. use D:\Analyses\CIMMYT\NutritionETH\SurveyData\2011\Data\sect5b\_hh\_w1.dta

. tab hh\_s5bq00

Food ID | Freq. Percent Cum.

----------------------------------------+-----------------------------------

Enjera (teff) | 3,969 6.25 6.25

Other Cereal (rice, sorghum, millet, wh | 3,969 6.25 12.50

Potatoes | 3,969 6.25 18.75

Pasta, Macaroni and Biscuits | 3,969 6.25 25.00

Sugar or sugar products (honey, jam) | 3,969 6.25 31.25

Beans, lentils, nuts | 3,969 6.25 37.50

Vegetables | 3,969 6.25 43.75

Fruits | 3,969 6.25 50.00

Beef, sheep, goat, or other red meat an | 3,969 6.25 56.25

Poultry | 3,969 6.25 62.50

Eggs | 3,969 6.25 68.75

Fish | 3,969 6.25 75.00

Oils/fats/butter | 3,969 6.25 81.25

Milk/yogurt/cheese/other dairy | 3,969 6.25 87.50

Other condiments | 3,969 6.25 93.75

Kocho/Bula | 3,969 6.25 100.00

----------------------------------------+-----------------------------------

Total | 63,504 100.00

. tab hh\_s5bq0a

Food Item | Freq. Percent Cum.

-------------------------------+-----------------------------------

Beans, lentils, nuts | 3,969 6.25 6.25

Beef, sheep, goat, or other re | 3,969 6.25 12.50

Eggs | 3,969 6.25 18.75

Enjera (teff) | 3,969 6.25 25.00

Fish | 3,969 6.25 31.25

Fruits | 3,969 6.25 37.50

Kocho/Bula | 3,969 6.25 43.75

Milk/yogurt/cheese/other dairy | 3,969 6.25 50.00

Oils/fats/butter | 3,969 6.25 56.25

Other cereal | 3,969 6.25 62.50

Other condiments | 3,969 6.25 68.75

Pasta, Macaroni and Biscuits | 3,969 6.25 75.00

Potatoes | 3,969 6.25 81.25

Poulty | 3,969 6.25 87.50

Sugar or sugar products | 3,969 6.25 93.75

Vegetables | 3,969 6.25 100.00

-------------------------------+-----------------------------------

Total | 63,504 100.00

. tab hh\_s5bq00 hh\_s5bq0a

| Food Item

Food ID | Beans, .. Beef, s.. Eggs Enjera .. Fish Fruits Kocho/B.. Milk/yo.. | Total

----------------------+----------------------------------------------------------------------------------------+----------

Enjera (teff) | 0 0 0 3,969 0 0 0 0 | 3,969

Other Cereal (rice, s | 0 0 0 0 0 0 0 0 | 3,969

Potatoes | 0 0 0 0 0 0 0 0 | 3,969

Pasta, Macaroni and B | 0 0 0 0 0 0 0 0 | 3,969

Sugar or sugar produc | 0 0 0 0 0 0 0 0 | 3,969

Beans, lentils, nuts | 3,969 0 0 0 0 0 0 0 | 3,969

Vegetables | 0 0 0 0 0 0 0 0 | 3,969

Fruits | 0 0 0 0 0 3,969 0 0 | 3,969

Beef, sheep, goat, or | 0 3,969 0 0 0 0 0 0 | 3,969

Poultry | 0 0 0 0 0 0 0 0 | 3,969

Eggs | 0 0 3,969 0 0 0 0 0 | 3,969

Fish | 0 0 0 0 3,969 0 0 0 | 3,969

Oils/fats/butter | 0 0 0 0 0 0 0 0 | 3,969

Milk/yogurt/cheese/ot | 0 0 0 0 0 0 0 3,969 | 3,969

Other condiments | 0 0 0 0 0 0 0 0 | 3,969

Kocho/Bula | 0 0 0 0 0 0 3,969 0 | 3,969

----------------------+----------------------------------------------------------------------------------------+----------

Total | 3,969 3,969 3,969 3,969 3,969 3,969 3,969 3,969 | 63,504

| Food Item

Food ID | Oils/fa.. Other c.. Other c.. Pasta, .. Potatoes Poulty Sugar o.. Vegetab.. | Total

----------------------+----------------------------------------------------------------------------------------+----------

Enjera (teff) | 0 0 0 0 0 0 0 0 | 3,969

Other Cereal (rice, s | 0 3,969 0 0 0 0 0 0 | 3,969

Potatoes | 0 0 0 0 3,969 0 0 0 | 3,969

Pasta, Macaroni and B | 0 0 0 3,969 0 0 0 0 | 3,969

Sugar or sugar produc | 0 0 0 0 0 0 3,969 0 | 3,969

Beans, lentils, nuts | 0 0 0 0 0 0 0 0 | 3,969

Vegetables | 0 0 0 0 0 0 0 3,969 | 3,969

Fruits | 0 0 0 0 0 0 0 0 | 3,969

Beef, sheep, goat, or | 0 0 0 0 0 0 0 0 | 3,969

Poultry | 0 0 0 0 0 3,969 0 0 | 3,969

Eggs | 0 0 0 0 0 0 0 0 | 3,969

Fish | 0 0 0 0 0 0 0 0 | 3,969

Oils/fats/butter | 3,969 0 0 0 0 0 0 0 | 3,969

Milk/yogurt/cheese/ot | 0 0 0 0 0 0 0 0 | 3,969

Other condiments | 0 0 3,969 0 0 0 0 0 | 3,969

Kocho/Bula | 0 0 0 0 0 0 0 0 | 3,969

----------------------+----------------------------------------------------------------------------------------+----------

Total | 3,969 3,969 3,969 3,969 3,969 3,969 3,969 3,969 | 63,504

.

. tab1 hh\_s5bq01 hh\_s5bq02

-> tabulation of hh\_s5bq01

In the past |

one week (7 |

days), did |

you or |

anyone in |

your |

household |

consume ann |

[ | Freq. Percent Cum.

------------+-----------------------------------

Yes | 24,236 38.75 38.75

No | 38,314 61.25 100.00

------------+-----------------------------------

Total | 62,550 100.00

-> tabulation of hh\_s5bq02

Over the |

past one |

week, how |

many days |

did you or |

others in |

your |

household |

consum | Freq. Percent Cum.

------------+-----------------------------------

0 | 1 0.00 0.00

1 | 1,973 8.15 8.15

2 | 2,765 11.42 19.57

3 | 2,354 9.72 29.30

4 | 1,561 6.45 35.74

5 | 1,224 5.06 40.80

6 | 485 2.00 42.80

7 | 13,848 57.20 100.00

------------+-----------------------------------

Total | 24,211 100.00

.

. tab hh\_s5bq00, nolabel

Food ID | Freq. Percent Cum.

------------+-----------------------------------

1 | 3,969 6.25 6.25

2 | 3,969 6.25 12.50

3 | 3,969 6.25 18.75

4 | 3,969 6.25 25.00

5 | 3,969 6.25 31.25

6 | 3,969 6.25 37.50

7 | 3,969 6.25 43.75

8 | 3,969 6.25 50.00

9 | 3,969 6.25 56.25

10 | 3,969 6.25 62.50

11 | 3,969 6.25 68.75

12 | 3,969 6.25 75.00

13 | 3,969 6.25 81.25

14 | 3,969 6.25 87.50

15 | 3,969 6.25 93.75

16 | 3,969 6.25 100.00

------------+-----------------------------------

Total | 63,504 100.00

.

. tab saq06 saq07 if saq08==2

Kebele/FA | EA

Code | 1 2 3 4 5 6 7 12 | Total

-----------+----------------------------------------------------------------------------------------+----------

1 | 0 32 16 16 32 0 16 0 | 112

2 | 0 0 0 32 0 16 16 0 | 64

3 | 16 0 32 0 16 0 0 0 | 64

4 | 16 32 16 16 16 0 0 0 | 96

5 | 16 0 16 0 0 0 0 0 | 32

6 | 16 0 0 0 16 0 0 0 | 32

7 | 16 0 16 16 0 0 0 16 | 64

8 | 0 16 0 0 0 0 0 0 | 16

9 | 0 16 16 0 16 0 0 0 | 48

10 | 32 16 0 16 0 0 0 0 | 64

11 | 32 16 48 0 0 32 0 0 | 128

13 | 16 16 0 0 0 0 0 0 | 32

14 | 0 16 0 0 0 0 0 0 | 16

15 | 16 0 16 0 0 0 0 0 | 32

16 | 16 16 16 0 0 0 0 0 | 48

17 | 16 16 32 0 0 0 0 0 | 64

18 | 16 0 16 0 0 16 0 0 | 48

19 | 0 32 0 0 0 0 16 0 | 48

20 | 16 0 0 0 0 0 0 0 | 16

21 | 16 0 0 0 0 0 0 0 | 16

22 | 16 0 16 0 0 0 0 0 | 32

23 | 0 16 0 0 0 0 0 0 | 16

24 | 0 0 0 0 16 0 0 0 | 16

25 | 16 0 0 0 0 0 0 0 | 16

26 | 0 0 16 0 0 0 0 0 | 16

27 | 16 0 0 0 0 0 0 0 | 16

28 | 16 32 0 0 0 0 0 0 | 48

31 | 0 0 16 16 0 0 0 0 | 32

32 | 16 0 0 0 0 0 0 0 | 16

38 | 0 16 16 0 0 0 0 0 | 32

165 | 0 16 0 0 0 0 0 0 | 16

403 | 16 0 0 0 0 0 0 0 | 16

-----------+----------------------------------------------------------------------------------------+----------

Total | 352 304 304 112 112 64 48 16 | 1,312

.

Food Variety Score on 16 food items (FVS16)

DDS12

Food ID | Freq. Percent Cum. Class of DDS12, see (Kennedy et al. 2011)source)

----------------------------------------+-----------------------------------

Enjera (teff) | 3,969 6.25 6.25 Cereals (1)

Other Cereal (rice, sorghum, millet, wh | 3,969 6.25 12.50 Cereals (1)

Potatoes | 3,969 6.25 18.75 Rootandtubers (2)

Pasta, Macaroni and Biscuits | 3,969 6.25 25.00 Cereals (1)

Sugar or sugar products (honey, jam) | 3,969 6.25 31.25 Sugar (11)

Beans, lentils, nuts | 3,969 6.25 37.50 Pulsesandnuts (8)

Vegetables | 3,969 6.25 43.75 Vegetables (3)

Fruits | 3,969 6.25 50.00 Fruits (4)

Beef, sheep, goat, or other red meat an | 3,969 6.25 56.25 Meat (5)

Poultry | 3,969 6.25 62.50 Meat (5)

Eggs | 3,969 6.25 68.75 Eggs (6)

Fish | 3,969 6.25 75.00 Fish (7)

Oils/fats/butter | 3,969 6.25 81.25 Oilsandfats (10)

Milk/yogurt/cheese/other dairy | 3,969 6.25 87.50 Milkproducts (9)

Other condiments | 3,969 6.25 93.75 Condiments (12)

Kocho/Bula | 3,969 6.25 100.00

----------------------------------------+-----------------------------------

Total | 63,504 100.00

DDS12 Categories of LSMS-ISA Ethiopia (2011 and 2012)

**Food group Food item**

Cereals (1) Enjera (teff)

Cereals (1) Other Cereal (rice, sorghum, millet, wh

Cereals (1) Pasta, Macaroni and Biscuits

Rootandtubers (2) Potatoes

Vegetables (3) Vegetables

Fruits (4) Fruits

Meat (5) Beef, sheep, goat, or other red meat an

Meat (5) Poultry

Eggs (6) Eggs

Fish (7) Fish

Pulsesandnuts (8) Beans, lentils, nuts

Milkproducts (9) Milk/yogurt/cheese/other dairy

Oilsandfats (10) Oils/fats/butter

Sugar (11) Sugar or sugar products (honey, jam)

Condiments (12) Other condiments

The

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Food item (FVS16)** |  | **Food group (DDS12)** |
|  | See LSMS-ISA Ethiopia |  | See Kennedy (2013) |
| 1 | Enjera (teff) | 1 | Cereals (1) |
| 2 | Other Cereal (rice, sorghum, millet, wh |  | Cereals (1) |
| 4 | Pasta, Macaroni and Biscuits |  | Cereals (1) |
| 3 | Potatoes | 2 | Rootandtubers (2) |
| 5 | Vegetables | 3 | Vegetables (3) |
| 6 | Fruits | 4 | Fruits (4) |
| 7 | Beef, sheep, goat, or other red meat an | 5 | Meat (5) |
| 8 | Poultry |  | Meat (5) |
| 9 | Eggs | 6 | Eggs (6) |
| 10 | Fish | 7 | Fish (7) |
| 11 | Beans, lentils, nuts | 8 | Pulsesandnuts (8) |
| 12 | Milk/yogurt/cheese/other dairy | 9 | Milkproducts (9) |
| 13 | Oils/fats/butter | 10 | Oilsandfats (10) |
| 14 | Sugar or sugar products (honey, jam) | 11 | Sugar (11) |
| 15 | Other condiments | 12 | Condiments (12) |
| 16 | Kocho/Bula |  | Rootandtubers (2) |

Source: LSMS-ISA, conversion Food item to food group Authors based on Kennedy et al. (2013)

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.40211640 0.4903870 0 1 3969

FI02\_OtherCereals 0.88057445 0.3243294 0 1 3969

FI03\_Potatoes 0.28319476 0.4506070 0 1 3969

FI04\_Pasta 0.16830436 0.3741835 0 1 3969

FI05\_Sugar 0.44872764 0.4974269 0 1 3969

FI06\_PulsesandNuts 0.59989922 0.4899802 0 1 3969

FI07\_Vegetables 0.43209877 0.4954304 0 1 3969

FI08\_Fruits 0.16578483 0.3719342 0 1 3969

FI09\_RedMeat 0.26883346 0.4434090 0 1 3969

FI10\_Poultry 0.04283195 0.2025036 0 1 3969

FI11\_Eggs 0.14235324 0.3494561 0 1 3969

FI12\_Fish 0.02015621 0.1405522 0 1 3969

FI13\_FatsandOils 0.76215671 0.4258163 0 1 3969

FI14\_DairyProducts 0.40362812 0.4906864 0 1 3969

FI15\_Condiments 0.91635173 0.2768945 0 1 3969

FI16\_KochoandBula 0.16931217 0.3750747 0 1 3969

FVS16 6.10632401 2.4128526 0 15 3969

>

>

> # Construction of DDS

>

> # Columns correspond to list of food items!

> # sum fooditems into 12 foodgroups for FVS: columns correspond to list of food items!

> NUTR2011ALL$cereals <- 1\*((NUTR2011ALL[2]+NUTR2011ALL[3]+NUTR2011ALL[5] ) > 0 )

> NUTR2011ALL$rootsandtubers <- 1\*((NUTR2011ALL[4]+NUTR2011ALL[17]) > 0 )

> NUTR2011ALL$vegetables <- 1\*((NUTR2011ALL[8] ) > 0 )

> NUTR2011ALL$fruits <- 1\*((NUTR2011ALL[9] ) > 0 )

> NUTR2011ALL$meat <- 1\*((NUTR2011ALL[10]+NUTR2011ALL[11] ) > 0 )

> NUTR2011ALL$eggs <- 1\*((NUTR2011ALL[12] ) > 0 )

> NUTR2011ALL$fish <- 1\*((NUTR2011ALL[13] ) > 0 )

> NUTR2011ALL$pulsesandnuts <- 1\*((NUTR2011ALL[7] ) > 0 )

> NUTR2011ALL$dairyproducts <- 1\*((NUTR2011ALL[14] ) > 0 )

> NUTR2011ALL$oilsandfats <- 1\*((NUTR2011ALL[15] ) > 0 )

> NUTR2011ALL$condiments <- 1\*((NUTR2011ALL[16] ) > 0 )

> NUTR2011ALL$sugar <- 1\*((NUTR2011ALL[6] ) > 0 )

>

> NUTR2011ALL$DDS12 <- rowSums(NUTR2011ALL[19:30] )

>

> # descriptives of food group dummy variables and FVS and DDS

> descriptive.table(vars = d(cereals, rootsandtubers, vegetables, fruits, meat, eggs, fish,

+ pulsesandnuts, dairyproducts, oilsandfats, sugar, condiments, DDS12, FVS16),data= NUTR2011ALL,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.94305870 0.2317596 0 1 3969

FI03\_Potatoes 0.41295037 0.4924261 0 1 3969

FI07\_Vegetables 0.43209877 0.4954304 0 1 3969

FI08\_Fruits 0.16578483 0.3719342 0 1 3969

FI09\_RedMeat 0.28772991 0.4527616 0 1 3969

FI11\_Eggs 0.14235324 0.3494561 0 1 3969

FI12\_Fish 0.02015621 0.1405522 0 1 3969

FI06\_PulsesandNuts 0.59989922 0.4899802 0 1 3969

FI13\_FatsandOils 0.76215671 0.4258163 0 1 3969

FI14\_DairyProducts 0.40362812 0.4906864 0 1 3969

FI05\_Sugar 0.44872764 0.4974269 0 1 3969

FI15\_Condiments 0.91635173 0.2768945 0 1 3969

DDS12 5.53489544 2.0132761 0 12 3969

FVS16 6.10632401 2.4128526 0 15 3969

2013

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.45656780 0.4981760 0 1 3776

FI02\_OtherCereals 0.91631356 0.2769537 0 1 3776

FI03\_Potatoes 0.30879237 0.4620565 0 1 3776

FI04\_Pasta 0.21345339 0.4097994 0 1 3776

FI05\_Sugar 0.51774364 0.4997512 0 1 3776

FI06\_PulsesandNuts 0.64221398 0.4794122 0 1 3776

FI07\_Vegetables 0.48066737 0.4996923 0 1 3776

FI08\_Fruits 0.21689619 0.4121859 0 1 3776

FI09\_RedMeat 0.20815678 0.4060433 0 1 3776

FI10\_Poultry 0.02966102 0.1696728 0 1 3776

FI11\_Eggs 0.14618644 0.3533398 0 1 3776

FI12\_Fish 0.01694915 0.1290980 0 1 3776

FI13\_FatsandOils 0.81461864 0.3886581 0 1 3776

FI14\_DairyProducts 0.40413136 0.4907881 0 1 3776

FI15\_Condiments 0.95153602 0.2147730 0 1 3776

FI16\_KochoandBula 0.18458686 0.3880134 0 1 3776

FVS16 6.50847458 2.3091943 0 15 3776

R version 3.3.1 (2016-06-21) -- "Bug in Your Hair"

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Platform: x86\_64-w64-mingw32/x64 (64-bit)

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'help.start()' for an HTML browser interface to help.

Type 'q()' to quit R.

[Workspace loaded from D:/Analyses/CIMMYT/NutritionETH/.RData]

> # Tom

> # dataPath <- "C:/Users/Tomas/Documents/LEI/data/TZA/2010/Data"

>

> # LEI Path

> # dataPath <- "W:/LEI/Internationaal Beleid (IB)/Projecten/2285000066 Africa Maize Yield Gap/SurveyData/TZA/2010/Data"

>

> # ACT: Tom has to change his dataPath

>

> if(Sys.info()["user"] == "Tomas"){

+ dataPath <- "C:/Users/Tomas/Documents/LEI/data/TZA/2013/Data"

+ } else {

+ dataPath <- "D:/Analyses/CIMMYT/NutritionETH/SurveyData/2013/Data"

+ }

> setwd("D:/Analyses/CIMMYT/NutritionETH")

>

> # load packages

> library(haven)

> library("stringr")

> library("reshape2")

> library(dplyr)

Attaching package: ‘dplyr’

The following objects are masked from ‘package:stats’:

filter, lag

The following objects are masked from ‘package:base’:

intersect, setdiff, setequal, union

> library("markdown")

> library(tidyr) # Necessary for spread function in mutate command

Attaching package: ‘tidyr’

The following object is masked from ‘package:reshape2’:

smiths

> library(Deducer) # necessary for descriptives.tables

Loading required package: ggplot2

Loading required package: JGR

Loading required package: rJava

Loading required package: JavaGD

Loading required package: iplots

Please type JGR() to launch console. Platform specific launchers (.exe and .app) can also be obtained at http://www.rforge.net/JGR/files/.

Loading required package: car

Attaching package: ‘car’

The following object is masked from ‘package:dplyr’:

recode

Loading required package: MASS

Attaching package: ‘MASS’

The following object is masked from ‘package:dplyr’:

select

Deducer has been loaded from within the Windows Rgui.

For the best experience, you are encouraged to use JGR console which can be

downloaded from: http://jgr.markushelbig.org/

>

> options(scipen=999)

>

> # \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

> #Creation of DDS and FVS

> # \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

>

> #FOOD2011 <- read\_dta(file.path(dataPath, "sect7\_hh\_w1.dta")) # CSI saq08 hh\_s7q02\_a to hh\_s7q02\_h

> #FOOD2011 <- read\_dta(file.path(dataPath, "sect5b\_hh\_w1.dta")) # DDS and FCS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

> #FOOD2011 <- read\_dta(file.path(dataPath, "sect5a\_hh\_w1.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

>

> FOOD2013 <- read\_dta(file.path(dataPath, "sect5b\_hh\_w1.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

Error in normalizePath(path.expand(path), winslash, mustWork) :

path[1]="D:/Analyses/CIMMYT/NutritionETH/SurveyData/2013/Data/sect5b\_hh\_w1.dta": The system cannot find the file specified

> FOOD2013 <- read\_dta(file.path(dataPath, "household\sect5b\_hh\_w2.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

Error: '\s' is an unrecognized escape in character string starting ""household\s"

> FOOD2013 <- read\_dta(file.path(dataPath, "household/sect5b\_hh\_w2.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

> FOOD2013 <- subset(FOOD2013, select=c(household\_id, hh\_s5bq00, hh\_s5bq0a, hh\_s5bq01, hh\_s5bq02))

> FOOD2013$FI01\_Enjera <- 1\*(FOOD2013$hh\_s5bq00==1 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI02\_OtherCereals <- 1\*(FOOD2013$hh\_s5bq00==2 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI03\_Potatoes <- 1\*(FOOD2013$hh\_s5bq00==3 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI04\_Pasta <- 1\*(FOOD2013$hh\_s5bq00==4 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI05\_Sugar <- 1\*(FOOD2013$hh\_s5bq00==5 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI06\_PulsesandNuts <- 1\*(FOOD2013$hh\_s5bq00==6 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI07\_Vegetables <- 1\*(FOOD2013$hh\_s5bq00==7 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI08\_Fruits <- 1\*(FOOD2013$hh\_s5bq00==8 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI09\_RedMeat <- 1\*(FOOD2013$hh\_s5bq00==9 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI10\_Poultry <- 1\*(FOOD2013$hh\_s5bq00==10 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI11\_Eggs <- 1\*(FOOD2013$hh\_s5bq00==11 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI12\_Fish <- 1\*(FOOD2013$hh\_s5bq00==12 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI13\_FatsandOils <- 1\*(FOOD2013$hh\_s5bq00==13 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI14\_DairyProducts <- 1\*(FOOD2013$hh\_s5bq00==14 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI15\_Condiments <- 1\*(FOOD2013$hh\_s5bq00==15 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI16\_KochoandBula <- 1\*(FOOD2013$hh\_s5bq00==16 & FOOD2013$hh\_s5bq01==1)

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013, sum)

> NUTR2013 <- NUTR2013a; rm(NUTR2013a)

> NUTR2013a <- aggregate(FI02\_OtherCereals ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI03\_Potatoes ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI04\_Pasta ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI05\_Sugar ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI06\_PulsesandNuts ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI07\_Vegetables ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI08\_Fruits ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI09\_RedMeat ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI10\_Poultry ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI11\_Eggs ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI12\_Fish ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI13\_FatsandOils ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI14\_DairyProducts ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI15\_Condiments ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI16\_KochoandBula ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013$FVS16 <- rowSums(NUTR2013[2:17])

>

> # descriptives of food group dummy variables and FVS and DDS

> descriptive.table(vars = d(FI01\_Enjera, FI02\_OtherCereals, FI03\_Potatoes, FI04\_Pasta, FI05\_Sugar, FI06\_PulsesandNuts,

+ FI07\_Vegetables, FI08\_Fruits, FI09\_RedMeat, FI10\_Poultry, FI11\_Eggs, FI12\_Fish,

+ FI13\_FatsandOils, FI14\_DairyProducts, FI15\_Condiments, FI16\_KochoandBula, FVS16),data= NUTR2013,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.82287530 22.5177808 0 1384 3777

FI02\_OtherCereals 1.21710352 18.4878136 0 1137 3777

FI03\_Potatoes 0.59438708 17.5579594 0 1079 3777

FI04\_Pasta 0.41646810 12.4834625 0 767 3777

FI05\_Sugar 0.86232460 21.1829101 0 1302 3777

FI06\_PulsesandNuts 0.93036802 17.7156558 0 1089 3777

FI07\_Vegetables 0.74000530 15.9460382 0 980 3777

FI08\_Fruits 0.40799576 11.7516934 0 722 3777

FI09\_RedMeat 0.36589886 9.7029002 0 596 3777

FI10\_Poultry 0.04712735 1.0867572 0 66 3777

FI11\_Eggs 0.26873180 7.5395890 0 463 3777

FI12\_Fish 0.02727032 0.6473117 0 39 3777

FI13\_FatsandOils 1.18506751 22.7701045 0 1400 3777

FI14\_DairyProducts 0.54699497 8.7937151 0 540 3777

FI15\_Condiments 1.33095049 23.3187788 0 1434 3777

FI16\_KochoandBula 0.20677787 1.4179078 0 84 3777

FVS16 9.97034684 212.7698577 0 13082 3777

>

>

> # Construction of DDS

>

> # Columns correspond to list of food items!

> # sum fooditems into 12 foodgroups for FVS: columns correspond to list of food items!

> NUTR2013$cereals <- 1\*((NUTR2013[ c("FI01\_Enjera", "FI02\_OtherCereals", "FI04\_Pasta") ] ) > 0 )

> NUTR2013$rootsandtubers <- 1\*((NUTR2013[ c("FI03\_Potatoes", "FI16\_KochoandBula") ] ) > 0 )

> NUTR2013$vegetables <- 1\*((NUTR2013[ c("FI07\_Vegetables") ] ) > 0 )

> NUTR2013$fruits <- 1\*((NUTR2013[ c("FI08\_Fruits") ] ) > 0 )

> NUTR2013$meat <- 1\*((NUTR2013[ c("FI09\_RedMeat", "FI10\_Poultry")] ) > 0 )

> NUTR2013$eggs <- 1\*((NUTR2013[ c("FI11\_Eggs") ] ) > 0 )

> NUTR2013$fish <- 1\*((NUTR2013[ c("FI12\_Fish") ] ) > 0 )

> NUTR2013$pulsesandnuts <- 1\*((NUTR2013[ c("FI06\_PulsesandNuts") ] ) > 0 )

> NUTR2013$dairyproducts <- 1\*((NUTR2013[ c("FI14\_DairyProducts") ] ) > 0 )

> NUTR2013$oilsandfats <- 1\*((NUTR2013[ c("FI13\_FatsandOils") ] ) > 0 )

> NUTR2013$condiments <- 1\*((NUTR2013[ c("FI15\_Condiments") ] ) > 0 )

> NUTR2013$sugar <- 1\*((NUTR2013[ c("FI05\_Sugar") ] ) > 0 )

>

> #install.packages(Hmisc)

> #library(Hmisc)

> #label(NUTR2013ALL$cereals) <- "FG Cereals"

>

> NUTR2013$DDS12 <- rowSums(NUTR2013ALL[ c("cereals", "rootsandtubers", "vegetables",

+ "fruits", "meat", "eggs", "fish",

+ "pulsesandnuts", "dairyproducts", "oilsandfats",

+ "sugar","condiments")] )

Error in is.data.frame(x) : object 'NUTR2013ALL' not found

>

> summary(NUTR2013$DDS12)

Length Class Mode

0 NULL NULL

> #NUTR2013$DDS1200 <- rowSums(NUTR2013[19:30] )

> #summary(NUTR2013$DDS1200)

>

> # descriptives of food group dummy variables and FVS and DDS

> descriptive.table(vars = d(cereals, rootsandtubers, vegetables, fruits, meat, eggs, fish,

+ pulsesandnuts, dairyproducts, oilsandfats, sugar, condiments, DDS12, FVS16),data= NUTR2013,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

Error in data.frame(..., row.names = row.names, check.rows = check.rows, :

object 'DDS12' not found

> NUTR2013$DDS12 <- rowSums(NUTR2013[ c("cereals", "rootsandtubers", "vegetables",

+ "fruits", "meat", "eggs", "fish",

+ "pulsesandnuts", "dairyproducts", "oilsandfats",

+ "sugar","condiments")] )

>

> summary(NUTR2013$DDS12)

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.000 5.000 6.000 6.511 8.000 16.000

> #NUTR2013$DDS1200 <- rowSums(NUTR2013[19:30] )

> #summary(NUTR2013$DDS1200)

>

> # descriptives of food group dummy variables and FVS and DDS

> descriptive.table(vars = d(cereals, rootsandtubers, vegetables, fruits, meat, eggs, fish,

+ pulsesandnuts, dairyproducts, oilsandfats, sugar, condiments, DDS12, FVS16),data= NUTR2013,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.45671168 0.4981886 0 1 3777

FI02\_OtherCereals 0.91633572 0.2769203 0 1 3777

FI04\_Pasta 0.21366164 0.4099449 0 1 3777

FI03\_Potatoes 0.30897538 0.4621322 0 1 3777

FI16\_KochoandBula 0.18480275 0.3881889 0 1 3777

FI07\_Vegetables 0.48080487 0.4996976 0 1 3777

FI08\_Fruits 0.21710352 0.4123283 0 1 3777

FI09\_RedMeat 0.20836643 0.4061940 0 1 3777

FI10\_Poultry 0.02991792 0.1703835 0 1 3777

FI11\_Eggs 0.14641250 0.3535661 0 1 3777

FI12\_Fish 0.01720943 0.1300682 0 1 3777

FI06\_PulsesandNuts 0.64230871 0.4793841 0 1 3777

FI14\_DairyProducts 0.40428912 0.4908189 0 1 3777

FI13\_FatsandOils 0.81466773 0.3886183 0 1 3777

FI05\_Sugar 0.51787133 0.4997467 0 1 3777

FI15\_Condiments 0.95154885 0.2147460 0 1 3777

DDS12 6.51098756 2.3140480 0 16 3777

FVS16 9.97034684 212.7698577 0 13082 3777

> hist(NUTR2013$DDS12, freq = FALSE, ylim = c(0, 0.2), xlab="DDS", ylab="%", main="Freguency of DDS in 2013")

> hist(NUTR2013$FVS16, freq = FALSE, ylim = c(0, 0.2), xlab="FVS", ylab="%", main="Freguency of FVS in 2013")

> NUTR2013$FVS16 <- rowSums(NUTR2013[2:17])

> descriptive.table(vars = d(FI01\_Enjera, FI02\_OtherCereals, FI03\_Potatoes, FI04\_Pasta, FI05\_Sugar, FI06\_PulsesandNuts,

+ FI07\_Vegetables, FI08\_Fruits, FI09\_RedMeat, FI10\_Poultry, FI11\_Eggs, FI12\_Fish,

+ FI13\_FatsandOils, FI14\_DairyProducts, FI15\_Condiments, FI16\_KochoandBula, FVS16),data= NUTR2013,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.82287530 22.5177808 0 1384 3777

FI02\_OtherCereals 1.21710352 18.4878136 0 1137 3777

FI03\_Potatoes 0.59438708 17.5579594 0 1079 3777

FI04\_Pasta 0.41646810 12.4834625 0 767 3777

FI05\_Sugar 0.86232460 21.1829101 0 1302 3777

FI06\_PulsesandNuts 0.93036802 17.7156558 0 1089 3777

FI07\_Vegetables 0.74000530 15.9460382 0 980 3777

FI08\_Fruits 0.40799576 11.7516934 0 722 3777

FI09\_RedMeat 0.36589886 9.7029002 0 596 3777

FI10\_Poultry 0.04712735 1.0867572 0 66 3777

FI11\_Eggs 0.26873180 7.5395890 0 463 3777

FI12\_Fish 0.02727032 0.6473117 0 39 3777

FI13\_FatsandOils 1.18506751 22.7701045 0 1400 3777

FI14\_DairyProducts 0.54699497 8.7937151 0 540 3777

FI15\_Condiments 1.33095049 23.3187788 0 1434 3777

FI16\_KochoandBula 0.20677787 1.4179078 0 84 3777

FVS16 9.97034684 212.7698577 0 13082 3777

> View(FOOD2013)

> View(FOOD2013)

> FOOD2013 <- read\_dta(file.path(dataPath, "household/sect5b\_hh\_w2.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

> FOOD2013 <- subset(FOOD2013, select=c(household\_id, hh\_s5bq00, hh\_s5bq0a, hh\_s5bq01, hh\_s5bq02))

> FOOD2013$FI01\_Enjera <- 1\*(FOOD2013$hh\_s5bq00==1 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI02\_OtherCereals <- 1\*(FOOD2013$hh\_s5bq00==2 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI03\_Potatoes <- 1\*(FOOD2013$hh\_s5bq00==3 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI04\_Pasta <- 1\*(FOOD2013$hh\_s5bq00==4 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI05\_Sugar <- 1\*(FOOD2013$hh\_s5bq00==5 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI06\_PulsesandNuts <- 1\*(FOOD2013$hh\_s5bq00==6 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI07\_Vegetables <- 1\*(FOOD2013$hh\_s5bq00==7 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI08\_Fruits <- 1\*(FOOD2013$hh\_s5bq00==8 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI09\_RedMeat <- 1\*(FOOD2013$hh\_s5bq00==9 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI10\_Poultry <- 1\*(FOOD2013$hh\_s5bq00==10 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI11\_Eggs <- 1\*(FOOD2013$hh\_s5bq00==11 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI12\_Fish <- 1\*(FOOD2013$hh\_s5bq00==12 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI13\_FatsandOils <- 1\*(FOOD2013$hh\_s5bq00==13 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI14\_DairyProducts <- 1\*(FOOD2013$hh\_s5bq00==14 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI15\_Condiments <- 1\*(FOOD2013$hh\_s5bq00==15 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI16\_KochoandBula <- 1\*(FOOD2013$hh\_s5bq00==16 & FOOD2013$hh\_s5bq01==1)

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013, sum)

> View(NUTR2013a)

> View(NUTR2013a)

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013, mean)

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013)

Error in match.fun(FUN) : argument "FUN" is missing, with no default

> NUTR2011a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2011, sum)

> View(NUTR2011a)

> View(NUTR2011a)

> NUTR2013a <- NUTR2013a[2:3777,]

> View(NUTR2013a)

> View(NUTR2013a)

> NUTR2011a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2011, sum)

> NUTR2011 <- NUTR2011a; rm(NUTR2011a)

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- NUTR2013a; rm(NUTR2013a)

> NUTR2013a <- aggregate(FI02\_OtherCereals ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> FOOD2013 <- read\_dta(file.path(dataPath, "household/sect5b\_hh\_w2.dta")) # FVS and DDS hh\_s5aq00 hh\_s5aq0a hh\_s5aq01 hh\_s5aq02\_a hh\_s5aq02\_b

> FOOD2013 <- subset(FOOD2013, select=c(household\_id, hh\_s5bq00, hh\_s5bq0a, hh\_s5bq01, hh\_s5bq02))

>

> # How food items are connected to food groups, See FAO (2013)

> # 2-13 100 cereals = mean(cereals, na.rm = TRUE),

> # 14-20 200 rootsandtubers = mean(rootsandtubers, na.rm = TRUE),

> # 21-23 300 vegetables = mean(vegetables, na.rm=TRUE),

> # 24 400 pulsesandnuts = mean(pulsesandnuts, na.rm=TRUE),

> # 25-28 500 fruits = mean(fruits, na.rm=TRUE),

> # 29-31 600 meat = mean(meat, na.rm=TRUE),

> # 32-35 700 eggs = mean(eggs, na.rm=TRUE),

> # 36-38 800 fishandseafood= mean(fishandseafood, na.rm=TRUE),

> # 39-48 900 milkandmilkproducts= mean(milkandmilkproducts, na.rm=TRUE),

> # 48-50 1000 oilsandfats=mean(oilsandfats, na.rm=TRUE),

> # 50-53 1100 sugar=mean(sugar, na.rm=TRUE),

> # 53-60 1200 condiments=mean(condiments, na.rm=TRUE))

>

> #aggregate(FOOD2011, by=(FOOD2011$hh\_s5bq00), FUN=count, na.rm=TRUE)

>

>

> # Construct dummy variables for food items: do not use as it produces wrong results

> #NUTR2011 <-

> # mutate(FOOD2011, count = ifelse(hh\_s5bq01 == 1, hh\_s5bq02, ifelse(NA))) %>%

> # group\_by(household\_id) %>%

> # spread(hh\_s5bq00, count) %>%

> # filter (! duplicated(household\_id)) %>%

> # replace(is.na(.), 0)

> #NUTR2011CH <- NUTR2011[ c(1,2,3,4) ]

> #NUTR2011 <- NUTR2011[ -c(2,3,4) ]

> #summary(NUTR2011CH)

>

> FOOD2013$FI01\_Enjera <- 1\*(FOOD2013$hh\_s5bq00==1 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI02\_OtherCereals <- 1\*(FOOD2013$hh\_s5bq00==2 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI03\_Potatoes <- 1\*(FOOD2013$hh\_s5bq00==3 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI04\_Pasta <- 1\*(FOOD2013$hh\_s5bq00==4 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI05\_Sugar <- 1\*(FOOD2013$hh\_s5bq00==5 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI06\_PulsesandNuts <- 1\*(FOOD2013$hh\_s5bq00==6 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI07\_Vegetables <- 1\*(FOOD2013$hh\_s5bq00==7 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI08\_Fruits <- 1\*(FOOD2013$hh\_s5bq00==8 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI09\_RedMeat <- 1\*(FOOD2013$hh\_s5bq00==9 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI10\_Poultry <- 1\*(FOOD2013$hh\_s5bq00==10 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI11\_Eggs <- 1\*(FOOD2013$hh\_s5bq00==11 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI12\_Fish <- 1\*(FOOD2013$hh\_s5bq00==12 & FOOD2013$hh\_s5bq01==1)

>

> FOOD2013$FI13\_FatsandOils <- 1\*(FOOD2013$hh\_s5bq00==13 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI14\_DairyProducts <- 1\*(FOOD2013$hh\_s5bq00==14 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI15\_Condiments <- 1\*(FOOD2013$hh\_s5bq00==15 & FOOD2013$hh\_s5bq01==1)

> FOOD2013$FI16\_KochoandBula <- 1\*(FOOD2013$hh\_s5bq00==16 & FOOD2013$hh\_s5bq01==1)

>

> NUTR2013a <- aggregate(FI01\_Enjera ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- NUTR2013a; rm(NUTR2013a)

> NUTR2013a <- aggregate(FI02\_OtherCereals ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI03\_Potatoes ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI04\_Pasta ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI05\_Sugar ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI06\_PulsesandNuts ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI07\_Vegetables ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI08\_Fruits ~ household\_id, FOOD2013, sum)

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI09\_RedMeat ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI10\_Poultry ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI11\_Eggs ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI12\_Fish ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013a <- aggregate(FI13\_FatsandOils ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI14\_DairyProducts ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI15\_Condiments ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

> NUTR2013a <- aggregate(FI16\_KochoandBula ~ household\_id, FOOD2013, sum)

> NUTR2013a <- NUTR2013a[2:3777,]

> NUTR2013 <- left\_join(NUTR2013, NUTR2013a); rm(NUTR2013a)

Joining, by = "household\_id"

>

> NUTR2013$FVS16 <- rowSums(NUTR2013[2:17])

>

> # descriptives of food group dummy variables and FVS and DDS

> descriptive.table(vars = d(FI01\_Enjera, FI02\_OtherCereals, FI03\_Potatoes, FI04\_Pasta, FI05\_Sugar, FI06\_PulsesandNuts,

+ FI07\_Vegetables, FI08\_Fruits, FI09\_RedMeat, FI10\_Poultry, FI11\_Eggs, FI12\_Fish,

+ FI13\_FatsandOils, FI14\_DairyProducts, FI15\_Condiments, FI16\_KochoandBula, FVS16),data= NUTR2013,

+ func.names = c("Mean","St. Deviation", "Min", "Max", "Valid N"))

$`strata: all cases `

Mean St. Deviation Min Max Valid N

FI01\_Enjera 0.45656780 0.4981760 0 1 3776

FI02\_OtherCereals 0.91631356 0.2769537 0 1 3776

FI03\_Potatoes 0.30879237 0.4620565 0 1 3776

FI04\_Pasta 0.21345339 0.4097994 0 1 3776

FI05\_Sugar 0.51774364 0.4997512 0 1 3776

FI06\_PulsesandNuts 0.64221398 0.4794122 0 1 3776

FI07\_Vegetables 0.48066737 0.4996923 0 1 3776

FI08\_Fruits 0.21689619 0.4121859 0 1 3776

FI09\_RedMeat 0.20815678 0.4060433 0 1 3776

FI10\_Poultry 0.02966102 0.1696728 0 1 3776

FI11\_Eggs 0.14618644 0.3533398 0 1 3776

FI12\_Fish 0.01694915 0.1290980 0 1 3776

FI13\_FatsandOils 0.81461864 0.3886581 0 1 3776

FI14\_DairyProducts 0.40413136 0.4907881 0 1 3776

FI15\_Condiments 0.95153602 0.2147730 0 1 3776

FI16\_KochoandBula 0.18458686 0.3880134 0 1 3776

FVS16 6.50847458 2.3091943 0 15 3776

$`strata: all cases `

Mean St. Deviation Min Max Valid N

cereals 0.97404661 0.1590173 0 1 3776

rootsandtubers 0.44226695 0.4967215 0 1 3776

FI07\_Vegetables 0.48066737 0.4996923 0 1 3776

FI08\_Fruits 0.21689619 0.4121859 0 1 3776

meat 0.22537076 0.4178816 0 1 3776

FI11\_Eggs 0.14618644 0.3533398 0 1 3776

FI12\_Fish 0.01694915 0.1290980 0 1 3776

FI06\_PulsesandNuts 0.64221398 0.4794122 0 1 3776

FI14\_DairyProducts 0.40413136 0.4907881 0 1 3776

FI13\_FatsandOils 0.81461864 0.3886581 0 1 3776

FI05\_Sugar 0.51774364 0.4997512 0 1 3776

FI15\_Condiments 0.95153602 0.2147730 0 1 3776

DDS12 5.83262712 1.9186240 0 12 3776

FVS16 6.50847458 2.3091943 0 15 3776

2011 FCS

$`strata: all cases `

Mean St. Deviation Min Max Skew Valid N

FI01\_Enjera 2.26381781 3.0345255 0 7 0.7710340 3908

FI02\_OtherCereals 5.43981600 2.4811187 0 7 -1.2593271 3913

FI03\_Potatoes 0.98644501 1.8737514 0 7 2.0134472 3910

FI04\_Pasta 0.45396419 1.2353220 0 7 3.4499071 3910

FI05\_Sugar 2.54398977 3.1027403 0 7 0.5744818 3910

FI06\_PulsesandNuts 3.01150013 2.9367255 0 7 0.2975159 3913

FI07\_Vegetables 2.08842320 2.8049860 0 7 0.9006020 3913

FI08\_Fruits 0.38778119 1.0974897 0 7 3.8055698 3912

FI09\_RedMeat 0.72041912 1.4214378 0 7 2.1921773 3913

FI10\_Poultry 0.06083845 0.3420278 0 7 9.1149095 3912

FI11\_Eggs 0.31543967 0.9458285 0 7 3.9734516 3912

FI12\_Fish 0.07312708 0.6054074 0 7 9.7768676 3911

FI13\_FatsandOils 4.79095323 2.9564407 0 7 -0.7885203 3913

FI14\_DairyProducts 2.08540015 2.8830343 0 7 0.8982158 3911

FI15\_Condiments 6.35957066 1.9028745 0 7 -2.8539437 3913

FI16\_KochoandBula 0.83204334 2.0286757 0 7 2.3327269 3876

FCS16w 48.06854630 20.8579458 0 154 0.5777287 3866

FCS16u 32.39317124 11.3370608 0 86 0.1752624 3866

FI01\_Enjera 2.26381781 3.0345255 0 7 0.7710340 3908

FI02\_OtherCereals 5.43981600 2.4811187 0 7 -1.2593271 3913

FI03\_Potatoes 0.98644501 1.8737514 0 7 2.0134472 3910

FI04\_Pasta 0.45396419 1.2353220 0 7 3.4499071 3910

FI05\_Sugar 2.54398977 3.1027403 0 7 0.5744818 3910

FI06\_PulsesandNuts 3.01150013 2.9367255 0 7 0.2975159 3913

FI07\_Vegetables 2.08842320 2.8049860 0 7 0.9006020 3913

FI08\_Fruits 0.38778119 1.0974897 0 7 3.8055698 3912

FI09\_RedMeat 0.72041912 1.4214378 0 7 2.1921773 3913

FI10\_Poultry 0.06083845 0.3420278 0 7 9.1149095 3912

FI11\_Eggs 0.31543967 0.9458285 0 7 3.9734516 3912

FI12\_Fish 0.07312708 0.6054074 0 7 9.7768676 3911

FI13\_FatsandOils 4.79095323 2.9564407 0 7 -0.7885203 3913

FI14\_DairyProducts 2.08540015 2.8830343 0 7 0.8982158 3911

FI15\_Condiments 6.35957066 1.9028745 0 7 -2.8539437 3913

FI16\_KochoandBula 0.83204334 2.0286757 0 7 2.3327269 3876

FCS16w 48.06854630 20.8579458 0 154 0.5777287 3866

FCS16u 32.39317124 11.3370608 0 86 0.1752624 3866

$`strata: all cases `

Mean St. Deviation Min Max Skew Valid N

FI01\_Enjera 2.57033113 3.1323515 0 7 0.565635078 3775

FI02\_OtherCereals 5.58039735 2.3236617 0 7 -1.379692953 3775

FI03\_Potatoes 1.08185430 1.9458561 0 7 1.848366068 3775

FI04\_Pasta 0.54001060 1.2586787 0 7 2.898518205 3774

FI05\_Sugar 3.00529801 3.1908012 0 7 0.281718931 3775

FI06\_PulsesandNuts 3.29358771 2.9459620 0 7 0.120669459 3774

FI07\_Vegetables 2.35523179 2.8969510 0 7 0.708424587 3775

FI08\_Fruits 0.59390728 1.4033479 0 7 2.886828567 3775

FI09\_RedMeat 0.51125828 1.1701181 0 7 2.621842723 3775

FI10\_Poultry 0.04529801 0.3186709 0 7 11.244356284 3775

FI11\_Eggs 0.32529801 0.9450361 0 7 3.697327425 3775

FI12\_Fish 0.07205298 0.6173609 0 7 9.540574129 3775

FI13\_FatsandOils 5.21218543 2.7857157 0 7 -1.120106871 3775

FI14\_DairyProducts 2.08238411 2.8930494 0 7 0.903942700 3775

FI15\_Condiments 6.53430464 1.5996578 0 7 -3.530695163 3775

FI16\_KochoandBula 0.90527992 2.0983757 0 7 2.164691808 3769

FCS16w 50.44597823 20.6728414 0 182 0.481823145 3767

FCS16u 34.71276878 10.9568896 0 91 -0.003111713 3767

CSI

use D:\Analyses\CIMMYT\NutritionETH\SurveyData\2011\Data\sect7\_hh\_w1.dta

. sum hh\_s7q01 hh\_s7q02\_a hh\_s7q02\_b hh\_s7q02\_c hh\_s7q02\_d hh\_s7q02\_e hh\_s7q02\_f hh\_s7q02\_g hh\_s7q02\_h

Variable | Obs Mean Std. Dev. Min Max

-------------+--------------------------------------------------------

hh\_s7q01 | 3912 1.828476 .3783679 0 2

hh\_s7q02\_a | 3728 .8162554 1.755908 0 7

hh\_s7q02\_b | 3720 .7793011 1.673529 0 7

hh\_s7q02\_c | 3716 .6493541 1.53085 0 7

hh\_s7q02\_d | 3708 .5666127 1.397187 0 7

-------------+--------------------------------------------------------

hh\_s7q02\_e | 3684 .3189468 1.116392 0 7

hh\_s7q02\_f | 3663 .1880972 .7937841 0 7

hh\_s7q02\_g | 3655 .0834473 .4642527 0 7

hh\_s7q02\_h | 3649 .0591943 .3485614 0 5

. use D:\Analyses\CIMMYT\NutritionETH\SurveyData\2013\Data\Household\sect7\_hh\_w2.dta

. sum hh\_s7q01 hh\_s7q02\_a hh\_s7q02\_b hh\_s7q02\_c hh\_s7q02\_d hh\_s7q02\_e hh\_s7q02\_f hh\_s7q02\_g hh\_s7q02\_h

Variable | Obs Mean Std. Dev. Min Max

-------------+--------------------------------------------------------

hh\_s7q01 | 5260 1.843536 .3669743 0 5

hh\_s7q02\_a | 5244 .6540809 1.593575 0 7

hh\_s7q02\_b | 5244 .5101068 1.36511 0 7

hh\_s7q02\_c | 5242 .3975582 1.242684 0 7

hh\_s7q02\_d | 5240 .3843511 1.201253 0 7

-------------+--------------------------------------------------------

hh\_s7q02\_e | 5244 .2185355 .961351 0 7

hh\_s7q02\_f | 5239 .1290323 .745199 0 7

hh\_s7q02\_g | 5235 .0634193 .494321 0 7

hh\_s7q02\_h | 5238 .0202367 .2157866 0 7

2011



2013



|  |  |  |
| --- | --- | --- |
| Question | Item | Weight |
| A | Rely on less preferred foods | 1 |
| B | Limit the variety of foods eaten | 1 |
| C | Limit portion size at meal times | 1 |
| D | Reduce number of meals eaten in a day | 1 |
| E | Restrict consumption by adults for small children to eat | 3 |
| F | Borrow food, or rely on help from a friend or relative | 2 |
| G | Have no food of any kind in your household | 0 |
| H | Go a whole day and night without eating anything | 4 |

2011

$`strata: all cases `

Mean St. Deviation Min Max Skew Valid N

hh\_s7q02\_a 0.81625536 1.7559080 0 7 2.420762 3728

hh\_s7q02\_b 0.77930108 1.6735294 0 7 2.390528 3720

hh\_s7q02\_c 0.64935414 1.5308500 0 7 2.761104 3716

hh\_s7q02\_d 0.56661273 1.3971865 0 7 2.969666 3708

hh\_s7q02\_e 0.31894680 1.1163920 0 7 4.328494 3684

hh\_s7q02\_f 0.18809719 0.7937841 0 7 5.607286 3663

hh\_s7q02\_g 0.08344733 0.4642527 0 7 7.415327 3655

hh\_s7q02\_h 0.05919430 0.3485614 0 5 6.557763 3649

2013

$`strata: all cases `

Mean St. Deviation Min Max Skew Valid N

hh\_s7q02\_a 0.65408085 1.5935751 0 7 2.749056 5244

hh\_s7q02\_b 0.51010679 1.3651101 0 7 3.161782 5244

hh\_s7q02\_c 0.39755818 1.2426843 0 7 3.833542 5242

hh\_s7q02\_d 0.38435115 1.2012525 0 7 3.824396 5240

hh\_s7q02\_e 0.21853547 0.9613510 0 7 5.268004 5244

hh\_s7q02\_f 0.12903226 0.7451990 0 7 7.324559 5239

hh\_s7q02\_g 0.06341929 0.4943210 0 7 10.800133 5235

hh\_s7q02\_h 0.02023673 0.2157866 0 7 14.964719 5238

CSI 2.92853037 7.0797129 0 91 3.819496 5219