

Package ‘oldr’

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Title An Implementation of Rapid Assessment Method for Older People

Version 0.2.4

Description An implementation of the Rapid Assessment Method for Older People or RAM-OP <<https://www.helpage.org/resource/rapid-assessment-method-for-older-people-ramop-manual/>>. It provides various functions that allow the user to design and plan the assessment and analyse the collected data. RAM-OP provides accurate and reliable estimates of the needs of older people.

License GPL-3

Depends R (>= 4.2.0)

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<https://github.com/rapidsurveys/oldr>

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chart_op_age	<i>Plot RAM-OP indicators</i>
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Description

The plots include:

- Age by sex (pyramid plot) - a wrapper function to the `pyramid_plot()` function to create an age by sex pyramid plot
- Distribution of MUAC (overall and by sex) - histogram of MUAC distribution
- Distribution of meal frequency (overall and by sex)
- Distribution of dietary diversity score (overall and by sex)
- Distribution of K6 (overall and by sex)
- Distribution of ADL (overall and by sex)
- Plot of WASH indicators
- Plot of dementia screen (CSID) indicators
- Plot of disability (Washington Group - WG) indicators
- Plot of household hunger scale (HHS) indicators
- Plot of income indicators

Usage

```

chart_op_age(
  x,
  save_chart = TRUE,
  filename = file.path(tempdir(), "populationPyramid")
)

chart_op_muac(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_mf(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_dds(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_k6(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_adl(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_wash(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_csid(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_wg(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_hhs(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

chart_op_income(x, save_chart = TRUE, filename = file.path(tempdir(), "chart"))

```

Arguments

x	Indicators dataset produced by create_op()
save_chart	Logical. Should chart be saved? Default is TRUE.
filename	Prefix to add to output chart filename or a directory path to save output to instead of working directory. Default is a path to a temporary directory and a suggested filename. Ignored if save_chart is FALSE.

Value

The respective plot in PNG format saved in the specified path if filename is a path unless when save_chart is FALSE in which case the plot is shown on current graphics device

Examples

```

# Create age by sex pyramid plot using indicators.ALL dataset
chart_op_age(x = indicators.ALL)

# Create MUAC histogram using indicators.ALL dataset
chart_op_muac(x = indicators.ALL)

# Create meal frequency chart using indicators.ALL dataset

```

```

chart_op_mf(x = indicators.ALL)

# Create DDS chart using indicators.ALL dataset
chart_op_dds(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_k6(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_adl(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_wash(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_csid(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_wg(x = indicators.ALL)

# Create chart using indicators.ALL dataset
chart_op_hhs(x = indicators.ALL)

# Create chart using indicators.FEMALES and indicators.MALES
# dataset
chart_op_income(x = indicators.ALL)

```

create_op

Create older people indicators dataset from survey data collected using the standard RAM-OP questionnaire.

Description

The indicator sets covered by the standard RAM-OP survey are:

- Demographic indicators
- Dietary intake indicators
- Household hunger scale
- Katz Index of Independence in Activities of Daily Living score
- K6 Short form psychological distress score
- Brief Community Screening Instrument for Dementia (CSID)
- Health and health-seeking indicators
- Income and income sources
- Water, sanitation and hygiene (WASH) indicators
- Anthropometry and screening
- Visual impairment by "Tumbling E" method
- Miscellaneous indicators
- Washington Group on Disability

Usage

```

create_op(
  svy,
  indicators = c("demo", "food", "hunger", "disability", "adl", "mental", "dementia",
    "health", "income", "wash", "anthro", "oedema", "screening", "visual", "misc"),
  sex = c("mf", "m", "f")
)

create_op_demo(svy, sex = c("mf", "m", "f"))

create_op_food(svy, sex = c("mf", "m", "f"))

create_op_hunger(svy, sex = c("mf", "m", "f"))

create_op_adl(svy, sex = c("mf", "m", "f"))

create_op_disability(svy, sex = c("mf", "m", "f"))

create_op_mental(svy, sex = c("mf", "m", "f"))

create_op_dementia(svy, sex = c("mf", "m", "f"))

create_op_health(svy, sex = c("mf", "m", "f"))

create_op_income(svy, sex = c("mf", "m", "f"))

create_op_wash(svy, sex = c("mf", "m", "f"))

create_op_anthro(svy, sex = c("mf", "m", "f"))

create_op_oedema(svy, sex = c("mf", "m", "f"))

create_op_screening(svy, sex = c("mf", "m", "f"))

create_op_visual(svy, sex = c("mf", "m", "f"))

create_op_misc(svy, sex = c("mf", "m", "f"))

```

Arguments

svy	A <code>data.frame()</code> collected using the standard RAM-OP questionnaire.
indicators	A character vector of indicator set names. The vector may include one or more of the following: <i>demo</i> , <i>food</i> , <i>hunger</i> , <i>disability</i> , <i>adl</i> , <i>mental</i> , <i>dementia</i> , <i>health</i> , <i>income</i> , <i>wash</i> , <i>anthro</i> , <i>oedema</i> , <i>screening</i> , <i>visual</i> , <i>misc</i> . Default is all indicator set names.
sex	A character value of <i>m</i> , <i>f</i> , or <i>mf</i> to indicate whether to report indicators for <i>males</i> , <i>females</i> , or <i>both</i> respectively. Default is <i>mf</i> for both sexes.

Value

A `tibble::tibble()` of older people indicators.

Demographic indicators

Variable	Description
psu	Primary sampling unit
resp1	Respondent is SUBJECT
resp2	Respondent is FAMILY CARER
resp3	Respondent is OTHER CARER
resp4	Respondent is OTHER
age	Age of respondent (years)
ageGrp1	Age of respondent is between 50 and 59 years
ageGrp2	Age of respondent is between 60 and 69 years
ageGrp3	Age of respondent is between 70 and 79 years
ageGrp4	Age of respondent is between 80 and 89 years
ageGrp5	Age of respondent is between 90 years and older
sex1	Male
sex2	Female
marital1	Marital status = SINGLE
marital2	Marital status = MARRIED
marital3	Marital status = LIVING TOGETHER
marital4	Marital status = DIVORCED
marital5	Marital status = SEPARATED
marital6	Marital status = OTHER
alone	Respondent lives alone

Dietary intake indicators

These dietary intake indicators have been purpose-built for older people but the basic approach used is described in:

Kennedy G, Ballard T, Dop M C (2011). Guidelines for Measuring Household and Individual Dietary Diversity. Rome, FAO <https://www.fao.org/4/i1983e/i1983e00.htm>

and extended to include indicators of probable adequate intake of a number of nutrients / micronutrients.

Variable	Description
MF	Meal frequency
DDS	Dietary Diversity Score (count of 11 groups)
FG01	Cereals
FG02	Roots and tubers
FG03	Fruits and vegetables
FG04	All meat
FG05	Eggs

FG06	Fish
FG07	Legumes, nuts and seeds
FG08	Milk and milk products
FG09	Fats
FG10	Sugar
FG11	Other
proteinRich	Protein rich foods
pProtein	Protein rich plant sources of protein
aProtein	Protein rich animal sources of protein
pVita	Plant sources of vitamin A
aVita	Animal sources of vitamin A
xVita	Any source of vitamin A
ironRich	Iron rich foods
caRich	Calcium rich foods
znRich	Zinc rich foods
vitB1	Vitamin B1-rich foods
vitB2	Vitamin B2-rich foods
vitB3	Vitamin B3-rich foods
vitB6	Vitamin B6-rich foods
vitB12	Vitamin B12-rich foods
vitBcomplex	Vitamin B1/B2/B3/B6/B12-rich foods

Household Hunger Scale (HHS)

The HHS is described in:

Ballard T, Coates J, Swindale A, Deitchler M (2011). *Household Hunger Scale: Indicator Definition and Measurement Guide*. Washington DC, FANTA-2 Bridge, FHI 360 <https://index.nutrition.tufts.edu/data4diets/indicator/household-hunger-scale-hhs>

Variable	Description
HHS1	Little or no hunger in household
HHS2	Moderate hunger in household
HHS3	Severe hunger in household

Katz Index of Independence in Activities of Daily Living score

The Katz ADL score is described in:

Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW (1963). *Studies of illness in the aged. The Index of ADL: a standardized measure of biological and psychosocial function*. *JAMA*, 1963, 185(12):914-9 [doi:10.1001/jama.1963.03060120024016](https://doi.org/10.1001/jama.1963.03060120024016)

Katz S, Down TD, Cash HR, Grotz, RC (1970). *Progress in the development of the index of ADL*. *The Gerontologist*, 10(1), 20-30 [doi:10.1093/geront/10.4_Part_1.274](https://doi.org/10.1093/geront/10.4_Part_1.274)

Katz S (1983). *Assessing self-maintenance: Activities of daily living, mobility and instrumental activities of daily living*. *JAGS*, 31(12), 721-726 [doi:10.1111/j.15325415.1983.tb03391.x](https://doi.org/10.1111/j.15325415.1983.tb03391.x)

Variable	Description
ADL01	Bathing
ADL02	Dressing
ADL03	Toileting
ADL04	Transferring (mobility)
ADL05	Continence
ADL06	Feeding
scoreADL	ADL Score
classADL1	Severity of dependence 1
classADL2	Severity of dependence 2
classADL3	Severity of dependence 3
hasHelp	Have someone to help with everyday activities
unmetNeed	Need help but has no helper

K6 Short form psychological distress score

The K6 score is described in:

Kessler RC, Andrews G, Colpe LJ, Hiripi E, Mroczek, DK, Normand SLT, et al. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological Medicine, 32(6), 959–976 doi:10.1017/S0033291702006074

Variable	Description
K6	K6 score
K6Case	K6 score > 12 (in serious psychological distress)

Brief Community Screening Instrument for Dementia (CSID)

The CSID dementia screening tool is described in:

Prince M, et al. (2010). A brief dementia screener suitable for use by non-specialists in resource poor settings - The cross-cultural derivation and validation of the brief Community Screening Instrument for Dementia. International Journal of Geriatric Psychiatry, 26(9), 899–907 doi:10.1002/gps.2622

Variable	Description
DS	Probable dementia by CSID screen

Health and health-seeking indicators

Variable	Description
H1	Chronic condition
H2	Takes drugs regularly for chronic condition
H31	No drugs available
H32	Too expensive / no money
H33	Too old to look for care

H34	Use traditional medicine
H35	Drugs don't help
H36	No-one to help me
H37	No need
H38	Other
H39	No reason given
H4	Recent disease episode
H5	Accessed care for recent disease episode
H61	No drugs available
H62	Too expensive / no money
H63	Too old to look for care
H64	Use traditional medicine
H65	Drugs don't help
H66	No-one to help me
H67	No need
H68	Other
H69	No reason given

Income and income sources

Variable	Description
M1	Has a personal income
M2A	Agriculture / fishing / livestock
M2B	Wages / salary
M2C	Sale of charcoal / bricks / etc.
M2D	Trading (e.g. market or shop)
M2E	Investments
M2F	Spending savings / sale of assets
M2G	Charity
M2H	Cash transfer / Social security
M2I	Other

Water, sanitation and hygiene (WASH) indicators

These are a (core) subset of indicators from:

WHO / UNICEF (2006). Core Questions on Drinking-water and Sanitation for Household Surveys. Geneva, WHO / UNICEF <https://www.who.int/publications/i/item/9241563265>

Variable	Description
W1	Improved source of drinking water
W2	Safe drinking water (improved source OR adequate treatment)

W3	Improved sanitation facility
W4	Improved non-shared sanitation facility

Anthropometry and screening

Variable	Description
MUAC	Mid-upper arm circumference (mm)
oedema	Bilateral pitting oedema (may not be nutritional)
screened	Either MUAC or oedema checked previously

Visual impairment by "Tumbling E" method

The "Tumbling E" method is described in:

Taylor HR (1978). Applying new design principles to the construction of an illiterate E Chart. Am J Optom & Physiol Optics 55:348

Variable	Description
poorVA	Poor visual acuity (correct in < 3 of 4 tests)

Miscellaneous indicators

Variable	Description
chew	Problems chewing food
food	Anyone in HH receives a ration
NFRI	Anyone in HH received non-food relief item/s (NFRI) in previous month

Washington Group on Disability

See:

<https://www.washingtongroup-disability.com/>

for details.

Variable	Description
wgVisionD0	Vision domain 0
wgVisionD1	Vision domain 1
wgVisionD2	Vision domain 2
wgVisionD3	Vision domain 3
wgHearingD0	Hearing domain 0

wgHearingD1	Hearing domain 1
wgHearingD2	Hearing domain 2
wgHearingD3	Hearing domain 3
wgMobilityD0	Mobility domain 0
wgMobilityD1	Mobility domain 1
wgMobilityD2	Mobility domain 2
wgMobilityD3	Mobility domain 3
wgRememberingD0	Remembering domain 0
wgRememberingD1	Remembering domain 1
wgRememberingD2	Remembering domain 2
wgRememberingD3	Remembering domain 3
wgSelfCareD0	Self-care domain 0
wgSelfCareD1	Self-care domain 1
wgSelfCareD2	Self-care domain 2
wgSelfCareD3	Self-care domain 3
wgCommunicatingD0	Communication domain 0
wgCommunicatingD1	Communication domain 1
wgCommunicatingD2	Communication domain 2
wgCommunicatingD3	Communication domain 3
wgP0	Overall 0
wgP1	Overall 1
wgP2	Overall 2
wgP3	Overall 3
wgPM	Any disability

Examples

```
# Create indicators dataset from RAM-OP survey data collected from
# Addis Ababa, Ethiopia
create_op(testSVY)
create_op(testSVY, indicators = "demo")
create_op(testSVY, indicators = "hunger", sex = "m")
```

estimate_classic	<i>Apply bootstrap to RAM-OP indicators using a classical estimator.</i>
------------------	--

Description

Apply bootstrap to RAM-OP indicators using a classical estimator.

Usage

```
estimate_classic(
  x,
  w,
```

```

  statistic = bbw::bootClassic,
  indicators = c("demo", "food", "hunger", "adl", "disability", "mental", "dementia",
    "health", "oedema", "screening", "income", "wash", "visual", "misc"),
  params = get_variables(indicators),
  outputColumns = params,
  replicates = 399
)

```

Arguments

x	Indicators dataset produced by <code>create_op()</code> with primary sampling unit (PSU) in column named "psu".
w	A data frame with primary sampling unit (PSU) in column named "psu" and survey weight (i.e. PSU population) in column named "pop".
statistic	A function operating on data in x. Fixed to <code>bbw::bootClassic()</code> function for means.
indicators	A character vector of indicator set names to estimate. Indicator set names are "demo", "food", "hunger", "disability", "adl", "mental", "dementia", "health", "income", "wash", "visual", and "misc". Default is all indicator sets.
params	Parameters (named columns in x) passed to the function specified in statistic. This is equivalent to variables corresponding to the indicator sets specified in indicators. The function <code>get_variables()</code> is used to specify these variables.
outputColumns	Names of columns in output data frame. This defaults to values specified in params.
replicates	Number of bootstrap replicates

Value

A `tibble::tibble()` of boot estimates using `bbw::bootClassic()` mean function

Examples

```

test <- estimate_classic(
  x = indicators.ALL, w = testPSU, replicates = 9
)

test

```

estimate_op

Estimate all standard RAM-OP indicators

Description

Estimate all standard RAM-OP indicators

Usage

```
estimate_op(
  x,
  w,
  indicators = c("demo", "anthro", "food", "hunger", "adl", "disability", "mental",
    "dementia", "health", "oedema", "screening", "income", "wash", "visual", "misc"),
  replicates = 399
)
```

Arguments

x	Indicators dataset produced by <code>create_op()</code> with primary sampling unit (PSU) in column named "psu"
w	A data frame with primary sampling unit (PSU) in column named "psu" and survey weight (i.e. PSU population) in column named "pop".
indicators	A character vector of indicator set names to estimate. Indicator set names are "demo", "anthro", "food", "hunger", "disability", "adl", "mental", "dementia", "health", "income", "wash", "visual", and "misc". Default is all indicator sets.
replicates	Number of bootstrap replicates. Default is 399.

Value

A `tibble::tibble()` of boot estimates for all specified standard RAM-OP indicators.

Examples

```
estimate_op(x = create_op(testSVY), w = testPSU, replicates = 9)
```

estimate_probit	<i>Apply bootstrap to RAM-OP indicators using a PROBIT estimator.</i>
-----------------	---

Description

Apply bootstrap to RAM-OP indicators using a PROBIT estimator.

Usage

```
estimate_probit(
  x,
  w,
  gam.stat = probit_gam,
  sam.stat = probit_sam,
  params = "MUAC",
  outputColumns = params,
  replicates = 399
)
```

Arguments

x	Indicators dataset produced by <code>create_op()</code> with primary sampling unit (PSU) in column named "psu".
w	A data frame with primary sampling unit (PSU) in column named "psu" and survey weight (i.e. PSU population) in column named "pop".
gam.stat	A function operating on data in x to estimate GAM prevalence for older people. Fixed to <code>probit_gam()</code> .
sam.stat	A function operating on data in x to estimate SAM prevalence for older people. Fixed to <code>probit_sam()</code> .
params	Parameters (named columns in x) passed to the function specified in <code>statistic</code> ; fixed to "MUAC" as indicator amenable to probit estimation.
outputColumns	Names of columns in output data frame.
replicates	Number of bootstrap replicate case and non-case.

Value

A `tibble::tibble()` of boot estimates using PROBIT.

Examples

```
test <- estimate_probit(x = indicators.ALL, w = testPSU, replicates = 3)

test
```

indicators.ALL	<i>RAM-OP Indicators Dataset - ALL</i>
----------------	--

Description

Indicators dataset calculated from a dataset collected from a RAM-OP survey conducted in Addis Ababa, Ethiopia in early 2014

Usage

```
indicators.ALL
```

Format

A data frame with 138 columns and 192 rows:

```
psu Cluster (PSU) identifier
resp1 Respondent is SUBJECT
resp2 Respondent is FAMILY CARER
resp3 Respondent is OTHER CARER
```

resp4 Respondent is OTHER
age Age of respondents (years)
ageGrp1 Age of respondent is between 50 and 59 years
ageGrp2 Age of respondent is between 60 and 69 years
ageGrp3 Age of respondent is between 70 and 79 years
ageGrp4 Age of respondent is between 80 and 89 years
ageGrp5 Age of respondent is 90 years or older
sex1 Sex = MALE
sex2 Sex = FEMALE
marital1 Marital status = SINGLE
marital2 Marital status = MARRIED
marital3 Marital status = LIVING TOGETHER
marital4 Marital status = DIVORCED
marital5 Marital status = WIDOWED
marital6 Marital status = OTHER
alone Respondent lives alone
MF Meal frequency
DDS DDS (count of 11 groups)
FG01 Cereals
FG02 Roots and tubers
FG03 Fruits and vegetables
FG04 All meat
FG05 Eggs
FG06 Fish
FG07 Legumes, nuts, and seeds
FG08 Milk and milk products
FG09 Fats
FG10 Sugar
FG11 Other
proteinRich Protein rich animal sources of protein
pProtein Protein rich plant sources of protein
aProtein Protein rich animal sources of protein
pVita Plant sources of vitamin A
aVita Animal sources of vitamin A
xVita Any source of vitamin A
ironRich Iron rich foods
caRich Calcium rich foods

znRich Zinc rich foods
vitB1 Vitamin B1-rich foods
vitB2 Vitamin B2-rich foods
vitB3 Vitamin B3-rich foods
vitB6 Vitamin B6-rich foods
vitB12 Vitamin B12-rich foods
vitBcomplex Vitamin B1/B2/B3/B6/B12-rich foods
HHS1 Little or no hunger in household
HHS2 Moderate hunger in household
HHS3 Severe hunger in household
ADL01 Bathing
ADL02 Dressing
ADL03 Toileting
ADL04 Transferring (mobility)
ADL05 Continence
ADL06 Feeding
scoreADL ADL score
classADL1 Severity of dependence = INDEPENDENT
classADL2 Severity of dependence = PARTIAL DEPENDENCY
classADL3 Severity of dependence = SEVERE DEPENDENCY
hasHelp Has someone to help with ADL
unmetNeed Unmet need (dependency with NO helper)
K6 K6 score
K6Case K6 score > 12 (in serious psychological distress)
DS Probable dementia by CSID screen
H1 Chronic condition
H2 Takes drugs regularly for chronic condition
H31 Main reason for not taking drugs for chronic condition: No drugs available
H32 Main reason for not taking drugs for chronic condition: Too expensive / no money
H33 Main reason for not taking drugs for chronic condition: Too old to look for care
H34 Main reason for not taking drugs for chronic condition: Use traditional medicine
H35 Main reason for not taking drugs for chronic condition: Drugs don't help
H36 Main reason for not taking drugs for chronic condition: No one to help me
H37 Main reason for not taking drugs for chronic condition: No need
H38 Main reason for not taking drugs for chronic condition: Other
H39 Main reason for not taking drugs for chronic condition: No reason given
H4 Recent disease episode

H5 Accessed care for recent disease episode
H61 Main reason for not accessing care for recent disease episode: No drugs available
H62 Main reason for not accessing care for recent disease episode: Too expensive / no money
H63 Main reason for not accessing care for recent disease episode: Too old to look for care
H64 Main reason for not accessing care for recent disease episode: Use traditional medicine
H65 Main reason for not accessing care for recent disease episode: Drugs don't help
H66 Main reason for not accessing care for recent disease episode: No one to help me
H67 Main reason for not accessing care for recent disease episode: No need
H68 Main reason for not accessing care for recent disease episode: Other
H69 Main reason for not accessing care for recent disease episode: No reason given
M1 Has a personal income
M2A Agriculture / fishing / livestock
M2B Wages / salary
M2C Sale of charcoal / bricks / etc
M2D Trading (e.g. market or shop)
M2E Investments
M2F Spending savings / sale of assets
M2G Charity
M2H Cash transfer / Social security
M2I Other
W1 Improved source of drinking water
W2 Safe drinking water (improved source OR adequate treatment)
W3 Improved sanitation facility
W4 Improved non-shared sanitation facility
MUAC Mid-upper arm circumference (mm)
oedema Presence of oedema
screened Screened with oedema check and MUAC measurement in previous month
poorVA Poor visual acuity
chew Problems chewing food
food Anyone in household receives a ration
NFRI Anyone in HH received non-food relief item(s) in previous month
wgVisionD0 Vision domain 0
wgVisionD1 Vision domain 1
wgVisionD2 Vision domain 2
wgVisionD3 Vision domain 3
wgHearingD0 Hearing domain 0
wgHearingD1 Hearing domain 1

wgHearingD2 Hearing domain 2
wgHearingD3 Hearing domain 3
wgMobilityD0 Mobility domain 0
wgMobilityD1 Mobility domain 1
wgMobilityD2 Mobility domain 2
wgMobilityD3 Mobility domain 3
wgRememberingD0 Remembering domain 0
wgRememberingD1 Remembering domain 1
wgRememberingD2 Remembering domain 2
wgRememberingD3 Remembering domain 3
wgSelfCareD0 Self-care domain 0
wgSelfCareD1 Self-care domain 1
wgSelfCareD2 Self-care domain 2
wgSelfCareD3 Self-care domain 3
wgCommunicatingD0 Communicating domain 0
wgCommunicatingD1 Communicating domain 1
wgCommunicatingD2 Communicating domain 2
wgCommunicatingD3 Communicating domain 3
wgP0 Overall prevalence 0
wgP1 Overall prevalence 1
wgP2 Overall prevalence 2
wgP3 Overall prevalence 3
wgPM Overall prevalence

Examples

indicators.ALL

indicators.FEMALES *RAM-OP Indicators Dataset - FEMALES*

Description

Indicators dataset calculated from a dataset collected from a RAM-OP survey conducted in Addis Ababa, Ethiopia in early 2014. This indicator dataset is from the subset of women/females of the total sample.

Usage

indicators.FEMALES

Format

A data frame with 138 columns and 113 rows:

psu Cluster (PSU) identifier
resp1 Respondent is SUBJECT
resp2 Respondent is FAMILY CARER
resp3 Respondent is OTHER CARER
resp4 Respondent is OTHER
age Age of respondents (years)
ageGrp1 Age of respondent is between 50 and 59 years
ageGrp2 Age of respondent is between 60 and 69 years
ageGrp3 Age of respondent is between 70 and 79 years
ageGrp4 Age of respondent is between 80 and 89 years
ageGrp5 Age of respondent is 90 years or older
sex1 Sex = MALE
sex2 Sex = FEMALE
marital1 Marital status = SINGLE
marital2 Marital status = MARRIED
marital3 Marital status = LIVING TOGETHER
marital4 Marital status = DIVORCED
marital5 Marital status = WIDOWED
marital6 Marital status = OTHER
alone Respondent lives alone
MF Meal frequency
DDS DDS (count of 11 groups)
FG01 Cereals
FG02 Roots and tubers
FG03 Fruits and vegetables
FG04 All meat
FG05 Eggs
FG06 Fish
FG07 Legumes, nuts, and seeds
FG08 Milk and milk products
FG09 Fats
FG10 Sugar
FG11 Other
proteinRich Protein rich animal sources of protein
pProtein Protein rich plant sources of protein

aProtein Protein rich animal sources of protein
 pVita Plant sources of vitamin A
 aVita Animal sources of vitamin A
 xVita Any source of vitamin A
 ironRich Iron rich foods
 caRich Calcium rich foods
 znRich Zinc rich foods
 vitB1 Vitamin B1-rich foods
 vitB2 Vitamin B2-rich foods
 vitB3 Vitamin B3-rich foods
 vitB6 Vitamin B6-rich foods
 vitB12 Vitamin B12-rich foods
 vitBcomplex Vitamin B1/B2/B3/B6/B12-rich foods
 HHS1 Little or no hunger in household
 HHS2 Moderate hunger in household
 HHS3 Severe hunger in household
 ADL01 Bathing
 ADL02 Dressing
 ADL03 Toileting
 ADL04 Transferring (mobility)
 ADL05 Continence
 ADL06 Feeding
 scoreADL ADL score
 classADL1 Severity of dependence = INDEPENDENT
 classADL2 Severity of dependence = PARTIAL DEPENDENCY
 classADL3 Severity of dependence = SEVERE DEPENDENCY
 hasHelp Has someone to help with ADL
 unmetNeed Unmet need (dependency with NO helper)
 K6 K6 score
 K6Case K6 score > 12 (in serious psychological distress)
 DS Probable dementia by CSID screen
 H1 Chronic condition
 H2 Takes drugs regularly for chronic condition
 H31 Main reason for not taking drugs for chronic condition: No drugs available
 H32 Main reason for not taking drugs for chronic condition: Too expensive / no money
 H33 Main reason for not taking drugs for chronic condition: Too old to look for care
 H34 Main reason for not taking drugs for chronic condition: Use traditional medicine

H35 Main reason for not taking drugs for chronic condition: Drugs don't help
H36 Main reason for not taking drugs for chronic condition: No one to help me
H37 Main reason for not taking drugs for chronic condition: No need
H38 Main reason for not taking drugs for chronic condition: Other
H39 Main reason for not taking drugs for chronic condition: No reason given
H4 Recent disease episode
H5 Accessed care for recent disease episode
H61 Main reason for not accessing care for recent disease episode: No drugs available
H62 Main reason for not accessing care for recent disease episode: Too expensive / no money
H63 Main reason for not accessing care for recent disease episode: Too old to look for care
H64 Main reason for not accessing care for recent disease episode: Use traditional medicine
H65 Main reason for not accessing care for recent disease episode: Drugs don't help
H66 Main reason for not accessing care for recent disease episode: No one to help me
H67 Main reason for not accessing care for recent disease episode: No need
H68 Main reason for not accessing care for recent disease episode: Other
H69 Main reason for not accessing care for recent disease episode: No reason given
M1 Has a personal income
M2A Agriculture / fishing / livestock
M2B Wages / salary
M2C Sale of charcoal / bricks / etc
M2D Trading (e.g. market or shop)
M2E Investments
M2F Spending savings / sale of assets
M2G Charity
M2H Cash transfer / Social security
M2I Other
W1 Improved source of drinking water
W2 Safe drinking water (improved source OR adequate treatment)
W3 Improved sanitation facility
W4 Improved non-shared sanitation facility
MUAC Mid-upper arm circumference (mm)
oedema Presence of oedema
screened Screened with oedema check and MUAC measurement in previous month
poorVA Poor visual acuity
chew Problems chewing food
food Anyone in household receives a ration
NFRI Anyone in HH received non-food relief item(s) in previous month

wgVisionD0 Vision domain 0
wgVisionD1 Vision domain 1
wgVisionD2 Vision domain 2
wgVisionD3 Vision domain 3
wgHearingD0 Hearing domain 0
wgHearingD1 Hearing domain 1
wgHearingD2 Hearing domain 2
wgHearingD3 Hearing domain 3
wgMobilityD0 Mobility domain 0
wgMobilityD1 Mobility domain 1
wgMobilityD2 Mobility domain 2
wgMobilityD3 Mobility domain 3
wgRememberingD0 Remembering domain 0
wgRememberingD1 Remembering domain 1
wgRememberingD2 Remembering domain 2
wgRememberingD3 Remembering domain 3
wgSelfCareD0 Self-care domain 0
wgSelfCareD1 Self-care domain 1
wgSelfCareD2 Self-care domain 2
wgSelfCareD3 Self-care domain 3
wgCommunicatingD0 Communicating domain 0
wgCommunicatingD1 Communicating domain 1
wgCommunicatingD2 Communicating domain 2
wgCommunicatingD3 Communicating domain 3
wgP0 Overall prevalence 0
wgP1 Overall prevalence 1
wgP2 Overall prevalence 2
wgP3 Overall prevalence 3
wgPM Overall prevalence

Examples

indicators.FEMALES

indicators.MALES

*RAM-OP Indicators Dataset - MALES***Description**

Indicators dataset calculated from a dataset collected from a RAM-OP survey conducted in Addis Ababa, Ethiopia in early 2014. This indicator dataset is from the subset of men/males of the total sample.

Usage

indicators.MALES

Format

A data frame with 138 columns and 113 rows:

psu Cluster (PSU) identifier
 resp1 Respondent is SUBJECT
 resp2 Respondent is FAMILY CARER
 resp3 Respondent is OTHER CARER
 resp4 Respondent is OTHER
 age Age of respondents (years)
 ageGrp1 Age of respondent is between 50 and 59 years
 ageGrp2 Age of respondent is between 60 and 69 years
 ageGrp3 Age of respondent is between 70 and 79 years
 ageGrp4 Age of respondent is between 80 and 89 years
 ageGrp5 Age of respondent is 90 years or older
 sex1 Sex = MALE
 sex2 Sex = FEMALE
 marital1 Marital status = SINGLE
 marital2 Marital status = MARRIED
 marital3 Marital status = LIVING TOGETHER
 marital4 Marital status = DIVORCED
 marital5 Marital status = WIDOWED
 marital6 Marital status = OTHER
 alone Respondent lives alone
 MF Meal frequency
 DDS DDS (count of 11 groups)
 FG01 Cereals

FG02 Roots and tubers
 FG03 Fruits and vegetables
 FG04 All meat
 FG05 Eggs
 FG06 Fish
 FG07 Legumes, nuts, and seeds
 FG08 Milk and milk products
 FG09 Fats
 FG10 Sugar
 FG11 Other
 proteinRich Protein rich animal sources of protein
 pProtein Protein rich plant sources of protein
 aProtein Protein rich animal sources of protein
 pVita Plant sources of vitamin A
 aVita Animal sources of vitamin A
 xVita Any source of vitamin A
 ironRich Iron rich foods
 caRich Calcium rich foods
 znRich Zinc rich foods
 vitB1 Vitamin B1-rich foods
 vitB2 Vitamin B2-rich foods
 vitB3 Vitamin B3-rich foods
 vitB6 Vitamin B6-rich foods
 vitB12 Vitamin B12-rich foods
 vitBcomplex Vitamin B1/B2/B3/B6/B12-rich foods
 HHS1 Little or no hunger in household
 HHS2 Moderate hunger in household
 HHS3 Severe hunger in household
 ADL01 Bathing
 ADL02 Dressing
 ADL03 Toileting
 ADL04 Transferring (mobility)
 ADL05 Continence
 ADL06 Feeding
 scoreADL ADL score
 classADL1 Severity of dependence = INDEPENDENT
 classADL2 Severity of dependence = PARTIAL DEPENDENCY

c1assADL3 Severity of dependence = SEVERE DEPENDENCY
hasHelp Has someone to help with ADL
unmetNeed Unmet need (dependency with NO helper)
K6 K6 score
K6Case K6 score > 12 (in serious psychological distress)
DS Probable dementia by CSID screen
H1 Chronic condition
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H34 Main reason for not taking drugs for chronic condition: Use traditional medicine
H35 Main reason for not taking drugs for chronic condition: Drugs don't help
H36 Main reason for not taking drugs for chronic condition: No one to help me
H37 Main reason for not taking drugs for chronic condition: No need
H38 Main reason for not taking drugs for chronic condition: Other
H39 Main reason for not taking drugs for chronic condition: No reason given
H4 Recent disease episode
H5 Accessed care for recent disease episode
H61 Main reason for not accessing care for recent disease episode: No drugs available
H62 Main reason for not accessing care for recent disease episode: Too expensive / no money
H63 Main reason for not accessing care for recent disease episode: Too old to look for care
H64 Main reason for not accessing care for recent disease episode: Use traditional medicine
H65 Main reason for not accessing care for recent disease episode: Drugs don't help
H66 Main reason for not accessing care for recent disease episode: No one to help me
H67 Main reason for not accessing care for recent disease episode: No need
H68 Main reason for not accessing care for recent disease episode: Other
H69 Main reason for not accessing care for recent disease episode: No reason given
M1 Has a personal income
M2A Agriculture / fishing / livestock
M2B Wages / salary
M2C Sale of charcoal / bricks / etc
M2D Trading (e.g. market or shop)
M2E Investments
M2F Spending savings / sale of assets
M2G Charity
M2H Cash transfer / Social security

M2I Other
W1 Improved source of drinking water
W2 Safe drinking water (improved source OR adequate treatment)
W3 Improved sanitation facility
W4 Improved non-shared sanitation facility
MUAC Mid-upper arm circumference (mm)
oedema Presence of oedema
screened Screened with oedema check and MUAC measurement in previous month
poorVA Poor visual acuity
chew Problems chewing food
food Anyone in household receives a ration
NFRI Anyone in HH received non-food relief item(s) in previous month
wgVisionD0 Vision domain 0
wgVisionD1 Vision domain 1
wgVisionD2 Vision domain 2
wgVisionD3 Vision domain 3
wgHearingD0 Hearing domain 0
wgHearingD1 Hearing domain 1
wgHearingD2 Hearing domain 2
wgHearingD3 Hearing domain 3
wgMobilityD0 Mobility domain 0
wgMobilityD1 Mobility domain 1
wgMobilityD2 Mobility domain 2
wgMobilityD3 Mobility domain 3
wgRememberingD0 Remembering domain 0
wgRememberingD1 Remembering domain 1
wgRememberingD2 Remembering domain 2
wgRememberingD3 Remembering domain 3
wgSelfCareD0 Self-care domain 0
wgSelfCareD1 Self-care domain 1
wgSelfCareD2 Self-care domain 2
wgSelfCareD3 Self-care domain 3
wgCommunicatingD0 Communicating domain 0
wgCommunicatingD1 Communicating domain 1
wgCommunicatingD2 Communicating domain 2
wgCommunicatingD3 Communicating domain 3
wgP0 Overall prevalence 0
wgP1 Overall prevalence 1
wgP2 Overall prevalence 2
wgP3 Overall prevalence 3
wgPM Overall prevalence

Examples

```
indicators.MALES
```

```
merge_op
```

Concatenate classic and PROBIT estimates into a single data.frame

Description

Concatenate classic and PROBIT estimates into a single data.frame

Usage

```
merge_op(x, y, prop2percent = FALSE)
```

Arguments

x	Classic estimates <code>data.frame()</code>
y	Probit estimates <code>data.frame()</code>
prop2percent	Logical. Should proportion type indicators be converted to percentage? Default is FALSE.

Value

A `tibble::tibble()` of combined classic and probit estimates.

Author(s)

Ernest Guevarra

Examples

```
indicators <- c(
  "demo", "anthro", "food", "hunger", "adl", "disability",
  "mental", "dementia", "health", "oedema", "screening", "income",
  "wash", "visual", "misc"
)

classicIndicators <- indicators[indicators != "anthro"]

## Bootstrap classic
classicEstimates <- estimate_classic(
  x = indicators.ALL, w = testPSU,
  indicators = classicIndicators, replicates = 9
)

probitEstimates <- estimate_probit(
  x = indicators.ALL, w = testPSU, replicates = 9
```

```
)
merge_op(x = classicEstimates, y = probitEstimates)
```

probit_gam	<i>PROBIT statistics function for bootstrap estimation of older people GAM</i>
------------	--

Description

PROBIT statistics function for bootstrap estimation of older people GAM

Usage

```
probit_gam(x, params, threshold = 210)
probit_sam(x, params, threshold = 185)
```

Arguments

x	A data frame with primary sampling unit (PSU) in column named "psu" and with data column/s containing the continuous variable/s of interest with column names corresponding to params values
params	A vector of column names corresponding to the continuous variables of interest contained in x
threshold	cut-off value for continuous variable to differentiate case and non-case. Default is set at 210 for <code>probit_gam()</code> and 185 for <code>probit_sam()</code> .

Value

A numeric vector of the PROBIT estimate of each continuous variable of interest with length equal to `length(params)`.

Examples

```
# Example call to bootBW function:
probit_gam(x = indicators.ALL, params = "MUAC", threshold = 210)
probit_sam(x = indicators.ALL, params = "MUAC", threshold = 185)
```

pyramid_plot *Function to create a pyramid plot*

Description

Function to create a pyramid plot

Usage

```
pyramid_plot(  
  x,  
  g,  
  main = paste("Pyramid plot of", deparse(substitute(x)), "by", deparse(substitute(g))),  
  xlab = paste(deparse(substitute(g)), "(", levels(g)[1], "/", levels(g)[2], ")"),  
  ylab = deparse(substitute(x))  
)
```

Arguments

x	A vector (numeric, factor, character) holding age-groups
g	A binary categorical variable (usually sex)
main	Plot title
xlab	x-axis label
ylab	y-axis label

Value

Pyramid plot

Author(s)

Mark Myatt

Examples

```
pyramid_plot(  
  x = cut(  
    testSVY$d2,  
    breaks = seq(from = 60, to = 105, by = 5),  
    include.lowest = TRUE  
  ),  
  g = testSVY$d3  
)
```

report_op_docx	<i>Create a DOCX report document containing RAM-OP survey results</i>
----------------	---

Description

Create a DOCX report document containing RAM-OP survey results

Usage

```
report_op_docx(
  estimates,
  svy,
  indicators = c("demo", "food", "hunger", "disability", "adl", "mental", "dementia",
    "health", "income", "wash", "anthro", "oedema", "screening", "visual", "misc"),
  filename = paste(tempdir(), "ramOPreport", sep = "/"),
  title = "RAM-OP Report",
  view = FALSE
)
```

Arguments

estimates	A data.frame of RAM-OP results produced by <code>merge_op()</code> .
svy	A data.frame collected using the standard RAM-OP questionnaire
indicators	A character vector of indicator names
filename	Filename for output document. Can be specified as a path to a specific directory where to output report document. Defaults to a path to a temporary directory and a filename <code>ramOPreport</code> .
title	Title of report
view	Logical. Open report in current environment? Default is FALSE.

Value

An DOCX in the working directory or if filename is a path, to a specified directory.

Author(s)

Ernest Guevarra

Examples

```
classicResults <- estimate_classic(
  x = create_op(testSVY), w = testPSU, replicates = 9
)

probitResults <- estimate_probit(
  x = create_op(testSVY), w = testPSU, replicates = 9
)
```

```

resultsDF <- merge_op(x = classicResults, y = probitResults)

if (rmarkdown::pandoc_version() >= numeric_version("1.12.3")) {
  report_op_docx(
    svy = testSVY, estimates = resultsDF, indicators = "mental",
    filename = paste(tempdir(), "report", sep = "/")
  )
}

```

report_op_html	<i>Create an HTML report document containing RAM-OP survey results</i>
----------------	--

Description

Create an HTML report document containing RAM-OP survey results

Usage

```

report_op_html(
  estimates,
  svy,
  indicators = c("demo", "food", "hunger", "disability", "adl", "mental", "dementia",
    "health", "income", "wash", "anthro", "oedema", "screening", "visual", "misc"),
  filename = paste(tempdir(), "ramOPreport", sep = "/"),
  title = "RAM-OP Report",
  view = FALSE
)

```

Arguments

estimates	A data.frame of RAM-OP results produced by <code>merge_op()</code> .
svy	A data.frame collected using the standard RAM-OP questionnaire
indicators	A character vector of indicator names
filename	Filename for output document. Can be specified as a path to a specific directory where to output report document. Defaults to a path to a temporary directory and a filename 'ramOPreport'.
title	Title of report
view	Logical. Open report in current browser? Default is FALSE.

Value

An HTML document in the working directory or if filename is a path, to a specified directory.

Author(s)

Ernest Guevarra

Examples

```

classicResults <- estimate_classic(
  x = create_op(testSVY), w = testPSU, replicates = 9
)

probitResults <- estimate_probit(
  x = create_op(testSVY), w = testPSU, replicates = 9
)

resultsDF <- merge_op(x = classicResults, y = probitResults)

if (rmarkdown::pandoc_available("1.12.3")) {
  report_op_html(
    svy = testSVY, estimates = resultsDF, indicators = "mental",
    filename = paste(tempdir(), "report", sep = "/")
  )
}

```

report_op_odt

Create a ODT report document containing RAM-OP survey results

Description

Create a ODT report document containing RAM-OP survey results

Usage

```

report_op_odt(
  estimates,
  svy,
  indicators = c("demo", "food", "hunger", "disability", "adl", "mental", "dementia",
    "health", "income", "wash", "anthro", "oedema", "screening", "visual", "misc"),
  filename = paste(tempdir(), "ramOPreport", sep = "/"),
  title = "RAM-OP Report",
  view = FALSE
)

```

Arguments

estimates	A data.frame of RAM-OP results produced by <code>merge_op()</code> .
svy	A data.frame collected using the standard RAM-OP questionnaire
indicators	A character vector of indicator names
filename	Filename for output document. Can be specified as a path to a specific directory where to output report document. Defaults to a path to a temporary directory and a filename <code>ramOPreport</code> .
title	Title of report
view	Logical. Open report in current environment? Default is FALSE.

Value

An ODT in the working directory or if filename is a path, to a specified directory.

Author(s)

Ernest Guevarra

Examples

```
classicResults <- estimate_classic(
  x = create_op(testSVY), w = testPSU, replicates = 9
)

probitResults <- estimate_probit(
  x = create_op(testSVY), w = testPSU, replicates = 9
)

resultsDF <- merge_op(x = classicResults, y = probitResults)

if (rmarkdown::pandoc_version() >= numeric_version("1.12.3")) {
  report_op_odt(
    svy = testSVY, estimates = resultsDF, indicators = "mental",
    filename = paste(tempdir(), "report", sep = "/")
  )
}
```

report_op_pdf

Create a PDF report document containing RAM-OP survey results

Description

Create a PDF report document containing RAM-OP survey results

Usage

```
report_op_pdf(
  estimates,
  svy,
  indicators = c("demo", "food", "hunger", "disability", "adl", "mental", "dementia",
    "health", "income", "wash", "anthro", "oedema", "screening", "visual", "misc"),
  filename = "ramOPreport",
  title = "RAM-OP Report",
  view = FALSE
)
```

Arguments

estimates	A data.frame of RAM-OP results produced by <code>merge_op()</code> .
svy	A data.frame collected using the standard RAM-OP questionnaire
indicators	A character vector of indicator names
filename	Filename for output document. Can be specified as a path to a specific directory where to output report document
title	Title of report
view	Logical. Open report in current PDF reader? Default is FALSE.

Value

A PDF document in the working directory or if filename is a path, to a specified directory.

Examples

```
classicResults <- estimate_classic(
  x = create_op(testSVY), w = testPSU, replicates = 3
)

probitResults <- estimate_probit(
  x = create_op(testSVY), w = testPSU, replicates = 3
)

resultsDF <- merge_op(x = classicResults, y = probitResults)

if (tinytex::is_tinytex()) {
  report_op_pdf(
    svy = testSVY, estimates = resultsDF, indicators = "mental",
    filename = paste(tempdir(), "report", sep = "/")
  )
}
```

report_op_table

Create table and report chunk of RAM-OP results

Description

Create table and report chunk of RAM-OP results

Usage

```
report_op_table(estimates, filename = paste(tempdir(), "ramOP", sep = "/"))
report_op_demo(output_format = c("html", "docx", "odt", "pdf"))
report_op_food(output_format = c("html", "docx", "odt", "pdf"))
```

```

report_op_hunger(output_format = c("html", "docx", "odt", "pdf"))
report_op_disability(output_format = c("html", "docx", "odt", "pdf"))
report_op_adl(output_format = c("html", "docx", "odt", "pdf"))
report_op_mental(output_format = c("html", "docx", "odt", "pdf"))
report_op_dementia(output_format = c("html", "docx", "odt", "pdf"))
report_op_health(output_format = c("html", "docx", "odt", "pdf"))
report_op_oedema(output_format = c("html", "docx", "odt", "pdf"))
report_op_anthro(output_format = c("html", "docx", "odt", "pdf"))
report_op_screen(output_format = c("html", "docx", "odt", "pdf"))
report_op_visual(output_format = c("html", "docx", "odt", "pdf"))
report_op_income(output_format = c("html", "docx", "odt", "pdf"))
report_op_wash(output_format = c("html", "docx", "odt", "pdf"))
report_op_misc(output_format = c("html", "docx", "odt", "pdf"))

```

Arguments

estimates	A data.frame of RAM-OP results produced by <code>merge_op()</code> .
filename	Prefix to append to report output filename. Can be specified as a path to a specific directory where to output tabular results CSV file. Defaults to a path to a temporary directory with a filename starting with <i>ramOP</i> .
output_format	Either <i>"html"</i> , <i>"docx"</i> , <i>"odt"</i> , or <i>"pdf"</i> . Defaults to <i>"html"</i> .

Value

Report of tabulated estimated results saved in CSV format in current working directory or in the specified path or a reporting chunk for specific indicators.

Author(s)

Mark Myatt and Ernest Guevarra

Examples

```

##
x <- estimate_classic(
  x = create_op(testSVY), w = testPSU, replicates = 9

```

```
)  
  
y <- estimate_probit(  
  x = create_op(testSVY), w = testPSU, replicates = 9  
)  
  
z <- merge_op(x, y, prop2percent = TRUE)  
report_op_table(z)  
  
report_op_demo()  
report_op_hunger()  
report_op_food()  
report_op_disability()
```

testPSU

RAM-OP Population Dataset

Description

This is a short and narrow file with one record per PSU and just two variables

Usage

```
testPSU
```

Format

A data frame with 2 columns and 16 rows:

psu The PSU identifier. This must use the same coding system used to identify the PSUs that is used in the main RAM-OP dataset

pop The population of the PSU

The PSU dataset is used during data analysis to weight data by PSU population.

Examples

```
testPSU
```

testSVY

RAM-OP Survey Dataset

Description

Dataset collected from a RAM-OP survey conducted in Addis Ababa, Ethiopia in early 2014

Usage

testSVY

Format

A data frame with 91 columns and 192 rows:

ad2 Team number

psu PSU (cluster) number

hh Household identifier

id Person identifier

d1 Who is answering these questions?

d2 Age in years

d3 Sex

d4 Marital status

d5 Do you live alone?

f1 How many meals did you eat since this time yesterday?

f2a Tinned, powdered or fresh milk?

f2b Sweetened or flavoured water, soda drink, alcoholic drink, beer, tea or infusion, coffee, soup, or broth?

f2c Any food made from grain such as millet, wheat, barley, sorghum, rice, maize, pasta, noodles, bread, pizza, porridge?

f2d Any food made from fruits or vegetables that have yellow or orange flesh such as carrots, pumpkin, red sweet potatoes, mangoes, and papaya?

f2e Any food made with red palm oil or red palm nuts?

f2f Any dark green leafy vegetables such as cabbage, broccoli, spinach, moringa leaves, cassava leaves?

f2g Any food made from roots or tubers such as white potatoes, white yams, false banana, cassava, manioc, onions, beets, turnips, and swedes?

f2h Any food made from lentils, beans, peas, groundnuts, nuts, or seeds?

f2i Any other fruits or vegetables such as banana, plantain, avocado, cauliflower, coconut?

f2j Liver, kidney, heart, black pudding, blood, or other organ meats?

f2k Any meat such as beef, pork, goat, lamb, mutton, veal, chicken, camel, or bush meat?

- f2l Fresh or dried fish, shellfish, or seafood?
- f2m Cheese, yoghurt, or other milk products?
- f2n Eggs?
- f2o Any food made with oil, fat, butter, or ghee?
- f2p Any mushrooms or fungi?
- f2q Grubs, snails, insects?
- f2r Sugar, honey and foods made with sugar or honey such as sweets, candies, chocolate, cakes, and biscuits?
- f2s Salt, pepper, herbs, spices, or sauces (hot sauce, soy sauce, ketchup)?
- f3 In the past four weeks, how often was there ever no food to eat of any kind in your home because of lack of resources to get food?
- f4 In the past four weeks, how often did you go to sleep at night hungry because there was not enough food?
- f5 In the past four weeks, how often did you go a whole day and night without eating anything at all because there was not enough food?
- f6 Are you or anyone in your household receiving a food ration on a regular basis?
- f7 Have you or another member of your household received non-food relief items such as soap, bucket, water container, bedding, mosquito net, clothes, or plastic sheet in the previous four weeks?
- a1 Have you or another member of your household received non-food relief items such as soap, bucket, water container, bedding, mosquito net, clothes, or plastic sheet in the previous four weeks?
- a2 Do you need help getting dressed partially or completely (not including tying of shoes)?
- a3 Do you need help going to the toilet or cleaning yourself after using the toilet or do you use a commode or bed-pan?
- a4 Do you need someone (i.e. not a walking aid) to help you move from a bed to a chair?
- a5 Are you partially or totally incontinent of bowel or bladder?
- a6 Do you need partial or total help with eating?
- a7 Is someone taking care of you or helping you with everyday activities such as shopping, cooking, bathing and dressing?
- a8 Do you have problems chewing food?
- k6a About how often during the past four weeks did you feel nervous – all of the time, most of the time, some of the time, a little of the time, or none of the time?
- k6b During the past four weeks, about how often did you feel hopeless – all of the time, most of the time, some of the time, a little of the time, or none of the time?
- k6c During the past four weeks, about how often did you feel restless or fidgety – all of the time, most of the time, some of the time, a little of the time, or none of the time?
- k6d During the past four weeks, about how often did you feel so depressed that nothing could cheer you up – all of the time, most of the time, some of the time, a little of the time, or none of the time?

- k6e During the past four weeks, about how often did you feel that everything was an effort – all of the time, most of the time, some of the time, a little of the time, or none of the time?
- k6f During the past four weeks, about how often did you feel worthless – all of the time, most of the time, some of the time, a little of the time, or none of the time?
- ds1 Point to nose and ask "What do you call this?"
- ds2 What do you do with a hammer?
- ds3 What day of the week is it?
- ds4 What is the season?
- ds5 Please point first to the window and then to the door.
- ds6a Child
- ds6b House
- ds6c Road
- h1 Do you suffer from a long term disease that requires you to take regular medication?
- h2 Do you take drugs regularly for this?
- h3 Why not?
- h4 Have you been ill in the past two weeks?
- h5 Did you go to the pharmacy, dispensary, health centre, health post, clinic, or hospital?
- h6 Why not?
- m1 Do you have a personal source of income or money?
- m2a Where does your income or money come from?: Agriculture, livestock, or fishing
- m2b Where does your income or money come from?: Wages or salary
- m2c Where does your income or money come from?: Sale of charcoal, bricks, firewood, poles, etc.
- m2d Where does your income or money come from?: Trading (e.g. market, shop)
- m2e Where does your income or money come from?: Private pension, investments, interest, rents, etc.
- m2f Where does your income or money come from?: Spending savings; Sale of household goods, personal goods, or jewellery; Sale of livestock, land, or other assets
- m2g Where does your income or money come from?: Aid, gifts, charity (e.g. from church, mosque, temple), begging, borrowing, or sale of food aid or relief items
- m2h Where does your income or money come from?: Cash transfer (NGO, UNO, government); State pension, social security, benefits, welfare program
- m2i Where does your income or money come from?: Other
- w1 What is your main source of drinking water?
- w2 What do you usually do to the water to make it safer to drink?
- w3 What kind of toilet facility do members of your household usually use?
- w4 Do you share this toilet facility with other households?
- as1 Mid-upper arm circumference (mm)
- as2 Has someone measured your arm like this in the previous month?
- as3 Bilateral pitting oedema

- as4 Has someone examined your feet like this in the previous month?
- va2a Tumbling Es: first time
- va2b Tumbling Es: second time
- va2c Tumbling Es: third time
- va2d Tumbling Es: fourth time
- wg1 Do you have difficulty seeing, even if wearing glasses?
- wg2 Do you have difficulty hearing, even if using a hearing aid?
- wg3 Do you have difficulty walking or climbing steps?
- wg4 Do you have difficulty remembering or concentrating?
- wg5 Do you have difficulty with self-care such as washing all over or dressing?
- wg6 Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?

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