004_
175
176 gen limInActv = ph005_
177 gen sumDisease = 0
178 forvalues i = 1/6 {
179 replace sumDisease = sumDisease+ph006d`i' if ph006d`i' == 1
180 }
181 forvalues i = 10/16 {
182 replace sumDisease = sumDisease+ph006d`i' if ph006d`i' == 1
183 }
184 forvalues i = 18/21 {
185 replace sumDisease = sumDisease+ph006d`i' if ph006d`i' == 1
186 }
187
188 gen sumDrugForSth = 0
189 forvalues i = 1/4 {
190 replace sumDrugForSth = ph011d`i' if ph011d`i' == 1
191 }
192
193 forvalues i = 6/11 {
194 replace sumDrugForSth = ph011d`i' if ph011d`i' == 1
195 }
196 forvalues i = 13/15 {
197 replace sumDrugForSth = ph011d`i' if ph011d`i' == 1
198 }
199 g cancer = 0
200 forvalues i = 1/22 {
201 replace cancer = 1 if ph008d`i' == 1
202 }
203 replace cancer = 1 if ph008dot == 1
204
205
206 g weightLoss = 0
207 replace weightLoss = 1 if ph065_ == 1 & ph066_ == 1
208 replace weightLoss = 1 if ph065_ == 1 & ph066_ == 4
209 la var weightLoss "dummyVar :  unitentional weight loss"
210
211 g FHR = .
212 la var FHR "Fhr = ((1+BRij) * (1+AOHSij))/GS" // atella
    [1323–1325] (2012)
213 g AOHS = 0
214 replace AOHS = AOHS + 1 if ph006d2 == 1 //high blood preassure
215 replace AOHS = AOHS + 1 if ph006d3 == 1 //high cholesterol
```

```
215 replace AOHS = AOHS + 1 if ph006d3 == 1 //high cholesterol
216 replace AOHS = AOHS + 1 if ph006d20 == 1 //osteoporsis
217 g fall = 0
218 replace fall = 1 if ph089d1 == 1
219 g fearFall = 0
220 replace fearFall = 1 if ph089d2 == 1
221
222 g pf = 0
223 replace pf = pf + 1 * (62.4)/100 if ph006d2 == 1 //Hypertension
224 replace pf = pf + 1 * (56.1)/100 if ph006d1 == 1 //heart Attack
225 replace pf = pf + 1 * (48.2)/100 if ph006d4 == 1 //stroke
226 replace pf = pf + 1 * (49.2)/100 if ph006d12 == 1 //Parkinson
227 replace pf = pf + 1 * (58.0)/100 if ph006d5 == 1 //Diabetis
228 replace pf = pf + 1 * (57.1)/100 if ph006d11 == 1 //Ulcer in
    stomach or duodenum 50.2
229 replace pf = pf + 1 * (50.2)/100 if ph006d19 == 1 //Rheumatoid
    arthritis
230 replace pf = pf + 1 * (49.4)/100 if ph087d1 == 1 //Back
    impairments
231 replace pf = pf + 1 * (49.3)/100 if ph006d20 == 1 //osteoporosis
232 replace pf = pf + 1 * (67.4)/100 if cancer == 1 //cancer
233 replace pf = pf + 1 * (65.4)/100 if ph006d6 == 1 //chronic lung
    disease
234 // desises degree of sevrerity smith 2000 in brackets
235
236 g mh = 0
237 replace mh = mh + 1 * (73.6)/100 if ph006d2 == 1 //Hypertension
238 replace mh = mh + 1 * (73.3)/100 if ph006d1 == 1 //
239 replace mh = mh + 1 * (71.2)/100 if ph006d4 == 1 //
240 replace mh = mh + 1 * (67.7)/100 if ph006d12 == 1 //
241 replace mh = mh + 1 * (73.2)/100 if ph006d5 == 1 //
242 replace mh = mh + 1 * (70.3)/100 if ph006d11 == 1 //
243 replace mh = mh + 1 * (72.8)/100 if ph006d19 == 1 //
244 replace mh = mh + 1 * (70.8)/100 if ph087d1 == 1 //
245 replace mh = mh + 1 * (69.9)/100 if ph006d20 == 1 //
246 replace mh = mh + 1 * (72.2)/100 if cancer == 1 //
247 replace mh = mh + 1 * (70.8)/100 if ph006d6 == 1 //
248 // desises degree of sevrerity smith 2000 in brackets
249
250 g cF = 0
251 replace cF = cF +1 if ph006d16 == 1 //ALzheimer
252
253 keep mergeid careLev selfRatedHealth selfRatedHealthDum limInActv
     sumDisease sumDrugForSth pf mh cF FHR ph003_ AOHS weightLoss
    fall fearFall adl iAdl
```

```
//mental health
gen sumMhLim = 0

gen d2 = mh002_
gen d3 = mh003_
gen d4 = mh004_
gen d5 = mh005_
gen d6 = mh006_
gen d7 = mh007_
gen d8 = mh008_
gen d9 = mh009_
gen d10 = mh010_
gen d11 = mh011_
gen d12 = mh012_
gen d13 = mh013_
gen d14 = mh014_
gen d15 = mh015_
gen d16 = mh016_
gen d17 = mh017_

if wave == 5 | wave == 7{
gen d18 = mh032_
gen d19 = mh034_
gen d20 = mh035_
gen d21 = mh036_
gen d22 = mh037_

forvalues i= 2/22 {
replace sumMhLim = sumMhLim + d`i' if d`i' == 1
}
}
else{

forvalues i= 2/17 {
replace sumMhLim = sumMhLim + d`i' if d`i' == 1
}
}


sort country
by country : egen zMntlHlth = sd(sumMhLim)
la var sumMhLim "total sum of menthal health limitation"
la var zMntlHlth "standartiset index for mental health"

//mvdecode , mv()

//gen
//la var
keep mergeid sumMhLim zMntlHlth
```

```
//cog function
//mvdecode , mv()
mvdecode cf001_, mv(-1 -2)
mvdecode cf002_, mv(-1 -2)
mvdecode cf012_, mv(-1 -2)
mvdecode cf013_, mv(-1 -2)
mvdecode cf014_, mv(-1 -2)
mvdecode cf015_, mv(-1 -2)
if wave == 4 | wave == 5 | wave == 6  | wave == 7{
mvdecode cf108_, mv(-1 -2)
mvdecode cf109_, mv(-1 -2)
mvdecode cf110_, mv(-1 -2)
mvdecode cf111_, mv(-1 -2)
mvdecode cf112_, mv(-1 -2)
}
gen date = 0
replace date = date + 1 if cf003_ == 2
replace date = date + 1 if cf004_ == 2
replace date = date + 1 if cf005_ == 2
replace date = date + 1 if cf006_ == 2
sort country
by country : egen zDate = sd(date)

gen nummeracy = 0
replace nummeracy =  nummeracy + 1 if cf012_ != 1 & cf012_ != .
replace nummeracy =  nummeracy + 1 if cf013_ != 1 & cf012_ != .
replace nummeracy =  nummeracy + 1 if cf014_ != 1 & cf015_ != .
replace nummeracy =  nummeracy + 1 if cf015_ != 1 & cf015_ != .
if wave == 4 | wave == 5 | wave == 6  | wave == 7{
replace nummeracy =  nummeracy + 1 if cf108_ != 1 & cf108_ != .
replace nummeracy =  nummeracy + 1 if cf109_ != 1 & cf109_ != .
replace nummeracy =  nummeracy + 1 if cf110_ != 1 & cf110_ != .
replace nummeracy =  nummeracy + 1 if cf111_ != 1 & cf111_ != .
replace nummeracy =  nummeracy + 1 if cf112_ != 1 & cf112_ != .
}
sort country
by country : egen zNummeracy = sd(nummeracy)
if wave == 4 | wave == 5 | wave == 6  | wave == 7{
gen tenWrd = cf104tot + cf105tot + cf106tot + cf107tot + cf113tot
 + cf114tot + cf115tot + cf116tot
```

```
gen tenWrd = cf104tot + cf105tot + cf106tot + cf107tot + cf113tot
 + cf114tot + cf115tot + cf116tot
gen tenWrdLim = tenWrd*-1
sort country
by country : egen zTenWrdLim = sd(tenWrdLim)

gen zCogFct = (zTenWrdLim + zNummeracy + zDate)/3
}
else{
gen zCogFct = ( zNummeracy + zDate)/2
}
la var zCogFct "z-standartised index for cognitive function"
//gen
//la var


/*
forvalues i = 1/6 {
`i'
}
*/

keep mergeid zCogFct

```

```
if wave == 1 | wave == 2 | wave == 4{
if wave == 1 | wave == 2 {

// decode missing values
mvdecode hc032d1, mv(-2,-1)

// recived care
gen recPrfCare = hc032d1
la var recPrfCare "dummyVar : recived personal Care from proffesional provider"
gen outOfPocketPay = hc051e
la var outOfPocketPay "dummyVar : Payed anything for homecare for homecare in the last 12 month"

}
else{
gen recPrfCare = .
la var recPrfCare "dummyVar : recived personal Care from proffesional provider"
gen outOfPocketPay = .
}
// decode missing values
mvdecode hc029_, mv(-2,-1)
mvdecode hc029_, mv(-2,-1)


gen inLtcFacility = hc029_
la var inLtcFacility "dummyVar : stayed in a nursing home during last 12 month"


gen lTCInsurancePrvMdt = .
gen lTCInsurancePub = .
gen lTCInsurancePrvVlt = .
if wave == 1 {
replace lTCInsurancePrvVlt =1 if hc059d10 == 1
}
}
if wave == 5{
// decode missing values
mvdecode hc116d1, mv(-2,-1)
mvdecode hc116d2, mv(-2,-1)
mvdecode hc116d3, mv(-2,-1)
mvdecode hc127d1, mv(-2,-1)
mvdecode hc128_, mv(-2,-1)
mvdecode hc029_, mv(-2,-1)

// used finanicing
gen lTCInsurancePub = hc116d1
```

```
gen lTCInsurancePub = hc116d1
la var lTCInsurancePub "dummyVar : Long term care insurances - public(country deviations)"
gen lTCInsurancePrvMdt = hc116d2
la var lTCInsurancePrvMdt "dummyVar : Long term care insurances - privat mandatory(country deviations)"
gen lTCInsurancePrvVlt = hc116d3
la var lTCInsurancePrvVlt "dummyVar : Long term care insurances -privat voluntary/supplementary"

// recived care
gen recPrfCare = hc127d1
la var recPrfCare "dummyVar : recived personal Care from proffesional provider"
gen outOfPocketPay = hc128_
replace outOfPocketPay = 0 if hc128_ == 5
la var outOfPocketPay "dummyVar : Payed anything for homecare for homecare in the last 12 month"
gen inLtcFacility = hc029_
la var inLtcFacility "dummyVar : stayed in a nursing home during last 12 month"


}
else{
// decode missing values
mvdecode hc116d1, mv(-2,-1)
mvdecode hc116d2, mv(-2,-1)
mvdecode hc116d3, mv(-2,-1)
mvdecode hc127d1, mv(-2,-1)
mvdecode hc628_, mv(-2,-1)
mvdecode hc029_, mv(-2,-1)

// used financing
gen lTCInsurancePub = hc116d1
la var lTCInsurancePub "dummyVar : Long term care insurances - public(country deviations)"
gen lTCInsurancePrvMdt = hc116d2
la var lTCInsurancePrvMdt "dummyVar : Long term care insurances - privat mandatory(country deviations)"
gen lTCInsurancePrvVlt = hc116d3
la var lTCInsurancePrvVlt "dummyVar : Long term care insurances -privat voluntary/supplementary"

// recived care
gen recPrfCare = hc127d1
la var recPrfCare "dummyVar : recived personal Care from proffesional provider"
gen outOfPocketPay = hc628_
```

```
83  gen outOfPocketPay = hc628_
84  replace outOfPocketPay = 0 if hc628_ == 5
85  la var outOfPocketPay "dummyVar : Payed anything for homecare
    for homecare in the last 12 month"
86  gen inLtcFacility = hc029_
87  la var inLtcFacility "dummyVar : stayed in a nursing home during
    last 12 month"
88  }
89  keep mergeid lTCInsurancePub lTCInsurancePrvMdt
    lTCInsurancePrvVlt recPrfCare outOfPocketPay inLtcFacility
90
```

```
1  // decode missing values
2  mvdecode phactiv, mv(-1,-2)
3  mvdecode sphus, mv(-1,-2)
4  mvdecode chronic2, mv(-1,-2)
5  mvdecode maxgrip, mv(-1,-2)
6
7  keep mergeid casp phactiv sphus chronic2
8
```

```
g rb = 0
replace rb = rb + 1 if br002_ == 1 //currently smoking
if wave == 5{
replace rb = rb + 1 if br024_ == 1 //drinking problem
}
if wave == 6 | wave == 7{
replace rb = rb + 1 if br039_ == 1
}
keep mergeid rb

```

```
1  g lifeExpectancy = .
2  replace lifeExpectancy = ex009_ if  ex009_ >= 0
3  g lifeExpectancy2 = .
4  replace lifeExpectancy2 = ex009age if  ex009age >= 0
5
6  keep mergeid lifeExpectancy lifeExpectancy2
7
```

```
1  //sum merge*hh merge*as merge*ep merge*dn merge*sp merge*ph
   merge*mh merge*cf merge*hc
2
3  if wave == 1{
4  gen iteamMissing = ""
5  replace iteamMissing = "HH nicht master" if merge1hh == 1
6  replace iteamMissing = iteamMissing + " AS nicht master" if
   merge1as == 1
7  replace iteamMissing = iteamMissing + " EP nicht master" if
   merge1ep == 1
8  replace iteamMissing = iteamMissing + " DN nicht master" if
   merge1dn == 1
9  replace iteamMissing = iteamMissing + " SP nicht master" if
   merge1sp == 1
10 replace iteamMissing = iteamMissing + " PH nicht master" if
   merge1ph == 1
11 replace iteamMissing = iteamMissing + " MH nicht master" if
   merge1mh == 1
12 replace iteamMissing = iteamMissing + " CF nicht master" if
   merge1cf == 1
13 replace iteamMissing = iteamMissing + " HC nicht master" if
   merge1hc == 1
14 //
15 replace iteamMissing = iteamMissing + " HH nicht using" if
   merge1hh == 2
16 replace iteamMissing = iteamMissing + " AS nicht using" if
   merge1as == 2
17 replace iteamMissing = iteamMissing + " EP nicht using" if
   merge1ep == 2
18 replace iteamMissing = iteamMissing + " DN nicht using" if
   merge1dn == 2
19 replace iteamMissing = iteamMissing + " SP nicht using" if
   merge1sp == 2
20 replace iteamMissing = iteamMissing + " PH nicht using" if
   merge1ph == 2
21 replace iteamMissing = iteamMissing + " MH nicht using" if
   merge1mh == 2
22 replace iteamMissing = iteamMissing + " CF nicht using" if
   merge1cf == 2
23 replace iteamMissing = iteamMissing + " HC nicht using" if
   merge1hc == 2
24 la var iteamMissing "String : describing which questionaire
   moduls counldn't be matched to person"
25 gen fehlStdn = 0
26 replace fehlStdn = fehlStdn + 1 if merge1as == 1
27 replace fehlStdn = fehlStdn + 1 if merge1ep == 1
28 replace fehlStdn = fehlStdn + 1 if merge1dn == 1
29 replace fehlStdn = fehlStdn + 1 if merge1sp == 1
30 replace fehlStdn = fehlStdn + 1 if merge1ph == 1
```

```
30  replace fehlStdn = fehlStdn + 1 if merge1ph == 1
31  replace fehlStdn = fehlStdn + 1 if merge1mh == 1
32  replace fehlStdn = fehlStdn + 1 if merge1cf == 1
33  replace fehlStdn = fehlStdn + 1 if merge1hc == 1
34  }
35  if wave == 2{
36  gen iteamMissing = ""
37  replace iteamMissing = "HH nicht master" if merge2hh == 1
38  replace iteamMissing = iteamMissing + " AS nicht master" if
    merge2as == 1
39  replace iteamMissing = iteamMissing + " EP nicht master" if
    merge2ep == 1
40  replace iteamMissing = iteamMissing + " DN nicht master" if
    merge2dn == 1
41  replace iteamMissing = iteamMissing + " SP nicht master" if
    merge2sp == 1
42  replace iteamMissing = iteamMissing + " PH nicht master" if
    merge2ph == 1
43  replace iteamMissing = iteamMissing + " MH nicht master" if
    merge2mh == 1
44  replace iteamMissing = iteamMissing + " CF nicht master" if
    merge2cf == 1
45  replace iteamMissing = iteamMissing + " HC nicht master" if
    merge2hc == 1
46  //
47  replace iteamMissing = iteamMissing + " HH nicht using" if
    merge2hh == 2
48  replace iteamMissing = iteamMissing + " AS nicht using" if
    merge2as == 2
49  replace iteamMissing = iteamMissing + " EP nicht using" if
    merge2ep == 2
50  replace iteamMissing = iteamMissing + " DN nicht using" if
    merge2dn == 2
51  replace iteamMissing = iteamMissing + " SP nicht using" if
    merge2sp == 2
52  replace iteamMissing = iteamMissing + " PH nicht using" if
    merge2ph == 2
53  replace iteamMissing = iteamMissing + " MH nicht using" if
    merge2mh == 2
54  replace iteamMissing = iteamMissing + " CF nicht using" if
    merge2cf == 2
55  replace iteamMissing = iteamMissing + " HC nicht using" if
    merge2hc == 2
56  la var iteamMissing "String : describing which questionaire
    moduls counldn't be matched to person"
57  gen fehlStdn = 0
58  replace fehlStdn = fehlStdn + 1 if merge2as == 1
59  replace fehlStdn = fehlStdn + 1 if merge2ep == 1
60  replace fehlStdn = fehlStdn + 1 if merge2dn == 1
```

```
60  replace fehlStdn = fehlStdn + 1 if merge2dn == 1
61  replace fehlStdn = fehlStdn + 1 if merge2sp == 1
62  replace fehlStdn = fehlStdn + 1 if merge2ph == 1
63  replace fehlStdn = fehlStdn + 1 if merge2mh == 1
64  replace fehlStdn = fehlStdn + 1 if merge2cf == 1
65  replace fehlStdn = fehlStdn + 1 if merge2hc == 1
66  }
67  if wave == 3{
68  gen iteamMissing = ""
69  replace iteamMissing = "HH nicht master" if merge3hh == 1
70  replace iteamMissing = iteamMissing + " AS nicht master" if
    merge3as == 1
71  replace iteamMissing = iteamMissing + " EP nicht master" if
    merge3ep == 1
72  replace iteamMissing = iteamMissing + " DN nicht master" if
    merge3dn == 1
73  replace iteamMissing = iteamMissing + " SP nicht master" if
    merge3sp == 1
74  replace iteamMissing = iteamMissing + " PH nicht master" if
    merge3ph == 1
75  replace iteamMissing = iteamMissing + " MH nicht master" if
    merge3mh == 1
76  replace iteamMissing = iteamMissing + " CF nicht master" if
    merge3cf == 1
77  replace iteamMissing = iteamMissing + " HC nicht master" if
    merge3hc == 1
78  //
79  replace iteamMissing = iteamMissing + " HH nicht using" if
    merge3hh == 2
80  replace iteamMissing = iteamMissing + " AS nicht using" if
    merge3as == 2
81  replace iteamMissing = iteamMissing + " EP nicht using" if
    merge3ep == 2
82  replace iteamMissing = iteamMissing + " DN nicht using" if
    merge3dn == 2
83  replace iteamMissing = iteamMissing + " SP nicht using" if
    merge3sp == 2
84  replace iteamMissing = iteamMissing + " PH nicht using" if
    merge3ph == 2
85  replace iteamMissing = iteamMissing + " MH nicht using" if
    merge3mh == 2
86  replace iteamMissing = iteamMissing + " CF nicht using" if
    merge3cf == 2
87  replace iteamMissing = iteamMissing + " HC nicht using" if
    merge3hc == 2
88  la var iteamMissing "String : describing which questionaire
    moduls counldn't be matched to person"
89  gen fehlStdn = 0
90  replace fehlStdn = fehlStdn + 1 if merge3as == 1
```

```
 90  replace fehlStdn = fehlStdn + 1 if merge3as == 1
 91  replace fehlStdn = fehlStdn + 1 if merge3ep == 1
 92  replace fehlStdn = fehlStdn + 1 if merge3dn == 1
 93  replace fehlStdn = fehlStdn + 1 if merge3sp == 1
 94  replace fehlStdn = fehlStdn + 1 if merge3ph == 1
 95  replace fehlStdn = fehlStdn + 1 if merge3mh == 1
 96  replace fehlStdn = fehlStdn + 1 if merge3cf == 1
 97  replace fehlStdn = fehlStdn + 1 if merge3hc == 1
 98  }
 99  if wave == 4{
100  gen iteamMissing = ""
101  replace iteamMissing = "HH nicht master" if merge4hh == 1
102  replace iteamMissing = iteamMissing + " AS nicht master" if
     merge4as == 1
103  replace iteamMissing = iteamMissing + " EP nicht master" if
     merge4ep == 1
104  replace iteamMissing = iteamMissing + " DN nicht master" if
     merge4dn == 1
105  replace iteamMissing = iteamMissing + " SP nicht master" if
     merge4sp == 1
106  replace iteamMissing = iteamMissing + " PH nicht master" if
     merge4ph == 1
107  replace iteamMissing = iteamMissing + " MH nicht master" if
     merge4mh == 1
108  replace iteamMissing = iteamMissing + " CF nicht master" if
     merge4cf == 1
109  replace iteamMissing = iteamMissing + " HC nicht master" if
     merge4hc == 1
110  //
111  replace iteamMissing = iteamMissing + " HH nicht using" if
     merge4hh == 2
112  replace iteamMissing = iteamMissing + " AS nicht using" if
     merge4as == 2
113  replace iteamMissing = iteamMissing + " EP nicht using" if
     merge4ep == 2
114  replace iteamMissing = iteamMissing + " DN nicht using" if
     merge4dn == 2
115  replace iteamMissing = iteamMissing + " SP nicht using" if
     merge4sp == 2
116  replace iteamMissing = iteamMissing + " PH nicht using" if
     merge4ph == 2
117  replace iteamMissing = iteamMissing + " MH nicht using" if
     merge4mh == 2
118  replace iteamMissing = iteamMissing + " CF nicht using" if
     merge4cf == 2
119  replace iteamMissing = iteamMissing + " HC nicht using" if
     merge4hc == 2
120  la var iteamMissing "String : describing which questionaire
     moduls counldn't be matched to person"
```

```
    moduls counldn't be matched to person"
121 gen fehlStdn = 0
122 replace fehlStdn = fehlStdn + 1 if merge4as == 1
123 replace fehlStdn = fehlStdn + 1 if merge4ep == 1
124 replace fehlStdn = fehlStdn + 1 if merge4dn == 1
125 replace fehlStdn = fehlStdn + 1 if merge4sp == 1
126 replace fehlStdn = fehlStdn + 1 if merge4ph == 1
127 replace fehlStdn = fehlStdn + 1 if merge4mh == 1
128 replace fehlStdn = fehlStdn + 1 if merge4cf == 1
129 replace fehlStdn = fehlStdn + 1 if merge4hc == 1
130 }
131
132 if wave == 5{
133 // string list of items missing per mergeid
134 gen iteamMissing = ""
135 replace iteamMissing = iteamMissing + " EP nicht master" if
    merge5ep == 1
136 replace iteamMissing = iteamMissing + " DN nicht master" if
    merge5dn == 1
137 replace iteamMissing = iteamMissing + " SP nicht master" if
    merge5sp == 1
138 replace iteamMissing = iteamMissing + " PH nicht master" if
    merge5ph == 1
139 replace iteamMissing = iteamMissing + " MH nicht master" if
    merge5mh == 1
140 replace iteamMissing = iteamMissing + " CF nicht master" if
    merge5cf == 1
141 replace iteamMissing = iteamMissing + " HC nicht master" if
    merge5hc == 1
142 //
143 replace iteamMissing = iteamMissing + " EP nicht using" if
    merge5ep == 2
144 replace iteamMissing = iteamMissing + " DN nicht using" if
    merge5dn == 2
145 replace iteamMissing = iteamMissing + " SP nicht using" if
    merge5sp == 2
146 replace iteamMissing = iteamMissing + " PH nicht using" if
    merge5ph == 2
147 replace iteamMissing = iteamMissing + " MH nicht using" if
    merge5mh == 2
148 replace iteamMissing = iteamMissing + " CF nicht using" if
    merge5cf == 2
149 replace iteamMissing = iteamMissing + " HC nicht using" if
    merge5hc == 2
150 la var iteamMissing "String : describing which questionaire
    moduls counldn't be matched to person"
151 // number of items missing per merge id
152 gen fehlStdn = 0
153 replace fehlStdn = fehlStdn + 1 if merge5ep == 1
```

```
153  replace fehlStdn = fehlStdn + 1 if merge5ep == 1
154  replace fehlStdn = fehlStdn + 1 if merge5dn == 1
155  replace fehlStdn = fehlStdn + 1 if merge5sp == 1
156  replace fehlStdn = fehlStdn + 1 if merge5ph == 1
157  replace fehlStdn = fehlStdn + 1 if merge5mh == 1
158  replace fehlStdn = fehlStdn + 1 if merge5cf == 1
159  replace fehlStdn = fehlStdn + 1 if merge5hc == 1
160  }
161  if wave == 6{
162  // string list of items missing per mergeid
163  gen iteamMissing = ""
164  replace iteamMissing = iteamMissing + " EP nicht master" if
     merge6ep == 1
165  replace iteamMissing = iteamMissing + " DN nicht master" if
     merge6dn == 1
166  replace iteamMissing = iteamMissing + " SP nicht master" if
     merge6sp == 1
167  replace iteamMissing = iteamMissing + " PH nicht master" if
     merge6ph == 1
168  replace iteamMissing = iteamMissing + " MH nicht master" if
     merge6mh == 1
169  replace iteamMissing = iteamMissing + " CF nicht master" if
     merge6cf == 1
170  replace iteamMissing = iteamMissing + " HC nicht master" if
     merge6hc == 1
171  //
172  replace iteamMissing = iteamMissing + " EP nicht using" if
     merge6ep == 2
173  replace iteamMissing = iteamMissing + " DN nicht using" if
     merge6dn == 2
174  replace iteamMissing = iteamMissing + " SP nicht using" if
     merge6sp == 2
175  replace iteamMissing = iteamMissing + " PH nicht using" if
     merge6ph == 2
176  replace iteamMissing = iteamMissing + " MH nicht using" if
     merge6mh == 2
177  replace iteamMissing = iteamMissing + " CF nicht using" if
     merge6cf == 2
178  replace iteamMissing = iteamMissing + " HC nicht using" if
     merge6hc == 2
179  la var iteamMissing "String : describing which questionaire
     moduls counldn't be matched to person"
180  // number of items missing per merge id
181  gen fehlStdn = 0
182  replace fehlStdn = fehlStdn + 1 if merge6dn == 1
183  replace fehlStdn = fehlStdn + 1 if merge6sp == 1
184  replace fehlStdn = fehlStdn + 1 if merge6ph == 1
185  replace fehlStdn = fehlStdn + 1 if merge6mh == 1
186  replace fehlStdn = fehlStdn + 1 if merge6cf == 1
```

```
186 replace fehlStdn = fehlStdn + 1 if merge6cf == 1
187 replace fehlStdn = fehlStdn + 1 if merge6hc == 1
188 }
189
190 if wave == 7{
191 // string list of items missing per mergeid
192 gen iteamMissing = ""
193 replace iteamMissing = iteamMissing + " EP nicht master" if
    merge7ep == 1
194 replace iteamMissing = iteamMissing + " DN nicht master" if
    merge7dn == 1
195 replace iteamMissing = iteamMissing + " SP nicht master" if
    merge7sp == 1
196 replace iteamMissing = iteamMissing + " PH nicht master" if
    merge7ph == 1
197 replace iteamMissing = iteamMissing + " MH nicht master" if
    merge7mh == 1
198 replace iteamMissing = iteamMissing + " CF nicht master" if
    merge7cf == 1
199 replace iteamMissing = iteamMissing + " HC nicht master" if
    merge7hc == 1
200 //
201 replace iteamMissing = iteamMissing + " EP nicht using" if
    merge7ep == 2
202 replace iteamMissing = iteamMissing + " DN nicht using" if
    merge7dn == 2
203 replace iteamMissing = iteamMissing + " SP nicht using" if
    merge7sp == 2
204 replace iteamMissing = iteamMissing + " PH nicht using" if
    merge7ph == 2
205 replace iteamMissing = iteamMissing + " MH nicht using" if
    merge7mh == 2
206 replace iteamMissing = iteamMissing + " CF nicht using" if
    merge7cf == 2
207 replace iteamMissing = iteamMissing + " HC nicht using" if
    merge7hc == 2
208 la var iteamMissing "String : describing which questionaire
    moduls counldn't be matched to person"
209 // number of items missing per merge id
210 gen fehlStdn = 0
211 replace fehlStdn = fehlStdn + 1 if merge7ep == 1
212 replace fehlStdn = fehlStdn + 1 if merge7dn == 1
213 replace fehlStdn = fehlStdn + 1 if merge7sp == 1
214 replace fehlStdn = fehlStdn + 1 if merge7ph == 1
215 replace fehlStdn = fehlStdn + 1 if merge7mh == 1
216 replace fehlStdn = fehlStdn + 1 if merge7cf == 1
217 replace fehlStdn = fehlStdn + 1 if merge7hc == 1
218 }
219 la var fehlStdn "Integer : number of questionaire moduls missing
    for each person"
```

```
use "dta/cache/dieDaten.dta", clear

//gen dup = duplicates by mergid
sort mergeid
quietly by mergeid:  gen dup = cond(_N==1,0,_n)

tabulate dup

// delelte duplicates
drop if dup>=1
drop dup
save "dta/cache/dieDaten.dta", replace

```

```
1  //bearb dieDaten nach
2  use "dta/cache/dieDaten.dta", clear
3
4
5  //HHsize
6  //
7  mvdecode yrbirth, mv(-1)
8  gen adult =0
9  replace adult = 1 if age >= 18
10 gen olderThan14 = 0
11 replace olderThan14 = 1 if age >= 14 & age < 18
12 gen youngerThan14 = 0
13 replace youngerThan14 = 1 if age < 14
14 do "do/CountHH.do"
15 sort hhid
16 by hhid: gen n1 = _n
17 by hhid: gen n2 = _N
18 by hhid: gen nAdlt = _n if adult == 1
19 by hhid: gen nTeen = _n if olderThan14 == 1
20 by hhid: gen nKid = _n if youngerThan14 ==1
21 by hhid: gen adultsHH = sum(adult)
22 by hhid: gen TeenHH = sum(olderThan14)
23 by hhid: gen KidHH = sum(youngerThan14)
24 by hhid: egen tAdultsHH = max(adultsHH)
25 by hhid: egen tTeenHH = max(TeenHH)
26 by hhid: egen tKidHH = max(KidHH)
27 gen prsGwt = 0
28 replace prsGwt = tAdultsHH + tTeenHH*0.5 + tKidHH*0.3
29
30
31 // einkommen
32 //
33
34
35
36 // Vermögen
37 //
38
39 g asMv = 0
40
41 save "dta/cache/dieDaten.dta", replace
42
43
44
45 gen inc = thinc2/exrate
46 sort country
47 by country: egen ctryMnInc = mean(inc)
48 by country: egen ctryMdInc = median(inc)
49 save "dta/cache/dataset.dta", replace
```

```
49  save "dta/cache/dataset.dta", replace
50  by country, sort: gen nvals = _n == 1
51  drop if nvals != 1
52   //graph bar  ctryMnInc ctryMdInc, over(country, label(angle(90)))
53  sum ctryMnInc
54
55  use "dta/cache/dataset.dta", clear
56
57  * The next steps will be easier, if we generate a new country
    variable,
58  * which starts with the value one and continues the consecutive
    numbering without gaps.
59      gen     countryid =   .
60      replace countryid = country - 10 if country <= 13
61      replace countryid = country - 11 if country > 14 & country <=
     20
62      replace countryid = 10 if country == 23
63      replace countryid = 11 if country == 28
64      replace countryid = 12 if country == 29
65      replace countryid = 13 if country == 31
66      replace countryid = 14 if country == 32
67      replace countryid = 15 if country == 33
68      replace countryid = 16 if country == 34
69      replace countryid = 17 if country == 35
70      replace countryid = 18 if country == 47
71      replace countryid = 19 if country == 48
72      replace countryid = 20 if country == 51
73      replace countryid = 21 if country == 53
74      replace countryid = 22 if country == 55
75      replace countryid = 23 if country == 57
76      replace countryid = 24 if country == 59
77      replace countryid = 25 if country == 61
78      replace countryid = 26 if country == 63
79      replace countryid = 27 if country == 25
80
81      lab def countryid   1 "1. Austria"           2 "2. Germany"
              3 "3. Sweden"          ///
82                          4 "4. Spain"            5 "5. Italy"
              6 "6. France"          ///
83                          7 "7. Denmark"          8 "8. Greece"
             9 "9. Switzerland"     ///
84                         10 "10. Belgium"        11 "11.
    Czechia"        12 "12. Poland"         ///
85                         13 "13. Luxembourg"     14 "14.
    Hungary"        15 "15. Portugal"       ///
86                         16 "16. Slovenia"       17 "17.
    Estonia"        18 "18. Croatia"        ///
87                         19 "19. Lithuania"      20 "20.
    Bulgaria"       21 "21. Cyprus"         ///
```

```
                        19 "19. Lithuania"       20 "20.
    Bulgaria"       21 "21. Cyprus"         ///
                        22 "22. Finland"         23 "23. Latvia"
             24 "24. Malta"          ///
                        25 "25. Romania"         26 "26.
    Slovakia"       27 "27. Israel"
/*

*/
    lab val countryid countryid
    lab var countryid "Country identifier"


* Check if we made any mistakes
tab1 country countryid
save "dta/cache/dataset.dta",  replace



g incPpp = inc

//einkommen $ -> €

gen  incPppEuro = .
replace incPppEuro = incPpp*pppc2017 if inc != . & int_year ==2017
replace incPppEuro = incPpp*pppc2016 if inc != . & int_year ==2016
replace incPppEuro = incPpp*pppc2015 if inc != . & int_year ==2015
replace incPppEuro = incPpp*pppc2014 if inc != . & int_year ==2014
replace incPppEuro = incPpp*pppc2013 if inc != . & int_year ==2013
replace incPppEuro = incPpp*pppc2012 if inc != . & int_year ==2012
replace incPppEuro = incPpp*pppc2011 if inc != . & int_year ==2011
replace incPppEuro = incPpp*pppc2010 if inc != . & int_year ==2010
replace incPppEuro = incPpp*pppc2009 if inc != . & int_year ==2009
replace incPppEuro = incPpp*pppc2008 if inc != . & int_year ==2008
replace incPppEuro = incPpp*pppc2007 if inc != . & int_year ==2007
replace incPppEuro = incPpp*pppc2006 if inc != . & int_year ==2006
replace incPppEuro = incPpp*pppc2005 if inc != . & int_year ==2005
```

```
120  replace incPppEuro = incPpp*pppc2005 if inc != . & int_year ==2005
121  replace incPppEuro = incPpp*pppc2004 if inc != . & int_year ==2004
122  replace incPppEuro = incPpp*pppc2003 if inc != . & int_year ==2003
123
124  //einkommenPPP -> Äquivalenzeinkommen, AE =
     inc/hh(1*sumAdlt+0.5*sumTeen+0.3*sumKid)
125  gen incPppEuroAE = incPppEuro/prsGwt
126  g incEuro = inc/exrate
127  g incEuroAe = incEuro/prsGwt
128   //graph bar inc incPppEuro incPppEuroAE, over(country,
     label(angle(90)))
129
130  g euroNetAssets = hrass // /exrate
131  g pPPEuroNetAssets = 0
132
133  replace pPPEuroNetAssets = euroNetAssets *pppc2017 if hrass != .
     & int_year ==2017
134  replace pPPEuroNetAssets = euroNetAssets *pppc2016 if hrass != .
     & int_year ==2016
135  replace pPPEuroNetAssets = euroNetAssets *pppc2015 if hrass != .
     & int_year ==2015
136  replace pPPEuroNetAssets = euroNetAssets *pppc2014 if hrass != .
     & int_year ==2014
137  replace pPPEuroNetAssets = euroNetAssets *pppc2013 if hrass != .
     & int_year ==2013
138  replace pPPEuroNetAssets = euroNetAssets *pppc2012 if hrass != .
     & int_year ==2012
139  replace pPPEuroNetAssets = euroNetAssets *pppc2011 if hrass != .
     & int_year ==2011
140  replace pPPEuroNetAssets = euroNetAssets *pppc2010 if hrass != .
     & int_year ==2010
141  replace pPPEuroNetAssets = euroNetAssets *pppc2009 if hrass != .
     & int_year ==2009
142  replace pPPEuroNetAssets = euroNetAssets *pppc2008 if hrass != .
     & int_year ==2008
143  replace pPPEuroNetAssets = euroNetAssets *pppc2007 if hrass != .
     & int_year ==2007
144  replace pPPEuroNetAssets = euroNetAssets *pppc2006 if hrass != .
     & int_year ==2006
145  replace pPPEuroNetAssets = euroNetAssets *pppc2005 if hrass != .
     & int_year ==2005
146  replace pPPEuroNetAssets = euroNetAssets *pppc2004 if hrass != .
     & int_year ==2004
147  replace pPPEuroNetAssets = euroNetAssets *pppc2003 if hrass != .
     & int_year ==2003
148
```

```
1  //bearb dieDaten nach
2  use "dta/cache/dieDaten.dta", clear
3
4  // Gesundheit
5  //
6  g needsLtc = 0
7  replace needsLtc = 1 if careLev > 0
8  la var needsLtc "dummyVar: true ? careLev >= 1 : careLev =0"
9  g hasCare = 0
10
11 la var hasCare "dummyVar: true ? recives Care = 1 : recives no
   Care =0"
12 gen sHealth = ph003_
13
14
15 egen zSphus = std(sphus)
16 egen zPhactiv = std(phactiv)
17 egen zMaxgrip = std(maxgrip)
18 egen zEurod = std(eurod)
19 egen zCasp = std(casp)
20 egen zChronic2 = std(chronic2)
21 gen zHealth = (zSphus +  zPhactiv + zMaxgrip +  zEurod + zCasp +
   zChronic2 + zCogFct + zMntlHlth)
22
23 replace zHealth = zHealth*(-1)
24
25 g sedentaryLifestyle = 0
26 replace sedentaryLifestyle = 1 if phactiv == 1
27 replace rb = rb + 1 if sedentaryLifestyle == 1
28
29 replace FHR = ((1+rb)*(1+AOHS))/maxgrip // atella 2012
30 egen fhrMax = max(FHR)
31 replace FHR = FHR / fhrMax
32 egen pfMax = max(pf)
33 egen mhMax = max(mh)
34 egen cfMax = max(cF)
35 egen dMax = max(eurod)
36 gen depression = eurod / dMax
37 replace pf = pf / pfMax
38 replace mh = mh / mhMax
39 replace cF = cF / cfMax
40 g empCon = 0
41 replace empCon = (depression + weightLoss + fall + fearFall)/4 if
    depression != .
42 replace empCon = (weightLoss + fall + fearFall)/3 if depression
   == .
43 g objHealth = 0
44 replace objHealth = (pf + mh + cF + FHR + empCon) / 5
45
```

```
45
46  egen shMax = max(sHealth)
47  replace sHealth = sHealth/shMax
48  // health status index
49  g health = (sHealth*-2.5 + objHealth*-2.5) +5
50  la var health "continous helth index : 5 = excellent health ...
    0 = very bad health"
51
52
53  //Care
54  //
55  g careForm = 0
56  replace careForm = 2 if recPrfCare == 1
57  replace careForm = 1 if recivedCare == 1
58  replace careForm = 3 if inLtcFacility == 1
59  la var careForm "recived care form"
60  label define careForm 0 "no Care" 1 "unprofessional Care at home"
     2 "professional Care at home" 3 "professional Care in LTC
    Facility"
61  label value careForm careForm
62  replace hasCare = 1 if careForm != 0
63
64  g careFinContext = 0
65  replace careFinContext = 1 if outOfPocketPay == 1
66  replace careFinContext = 2 if lTCInsurancePrvVlt == 1
67  replace careFinContext = 3 if lTCInsurancePrvMdt == 1
68  replace careFinContext = 4 if lTCInsurancePub == 1
69  la var careFinContext "financing indication of LTC"
70  label define careFinContext 0 "no financing" 1 "out of pocket
    payments" 2 "private voluntary insurance" 3 "private mandatory
    insurance"/*
71  */ 4 "public insurance"
72  label value careFinContext careFinContext
73
74  g unmetCare = 0
75  replace unmetCare = 1 if (adl >= 1 & ((recPrfCare == 0 |
    nursinghome ==0) & informalHelp ==0) )
76  replace unmetCare = 1 if (iAdl >= 1 & (recivedCare == 0 &
    informalHelp ==0 ))
77
78  save "dta/cache/dieDaten.dta", replace
79
```

```
keep if countryid == 1 | countryid == 10 | countryid == 9 | countryid == 2 | countryid == 7 | countryid == 4 | countryid == 6 | countryid == 8/*
    */ | countryid == 5 | countryid == 3 | countryid == 11 | countryid == 13 | countryid == 16 | countryid == 17

keep if needsLtc == 1



egen newCtrid = group(country)

g menHealth20 = .
g menHealth80 = .
g sdHealth20 = .
g sdHealth80 = .

// Income health disparities
//
forvalues i = 1/13{
xtile ptile`i' = income if newCtrid == `i' ,nq(100)
gen var`i' = 0
replace var`i' = 1 if ptile`i' <= 20
replace var`i' = 2 if ptile`i' >= 80 & ptile`i' != .
sort var`i'
by var`i' : egen a`i' = mean(health)
by var`i' : egen aSd`i' = sd(health)

replace menHealth20 =  a`i' if var`i' == 1
replace menHealth80 =  a`i' if var`i' == 2
replace sdHealth20 =  aSd`i' if var`i' == 1
replace sdHealth80 =  aSd`i' if var`i' == 2
drop ptile`i' var`i' a`i' aSd`i'
}
sort country
by country : egen mH80 = median(menHealth80)
by country : egen mH20 = median(menHealth20)
by country : egen sdH80 = sd(menHealth80)
by country : egen sdH20 = sd(menHealth20)
g hlthDspInc = mH80 - mH20
g hlthDspIncSd = sqrt(sdH80^2 + sdH20^2)
drop mH80 mH20
la var hlthDspInc "health disparities - health of inc top 80 % - health of inc bottom 20 %"

//Assets health disparities
//
forvalues i = 1/13{
xtile ptile`i' = Assets if newCtrid == `i' ,nq(100)
```

```
45  xtile ptile`i' = Assets if newCtrid == `i' ,nq(100)
46  gen var`i' = 0
47  replace var`i' = 1 if ptile`i' <= 20
48  replace var`i' = 2 if ptile`i' >= 80 & ptile`i' != .
49  sort var`i'
50  by var`i' : egen a`i' = mean(health)
51  replace menHealth20 =  a`i' if var`i' == 1
52  replace menHealth80 =  a`i' if var`i' == 2
53  drop ptile`i' var`i' a`i'
54  }
55  sort country
56  by country : egen mH80 = median(menHealth80)
57  by country : egen mH20 = median(menHealth20)
58  g hlthDspAssets = mH80 - mH20
59  la var hlthDspAssets "health disparities - health of assets top
    80 % - health of assets bottom 20 %"
60
61  sort country
62
63  g percentUnmetCare = .
64  forvalues i = 1/13{
65  xtile ptile`i' = unmetCare if newCtrid == `i' ,nq(100)
66  replace percentUnmetCare = 100 - ptile`i' if   ptile`i' != 1 &
    newCtrid == `i'
67  drop ptile`i'
68  }
69  by country : egen prcUmCr = median(percentUnmetCare)
70  la var prcUmCr "% of unment need for LTC per country"
71
72  //  Care form in %
73  //
74  replace careForm = . if careForm == 0
75
76  sort country
77
78  by country: gen unPrf = 1 if careForm == 1
79  by country: gen sumUnPrf = sum(unPrf)
80  by country: egen prcUnPrf = max(sumUnPrf)
81
82  by country: gen pC = 1 if careForm == 2
83  by country: gen sumPC = sum(pC)
84  by country: egen prcPC = max(sumPC)
85
86  by country: gen pCO = 1 if careForm == 3
87  by country: gen sumPCO = sum(pCO)
88  by country: egen prcPCO = max(sumPCO)
89
90  by country: gen totCF = 1 if careForm != .
91  by country: gen sumTotCF = sum(totCF)
```

```
by country: gen sumTotCF = sum(totCF)
by country: egen prcTotCF = max(sumTotCF)

replace prcUnPrf = prcUnPrf / prcTotCF
replace prcPC = prcPC / prcTotCF
replace prcPCO = prcPCO / prcTotCF

g letsBeSure = prcUnPrf + prcPC + prcPCO

la var prcUnPrf "% of LTC unprofessional Care at home"
la var prcPC "% of LTC professional Care at home"
la var prcPCO "% of LTC professional Care in LTC Facility"


// Care finacing context in %
//
replace careFinContext = . if careFinContext == 0

sort country

by country: gen outP = 1 if careFinContext == 1
by country: gen sumOutP = sum(outP)
by country: egen prcOutOfPckt = max(sumOutP)
la var prcOutOfPckt "% of LTC finacend by out of pocket payments"

by country: gen prvVul = 1 if careFinContext == 2
by country: gen sumPrvVul = sum(prvVul)
by country: egen prcPrvVul = max(sumPrvVul)
la var prcPrvVul "% of LTC finacend by private voluntary
insurance"

by country: gen pMI = 1 if careFinContext == 3
by country: gen sumPMI = sum(pMI)
by country: egen prcPrvMdt = max(sumPMI)
la var prcPrvMdt "% of LTC finacend by private mandatory
insurance"

by country: gen pubI = 1 if careFinContext == 4
by country: gen sumPubI = sum(pubI)
by country: egen pubIns = max(sumPubI)
la var pubIns "% of LTC finacend by public insurance"

by country: gen totCF2 = 1 if careFinContext != .
by country: gen sumTotCF2 = sum(totCF2)
by country: egen prcTotCF2 = max(sumTotCF2)

replace prcOutOfPckt = prcOutOfPckt / prcTotCF2
replace prcPrvVul = prcPrvVul / prcTotCF2
```

```
replace prcPrvVul = prcPrvVul / prcTotCF2
replace prcPrvMdt = prcPrvMdt / prcTotCF2
replace pubIns = pubIns / prcTotCF2

g letsBeSureAgain = prcOutOfPckt + prcPrvVul + prcPrvMdt + pubIns
sum letsBeSure letsBeSureAgain

keep country int_year hlthDspInc hlthDspIncSd hlthDspAssets
prcUmCr prcOutOfPckt prcPrvVul prcPrvMdt pubIns prcUnPrf prcPC
prcPCO

// transform to 1obs per country
by country: gen twinKill = _n
drop if twinKill != 1
drop twinKill
g strCtr = ""
replace strCtr = "Austria" if country == 11
replace strCtr = "Germany" if country == 12
replace strCtr = "Sweden" if country == 13
replace strCtr = "Spain" if country == 15
replace strCtr = "Italy" if country == 16
replace strCtr = "France" if country == 17
replace strCtr = "Denmark" if country == 18
replace strCtr = "Switzerland" if country == 20
replace strCtr = "Belgium" if country == 23
replace strCtr = "Czech Republic" if country == 28
replace strCtr = "Luxembourg" if country == 31
replace strCtr = "Slovenia" if country == 34
replace strCtr = "Estonia" if country == 35

tostring int_year, generate(strYear)

g countryYearId = strCtr + strYear

```

```
replace jobSit = cjs if jobSit == .
mvdecode jobSit, mv (-99)
replace mStatus = mstat if mStatus == .
mvdecode mStatus, mv (-99)
// keep counties
keep if countryid == 1 | countryid == 10 | countryid == 9 | countryid == 2 | countryid == 7 | countryid == 4 | countryid == 6 | countryid == 8/*
    */ | countryid == 5 | countryid == 3 | countryid == 11 | countryid == 13 | countryid == 16 | countryid == 17

//drop all non relevant vars
keep mergeid int_year country countryid health careLev needsLtc unmetCare recPrfCare recivedCare inLtcFacility careForm careFinContext/*
    M2 - soz backgroung */              gender /*age*/age sqAge /*relationship status*/ mStatus /*edu*/yearsOfEdu/*
                                        employment status*/ jobSit /*income & assets*/ income Assets /*
    M3 - Care financing context */      outOfPocketPay lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub /*
    M4 - Conuntry / macro effects */
sum if gender  == .
sum if age  == .
sum if mStatus  == .
sum if jobSit  == .
sum if income  == .
sum if Assets == .
sum if health  == .
sum if needsLtc  == .
sum if careForm  == .
sum if careFinContext == .

// drop missings
drop if countryid == .

drop if gender  == .
drop if age  == .
drop if mStatus  == .
drop if jobSit  == .
sum
drop if income  == .
drop if Assets == .
sum

drop if health  == .
drop if needsLtc  == .
drop if careForm  == .
drop if careFinContext == .
```

```
41  drop if careFinContext == .
42  sum
43
44  // keep if care lev >= 1
45  keep if needsLtc == 1
46  sum
47
48
49
```

```
1
2
3  // keep counties
4  //keep if countryid == 1 | countryid == 10 | countryid == 9 |
   countryid == 2 | countryid == 7 | countryid == 4 | countryid ==
   6 | countryid == 8/*
5  //  */ | countryid == 5 | countryid == 3
6
7
8  //drop all non relevant vars
9  //keep mergeid int_year country countryid sHealth health zHealth
   careLev hasLtc recPrfCare recivedCare inLtcFacility gender age
   sqrtAge livWthPrt seperated widowed /*
10 */ //retired employed yearsOfEdu income Assets outOfPocketPay
   lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub
11
12 sort mergeid /*
13     M1 - recived care */                health careLev recPrfCare
    recivedCare inLtcFacility /*
14     M2 - soz backgroung */              gender /*age*/age sqAge
   /*relationship status*/mStatus /*edu*/yearsOfEdu/*
15                                         employment status*/
   jobSit/*income & assets*/ income Assets /*
16     M3 - Care financing context */      outOfPocketPay
   lTCInsurancePrvVlt lTCInsurancePrvMdt lTCInsurancePub /*
17     M4 - Conuntry / macro effects */    country
18
19 //helth index Validity
20 // health status and care level
21 reg health c.careLev
22 margins, at(careLev=(0 / 4))
23 marginsplot
24 reg health c.careForm
25 margins, at(careForm=(0 / 4))
26 marginsplot
27
28 // health care met vs unmet
29 regress health  i.careLev if unmetCare == 0 & needsLtc == 1
30 est store D
31 regress health i.careLev if unmetCare == 1 & needsLtc == 1
32 est store F
33 coefplot D F, drop(_cons) xline(0)
34
35 // health status and age
36 regress health c.age##c.age
37
38     margins ,  at(age=(50(1)100))
39
```

```
39
40      marginsplot , recast(line) recastci(rarea)
41
42  //M1
43  reg health i.careForm careLev
44
45  //M2
46  reg health i.careForm careLev/*
47  */ gender c.age##c.age i.mStatus i.jobSit income Assets
48
49  //M3
50  reg health i.careForm careLev/*
51  */ gender c.age##c.age i.mStatus i.jobSit income Assets/*
52  */ i.careFinContext
53
54  //M4
55  reg health i.careForm careLev/*
56  */ gender c.age##c.age i.mStatus i.jobSit income Assets/*
57  */ i.careFinContext/*
58  */ i.country
59  margins,dydx(country)
60  marginsplot , recast(scatter) horizontal ylabel(1 "Austria" 2
    "Germany" 3 "Sweden" 4 "Spain" 5 "Italy" 6 "France" 7 "Denmark" 8
     "Switzerland" 9 "Belgium" 10 "Czech Republic" 11 "Luxembourg" 12
     "Slovenia" 13 "Estonia")
61
62
63  gen countryLoop = .
64  replace countryLoop = 1 if countryid == 1
65  replace countryLoop = 2 if countryid == 2
66  replace countryLoop = 3 if countryid == 3
67  replace countryLoop = 4 if countryid == 4
68  replace countryLoop = 5 if countryid == 5
69  replace countryLoop = 6 if countryid == 6
70  replace countryLoop = 7 if countryid == 7
71  replace countryLoop = 8 if countryid == 9
72  replace countryLoop = 9 if countryid == 10
73  replace countryLoop = 10 if countryid == 11
74  replace countryLoop = 11 if countryid == 13
75  replace countryLoop = 12 if countryid == 16
76  replace countryLoop = 13 if countryid == 17
77
78  drop if country == 28
79  egen newid = group(country)
80
81
82  // coeplot effect carelevel on health by country
83  forvalues i = 1/12 {
84      quietly regress health careLev i.careForm/*
```

```
84      quietly regress health careLev i.careForm/*
85  */ gender c.age i.mStatus i.jobSit income Assets/*
86  */ i.careFinContext if newid ==`i'
87      est store countryreg_`i'
88  }
89  est tab countryreg_* , star b(%9.3f) keep(careLev)
90
91  //coefplot countryreg_1 - countryreg_13, keep(i.careForm)
    xline(0) swapnames    scheme(s1mono) saving(Country_needsLtc ,
    replace)
92
93  coefplot (                                          ///
94          \   countryreg_1 , aseq(Austria)         ///
95          \   countryreg_2 , aseq(Germany)         ///
96          \   countryreg_3 , aseq(Sweden)          ///
97          \   countryreg_4 , aseq(Spain)           ///
98          \   countryreg_5 , aseq(Italy)           ///
99          \   countryreg_6 , aseq(France)          ///
100         \   countryreg_7 , aseq(Denmark)         ///
101         \   countryreg_8 , aseq(Switzerland)     ///
102         \   countryreg_9 , aseq(Belgium)         ///
103         \   countryreg_10 , aseq(Luxembourg)     ///
104         \   countryreg_11 , aseq(Slovenia)       ///
105         \   countryreg_12 , aseq(Estonia)        ///
106                 ) , keep(careLev) xline(0) swapnames    scheme(
    s1mono) saving("output/Country_needsLtc" , replace)
107
108
109
```

```
1  //merge micro Data
2  use "dta/cache/W5.dta", clear
3  save "dta/cache/finalData.dta", replace
4  append using "dta/cache/W6.dta"
5  append using "dta/cache/W7.dta"
6
7  //merge macro Data
8  tostring int_year, gen(str)
9  g strCountry = ""
10 replace strCountry = "Austria" if countryid == 1
11 replace strCountry = "Germany" if countryid == 2
12 replace strCountry = "Sweden" if countryid == 3
13 replace strCountry = "Spain" if countryid == 4
14 replace strCountry = "Italy" if countryid == 5
15 replace strCountry = "France" if countryid == 6
16 replace strCountry = "Denmark" if countryid == 7
17 replace strCountry = "Greece" if countryid == 8
18 replace strCountry = "Switzerland" if countryid == 9
19 replace strCountry = "Belgium" if countryid == 10
20 replace strCountry = "Czech Republic" if countryid == 11
21 replace strCountry = "Luxembourg" if countryid == 13
22 replace strCountry = "Slovenia" if countryid == 16
23 replace strCountry = "Estonia" if countryid == 17
24
25 g countryYearId = strCountry+str
26 merge m:1 countryYearId using "dta/cache/macroDataFin.dta"
27 drop if _merge == 2
28 drop _merge
29 save "dta/cache/finalData.dta", replace
30
31 use "dta/cache/finalData.dta", clear
32
33 // gen panelid
34 egen newid = group(mergeid)
35 forvalues i = 5/7{
36 bysort country : egen mHlt`i' = mean(health) if wave == `i'
37 }
38
39 save "dta/cache/finalData.dta", replace
40 use "dta/cache/finalData.dta", clear
41
42 drop if countryid == 8 | countryid == 11
43
44 save "dta/cache/finalData.dta", replace
45
```

```
use "dta/cache/finalData.dta", clear

// correlation between vs within
reg health i.careForm i.careFinContext careLev/*
*/ gender c.age##c.age i.mStatus i.jobSit income Assets/*
*/ i.country i.int_year
predict res, resid

reshape wide health careForm careFinContext careLev unmetCare/*
*/ gender age mStatus jobSit income Assets/*
*/ country int_year sqAge yearsOfEdu lTCInsurancePub/*
*/ recivedCare lTCInsurancePrvMdt lTCInsurancePrvVlt /*
*/ recPrfCare outOfPocketPay inLtcFacility mHlt5 mHlt6 mHlt7/*
*/  res, i(newid) j(wave)
corr res?


reshape long
forvalues i = 5/7{
reg health c.careFinContext if wave == `i'
margins, at(careFinContext=(1 / 4))
marginsplot
}
reg health c.careFinContext if wave == 5
margins, at(careFinContext=(1 / 4))
marginsplot


// panel regression
xtset newid wave, yearly

xtsum


// export sample overview
xtsum2 gender age mStatus jobSit income Assets health careLev
careForm careFinContext unmetCare

esttab e(mat_all), mlabels(none) labcol2(`e(obw)') varlabels(r2
" " r3 " ") tex


xtgee health i.careFinContext careLev i.careForm/*
*/ gender c.age##c.age i.mStatus i.jobSit income Assets/*
*/ i.country i.int_year, corr(exchangeable)

xtgee health i.careFinContext careLev i.careForm/*
```

```
45  xtgee health i.careFinContext careLev i.careForm/*
46  */ gender c.age##c.age i.mStatus i.jobSit income Assets/*
47  */ i.country i.int_year, corr(ar1)
48
49  xtgee health i.careFinContext careLev i.careForm/*
50  */ gender c.age##c.age i.mStatus i.jobSit income Assets/*
51  */ i.country i.int_year, corr(independent)
52
53  //M1
54  //
55  // hausmann test :
56  //h0 random effekts appropriate
57  //h1 fixed effekts appropriate
58  quietly xtreg health careLev i.careFinContext i.careForm, fe
59  estimate store fe
60  quietly xtreg health careLev i.careFinContext i.careForm, re
61  estimate store re
62  hausman fe re
63  //chi^2 = 0.000 => h0 ablehenen
64  xtreg health careLev i.careFinContext i.careForm, fe
65
66  //M2
67  //
68  quietly xtreg health careLev i.careFinContext i.careForm/*
69  */ gender c.age i.mStatus i.jobSit income Assets, fe
70  est store fe
71
72  quietly xtreg health careLev i.careFinContext i.careForm/*
73  */ gender c.age i.mStatus i.jobSit income Assets, re
74  estimate store re
75
76  hausman fe re   // Prob>chi2 =      0.0000; reject h0;
77
78  xtreg health careLev i.careFinContext i.careForm/*
79  */ gender c.age i.mStatus i.jobSit income Assets, fe
80
81  //M3
82  //
83  quietly xtreg health careLev i.careFinContext i.careForm/*
84  */ gender c.age i.mStatus i.jobSit income /*Assets
85  */ i.country i.int_year, fe
86  est store fe
87
88  quietly xtreg health careLev i.careFinContext i.careForm/*
89  */ gender c.age i.mStatus i.jobSit income /*Assets
90  */ i.country i.int_year, re
91  estimate store re
92
93  hausman fe re   //Prob>chi2 =      0.0000;  reject h0;
```

```
93  hausman fe re   //Prob>chi2 =      0.0000;  reject h0;
94
95  xtreg health careLev i.careFinContext i.careForm/*
96  */ gender c.age i.mStatus i.jobSit income /*Assets
97  */ i.country i.int_year, fe
98
99
100 use "dta/cache/finalData.dta", clear
101
102 // avg health by country
103 egen newCtrid = group(countryid)
104 g id = newCtrid
105     lab def id    1 "1. Austria"            2 "2. Germany"
          3 "3. Sweden"          ///
106                           4 "4. Spain"             5 "5. Italy"
            6 "6. France"          ///
107                           7 "7. Denmark"           8 "8.
    Switzerland"     ///
108                           9 "9. Belgium"                  ///
109                          10 "10. Luxembourg"      11 "11.
    Slovenia"       12 "12. Estonia"
110 label value id id
111 // country mean health
112 xtset newid wave, yearly
113 quietly xtreg health i.id
114 margins, at(id=(1 / 12))
115 marginsplot
116 sort id
117 by id : egen mnHlth = mean(health)
118 twoway scatter mnHlth id,  mlabel(country)
119 drop newCtrid id mnHlth
120
121
122 // financing scheme effect on health
123 quietly xtreg health i.careFinContext careLev i.careForm/*
124 */ gender c.age i.mStatus i.jobSit income /*Assets
125 */ i.country i.int_year, fe
126 est store fe
127
128 quietly xtreg health i.careFinContext careLev i.careForm/*
129 */ gender c.age i.mStatus i.jobSit income /*Assets
130 */ i.country i.int_year, re
131 est store re
132
133 hausman fe re
134
135 //  H1  :   public financed LTC = better health
136 xtreg health careLev i.careFinContext i.careForm/*
137 */ gender c.age i.mStatus i.jobSit income /*Assets
```

```
use "dta/cache/finalData.dta", clear
 //drop if  country == 20 | country == 19 | country == 31
egen newCtrid = group(countryid)

// create postfile
postutil clear
postfile PanelMicroAnalysis countryid wave N beta_careLev
se_careLev beta_age se_age using "dta/cache/results_micro.dta",
replace
forvalues i = 5/7{
forvalues j = 1/12{
quietly reg health careLev i.careFinContext i.careForm/*
*/ gender c.age i.mStatus i.jobSit c.income if wave == `i' &
newCtrid ==`j'
mat results = r(table)
    local countryid = countryid         // the cntry variable in
the new dataset should contain the same cntry values
    local wave = wave
    local N = e(N)                      // number of
observations for each country (or: for each regression)
    local beta_careLev = results[1,1]   // beta_hasLtc captures
the regression coefficient of hasLtc for the corresponding
cntry/regression
    local se_careLev = results[1,2]     // se_hasLtc captures
the corresponding std. err.
    local beta_cage = results[2,1]      // beta_cage captures
the regression coefficient of cage for the corresponding
cntry/regression
    local se_cage = results[2,2]        // se_cage captures the
corresponding std. err.
    post PanelMicroAnalysis (`j') (`i') (`N') (`beta_careLev') (
`beta_cage') (`se_careLev') (`se_cage')
}
}
postclose PanelMicroAnalysis
use "dta/cache/results_micro.dta" , clear
sum
// using merge
use "dta/cache/macroMicro.dta", clear
g mId = year*10^1 + countryid
g value = .
replace value = diff2013 if year == 2013
replace value = diff2015 if year == 2015
replace value = diff2017 if year == 2017

keep mId country countryid value v vPr
save "dta/cache/macroMicrob.dta", replace

```

```
36
37  // prepare postfile
38  use "dta/cache/results_micro.dta", clear
39  g id = countryid
40  replace countryid = 9 if id == 8
41  replace countryid = 10 if id == 9
42  replace countryid = 13 if id == 10
43  replace countryid = 16 if id == 11
44  replace countryid = 17 if id == 12
45  g year = .
46  replace year = 2013 if wave == 5
47  replace year = 2015 if wave == 6
48  replace year = 2017 if wave == 7
49  g mId = year*10^1 + countryid
50  // merge postfile and using (macro)
51  merge m:1 mId using "dta/cache/macroMicrob.dta"
52
53
54  drop if wave == .
55  drop if value == .
56
57  drop mId beta_age se_age _merge
58
59  reshape wide N beta_careLev se_careLev value country year, i(
    countryid) j(wave)
60
61  // change in health
62  g effectDiff2015 = beta_careLev6 - beta_careLev5
63  g effectDiff2017 = beta_careLev7 - beta_careLev6
64  g effectDiffT = beta_careLev7 - beta_careLev5
65
66  // sd
67  g GuasssErr2015 = sqrt((se_careLev6)^2 + (se_careLev5)^2)
68  g GuasssErr2017 = sqrt((se_careLev7)^2 + (se_careLev6)^2)
69  g GuasssErrT = sqrt((se_careLev7)^2 + (se_careLev5)^2)
70
71
72
73  reshape long
74  // ci 95%
75  g h15 = effectDiff2015 + GuasssErr2015
76  g l15 = effectDiff2015 - GuasssErr2015
77
78  g h17 = effectDiff2017 + GuasssErr2017
79  g l17 = effectDiff2017 - GuasssErr2017
80
81  g hT = effectDiffT + GuasssErrT
82  g lT = effectDiffT - GuasssErrT
83
```

```
83
84  save "dta/cache/results_micro.dta", replace
85
86  // plot results
87  use "dta/cache/results_micro.dta", clear
88  keep if year == 2017
89  twoway rcap hT lT v || scatter effectDiffT v, mlabel(country) ||
      lfit effectDiffT v
90  reg effectDiffT v
91
92
93  use "dta/cache/results_micro.dta", clear
94  tostring year, generate(strYear)
95
96  g countryYearId = country + strYear
97  drop country
98  save "dta/cache/results_micro.dta", replace
99
100  // merge with macro indices
101 use "dta/cache/MacroNo5.dta", clear
102 append using "dta/cache/MacroNo6.dta"
103 append using "dta/cache/MacroNo7.dta"
104 save "dta/cache/MacroFin.dta", replace
105 merge 1:1 countryYearId using "dta/cache/results_micro.dta"
106 drop if _merge != 3
107 drop _merge strYear strCtr wave
108 save "dta/cache/MacroFin.dta", replace
109
110
111 use "dta/cache/MacroFin.dta", clear
112 order country countryid int_year hlthDspInc hlthDspIncSd
    hlthDspAssets prcUmCr prcUnPrf prcPC  prcPCO prcOutOfPckt
    prcPrvVul prcPrvMdt pubIns /*
113 */ N beta_careLev se_careLev year value id v effectDiff2015
    effectDiff2017 effectDiffT GuasssErr2015 GuasssErr2017 GuasssErrT
     h15 l15 h17
114
115 reshape wide countryYearId hlthDspInc hlthDspIncSd hlthDspAssets
    prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt
    pubIns /*
116 */ N beta_careLev se_careLev year value id v, i(country) j(
    int_year)
117
118 // health disparities : change and ci 95%
119 g hlthDspIncT = hlthDspInc2017-hlthDspInc2013
120 g hlthDspIncSdT = sqrt(hlthDspIncSd2017^2 + hlthDspIncSd2013^2)
121
122 g h = hlthDspIncT + hlthDspIncSdT
```

```
122 g h = hlthDspIncT + hlthDspIncSdT
123 g l = hlthDspIncT - hlthDspIncSdT
124
125 g vT = v2015
126 g v2 = v2013/vT
127
128 // graph
129 twoway scatter hlthDspIncT vPr, mlabel(country) ||  lfit
    hlthDspIncT vPr
130 reg  hlthDspIncT vPr
131
132 reshape long
133 // clean
134 keep countryYearId country int_year beta_careLev se_careLev value
     hlthDspInc hlthDspIncSd hlthDspAssets prcUmCr prcUnPrf prcPC
    prcPCO /*
135 */ prcOutOfPckt prcPrvVul prcPrvMdt pubIns N
136 drop if int_year == 2
137 // merge with spendingPPP
138 merge 1:1 countryYearId using "dta/cache/MacroData.dta"
139
140 la var spendingPpp1 "t-1 : Government/compulsory schemes"
141 la var spendingPpp2 "t-1 : Voluntary health care payment schemes"
142 la var spendingPpp3 "t-1 : Household out-of-pocket payments"
143 la var public "t-1 : public spending in euros"
144 la var probPub "t-1 : share of public on total expenditure"
145 la var value "public expenditure change last 3 years"
146 label value value value
147 label value public public
148 label value probPub probPub
149 drop if country == .
150 save "dta/cache/MacroFin.dta", replace
151 // export data
152 export delimited using "dta/out/PanelDataB", replace
153
```

```
use "dta/cache/MacroFin.dta", clear

xtset country int_year, yearly

xtsum
// export sample summary
xtsum2 beta_careLev se_careLev hlthDspInc hlthDspIncSd value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns
esttab e(mat_all), mlabels(none) labcol2(`e(obw)') varlabels(r2 " " r3 " ") tex

//  care level
quietly xtreg beta_careLev value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, fe
est store fe

quietly xtreg beta_careLev value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, re
est store re

hausman fe re

xtreg beta_careLev value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, re
est store CareLevel
//  health disparities

quietly xtreg hlthDspInc value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, fe
est store fe

quietly xtreg hlthDspInc value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, re
est store re

hausman fe re

xtreg hlthDspInc value public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, fe
est store HealthDisparities

// graph
coefplot CareLevel HealthDisparities, drop(_cons public probPub prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns) xline(0)
```

```
35  coefplot CareLevel HealthDisparities, drop(_cons public probPub
    prcUmCr prcUnPrf prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt
    pubIns) xline(0)
36
37  // export regression
38  esttab CareLevel HealthDisparities
39
40  eststo: xtreg beta_careLev value public probPub prcUmCr prcUnPrf
    prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, re
41
42  eststo: xtreg hlthDspInc value public probPub prcUmCr prcUnPrf
    prcPC prcPCO prcOutOfPckt prcPrvVul prcPrvMdt pubIns, fe
43
44  //esttab using "output/macroReg.tex", label nostar ///
45   //   title(Regression table\label{tab1})
46
```