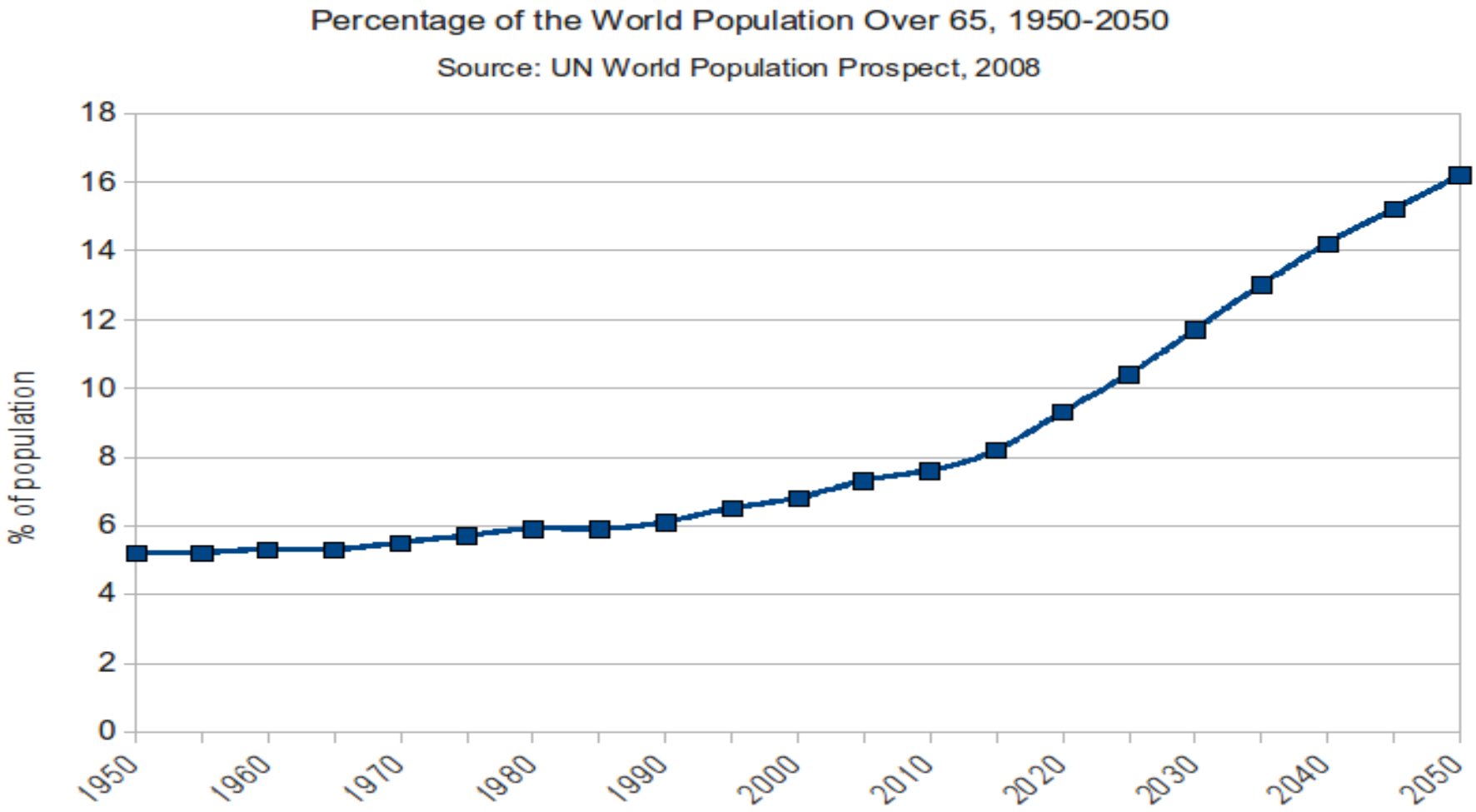
RAM-OP

Rapid Assessment Method for Older People.

Innovative Tool for Humanitarian Organisations

Dr Juma Khudonazarov
HelpAge International, UK

Older people: the invisible vulnerable group



Demographic changes

- 1950 - 205 million people aged > 60 years worldwide
- 2012 – it reached 810 million
- By 2050 estimates suggest 2 billion.

Around the world, two persons celebrate their 60th birthday every second – an annual total of almost 58 million 60th birthdays.

By 2050 for the first time there will be more older people than children under 15.
In 2000, there were already more people aged 60 or over than children under 5.

.

Demographic changes

2012 - 11.5% of the global population were 60+.
2050 - reaching 22 % of the global population.

In the past decade, the number of people aged >60 rose by 178 million – equivalent to nearly the entire population of Pakistan, the sixth most populous country in the world.

Japan is only country in the world with more than 30% of its population aged 60 or over. By 2050, there will be 64 countries where older people make up more than 30% of their population.

The number of centenarians will increase globally from 316,600 in 2011 to 3.2 million in 2050.

Older people: the invisible vulnerable group

- **The world is ageing: the number of older people affected by crisis will grow**
- **They are vulnerable in disasters, conflicts, displacement situations**

Yet…

They are not targeted

- **In needs assessments**
- **In funding**
- **In specific interventions**

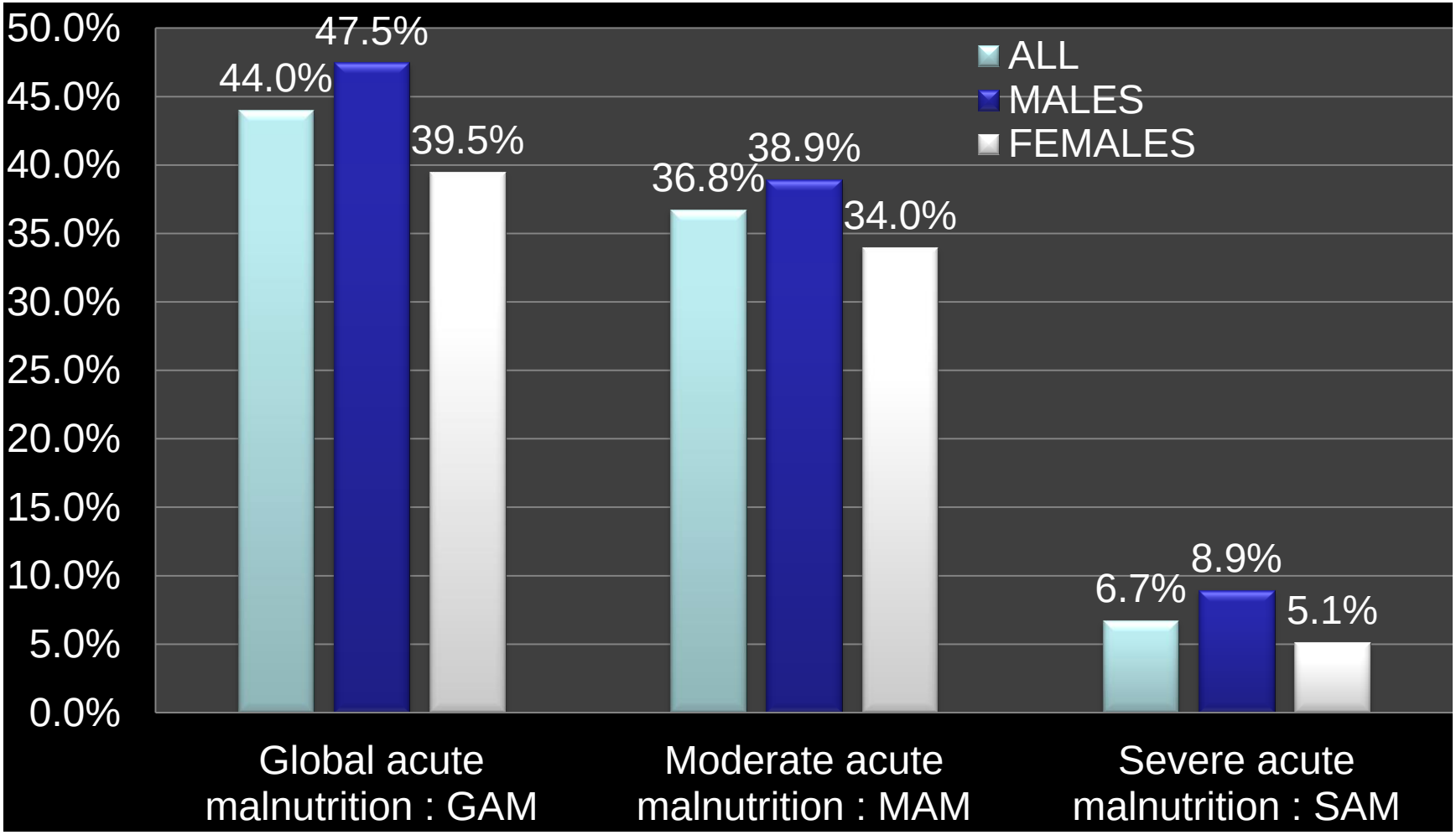


Case Study: South Sudan 2014
HelpAge assessment POC Juba

- **No assessment of older people's needs**
- **UN agencies reluctant to provide the specialized foods to treat malnutrition in older people: the problem of their "mandate"**
- **Difficulties to obtain an acknowledgement of their vulnerability: vs pregnant women**
- **No national policy**
- **No expertise within national and international humanitarian actors on the treatment of older people's malnutrition**
- **No inclusion in the NIE training**

HelpAge assessment POC Juba

April 2015, People aged 55+, MUAC-based criteria



Vulnerability of older people in Health and Nutrition

- Absence or limited access to health centres
- Non - availability of appropriate drugs, especially for chronic diseases
- Vision impairment is extremely common
- Disability/mobility problems
- No appropriate outreach or referral services available
- No prioritisation in health centres or food distribution
- Food provided through “general distribution”
- General food ration might not be appropriate or accessible

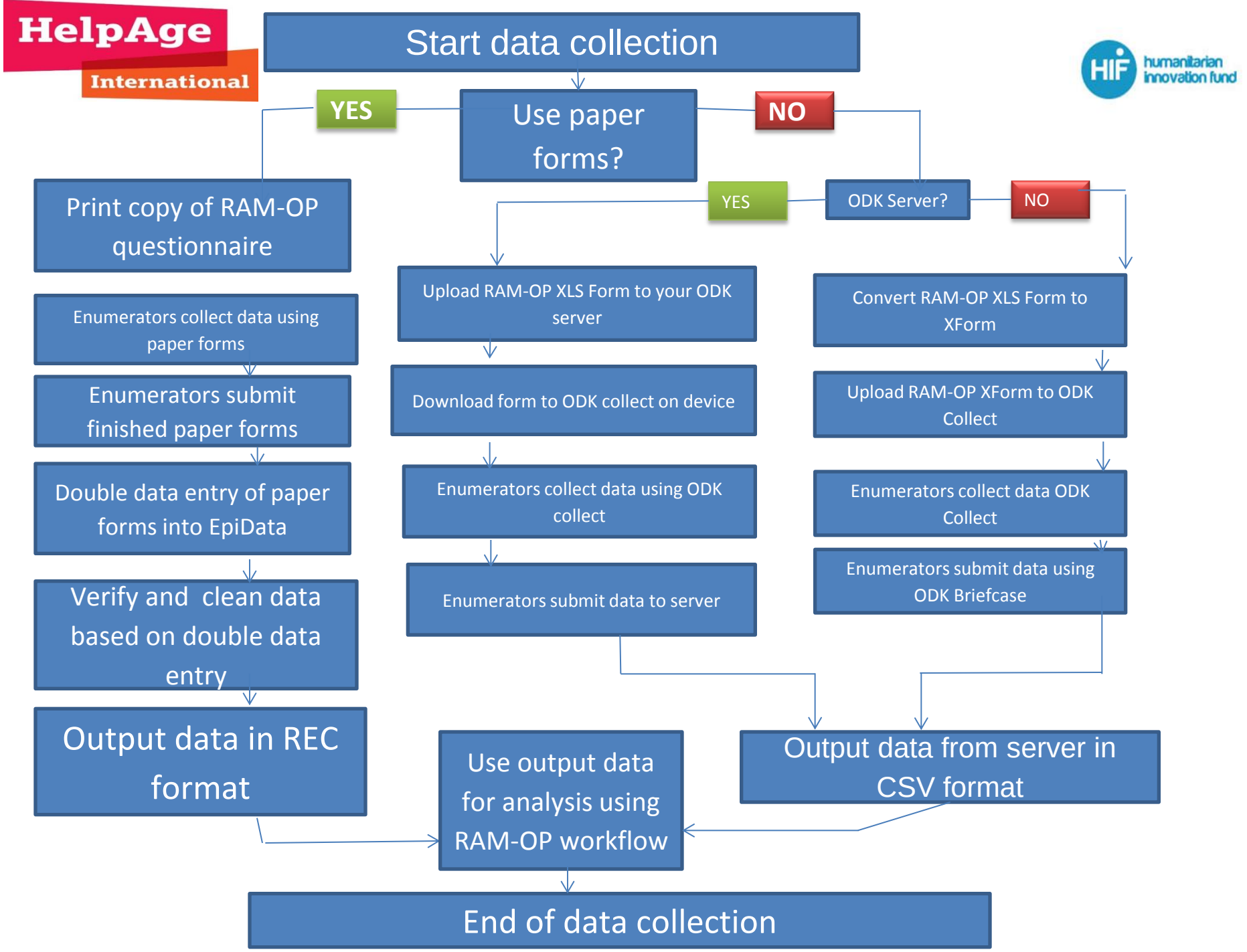
What do we need?

DATA

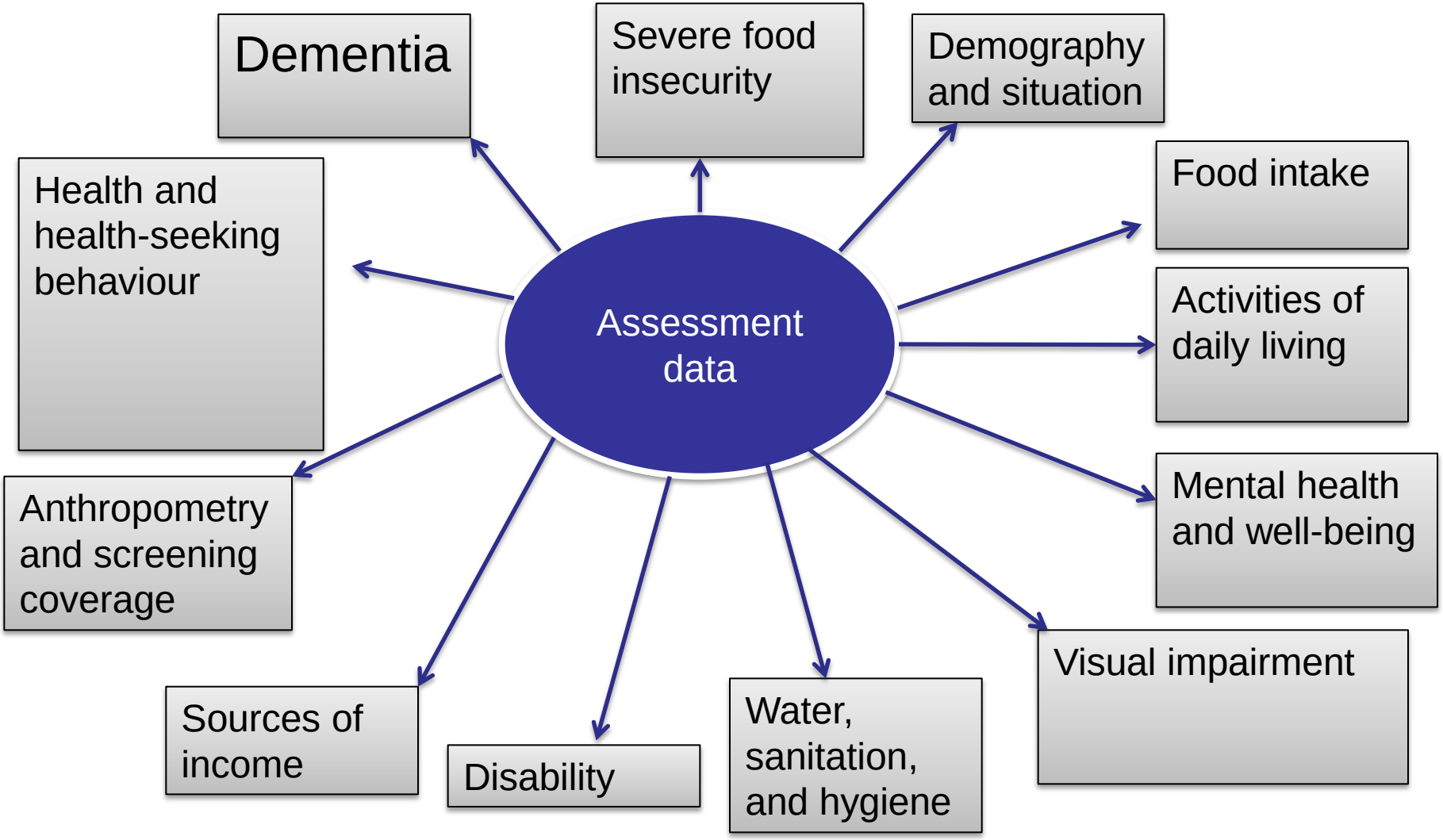
There is a lack of data on the needs of older people status : as a result, they are always forgotten to include as vulnerable groups in designing humanitarian interventions

This is why we have developed a rapid, cheap, robust, multispectral assessment method:

RAM-OP

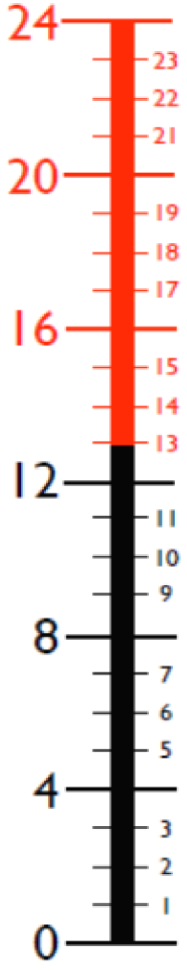

HelpAge International
Start data collection
Use paper forms?
YES
NO
Print copy of RAM-OP questionnaire
ODK Server?
YES
NO
Upload RAM-OP XLS Form to your ODK server
Convert RAM-OP XLS Form to XForm
Enumerators collect data using paper forms
Download form to ODK collect on device
Upload RAM-OP XForm to ODK Collect
Enumerators submit finished paper forms
Enumerators collect data using ODK collect
Enumerators collect data ODK Collect
Double data entry of paper forms into EpiData
Enumerators submit data to server
Enumerators submit data using ODK Briefcase
Verify and clean data based on double data entry
Output data in REC format
Use output data for analysis using RAM-OP workflow
Output data from server in CSV format
End of data collection
humanitarian innovation fund

RAM-OP – Indicators



Kessler 6

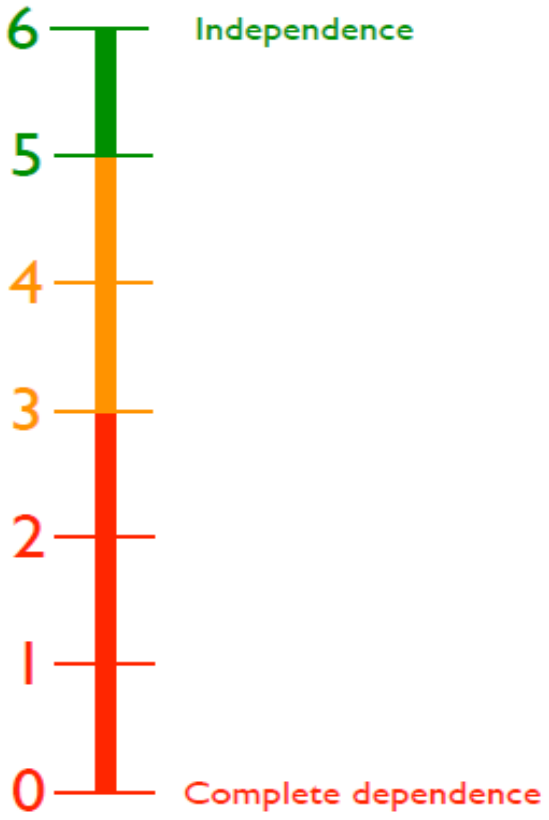
- The **Kessler K6 Psychological Distress Scale** ranges from **zero** (*indicating no psychological distress*) to **twenty-four** (*indicating severe psychological distress*).
- A score of **thirteen or more** indicates serious psychological distress.
- The **Kessler K6 Psychological Distress Scale** is a widely recommended, widely used, accurate, reliable, and simple measure of psychological distress



Serious psychological distress

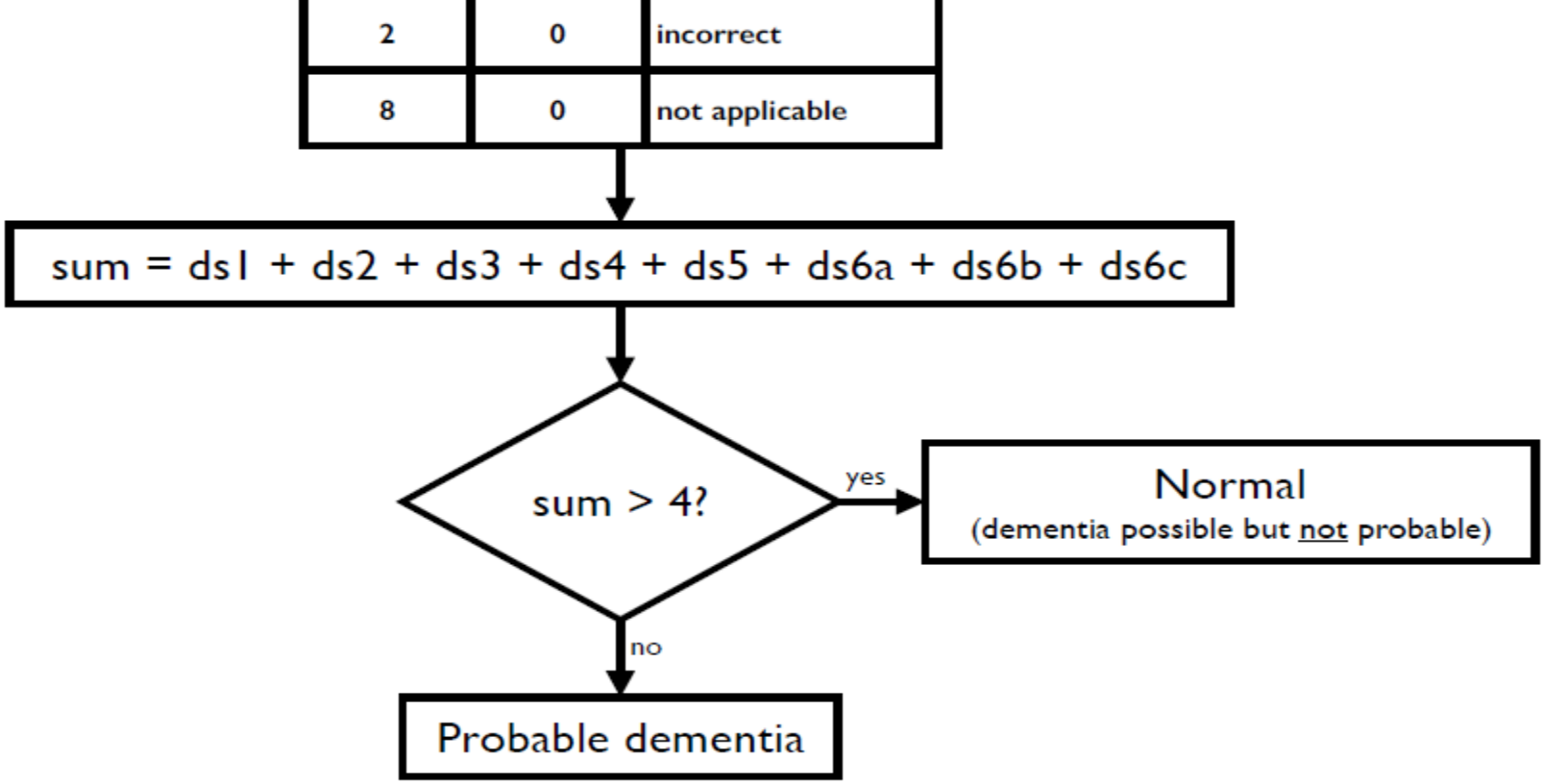
Katz Index of ADL

- Individual independence indicators are reported for each dimension (i.e. *bathing*, *dressing*, *toilet*, *mobility*, *continence*, and *eating*) of **activities of daily living (ADL)**.
- **Katz Index of ADL**, a composite indicator of the degree of independence, is also reported
- **Katz Index** is simple, well-validated, and widely used



DEMENTIA RECODE

RECODE ds1, ds2, ds3, ds4, ds5, ds6a, ds6b, ds6c		
Old Values	New Values	Notes
1	1	correct
2	0	incorrect
8	0	not applicable



Older people have an important role

- **Carers of children**
- **Supporting their household**
- **Traditional roles**
  - Conflict resolution
  - Mediation
- **Less traditional roles**
  - Activists
  - Peer educators
  - Older people associations









Are older people vulnerable to undernutrition?



YES

They need a balanced diet:

- **Energy**
- **Macronutrients**
- **Micronutrients**

They have specific problems with food, that can be exacerbated in humanitarian contexts

Needs of older people in emergencies neglected

- **Older people's needs fully not assessed and addressed**
- **Older people are not recognized as a vulnerable group**
- **Guidelines and policies do not include older people**
- **Health staff and NGOs are lacking expertise to treat older people malnutrition (severe)**

Rapid Assessment Method for Older People: RAM-OP

Objectives

- Provide humanitarian partners with a simple, quick, reliable, robust and cost effective method for **assessing the needs and the vulnerabilities of older people** in emergencies and development contexts
- Encourage and enable humanitarian organisations to **identify the specific needs of this vulnerable group**, so that they can target them in their interventions
- Design a tool specifically adapted to **identify older people's needs**

Rapid Assessment Method for Older People: RAM-OP

Research Method

- **Compare with SMART: simplicity, acceptability, precision, accuracy, cost**
- **Carry out a SMART and a RAM in the same setting, conditions and seasonal period to assess the same set of indicators:**
  - **Urban area: Addis Ababa (April 2014)**
  - **Rural area: Kibaha District, Tanzania (September 2014)**
- **Test and identify best sample size, best sampling method**
- **Test and define most relevant indicators**

Rapid Assessment Method for Older People: RAM-OP

- **Comprehensive assessment of the needs of older people**
- **Prevalence of malnutrition** in older people, but also **a whole range of indicators**, most of them age-specific
- **Rapid**: sample size 192
- **Final product** includes:
  - A users' manual
  - A questionnaire (using OpenOffice)
  - A data entry file (using EpiData Entry)
  - A data analysis file, to be used on R (free software elaborated by a team from Oxford)

Rapid Assessment Method for Older People: RAM-OP

The tool Kit

- **The questionnaire (OpenOrg)**
  - **In French and in English**
  - **Modules/ sections**
- **The data entry files (EpiData Entry)**
  - **In French and in English**
- **Available online www.helpage.org/RAMOP**

Rapid Assessment Method for Older People: RAM-OP

- Data analysis: **immediate**, by linking the data entry file and the analysis software (R Analytic Flow)
  - Tables
  - Graphs

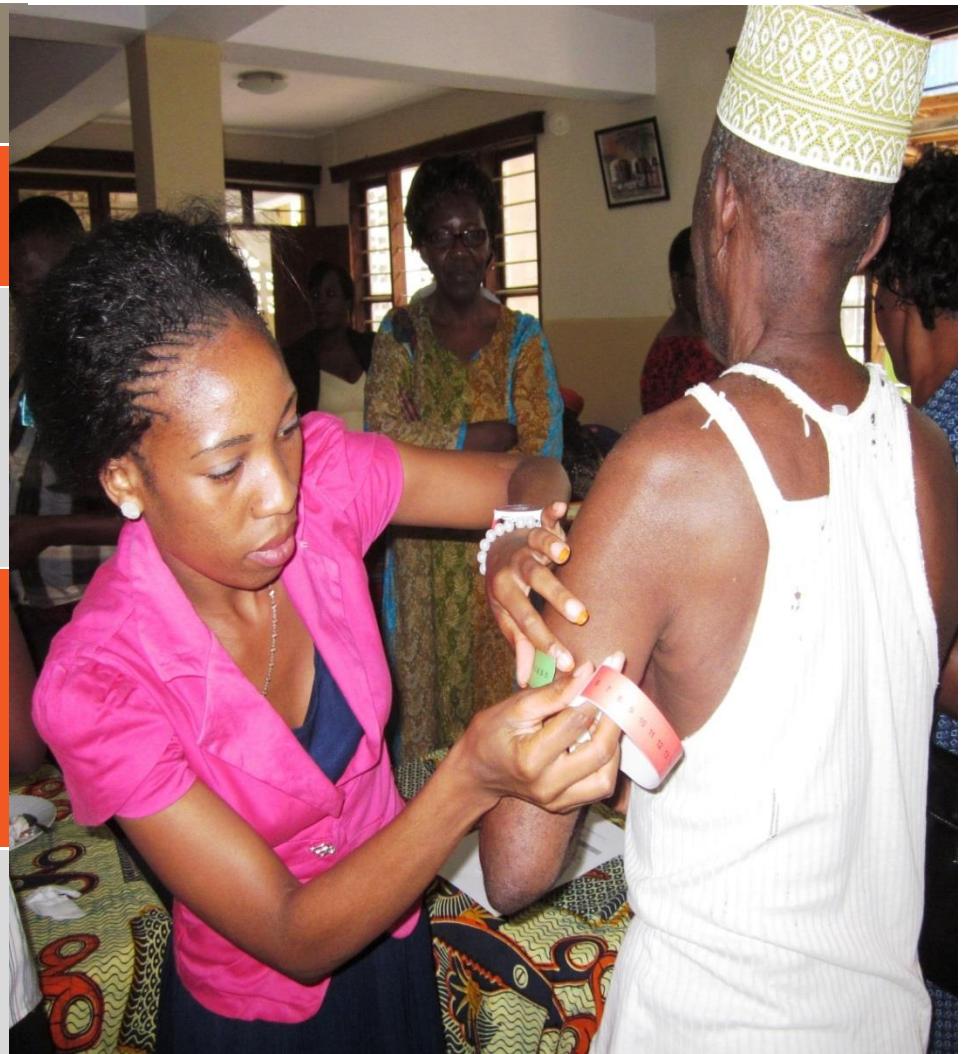
What does it produce?

- A comprehensive assessment of the needs of older people
- **Prevalence of malnutrition** in older people, but also **a whole range of indicators**, most of them are age-specific

Nutritional status Older People

Assess GAM, MAM and SAM: MUAC

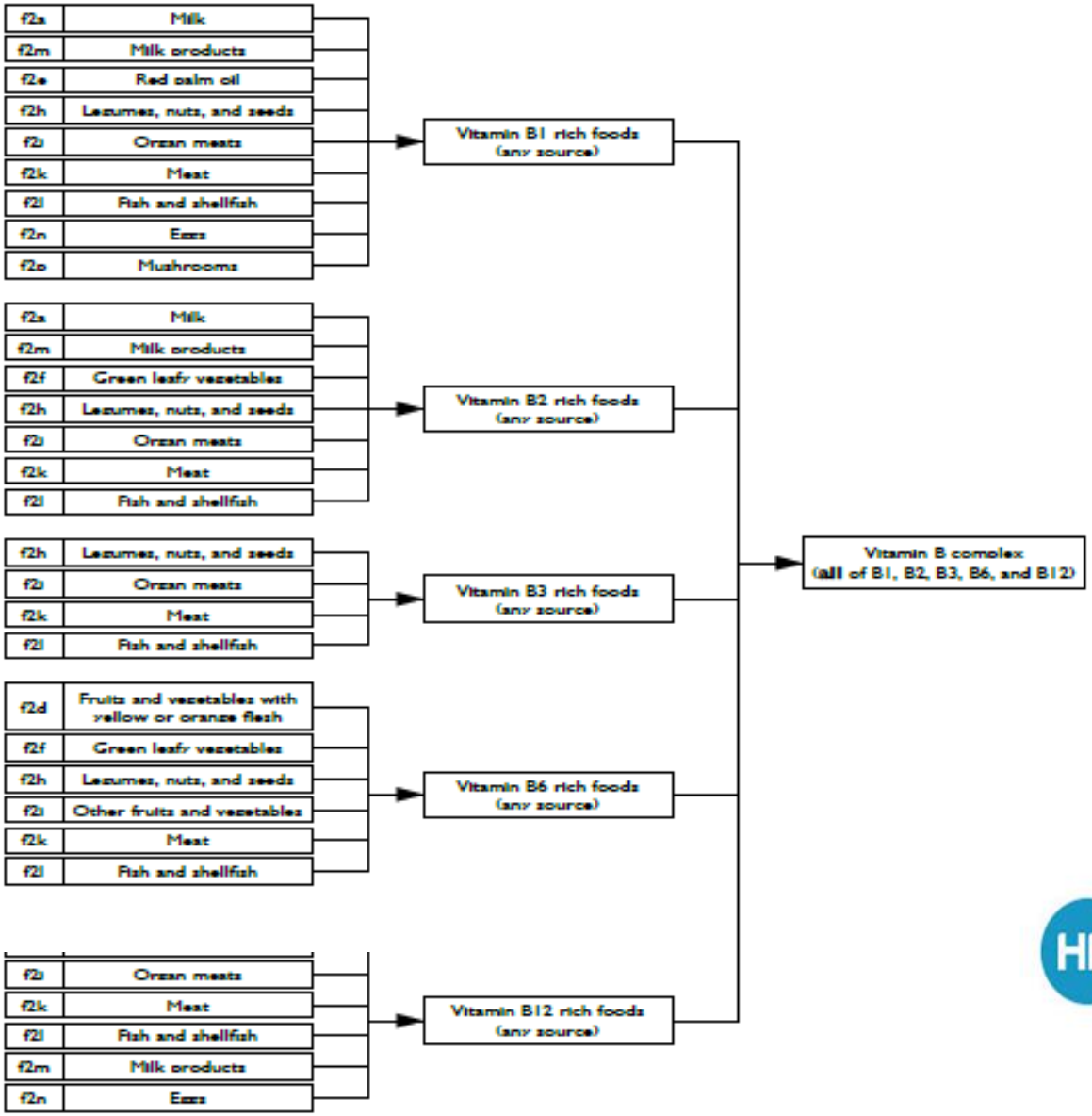
Indicator	Classification
MUAC ≥210mm	Normal
185mm≤ MUAC <210mm	Moderate acute undernutrition
MUAC <185mm	Severe acute undernutrition
Oedema	Medical complication Possible severe acute undernutrition



Rapid Assessment Method for Older People: RAM-OP

- **Nutrition/ Food security indicators**:
  - *GAM, MAM, SAM (MUAC-based criteria)*
  - Dietary diversity and meal frequency
  - Age-specific micronutrients intake (eg Vit B)
  - Hunger scale
  - Coverage of food rations
- ***Health and mental health indicators***
- ***Disability and impairment indicators***
- ***Socio-economic indicators***
- ***WASH***

Examples

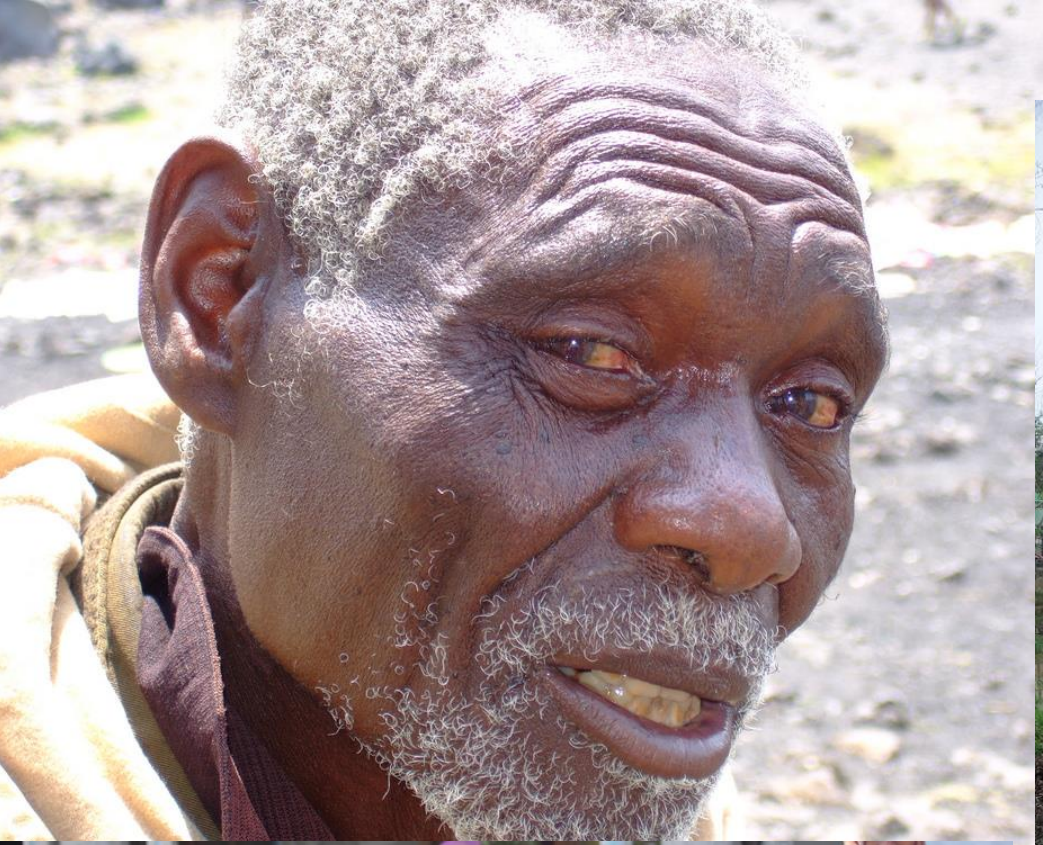

f2a Milk
f2m Milk products
f2e Red palm oil
f2h Legumes, nuts, and seeds
f2i Organ meats
f2k Meat
f2l Fish and shellfish
f2n Eggs
f2o Mushrooms
Vitamin B1 rich foods (any source)
f2a Milk
f2m Milk products
f2f Green leafy vegetables
f2h Legumes, nuts, and seeds
f2i Organ meats
f2k Meat
f2l Fish and shellfish
Vitamin B2 rich foods (any source)
f2h Legumes, nuts, and seeds
f2i Organ meats
f2k Meat
f2l Fish and shellfish
Vitamin B3 rich foods (any source)
f2d Fruits and vegetables with yellow or orange flesh
f2f Green leafy vegetables
f2h Legumes, nuts, and seeds
f2i Other fruits and vegetables
f2k Meat
f2l Fish and shellfish
Vitamin B6 rich foods (any source)
f2i Organ meats
f2k Meat
f2l Fish and shellfish
f2m Milk products
f2n Eggs
Vitamin B12 rich foods (any source)
Vitamin B complex (all of B1, B2, B3, B6, and B12)

Rapid Assessment Method for Older People: RAM-OP

- **Health and mental health indicators**
  - Kessler Psychological Distress Scale (K6)
  - Dementia Screening
  - Chronic diseases and acute illnesses
  - Health seeking behaviour
- **Disability and impairment indicators**
  - Katz Index of Independence in Activities of Daily Living
  - Visual acuity test

Rapid Assessment Method for Older People: RAM-OP

- **Socio-economic indicators**
  - Marital status
  - Being alone
  - Having a carer
  - Source of income
- **WASH**
  - Access to improved source of water
  - Access to improve sanitation







Rapid Assessment Method for Older People: RAM-OP

- **Sample size: 192 older people**, in 16 clusters (or PSUs) of 12
- **Sampling method**: double-stage sampling:
  - **First stage: sampling the 16 clusters/PSUs: systematic sampling**, 2 possibilities:
    - **List-based:** Communities are selected systematically from a complete list of communities in the survey area.
    - **Map-based**: Communities are selected from the centres of the squares of a grid drawn over a map (Centric systematic area sample: CSAS sample)
  - **Second stage: sampling of households**
    - **random walk method** if the houses are grouped in a cluster
    - **systematic sampling** if the houses are forming a line (or ribbon)

First stage sampling

There are 67 villages in the survey area. We need to sample 16 villages :

$$\text{Sampling Interval} = \left\lfloor \frac{N_{\text{Villages}}}{16} \right\rfloor = \left\lfloor \frac{67}{16} \right\rfloor = \lfloor 4.19 \rfloor = 4 \ (\textbf{always round down})$$

Villages sorted by chiefdom (sub-district)

We need a random starting point between one and the sampling interval (in this example : between 1 and 4)

Chiefdom	Village	Number
Barupi	*Benguema*	*1*
	Fabaina	*2*
	Koya	*3*
	Gbendembu	*4*
	Songo	*5*
	Madonkeh	*6*
	Urugli	*7*
	Barupi	*8*
Egabeva	*Redpu*	*9*
	Borioboolagah	*10*
	Portei	*11*
	Tombo	*12*
	Ashu	*13*
	Foulah	*14*
	Juba-Kaningo	*15*
	Sattia	*16*
	Dinga-Dinga	*17*

Apply Sampling interval

Apply Sampling interval

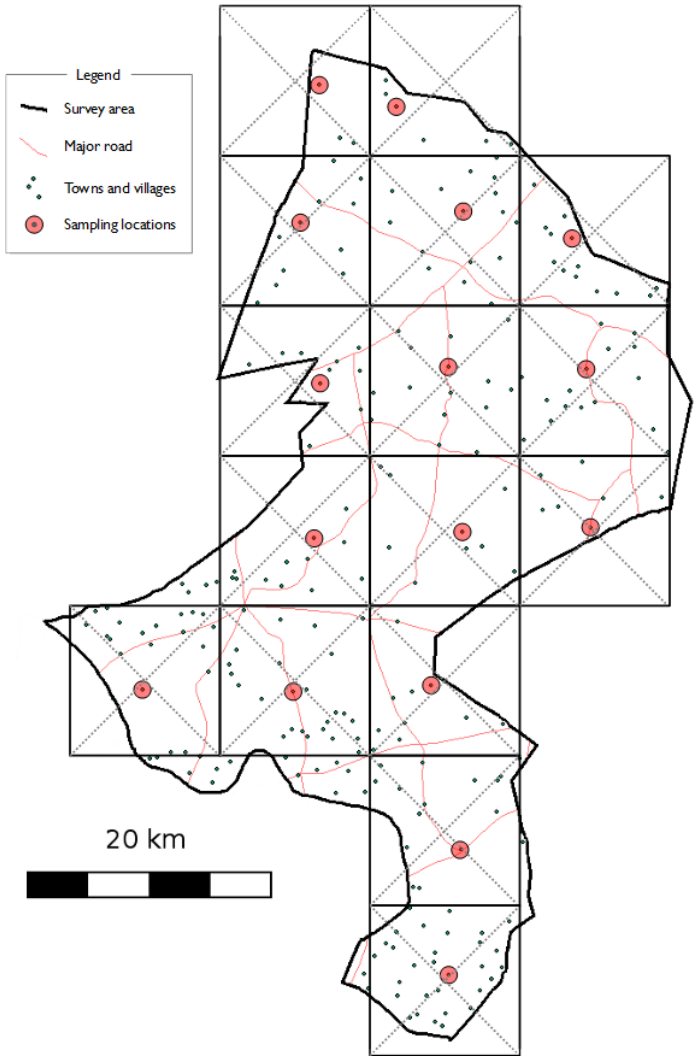
Apply Sampling interval

Continue applying the sampling interval until the end of the list is reached

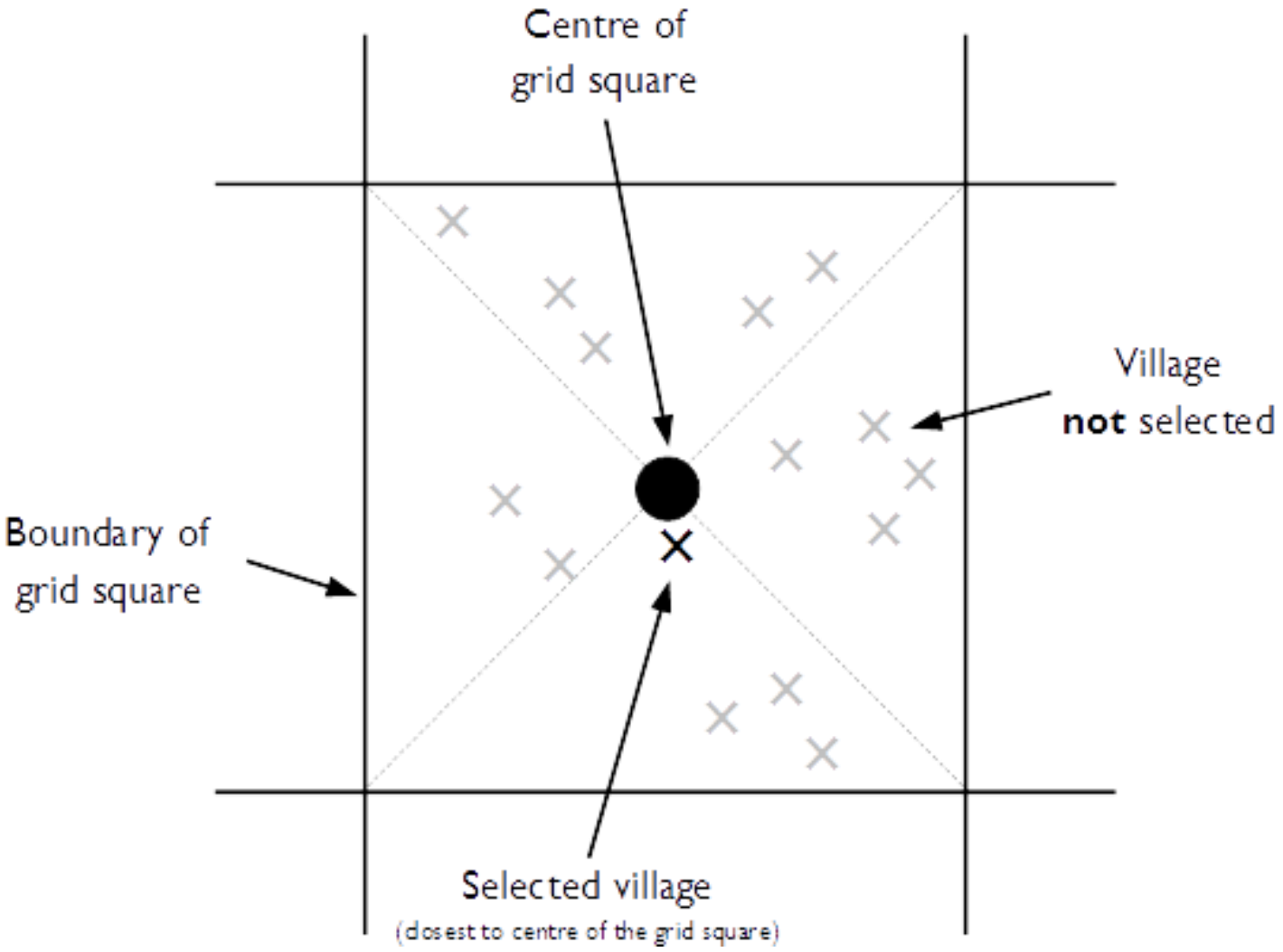
Note : This procedure will sometimes select more than 16 communities. In this example, seventeen villages (i.e. at positions 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, and 66 in the list) will be selected. When this happens you should sample **all** of the selected communities.

The village list **must** be sorted by a **non-overlapping** spatial factor such as chiefdom or sub-district.

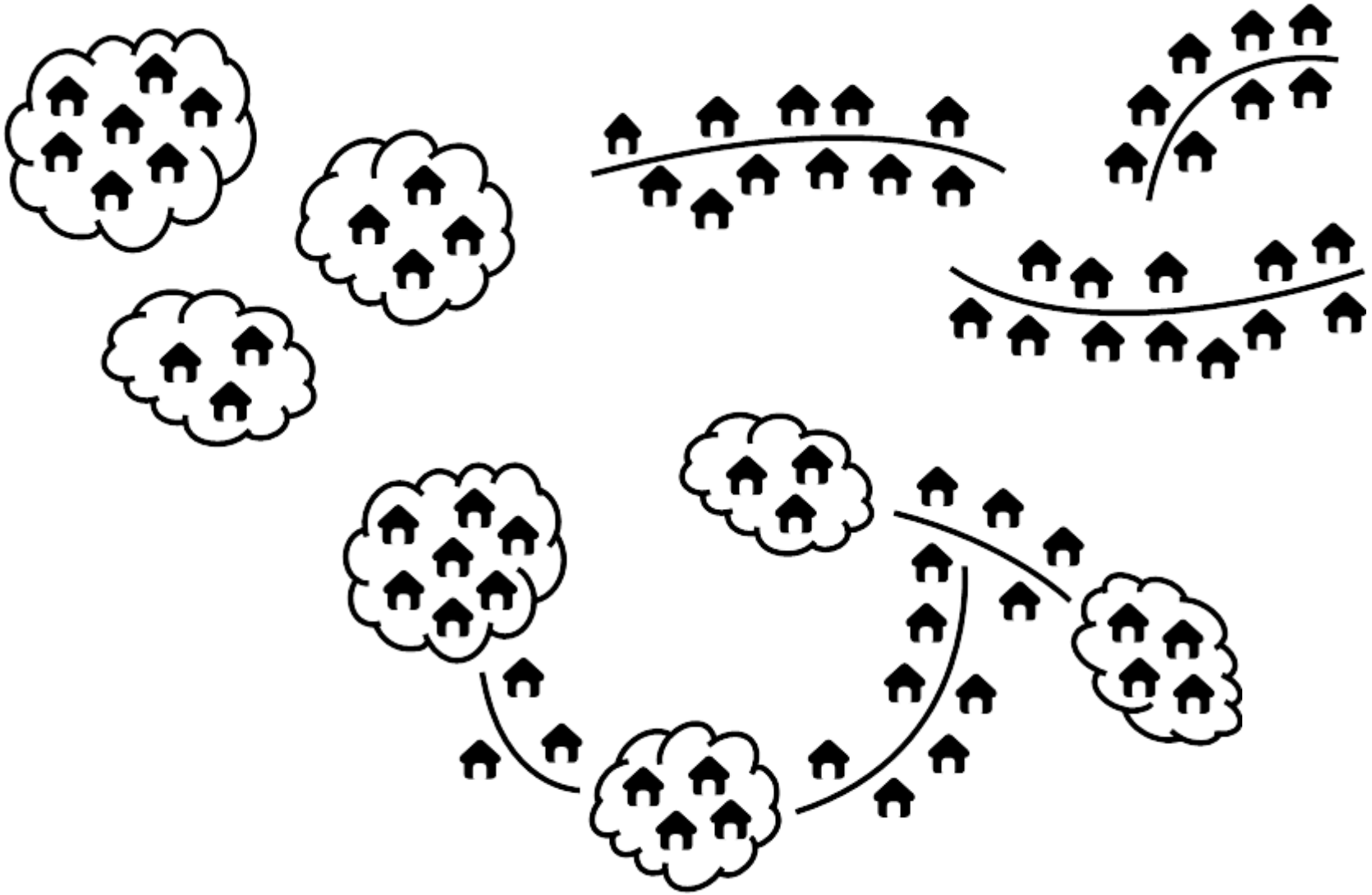
First stage sampling



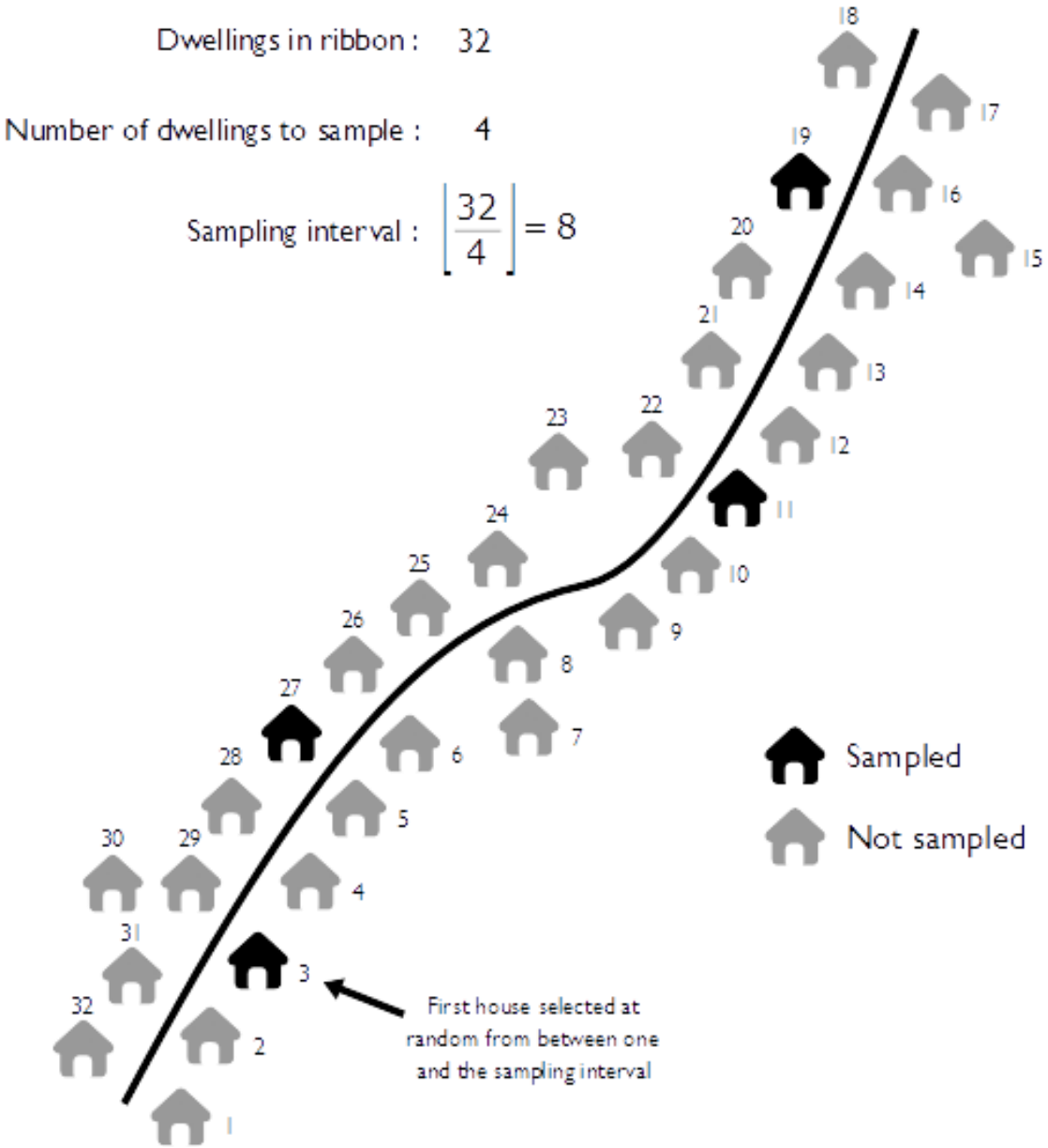
First stage sampling



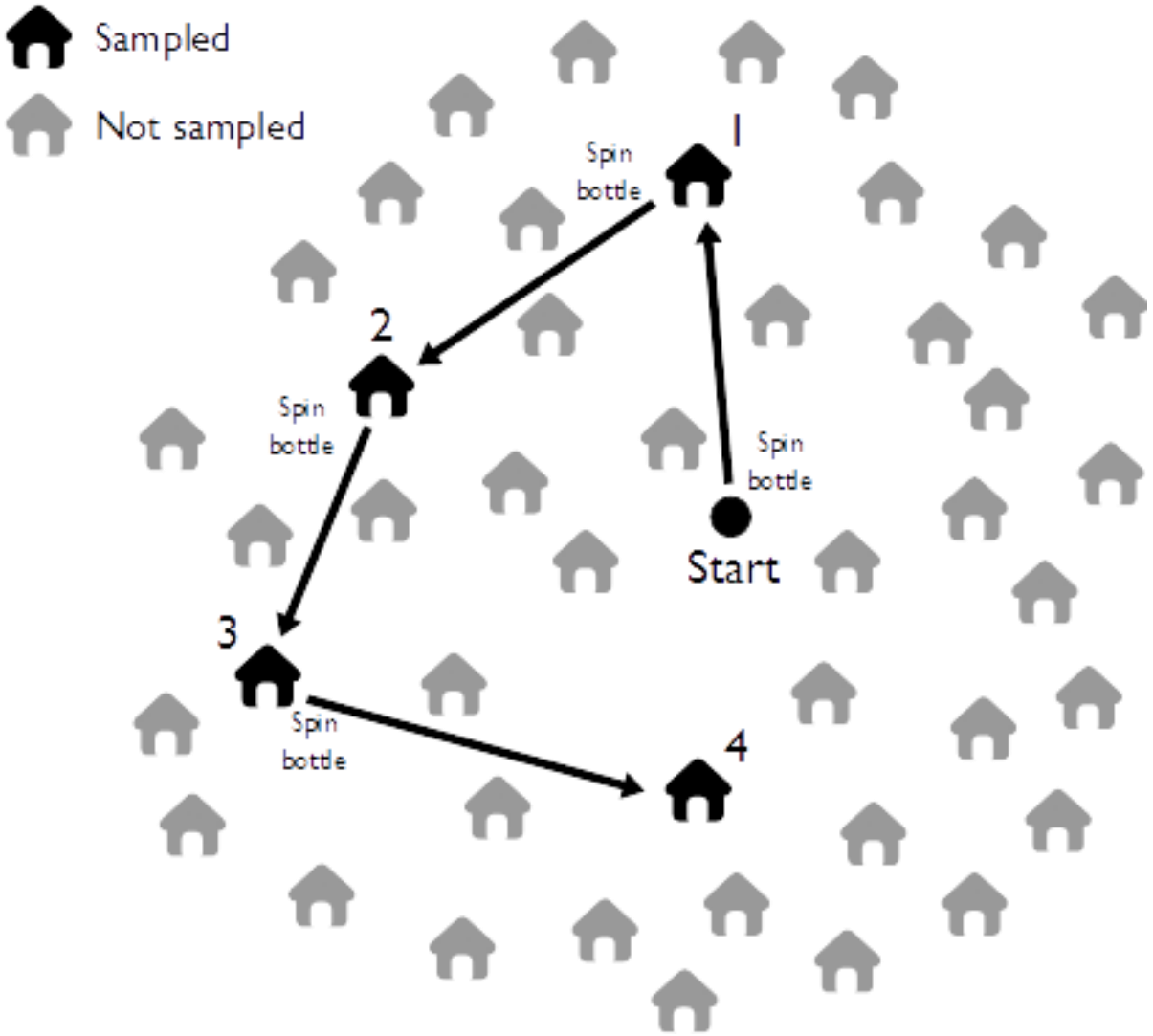
Second stage sampling



Second stage sampling



Second stage sampling



Rapid Assessment Method for Older People: RAM-OP

- 3 or 4 teams of 2 enumerators, plus 1 data-entry clerk, plus supervisors
- The survey will take maximum 4 days with 4 teams, or 6 days with 3 teams
- Training: 1 week

RAM-OP Data analysis

- Data analysis: **immediate**, by linking the data entry file and the analysis software
- Data set p 83 of the manual:
  - Survey data set (EpiData Entry)
  - PSU dataset:
    - Use OpenOffice Calc to create the PSU dataset
    - This is when we need to enter the **population data** for each PSU that has been surveyed

RAM-OP how to install R Analytic

- Description p 99 of the manual
  - Install R Analytic Flow 3: https://cran.r-project.org
  - Run R

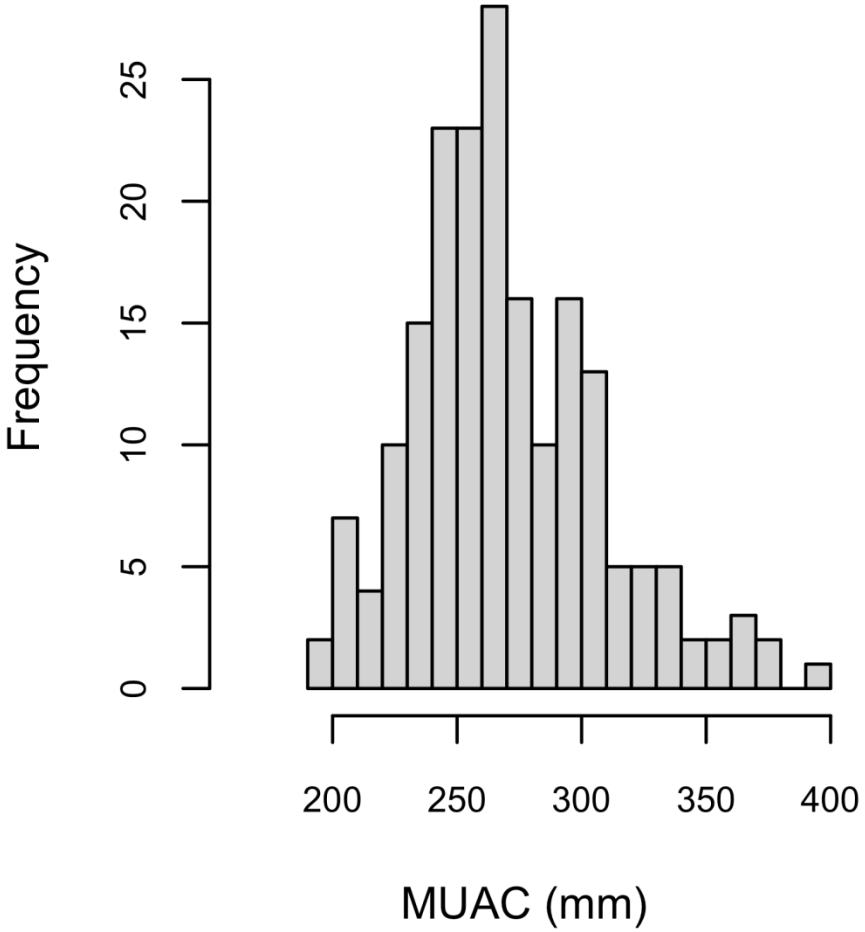
http://www.ef-prime.com/products/ranalyticflow_en/index.html

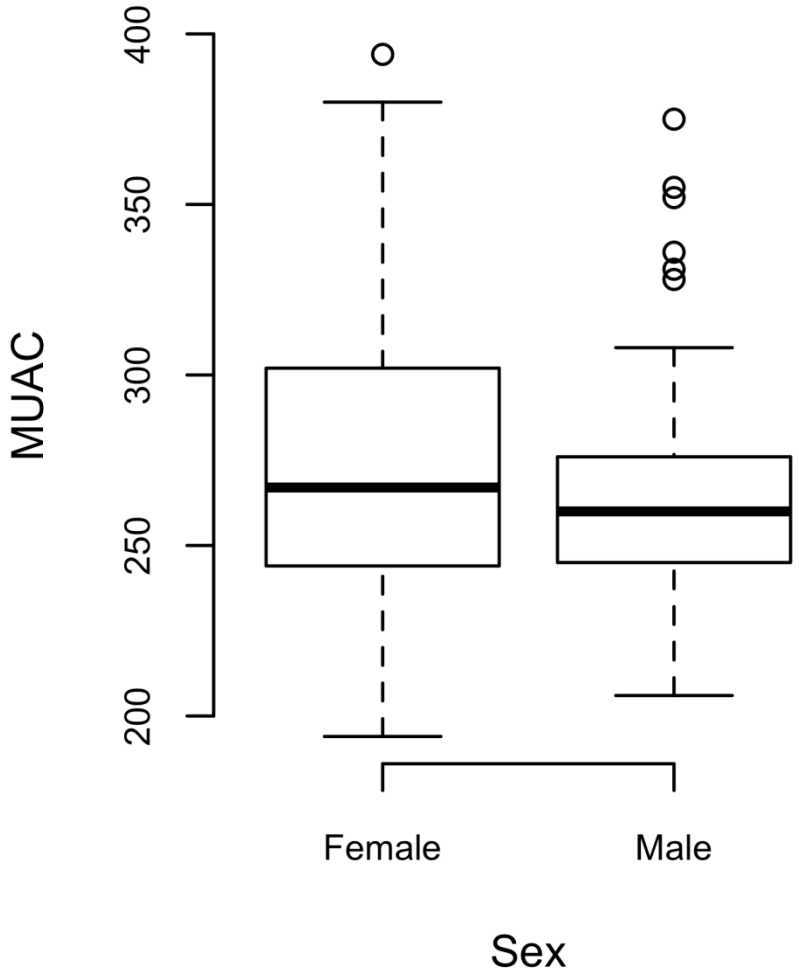
- **Indicators produced through the PROBIT method and blocked weighted bootstrap (described in the FEX articles)**
- **Products:**
  - Tables
  - Graphs

RAM-OP: extract of results' table

Anthropometry										
		ALL			MALES			FEMALES		
INDICATO	TYPE	EST	LCL	UCL	EST	LCL	UCL	EST	LCL	UCL
MUAC (mı	Mean	269.9141	261.9576	277.7307	262.4544	253.9382	271.1736	275.2209	265.0165	285.9474
Global acu	Proportior	0.0301	0.0043	0.0648	0.0084	0	0.0292	0.0405	0.0006	0.0838
Moderate	Proportior	0.0296	0.0042	0.0647	0.0084	0	0.0292	0.0379	0	0.082
Severe acı	Proportior	0.0001	0	0.0036	0	0	0.0004	0.0016	0	0.0121

RAM-OP: example of graph



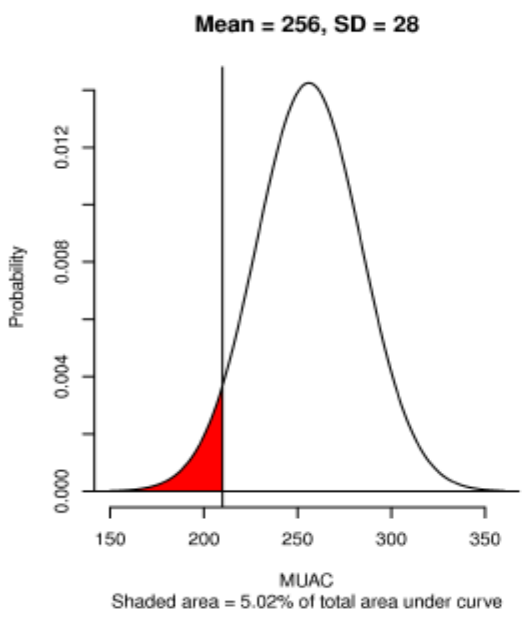


PROBIT ESTIMATOR

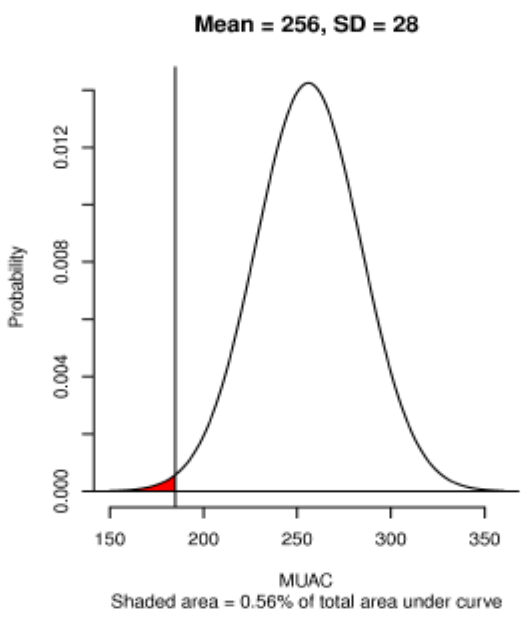
PROBIT estimator for GAM / MAM / SAM

GAM and SAM prevalence estimated by PROBIT (*area under the curve*) method :

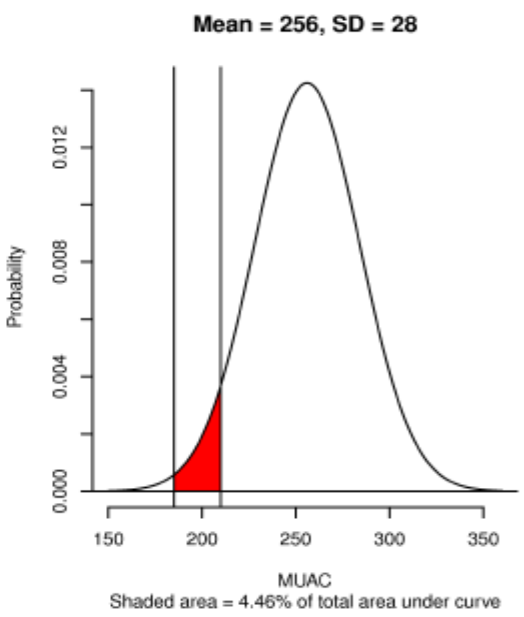
GAM



SAM



MAM



MAM is simply :

$$MAM(\%) = GAM(\%) - SAM(\%)$$

Problem of Measuring???

Measuring height is often not easy



Kyphosis
(osteoporosis - vertebral compression fractures)



Scoliosis



Dropped Head Syndrome
(flexor weakness)

RAM-OP, Partners

- **Partners:** Brixton Health
  VALID International
  Donor: HIF



- **Launched : 25 November 2015**
- **Contacts:**

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THANK YOU!

HelpAge International

