

WEBINAR ON STATISTICAL COMPUTING USING SMART SURVEY METHODOLOGY DEPLOYED WITH EMERGENCY NUTRITION ASSESSMENT (ENA-for-SMART) SOFTWARE.

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Abstract

In this part of the webinar:

- An insight into the use of **ENA for SMART software** as deployed in a Nutrition and Retrospective Mortality survey would be presented.
- It would be presented as a standard, simplified, cross-sectional field survey method designed to aid the collection of quality, up-to-date and timely nutrition and mortality data; necessary for decision-making.

- During this webinar, it is expected that the interest and curiosity of many Statisticians and other participants toward strengthening the **Nutrition Information System (NIS)** in their countries, including conducting nutrition surveys on a more regular basis would be awakened;
- and in the long run, it would help to address the current shortage of qualified **SMART survey managers and master trainers globally who are Statisticians.**

What does SMART stand for?

- S=Standardized
- M=Monitoring and
- A=Assessment for
- R=Relief and
- T=Transition

It is an inter-agency initiative launched in 2002 by a network of organizations and humanitarian practitioners.

- **SMART** methodology is a standardized, simplified field survey approach that produces a snapshot of the current situation on the ground.
- It was developed in 2006 by a panel of experts in epidemiology, nutrition, food security, early warning systems and statistics (Demographers).
- **SMART** was originally devised to assess acute malnutrition and mortality in emergencies.
- But It is now used in all settings, including development and displaced populations.

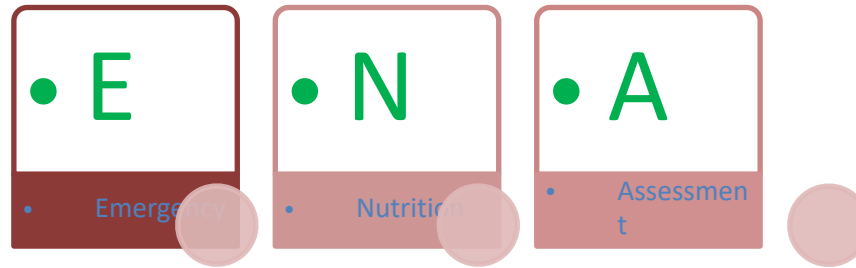
- Surveys using **SMART** produce representative, accurate and precise estimates:
 - Global Acute Malnutrition (GAM)
 - Moderate Acute Malnutrition (MAM)
 - Severe Acute Malnutrition (SAM)
 - Chronic malnutrition(stunting)
 - Underweight and retrospective mortality.
-
- These main indicators gathered through the **SMART** methodology provide the best available validated data that can be used for effective decision making and resource allocation.

Why **SMART** methodology?

- **SMART** advocates a multi-partner, systematized approach that provides on-the-spot critically reliable information for decision-making, and establishes shared systems and resources for host government, partners and humanitarian organizations.
- **SMART** is an improved survey method that balances simplicity (for assessment of acute malnutrition) and technical soundness.

- The **SMART** method ensures consistent and reliable survey data to be collected and analyzed using single standardized methodology.
- The **plausibility test** component helps to verify data quality and flag instant problems of outlayers.
- **SMART** incorporates core elements of several survey methodologies and is continuously updated with current research and best practices.

- The **Global Nutrition Cluster (GNC)- Technical Alliance** also approves the methodology and encourages its dissemination.
- **SMART** facilitates the survey process with flexible and standardizes survey protocols .
- The **SMART** methodology is complimented by a user-friendly software known as **ENA-for-SMART**, which helps to simplify all stages of survey; starting from sample size calculation to automated report generation.



E=EMERGENCY
N=NUTRITION
A=ASSESSMENT

Available at <https://smartmethodology.org/survey-planning-tools/smart-emergency-nutrition-assessment/>

Latest Software version: ENA 2020 (updated January, 11th 2020)

- **ENA** (Emergency Nutrition Assessment) software provides a standardized reporting format that simplifies data entry and analysis.
- Facilitates the survey process with flexible sample & cluster sizes, and standardizes survey protocols.
- With the use of replacement clusters, household selection techniques and best field practices (e.g. for absent children or empty households).

What are the Possible Major Objectives of a Nutrition/Mortality Survey?

- To assess the impact and severity of an emergency
- To determine need for new program
- To evaluate existing programs
- To assess performance
- To advocate

SMART Nutrition/Mortality Survey Process/ Steps



How does nutritional survey work?

- Based on nutritional status of children under-5:
 - Most vital, basic public health indicators of the severity of a humanitarian crisis.
 - Useful to identify current need and prioritize resources.
 - Useful to monitor the extent to which the relief system is meeting the needs of the population.

How does nutritional survey work? continued...

- Why measure nutritional status under-5?
 - Closely linked with risk of death.
 - Used to draw conclusions on whole population.

Nutrition & Mortality Survey Components

- Survey manual
- Standard Forms/questionnaires digitized in ODK format (Kobo collect)
- Random Number Generation (Random App)
- Calendar Events
- Weight for Height WHO table
- Height board
- Digital Scale
- MUAC (Mid-Upper-Arm Circumference)

Nutrition & Mortality Survey Manual

- Contains the information needed to conduct a nutrition & mortality survey.
- Contains information on:
 - Background on planning; different steps.
 - How to solve problems in the field.
 - How to ensure quality of survey.

Background on malnutrition

- A state in which an individual's physiological and physical functions are impaired.
- “Wasting” = “acute malnutrition”.
- Different classification of acute malnutrition:
 - *Moderate, severe, global.*
- Clinical forms of malnutrition:
 - *Marasmus and Kwashiorkor*

Marasmus



Kwashiorkor



Nutritional Survey in Emergency

- Objective is to evaluate the nutritional status of a population affected by an emergency (war, insurgency, regugee camps, IDPs camp etc.)
- Who?
- What?
- How?
- Why?

Nutrition Survey

Target population:

- Children 6 – 59 months . Due to difficult age estimations, we will take children >65cm to <110cm of height
- Anthropometric parameters to measure:
 - Length/height
 - Weight, Mid upper arm circumference (MUAC)

Data to collect

- Age
- Sex
- Presence or absence of edema

- **Indication** of the severity of the situation in the **whole population.**
- Children aged 6-59 months (>65cm to < 110cm):
 - In growth period
 - Particularly vulnerable to disease and food shortage
 - Face a higher risk of mortality in cases of crises
 - Considered to be the most sensitive to nutritional stress

Estimating age

- Child’s immunization card, road-to-health card, or other written document with the child’s age or date of birth written on it.
- If the age of a neighbour’s child is known, ask whether or not their child was born before or after the selected child.
- Use a local-events calendar.

Measuring MUAC - Key Points and Recommendations

- Measurements should be made to the nearest mm.
- Arm circumference is measured on the upper left arm.
- It is not standardised for age and measures are not universally accepted.

Estimating age from height

- Height cut-off can be used for selecting children instead of age.
- The height of normal children aged 6 and 59 months is approximately 65 cm and 110 cm respectively.

How to measure MUAC



Measuring weight -

Key Points and Recommendations

- Weight should be measured to the nearest 100g (0.1 kg).
- Always weigh the child before measuring the height.
- The scales should be *calibrated* before and after each day, using the same standard weight.
- The scales should always first be set at zero, with the weighing pants, basket or basin attached.

How to take weight of a child using hanging scales



Measuring weight continued...



Weighing mother and child on a digital scale



Measuring weight -

Key Points and Recommendations continued...

- If there are 2 eligible children in a household, always weigh the 'less fussy' one first.
- If child struggles preventing the needle from stabilising, try to involve the mother.
- Watch for older children who hold on to a bar attached to the balance!
- Mothers are usually wary of their children having to share hanging pants with others due to risk of faecal contamination or spread of disease.

How to measure a child's length ($\leq 87\text{cm}$)



How to measure height of a child > 87cm



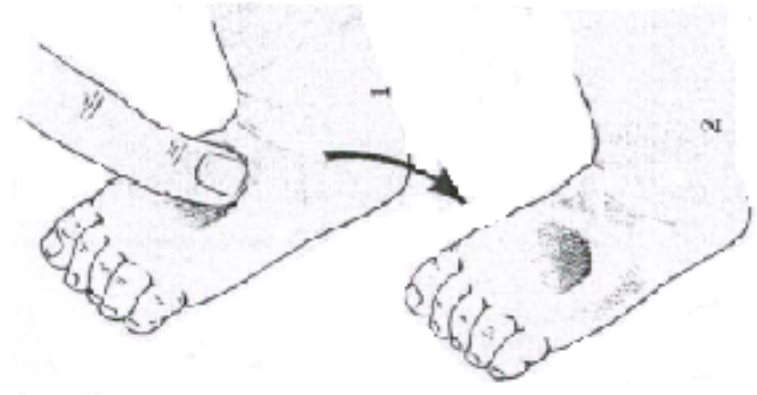
Measuring length or height - Key Points and Recommendations

- Height should be measured to the nearest 0.1 cm.
- Children up to 87 cm in height are measured lying down on a horizontal measuring board.
- Children above 87 cm are measured standing up.
- In some cultures, not appropriate to measure children lying down and need to follow different procedure.

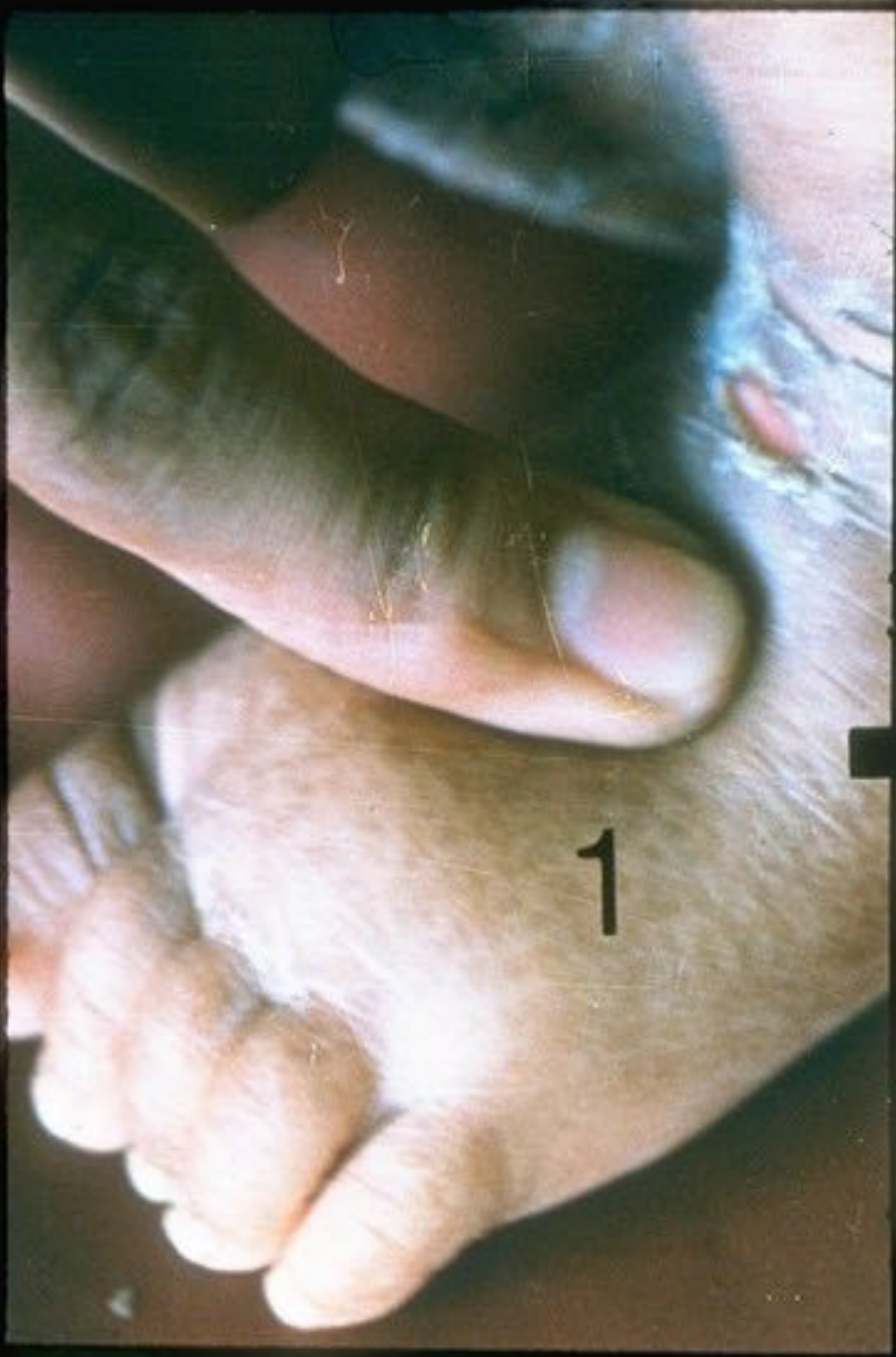
Background on malnutrition

- Information on a child's weight, height or age alone not sufficient to determine nutritional status.
- During the survey, MUAC, height, weight, age and the presence of oedemas are used to estimate what proportion of a population is malnourished.

How to check for edema



PCc 6



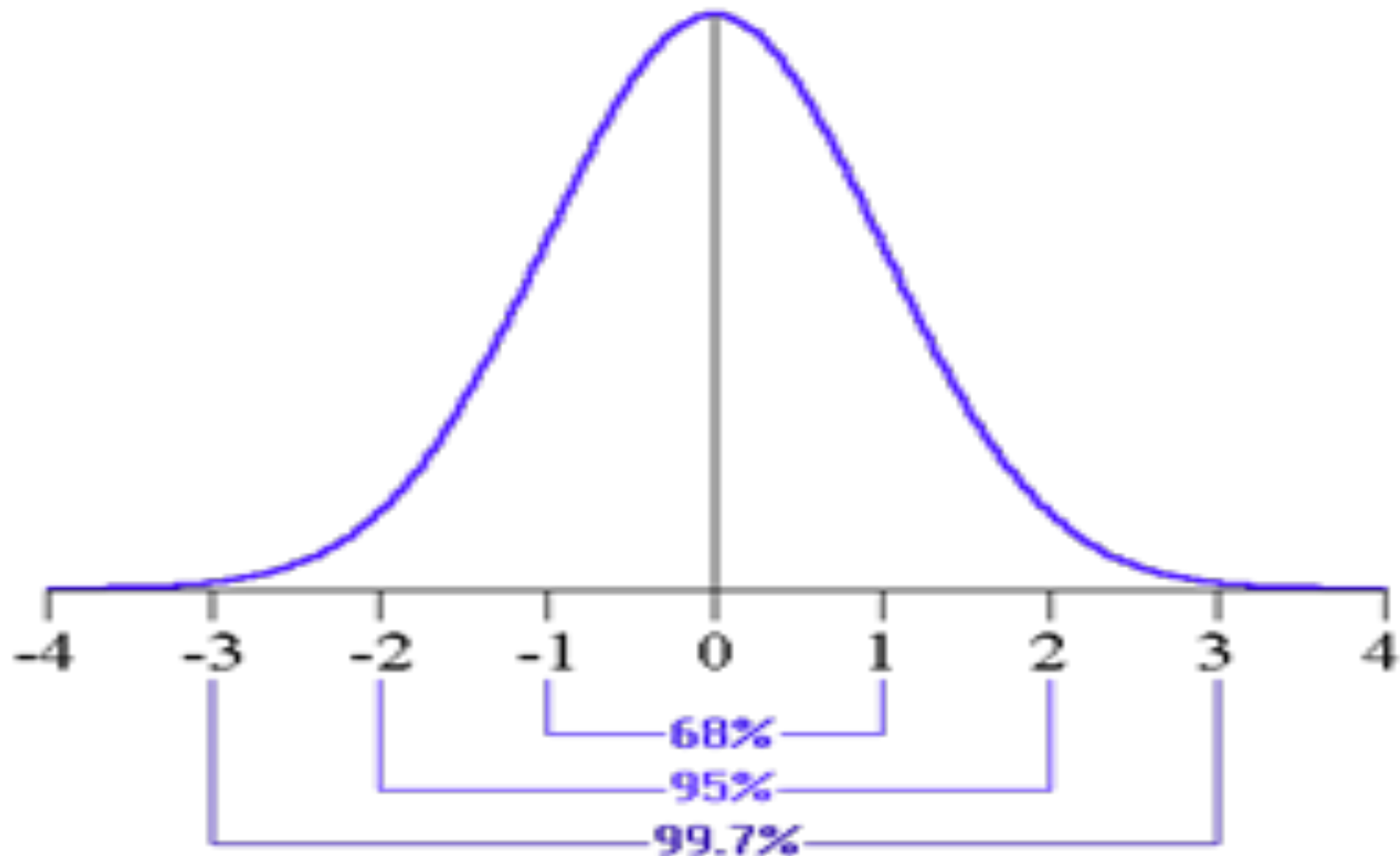
Checking for edema - Key Points and Recommendations

- Edema is the retention of water in the tissues of the body.
- Tested after weight and height/length measurements.
- Hard pressure is *not* required to test for edema.

Interpreting weight and height measurements

- **Weight-for-height** is a measure of how thin a child is.
- Calculating the weight-for-height of a child in the survey and comparing it to the reference population tells us if a child is malnourished or not:
 - Use of a reference table of weight-for-height.
 - For each height, there is an average of weight considered healthy.

Expressed as a Z-score.



Reference Table for Weight-for-Height Index (WHO 2005 standards)

Nutritional status	WFH Kg - Z-score	Is bilateral edema present?
Normal	Index ≥ -2	NO
Moderate acute malnutrition	$-3 \leq \text{Index} < -2$	NO
Severe acute malnutrition	Index < -3	YES OR NO
	Index > -3	YES

Planning the Survey

Emergency Nutrition Assessment: (8 datasets)

File Edit

Planning | Training | Data Entry | Anthropometry | Results Anthropometry | Data Entry | Mortality | Results Mortality | Outputs

Data Entry

Results: NCHS reference 1977

Percentile: 25 50 75 100

Weight/Age: 25 50 75 100

Height/Age: 25 50 75 100

Weight/Height: 25 50 75 100

Column/Variable: Add, Delete, Sort, Filter

Row/Data: New, Insert, Delete

Go To: <<, >>, D

Reset Plausibility Check

NCHS reference 1977
 WHO standard 2005

Uncluster

	SI	RV	DTF	CH	FA	IR	RM	SFX	BIRTHDAT	MONTHS	WFRHT	HFRHT	FFFM6	ML6C	WaZ	HuZ	W-HZ
1	30/89/2005	1	1	1	1	m				31	10.7	87.7	m	133	-2.189	-3.121	-1.712
2	30/89/2005	1	1	2	2	m				40	12	89.9	m	130	-1.945	-3.611	-1.958
3	30/89/2005	1	1	3	2	f				11	6.9	66.2	m	134	-2.290	-1.738	-1.278
4	30/89/2005	1	1	4	4	m				37	10.1	85.9	m	134	-2.890	-3.126	-1.557
5	30/89/2005	1	1	5	5	m				23	8.6	75.9	m	120	-2.983	-3.373	-1.677
6	30/89/2005	1	1	7	6	m				18	6.6	72.5	p	102		-3.262	
7	30/89/2005	1	1	8	7	m				35	11	67.3	m	130	-2.280	-1.700	-1.553
8	30/89/2005	1	1	9	8	f				34	9.4	77.7	m	132	-3.044	-4.047	-0.825
9	30/89/2005	1	1	10	9	f				26	11	61.5	m	146	-0.994	-1.421	-0.057
10	30/89/2005	1	1	12	11	m				30	11.1	67.7	m	140	-2.342	-2.220	-1.446
11	30/89/2005	1	1	13	11	f				11	8.0	70.3	m	141	-0.430	-3.007	0.444
12	30/89/2005	1	1	14	11	m				25	0.4	77.3	m	122	-3.534	-2.012	-1.322
13	30/89/2005	1	1	15	11	f				48	12.2	65.5	m	144	2.212	-2.251	-1.100
14	30/89/2005	1	1	16	12	f				22	6.5	72.3	m	118	4.151	3.768	3.085
15	30/89/2005	1	1	17	12	m				10	7.0	67.3	m	135	-1.979	-2.200	-0.203
16	30/89/2005	1	1	18	13	f				26	9.4	70.3	m	130	-2.292	-1.955	-1.201

Data View | Variable View

Start | VBA Messenger | ENA | Problem loading page - M... | Emergency Nutrition ... | 12:45:54

Parameters for anthropometry and mortality data collection plan

• **Anthropometry**

- Estimated prevalence of GAM(%) for most recent study in the area
- Desired precision (diverse from SMART)
- Design effect for WHZ-score from previous survey
- % of children under-five
- Average HH size
- Non-response rate from previous survey

Mortality

- Estimated death rate for a most recent study in the area
- Desired precision (diverse from SMART)
- Design effect for CDR from previous survey
- Recall period in days
- Average HH size
- Non-response rate from previous survey

Cluster/Team Planning: Example 1

Sub Ward	Geographical Code	Population Size	IRISes	Cluster	Sampling Interval	Cluster Leader	Code
001	00001	11000	2544	01	77	Mr. 00001	001
002	00002	2183	199	3	18	Mr. 00002	002
003	00003	10827	3127	2,3	3,6	Mr. 00003	003
004	00004	5957	336	4	41	Mr. 00004	004
005	00005	5891	437	5	40	Mr. 00005	005
006	00006	4051	100	6	28	Mr. 00006	006
007	00007	3986	2157	3	68	Mr. 00007	007
008	00008	7789	3047	8	53	Mr. 00008	008
009	00009	5474	150	9	34	Mr. 00009	009
0010	00010	12408	2168	10	89	Mr. 00010	010
0011	00011	8127	858	11	43	Mr. 00011	011
0012	00012	7928	3034	12	54	Mr. 00012	012
0013	00013	4190	104	13	79	Mr. 00013	013
0014	00014	4180	520	14	39	Mr. 00014	014
0015	00015	3450	100	15	23	Mr. 00015	015
0016	00016	2920	120	16	29	Mr. 00016	016
0017	00017	7176	3000	07	57	Mr. 00017	017
0018	00018	2781	100	17	19	Mr. 00018	018
0019	00019	7180	3090	18	50	Mr. 00019	019
0020	00020	8170	920	19	41	Mr. 00020	020
0021	00021	7451	100	20	18	Mr. 00021	021
0022	00022	5440	670	21	40	Mr. 00022	022
0023	00023	7180	3090	21	50	Mr. 00023	023
0024	00024	8020	2190	22	61	Mr. 00024	024
0025	00025	2410	120	23	21	Mr. 00025	025
0026	00026	5440	670	24	40	Mr. 00026	026
0027	00027	3059	1141	25	61	Mr. 00027	027
0028	00028	1181	180	02	24	Mr. 00028	028
0029	00029	1029	100	27	7	Mr. 00029	029
0030	00030	7074	196	26	14	Mr. 00030	030
0031	00031	4120	104	28	34	Mr. 00031	031
0032	00032	6120	100	30	43	Mr. 00032	032
0033	00033	4113	107	31	39	Mr. 00033	033
0034	00034	5450	170	32	24	Mr. 00034	034
0035	00035	7180	3090	33	50	Mr. 00035	035
0036	00036	7180	3090	34	50	Mr. 00036	036
0037	00037	1100	120	31	40	Mr. 00037	037
0038	00038	1190	407	35	27	Mr. 00038	038
0039	00039	358	131	37	7	Mr. 00039	039
0040	00040	2155	100	38	18	Mr. 00040	040
0041	00041	8994	2112	02	63	Mr. 00041	041
0042	00042	7347	194	07	18	Mr. 00042	042
0043	00043	1399	110	39	11	Mr. 00043	043
0044	00044	1043	125	40	11	Mr. 00044	044

Note: Reserved Cluster(s) (001) would be reserved only if 10% or more clusters were not possible to be covered.

Sub Ward	Community	Cluster	Team	Day	Code
0001	00001	1	Team 1		001
0002	00002	3	Team 2		004
0003	00003	5	Team 3		003
0004	00004	4	Team 4		005
0005	00005	5	Team 5		007
0006	00006	6	Team 6		010
0007	00007	7	Team 7		011
0008	00008	8	Team 8		018
Day 1					
0009	00009	9	Team 1		016
0010	00010	10	Team 2		017
0011	00011	11	Team 3		018
0012	00012	12	Team 4		020
0013	00013	13	Team 5		022
0014	00014	14	Team 6		045
0015	00015	15	Team 7		058
0016	00016	16	Team 8		060
Day 2					
0017	00017	17	Team 1		086
0018	00018	18	Team 2		049
0019	00019	19	Team 3		018
0020	00020	20	Team 4		019
0021	00021	21	Team 5		032
0022	00022	22	Team 6		034
0023	00023	23	Team 7		026
0024	00024	24	Team 8		027
Day 3					
0025	00025	25	Team 1		040
0026	00026	26	Team 2		056
0027	00027	27	Team 3		061
0028	00028	28	Team 4		065
0029	00029	29	Team 5		071
0030	00030	30	Team 6		072
0031	00031	31	Team 7		077
0032	00032	32	Team 8		088
Day 4					
0033	00033	33	Team 1		085
0034	00034	34	Team 2		087
0035	00035	35	Team 3		090
0036	00036	36	Team 4		094
0037	00037	37	Team 5		097
0038	00038	38	Team 6		101
0039	00039	39	Team 7		113
0040	00040	40	Team 8		122

Note: Codes for the 5 Reserved Clusters (001) are 011, 052, 057, 100 and 187

Cluster/Team Planning: Example 2

Wards/Sector	Geographical Unit	Sector/Type	Population	MSU	Cluster	Sampling Intv.
XX1	XXa1	HC	605	752	1	7W
XX3	XXa2	HC	295	536	2	7W
XX3	XXa4	HC	245	421	3	7W
XX4	XXa5	HC	546	582	4	7W
XX5	XXa6	HC	225	375	5	7W
XX6	XXa7	HC	563	997	6	7W
XX7	XXa8	HC	640	751	7	7W
XX8	XXa9	HC	690	886	8	7W
XX9	XXa4	HC	245	483	9	7W
XX10	XXa5	HC	275	282	10	7W
XX11	XXa5	HC	250	481	11	7W
XX12	XXa1	HC	220	375	12	7W
XX13	XXa1	HC	1480	262	13, 14	7W
XX14	XXa1	HC	1750	223	16	7W
XX15	XXa1	HC	1405	262	15, 16	7W
XX16	XXa1	HC	195	388	17	7W
XX17	XXa1	HC	720	122	18	7W
XX18	XXa1	HC	1890	266	19, 20, 16	7W
XX19	XXa1	HC	1880	266	21, 22, 16	7W
XX1	XXa1	DP	258	625	23	35
XX2	XXa2	DP	1025	208	24, 25	24
XX3	XXa3	DP	694	1195	26	85
XX4	XXa4	DP	1760	181	27	10
XX5	XXa5	DP	663	872	28	118

Note: Some Clusters/Cases are managed by 125 areas (area was not possible to be used as 70 under 100)

Ward/Sector	Geographical Unit	Cluster	Day 1	Day 2	Day 3	Day 4	Day 5	Code
XX1	XXa1	1	Team 1					001
XX2	XXa2	2	Team 2					002
XX3	XXa4	3	Team 3					003
XX4	XXa5	4	Team 4					004
XX5	XXa6	5	Team 5					005
XX6	XXa7	6	Team 6					006
XX7	XXa8	7		Team 1				007
XX8	XXa9	8		Team 2				008
XX9	XXa4	9		Team 3				009
XX10	XXa5	10		Team 4				010
XX11	XXa5	11		Team 5				011
XX12	XXa5	12		Team 6				012
XX13	XXa1	13			Team 1			013
XX14	XXa1	14			Team 2			014
XX15	XXa1	15			Team 3			015
XX16	XXa1	16			Team 4			016
XX17	XXa1	17			Team 5			017
XX18	XXa1	18			Team 6			018
XX19	XXa1	19				Team 1		019
XX20	XXa1	20				Team 2		020
XX21	XXa1	21				Team 3		021
XX22	XXa1	22				Team 4		022
XX23	XXa1	23				Team 5		023
XX24	XXa1	24				Team 6		024
XX25	XXa4	25					Team 1	025
XX26	XXa5	26					Team 2	026
XX27	XXa6	27					Team 3	027
XX28	XXa7	28					Team 4	028

Training

- ENA Software assesses quality of training on taking anthropometric measurements (standardization test).
- Software indicates when team gives wrong results and needs to change or re-training.

Introduction to the standardization test

Standardization Test-Overview

- All members of the teams measure at least 10 different children twice, with a time interval between individual measures.
- Each team member is then given a score of competence in performing measures.
- Any misunderstandings or errors in technique are corrected during the training.

Standardization Test-Procedure

- Supervisor weighs and measures each child without allowing the trainees to see values.
- Each child, with his/her mother, remains at a fixed location with ID number clearly marked.
- Trainees conduct first round of measurements and record results on standard form.
- Trainees take a break.
- Trainees conduct second round of measurements and record results on standard form.

Standardization test-Procedure continued...

- Equipment used should be same as the one used in survey.
- Equipment should not rotate.
- Only one pair of measurers should be with a child at any one time.
- Talking between pairs of trainee measurers during this exercise not allowed.
- Supervisor's observations (checklist).

Data entry form

At the end of the exercise the data forms should look something like those below:

Enumerator name..... ID ### 1st measure			
Child	Weight (Kg)	Height (cm)	Muac (mm)
1	14.6	96.0	120
2	10.3	89.8	110
3	13.8	105.1	122
4	11.1	84.5	127
5	10.8	89.3	108
6	9.4	76.3	119
7	10.3	87.6	107
8	14.3	101.1	124
9	8.0	74.3	127
10	15.6	97.0	112

Enumerator name..... ID ### 2nd measure			
Child	Weight (Kg)	Height (cm)	Muac (mm)
1	14.8	96.1	120
2	10.4	89.5	110
3	13.8	105.3	122
4	11.0	84.7	127
5	10.7	89.0	108
6	9.4	76.4	118
7	10.3	87.6	105
8	14.1	101.2	124
9	8.1	74.1	125
10	15.4	97.5	112

Training continued...

Emergency Nutrition Assessment: (0 datasets)

Files Extras

Planning Training Data Entry Anthropometry Results Anthropometry Death Rates Food Security Options

Evaluation of Enumerators

Please enter for the supervisor and all enumerators the training measurements: children measured twice or weight, height and/or MUAC
After entering the data press the report button to get an evaluation for each enumerator.

	Supervisor				Enumerator 1				Enumerator 2		
Subject	Weight 1	Weight 2	Height 1	Height 2	Weight 1	Weight 2	Height 1	Height 2	Weight 1	Weight 2	Height
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

	Supervisor		Enumerator 1		Enumerator 2		Enumerator 3		Enumerator 4	
Subject	MUAC1	MUAC2	MUAC1	MUAC2	MUAC1	MUAC2	MUAC1	MUAC2	MUAC1	MUAC2
1										
2										
3										
4										
5										

Report

démarré Microsoft G... Calculatrice Explorateur... Emmanuel GTE... Microsoft G... EMA for SMART FR 100% 12:15

Data Collection

- Questionnaires are digitized in ODK format into Kobocollect tool kit
- Collected from smart Android phones or tablets in the field
- Thereafter, transferred to a dedicated server via the submission console at the end of every day's enumeration.

Forms and Questionnaires

- Simple to use questionnaires to assess nutritional status and also for a mortality survey.

Anthropometry Questionnaire

Nutritional data survey form for children from 6 to 59 months

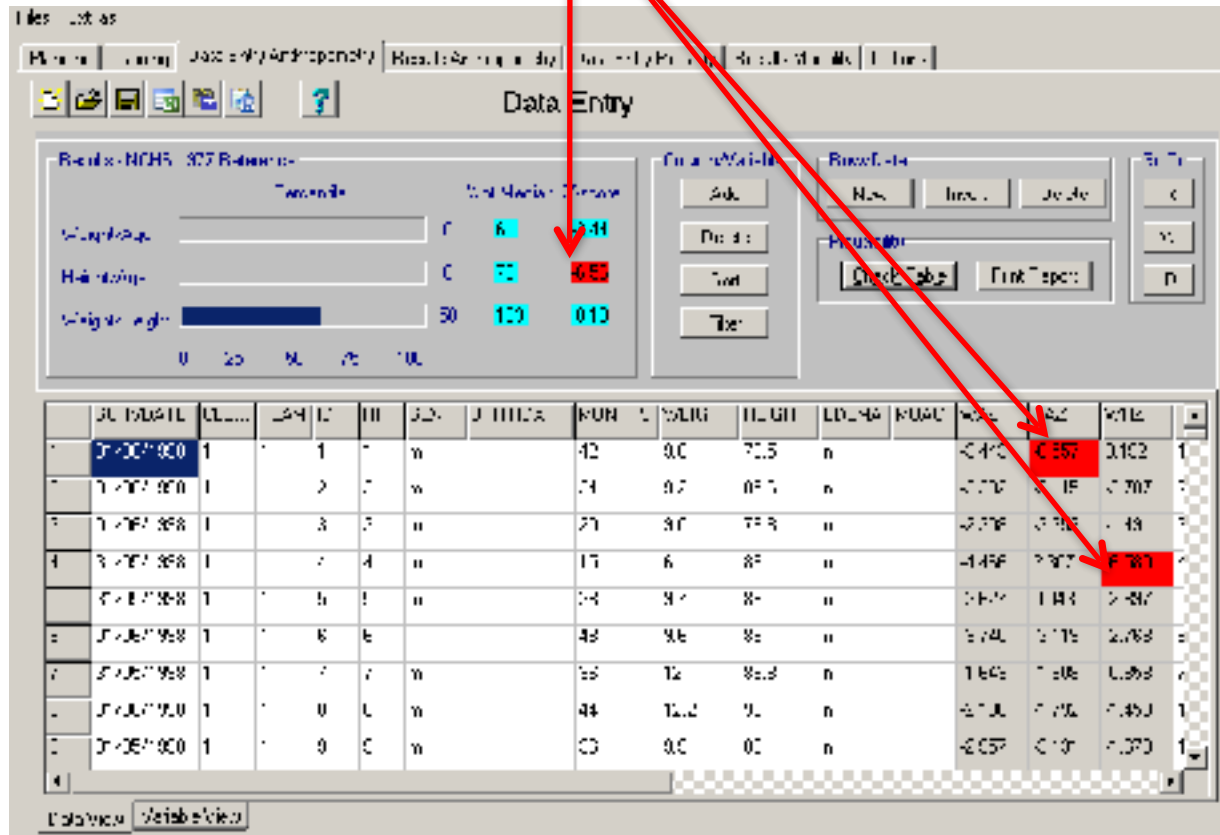
Team number: _____ (1-6) Cluster: _____ Date: ____/____/____ Site name: _____

Child no.	HH no.	Name (if missing)	Sex (M/F)	Age in months (mo)	Weight (Kg) ±100g	Height (cm) ±0.1cm	Q-angle (Y/N) ¹	MDAC (mm) ^{2,3}	WH (Z scores)	Covered by the program (Y/N)	Has child ever received a measles vaccine? 1-Yes, card seen 2-Yes, card not seen 3-No
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

* Refer if "YES." ** Refer if "<115mm".

Data Entry

Software uses **'flags'** for showing where there is a mistake and which teams are making the mistakes.

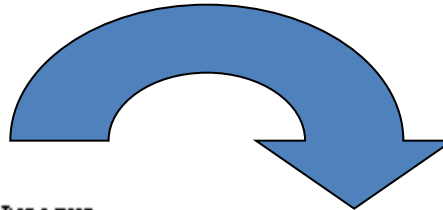


The screenshot shows a data entry window titled "Data Entry" for "Results - NCHS 307 Release". It features a table with columns for various variables. Two cells in the table are highlighted in red, indicating data entry errors or flags. A red arrow points from the text above to these cells.

	SEX	AGE	HT	WT	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR	HAIR
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	1	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	1	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	1	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

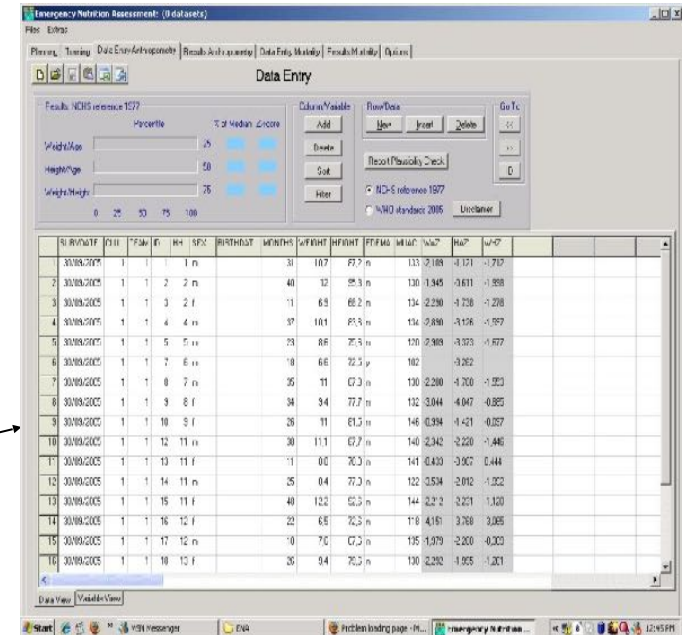
Data collection continued...

Team in the field



Supervisor in the field office

Plot No	Plot Size	Plot Area	Tree (No)	Tree Age	Area (m ²)	Tree (No)	Tree Age	Area (m ²)	Tree (No)	Tree Age
1										
2										
3										
4										
5										
6										
7										
8										
9										
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16										
17										
18										
19										
20										
21										
22										
23										
24										



Emergency Nutrition Assessment: (9 datasets)

File Edit View Data Entry Antagonists Results Antagonists Data Entry Metadata Results Metadata System

Data Entry

Female: NCHS reference 1577

Percentile: 25 % of Median: 25

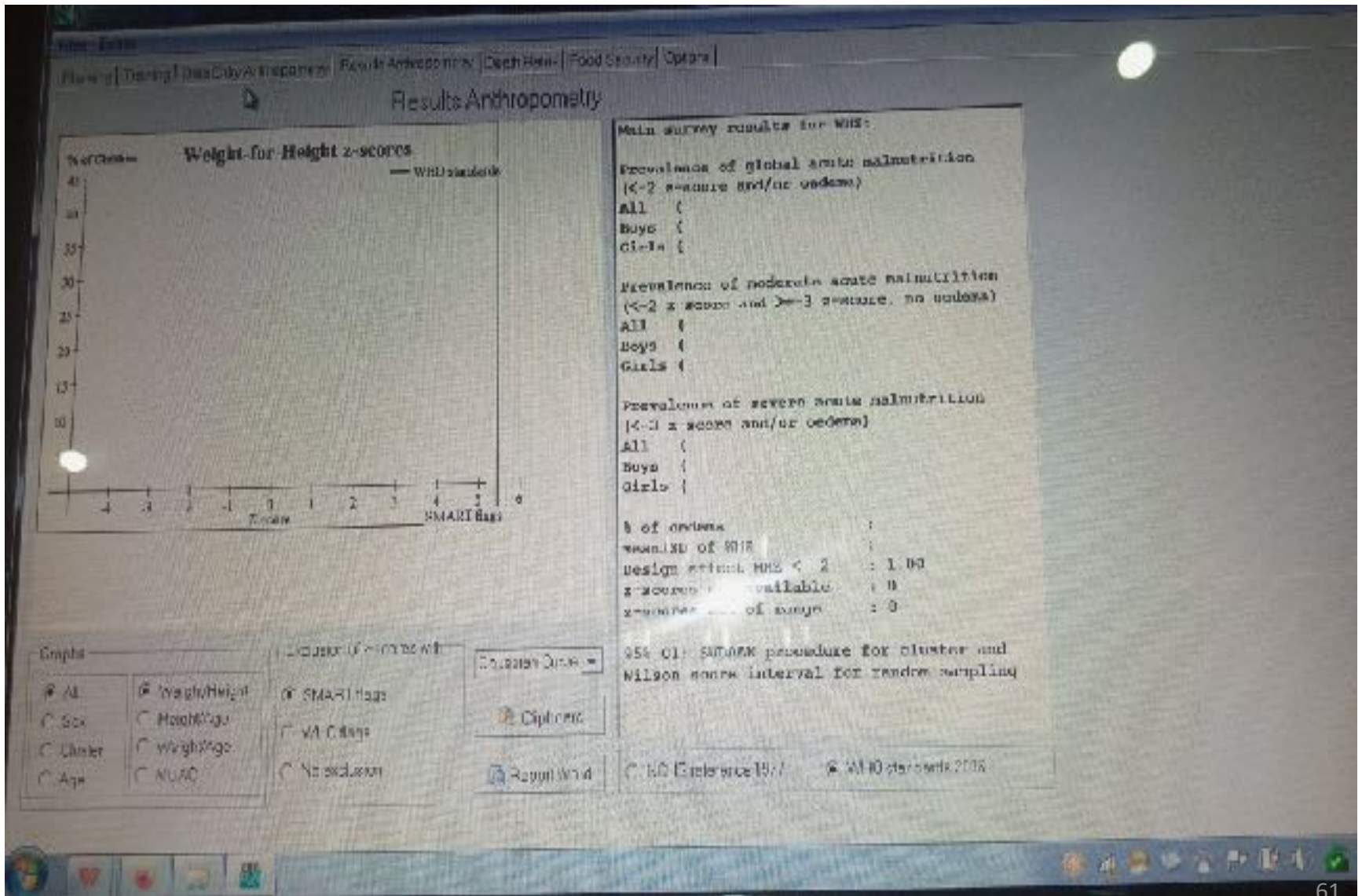
Height/Age: 50

Weight/Height: 75

Buttons: Add, Edit, Delete, Save, Print, Recal Physical Check, Filter, %NCHS reference 1577, %WHO standard 2005, License

SURVNOPT	CHILD	TEAM	IN	SEX	BIRTHDAY	MONTHS	HEIGHT	WEIGHT	FFPM	MIAC	WAZ	WUP	WOF	
30/NA/2005	1	1	1	m		33	107	87.7	m	133	2.189	4.121	-1.713	
2	30/NA/2005	1	1	2	2	m	40	12	88.3	m	130	1.945	-3.611	-1.898
3	30/NA/2005	1	1	3	2	f	11	65	66.2	m	134	2.230	-4.728	-1.298
4	30/NA/2005	1	1	4	4	m	37	101	85.5	m	134	2.890	-4.158	-1.557
5	30/NA/2005	1	1	5	5	m	73	86	75.5	m	130	2.409	-3.523	-1.677
6	30/NA/2005	1	1	7	6	m	18	66	72.5	m	102		-3.262	
7	30/NA/2005	1	1	8	7	m	35	11	67.3	m	130	2.200	-4.700	-1.923
8	30/NA/2005	1	1	9	8	f	34	34	77.7	m	132	3.044	-4.047	-0.825
9	30/NA/2005	1	1	10	9	f	26	11	61.5	m	146	0.934	-4.421	-0.057
10	30/NA/2005	1	1	12	11	m	30	11.1	67.7	m	140	2.342	-2.220	-1.446
11	30/NA/2005	1	1	13	11	f	11	60	70.3	m	141	0.403	-3.067	0.444
12	30/NA/2005	1	1	14	11	m	25	04	77.3	m	122	3.534	-2.012	-1.022
13	30/NA/2005	1	1	15	11	f	40	122	62.5	m	144	2.712	-2.221	-1.120
14	30/NA/2005	1	1	16	12	f	22	68	72.5	m	118	4.161	-3.768	3.005
15	30/NA/2005	1	1	17	12	m	10	70	67.3	m	195	1.979	-2.000	-0.003
16	30/NA/2005	1	1	18	12	f	26	94	70.3	m	130	2.202	-1.925	-1.021

Result Anthropometry



INTRODUCTION TO MORTALITY SURVEY

Measuring mortality

- Cross-sectional survey gathers data at single point in time
- Mortality measurement is rate:
 - CMR, U5MR and other disaggregated death rates
 - Requires counting deaths over period of time
- Therefore, must gather data from retrospectively
 - Questions about deaths during specific period in the past (recall period) are asked

Measuring mortality

- Determines number of household members alive on day of survey
- Asks number of deaths and births within household during recall period
- Asks which members entered the household during the recall
- Adds members who left the household during the recall

Measuring mortality – general principles

Recall period

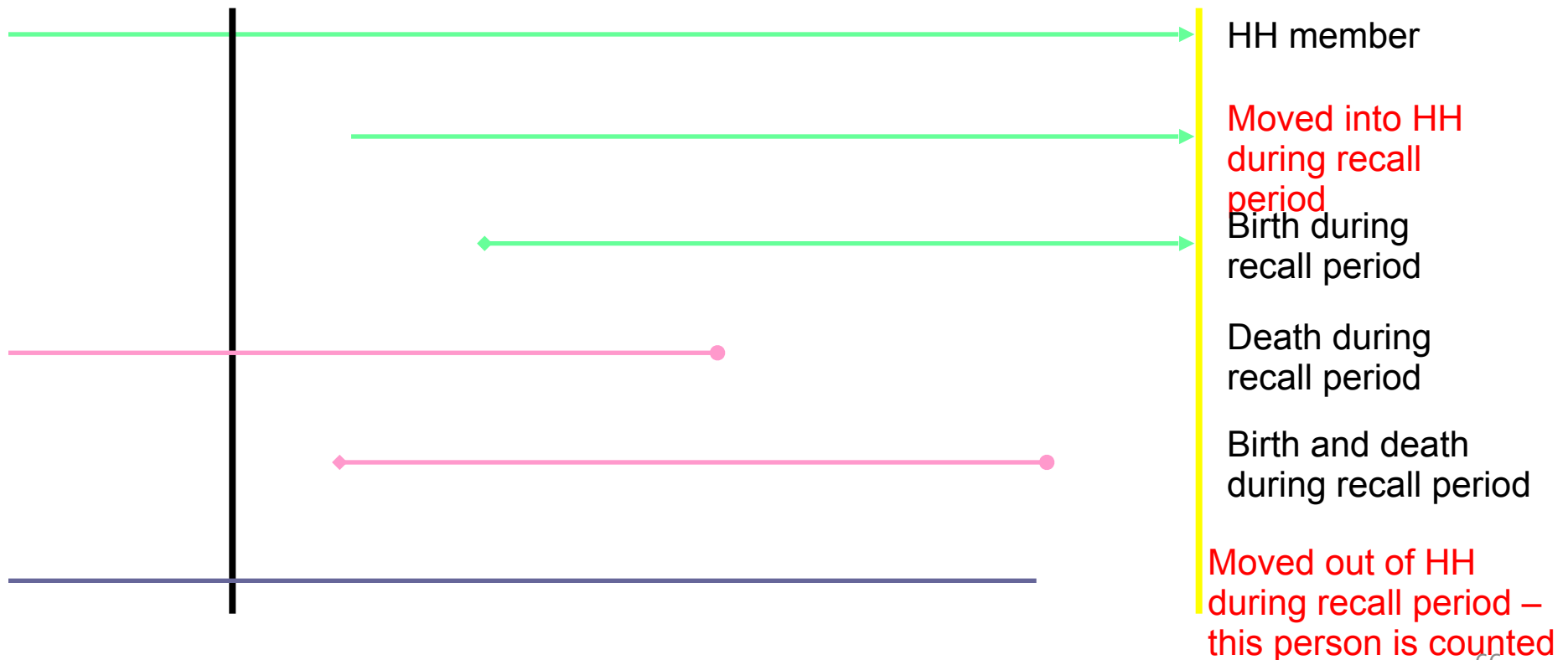
- Beginning of period must be well-known date
 - Major holiday or festival
 - Occurrence everyone remembers
- End of period is day of survey data collection

Measuring mortality

HH census

Beginning of recall period

End of recall period
(usually when survey data collected)



Mortality Questionnaire

Questionnaire for household composition and mortality (one sheet/household)

Team number: _____ (1-6) Cluster: _____ Date: ____/____/____ Site name: _____ III number: _____

ID No	Sex M/F*	Age in year (**)	Present now (currently living in the HH)? Y/N**	Born during the recall period? Y/N**	Join HH during the recall period? Y/N**	Deaths during the recall period? Y/N**	Leave HH during the recall period? Y/N**
1							
2							
3							
4							
5							
6							
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8							
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10							
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24							
25							

Supervisor part
(to complete at the end of the day)

All current HH members	
Current HH members < 5 years	
Current HH members who arrived during recall (exclude births)	
Current HH members who arrived during recall < 5 years	
Past HH members who left during recall (exclude deaths)	
Past HH members who left during recall < 5 years	
Births during recall	
Total deaths	
Deaths < 5 years	

Recall period - (27/01/2011) to date
HH (Household) = people eating from the same cooking pot

* M= male / F= female
** Y= yes / N= no

Calculation of Death Rates

Home | Training | Data Entry | Analysis | Results | Reports | Settings | Help | Logout

Calculation of Death Rates

Data Entry: Individual Level | Results: Individual Level | Data Entry: Household Level | Results: Household Level

Record type: Record type:

Survey date: Cluster: Team No: Household No:

Note: Please enter the following information for the death of each individual who has died since the last survey. Please select the cause of death and location of death from the lists and add any other details for the cause and location of death.

Cause of death		Location of death	
1) Unknown	<input type="text" value="5"/>	1) In a common location	<input type="text" value=""/>
2) Injury/Trauma	<input type="text" value="6"/>	2) During migration	<input type="text" value=""/>
3) Illness	<input type="text" value="7"/>	3) In a case of lost residence	<input type="text" value=""/>
4) <input type="text" value=""/>	<input type="text" value=""/>	4) Other	<input type="text" value=""/>

Additional variables:

Sl. No.	Sex	Age	Survived	Loc	Team	Death	Cause	Location
1								
2								
3								
4								
5								
6								
7								
8								

Data of all households

Sl. No.	Team	Cluster	Team	HH	P1_sex	P1_age	P1_surv	P1_loc	P1_bo	P1_lo	P1_cau	P1_lo	P2_sex	P2_age	P2_surv	P2_loc	P2_bo	P2_lo	P2_cau	P2_lo	P3_sex	P3_age	P3_surv	P3_lo
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								

2:37 AM

Many thanks for listening

- For further enquiries on physical training opportunities contact:

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@

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