



## COMPLEX EMERGENCY DATABASE (CE-DAT)

# CE-DAT Completeness Checklist Guidelines

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## 1 Pre-survey preparation and planning (Items 1-14)

### 1.1 Objective of the survey (Items 1-3)

A statement of clear objectives is a critical element for all public health studies. It has to state what information is sought (nutrition, mortality, vaccination or a combination) and why. It provides essential background information for the reader.

*Example:*

- Survey justification:
  - The Hawd of Hargeisa has persistently shown rates of GAM between 5-10%. However most recent rapid assessment recorded GAM rates of 11.4%. Moreover, the region had experienced below average rains in preceding seasons, placing the majority of the population who are mainly pastoralists into chronically insecure food situation.
- The specific objectives of the assessment were:
  - to estimate the prevalence of acute malnutrition and nutritional oedema among children aged 6-59 months or with height/length of coverage 65-109.9cm
  - to estimate the crude and under-five mortality rates in the Hawd of Hargeisa
  - ...

*Source:* Nutrition assessment, Hawd of Hargeisa - Balli-Gubadle and Salahley Somaliland, Somalia (FSAU/FAO and UNICEF), November 2006.

### 1.2 Population (Items 4-5)

The type of population surveyed (refugee, resident, IDPs or mixed and livelihood groups) should be stated as it has an implication on the interpretation of the results.

The total population in the universe should also be stated. It helps understand the sampling design and provides very useful information for future surveys to be conducted in the same area.

*Example:*

Primary sampling units were drawn from a list of 1,655,988 persons [...]. The list was comprised of IDPs in camps (official and spontaneous), IDPs living amongst the resident population, and residents considered crisis-affected (defined as a location where the IDP population was equal to or greater than that of the host community).

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

### 1.3 Location (Items 6-7)

The location should be clearly delineated through the provision of geographical boundaries of the sampling frame. Investigators should report the name of the smallest unambiguous administrative area. A local map, as well as latitude and longitude coordinates may be very useful to mark the boundaries of the sampling frame.

The areas that were excluded from the sampling (e.g. due to insecurity) must be listed as the results cannot be extrapolated to those particular regions. If no area were excluded, the item should be considered “not applicable”.

Example:

Sirba administrative unit is located approx. 55 km from Geneina town, and is one of the 3 administrative units in Kulbus locality. Sirba AU borders Geneina to the Southwest, Selea to the north/north east, Krenik to the SE and Chad to the west. The administrative unit is divided into 3 Village councils namely Sirba, Abusorouj, and Seraf Jidad.

Three villages (Birselib, Armankul and Rufieda) were excluded from the cluster selection as they were inaccessible due to insecurity.

*Source:* Nutritional Anthropometric Survey Sirba Administrative Unit, Kulbus Locality, West Darfur (Save the Children), June 2005

### 1.4 Time period (Item 8)

Survey dates should be reported at least in month and year, preferably in a dd-mm-yyyy date format. Precise dates are important as indicators must be interpreted in relation with local events (meteorological, political, violence, etc.).

Example:

Survey Date: 18<sup>th</sup> April to 23<sup>rd</sup> April 2008

*Source:* Findings of a nutrition survey: Boricha Woreda, Sidama Zone, SNNPR, Ethiopia (GOAL, USAID), April 2008

### 1.5 Language (Items 9-10)

Accurate translation of the questionnaire is vital for ensuring that the concepts that are intended to be measured are represented by reliable questions. The language in which the questionnaire has been translated should therefore be mentioned.

The language of the interview should also be stated for the reader to know whether the interview was conducted in the same language as the language of the questionnaire. This is particularly important for surveys conducted in areas where many different dialects are spoken and for which the questionnaire could not be translated, as this might be a source of bias.

Example:

The interviewers were making sure to get accurate information by translators through the local community guide. Also when teams were formed there was one person in each team who speaks the Hadandawa and the Benamir language. All questionnaires were translated into Arabic so that information was recorded and written in Arabic.

*Source:* Report of a Multi Indicator Cluster Survey, Kassala state, North Sudan (GOAL), November 2008

## 1.6 Questionnaire/Tool (Items 11-12)

The questionnaire has to be pre-tested in order to test its validity and coherence.

Example:

Standardisation of measurement and pre-testing of the questionnaires and equipment were carried out in a village in Merka town not selected as a cluster for the actual IDP assessment.

*Source:* Nutrition Assessment Report Middle and Lower Shabelle IDPs, Agropastorals and Riverine livelihood systems, Shabelle Valley Region, Somalia (FSAU/FAO and UNICEF), November 2008

Interviewers usually need a local event calendar along with the questionnaire. They can then better report 1) the age of the children surveyed for the nutrition module and 2) the beginning of the recall period for the mortality module.

Example:

A local calendar of events was used to determine ages of household members and dates of death.

*Source:* Nutritional Anthropometric and Retrospective Mortality Survey Children aged 6 to 59 Months Abu Shok & As Salaam IDP Camps North Darfur State - Sudan (ACF), June 2007.

## 1.7 Training (Item 13)

The organization of the training should be explained in the report. It should include the number of days of training and distinguish both classroom-based training and field training. A minimum standard of training is necessary to ensure consistency in the interviews and provide accurate survey results.

*Example:*

A four-day training of enumerators and supervisors was conducted covering interview techniques, sampling procedure, ...

*Source:* Nutrition Assessment Report Middle and Lower Shabelle IDPs, Agropastorals and Riverine livelihood systems, Shabelle Valley Region, Somalia (FSAU/FAO and UNICEF), November 2008.

## 1.8 Informed consent (Item 14)

An informed consent to participate to the survey should be asked to participants. It should also be mentioned (or provided in Appendix) in the survey report.

*Example:*

Informed consent was also translated into Nepalese and had a Flesh-Kincaid Grade Level of 7.8. Both informed consent and the questions were administered to the subjects in Nepalese.

*Source:* Nutritional and Micronutrient Survey in Bhutanese refugee camps in Nepal (CDC, UNHCR, WFP), March 2007

## 2 Methods (Items 15-41)

### 2.1 Sampling design (Items 15-18)

The report has to state the type of sampling design used for the survey as well as the rationale in choosing this particular design. The reader needs the information allowing to judge if the sampling design was representative or not.

If cluster sampling was used, the explanation should state if clusters were selected using population proportional to size (PPS) at the first stage. Moreover, the number of clusters should be reported, as well as the number of secondary sampling units in each cluster.

Example:

1. **A two-stage cluster** survey was conducted with 30 clusters of 30 households and a probability proportional to size sampling methodology was used. This methodology was selected because it satisfied the dual objectives of the demographic and nutritional assessments.

*Source:* Doocy, S., Burnham, G. and Robinson, C. (2007). Estimating Demographic Indicators in a Conflict-Affected Population in Eastern Sudan. *Prehospital and Disaster Medicine* 22 (2): 112-119.

2. **Simple random sampling** methodology was put in place using the UNHCR food distribution list of Iraqi refugee households of July 2009. The households from the list were selected at random (using random tables generated by ENA software), giving each household and child in the total population equal chance of being selected. All the children in the randomly selected households between the ages of 6 and 59 months were included in the evaluation.

*Source:* Evaluation on the health, nutrition and livelihood conditions of the Iraqi Refugees in the North East of Syria, Hassakeh and Der Ezzor Governorates, Esther Ogonda McOyoo (ACF and SARC with the support of UNHCR), January 2010

## 2.2 Final stage (Items 19-21)

The final stage sampling method needs to be mentioned. For example (a) WHO/EPI (or EPI modified version) with proximity selection, (b) systematic random sampling, (c) GPS-based mapping with segmentation and random selection methods or (d) sampling grid methods, etc.

Example:

After selecting the cluster, the survey team went to the centre of the cluster and tossed a pen to choose the direction of movement. All households within 45 degrees on each side of that direction were counted and one randomly picked as the first sample household. Every subsequent nearest household to the right was visited up to a total of 30 households per cluster. If the team reached the boundary of the cluster in that direction before completing 30 households, they returned to the centre and repeated the procedure to select a new direction. If the cluster was exhausted without obtaining the required number of households, then one of the nearest villages not among the sampled clusters was randomly selected and the procedure repeated until the remaining number of households was obtained.

*Source:* Turkana Nutrition Survey 2008 (Oxfam GB and World Vision), July 2008

If the mortality module is included, the report should state whether the households without under 5 children were included in the sampling frame. Excluding them will bias

the results.

Example:

A mortality survey has been coupled with the anthropometric survey. The method for choosing the families was the same as for the anthropometric nutrition survey. However, even families who do not have children between 6-59 months have been surveyed.

*Source:* Nutritional Anthropometric Survey - Children Under 5 years Old - Abu Shok Camp, El Fasher, North Darfur State, Sudan (ACF), June 2004

Finally, the report should state whether the sample was increased to account for outliers and non-response.

Example:

A total amount of 30 clusters with 30 children in each would have provided reasonably valid estimates of the prevalence of malnutrition with at least 95% of confidence. Nevertheless 32 children were sampled per cluster (total: 960) in order to replace aberrant data if needed.

*Source:* Nutritional Anthropometric and Retrospective Mortality Survey Children aged 6 to 59 Months Abu Shok & As Salaam IDP Camps North Darfur State - Sudan (ACF), June 2007.

### 2.3 Household (Items 22-26)

The definition of household should be stated as it was explained to the teams. It is important in that it will impact the selection of households.

Example:

A household was defined as a group of people living together (sharing the same meals and/or sleeping under the same roof).

*Source:* Mortality survey among Internally Displaced Persons and other affected populations in Greater Darfur, Sudan (WHO, Federal Ministry of Health Sudan), September 2005

The report should indicate how the children were selected for the nutrition/ module (whether all eligible children were selected in a household or not).

Example:

All children within the household ranging from 65 to 110 cms were surveyed.

*Source:* Burundi Nutritional Survey Kirundo Province, Burundi (MSF), January 2005

If households in a compound had to be selected, this sub-selection should also be explained.

Example:

If several separate families were living in the same compound, they were regarded as separate households. If a polygamous family lived and ate together, they were considered one household.

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

The procedure for re-visiting and/or replacing absent/non-consenting households should be described.

Example:

If household members were not present, community members were asked to bring them to the house. Households were visited at least three times in an effort to identify household members, unless security or logistic constraints prohibited the amount of time spent in a cluster. [...] If the members had departed permanently or were not expected to return before the survey team had to leave the village, the household was skipped and not replaced. Where possible, survey teams visited the cluster location on two successive days or (security permitting) slept close to the cluster location.

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

The report should state how the respondent or head of household was chosen.

Example:

Basic demographic information was taken from an adult household member (usually brother or sister of the head of household), if available.

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004



## 2.4 Sample size precision (Items 27-32)

The report should explain how the sample size was calculated and should therefore state the expected GAM and/or CMR used, as well as the expected design effect for both indicators. Finally the desired precision for GAM and/or CMR should be stated.

The report should also state the rationale behind the choice of the expected indicator, design effect and desired precision.

### Example:

Sample size calculations used the following assumptions: 1) the limit of statistical significance (the desired precision,  $\alpha$ ) is 0.05 (that is, 95% confidence interval will be used), and 2) the power ( $\beta$ ) equals 0.8. Prevalence estimates for GAM were based on previous surveys [...] (erring towards 50%). Because sampling involved using cluster survey methodology, it was necessary to increase the sample size by a factor which would allow for the design effect (Design effect above 1.5 was chosen as malnutrition due to displacement may be clustered). [...]. Design effects were estimated using previous CDC surveys carried out in similar emergency situations, as well as published design effects from demographic health surveys. The desired precision was based on the estimated prevalence and cut-offs for programmatic action.

The primary objectives of this survey were to measure the nutritional status of young children. However, an additional objective of the survey was to estimate the crude mortality rate (CMR) with as much precision as a logistically feasible sample size for the nutrition survey would allow. We considered a CMR of 1 per 10,000 per day to be a conservative estimate. Previous surveys in conducted in Darfur reported mortality rates between 1 and 4 deaths per 10,000 per day. For the CMR a design effect of 2 was used. This is could be considered an underestimate, as conflict-related mortality might be highly clustered. The same design effect was assumed for under-5 mortality. Deaths in this age group are more likely to be infectious disease-related and therefore less likely to be clustered. The figure of 854 households required is before adjusting for refusals and non-response. The number of households required assumes a household size of six persons. As mentioned above, sample size was driven by the nutrition objectives of the survey rather than mortality.

Indicator	Expected value	Deff	Desired Precision	SS	# HH
GAM	35%	2	±5%	698	517
CMR	1	2	±5%	5122	854

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

## 2.5 Nutritional Survey (Items 33-37)

The definition of GAM includes bilateral oedema. It should therefore be indicated in the report.

Example:

The presence of nutritional oedema was determined by pressing both feet for three seconds. If a shallow imprint remained in both feet it was recorded as positive to oedema.

*Source:* Findings of a nutrition survey: Boricha Woreda, Sidama Zone, SNNPR, Ethiopia, April 2008 (GOAL, USAID)

The report should state how the children were selected (e.g. inclusion criteria for children in terms of age or height).

Example:

Data was collected and analysed for a total of 656 children aged between 6 and 59 months (or between 65 and 110 cm).

*Source:* Findings of a nutrition survey: Boricha Woreda, Sidama Zone, SNNPR, Ethiopia (GOAL, USAID), April 2008

The report should mention the unit up to which weight and height were rounded.

Example:

Weight was recorded to the nearest 0.1 kg.  
Height was recorded to the nearest 0.1 cm

*Source:* Findings of a nutrition survey: Boricha Woreda, Sidama Zone, SNNPR, Ethiopia (GOAL, USAID), April 2008

Moreover, it should mention the cutoff for measuring children lying or standing?

Example:

Children less than 85 cm were measured lying down and over 85 cm in the standing position.

*Source:* Findings of a nutrition survey: Boricha Woreda, Sidama Zone, SNNPR, Ethiopia (GOAL, USAID), April 2008

The record sheet (questionnaire) of the nutrition module should be provided in the Appendix as it gives more information to the reader on the conduct of the interviews and it might give him the opportunity to look for missing information (e.g. through instruction given to interviewers for example) and to use a similar format for future surveys done in the same area.

## 2.6 Mortality Survey (Items 38-41)

The start and end dates of the recall period should be clearly mentioned (dd-mm-yyyy) as they are necessary for the delineation of the denominator and the exact time frame to which the indicator refer.

Example:

The study period for the calculation of the CMR is from June 15<sup>th</sup> to August 15<sup>th</sup> 2004.

*Source:* Retrospective Mortality Survey Among the Internally Displaced Population, Greater Darfur, Sudan (WHO), August 2004

The calculation of the denominator should also be mentioned, as it is an essential component of the indicator calculated.

Example:

Rates were determined using the mid-interval survey population as a denominator. The mid-interval population was calculated by adding one-half of the number of reported deaths and subtracting one-half of reported number of births from the population at the time the survey was conducted.

*Source:* Doocy, S., Burnham, G. and Robinson, C. (2007). Estimating Demographic Indicators in a Conflict-Affected Population in Eastern Sudan. *Prehospital and Disaster Medicine* 22 (2): 112-119.

The household census method (i.e. past, current or hybrid) used to count the persons who were born, died, joined or left the household has to be indicated.

Example:

Mortality was assessed using the retrospective household census method. Respondents were asked to list all members living in the household at the time of the previous Eid Al Adha. First, all household members living in the household at that time were listed by age and sex, with the head of the household being listed first. The respondent was then asked where each person was at the time of interview. Possible choices were: alive and living in the household, alive, living elsewhere, missing, and dead. Births and deaths occurring in each household between this time and the date of the survey were recorded along with month of occurrence.

*Source:* Nutritional Anthropometric and Retrospective Mortality Survey Children aged 6 to 59 Months Abu Shok & As Salaam IDP Camps North Darfur State - Sudan (ACF), June 2007.

The questionnaire of the mortality module should be provided in the Appendix as it gives more information to the reader on the conduct of the interviews and it might give him the opportunity to look for missing information (e.g. through instruction given to interviewers for example).

### 3 Results (Items 42-65)

#### 3.1 Analysis (Item 42)

The name and version of the software should be indicated as certain functions are not available on earlier versions. The statistical procedure used should also be mentioned as it might automatically answer questions related to adjustment of confidence intervals.

*Example:*

Data were entered into Epi Info version 6.04d software. The calculation and analysis of anthropometric indices was conducted in EpiNut, a module within Epi Info. Indicators of the precision of prevalence estimates, such as confidence intervals, for major health outcomes accounted for the cluster sampling used in selecting the sample for this survey. A sample weight was associated with each record to account for the probability of selection and a post-stratification adjustment based on the population size of each camp/village.

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

#### 3.2 Nutritional indicators (Items 43-50)

The definition of GAM should be stated. It should mention that it is a weight-for-height index, expressed in Z-score (or in % of median). The definition of GAM includes bilateral oedema (see item 32). The type of growth reference used (WHO standards 2006 or NCHS Reference 1977) should also be stated.

*Example:*

Global Acute Malnutrition (GAM) is calculated a weight-for-height index less than -2 z-score from the mean weight of a reference population of children of the same height and/or having oedema. Z-scores were used in most analyses of anthropometric data on children in this survey. However, percent of median is used in many situations where a simpler calculation is needed, such as screening for admission to feeding programs. Z-scores and percent of median were derived from comparison of children in the survey sample to the NCHS/CDC/WHO reference population.

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004

The confidence intervals associated to the indicators should imperatively be stated in the report. It is very important as it provides an indication of the precision and therefore the usefulness of the indicators. The design effect should also be stated.

Example:

The prevalence of malnutrition (defined as a weight-for-height ratio z-score of less than -2. Data include 1 case of pedal edema in a child in Muhajiria) was 14.1% (11.2-17.0) in Kass, 23.6% (20.2-27.1) in Kalma and 10.7% (8.2-13.3) in Muhajiria.

The design effects attached to these estimates were all 1.4.

*Source:* Grandesso, F., Sanderson, F., Kruijt, J. *et al.* (2005). Mortality and Malnutrition Among Populations Living in South Darfur, Sudan. Results of 3 Surveys, September 2004 *JAMA*, 293 (12): 1490-1494.

The report should state whether outliers were accounted for in the estimation of GAM. If they were excluded from the analysis, it should also state how, by mentioning plausibility checks on anthropometric data and the definition of flags (from ENA for SMART software).

The final sample size of children from 6-59 months should be indicated in the report.

Example:

Anthropometric data was collected for a total of 990 children, and analysed for 984 children aged 6 to 59 months. 6 records were flagged for extreme values (heights probably incorrect), and were therefore excluded from analysis.

*Source:* Findings of a Multi-Indicator Cluster Survey (MICS) In Manono and Kiambi Zone, DRC (GOAL), June 2008

### 3.3 Mortality indicators (Items 51-53)

Mortality indicators should be reported in deaths/10,000/day, deaths/1,000/year or deaths/1,000/month.

The confidence intervals associated to the indicators should imperatively be stated in the report. It is very important as it provides an indication of the precision and usefulness of the indicators. The design effect should also be stated.

Example:

The crude death rate was determined to be 52/1,000/year (95%CI: 35 - 74) or 1.4/10,000/day (95% CI: 1.0 - 2.0).

A calculation of the intra-cluster correlation coefficient for sample household mortality resulted in a design effect of 2.6.

*Source:* Doocy, S., Burnham, G. and Robinson, C. (2007). Estimating Demographic Indicators in a Conflict-Affected Population in Eastern Sudan. *Prehospital and Disaster Medicine* 22 (2): 112-119.

**3.4 Demographic indicators (Items 54-60)**

Descriptive data on the population must be reported to aid with the interpretation of results. This includes births, deaths, in-migration, out-migration, total population at the time of the survey, number of households and number of children between 0 and 59 months.

Example:

A total of 111 people were reported to have died in the survey HH in the past 3 months. 70 were under 5 years of age and 41 over 5 years of age.

HH information: TOTAL	
Total number HH residents	7,620
Total number people who joined the HH in recall period	117
Total number people who left the HH during recall period	212
Total number births during recall period	168
Total number deaths during recall period	111
HH information: 0-5 years	
Number 0-5 years	1,873
Number 0-5 years who joined HH during recall period	40
Number 0-5 years who left HH during recall period	21
Number 0-5 years deaths during recall period	70

*Source:* Findings of a Multi-Indicator Cluster Survey (MICS) In Manono and Kiambi Zone, DRC (GOAL), June 2008

**3.5 Vaccination indicators (Items 61-64)**

Measles-containing Vaccine (MCV) coverage (as well as other vaccination coverages) should be reported by card and history, along with confidence intervals.

The age range for inclusion in the vaccination coverage module should be indicated, as should the final number of children included in the analysis.

Example:

Age Group : 9-59 months (n=683)

Measles, verified with card (n=319): 46.7% (95% CI 43.0 - 50.5)

Measles, recall (n=251): 36.8% (95% CI 33.1 - 40.4)

Measles, TOTAL (n=570): 83.5% (95% CI 80.7 - 86.2)

*Source:* Report of a Multi Indicator Cluster Survey, Kassala state, North Sudan (GOAL), November 2008

## 4 Discussion (Items 65-71)

### 4.1 Limitation and bias(Items 65-69)

The percentage of non-response should be stated. It can help assess whether the non-response rate is problematic (over 15%).

Example:

Of all selected households with children between 6 and 59 months of age, 26 children were absent (out of 1,035 - 2,5%). In most cases, the children had accompanied their mother who was working on the farm and returned very late or they were residing temporarily with a family member elsewhere. No refusals were recorded.

*Source:* Nutrition Assessment, Fur Baranga Administrative Unit, Habila Locality, West Darfur, Sudan (Save the children), January 2005.

If cluster sampling was used, the number of inaccessible clusters should be stated. Moreover, the final number of clusters has to be reported. If some clusters were replaced, the method of replacement should be indicated.

Example:

Security was problematic in South Darfur, where only 66 clusters - out of the planned 90 - could be surveyed. Only findings for IDPs in the camps in the South are presented in this report (27 out of 30 clusters - 10% inaccessible). In West Darfur, the deteriorated security was the reason for the replacement of 10 clusters (11% of the total), while in North Darfur only 4 clusters (4.5%) had to be replaced.

For clusters that had become not accessible during the survey due to the deterioration of the security situation or for which the target population could not be found, an alternative cluster was selected in the next location listed on the sampling frame after the one containing the inaccessible cluster.

*Source:* Mortality survey among Internally Displaced Persons and other affected populations in Greater Darfur, Sudan (WHO, Federal Ministry of Health Sudan), September 2005

Akin to any observational epidemiological study, potential biases (e.g. limitations and aberrations of data) and their effect on validity must be clearly reported.

*Example:*

- There were inherent difficulties in determining the exact age of some children (even with use of the local calendar of events). This may have led to inaccuracies when analysing chronic malnutrition
- A number of caretakers refused to allow recumbent height of their children to be taken. This was due to a taboo that associated lying down prostrate with death. As a result, the anthropometric data of these children could not be used for analysis of malnutrition
- Data entry did not begin immediately after data collection. As a consequence of the delay, it was noted that two teams had recorded faulty height data (rounding off to the nearest 0.5 cm) and data collection had to be repeated independently for these two clusters. An extra day for data collection was added to overcome this limitation.

*Source:* Nutritional Anthropometric and Mortality survey Mandera Central District, Kenya (Save the Children), March 2008

#### 4.2 Comparison of results (Item 70)

Attempts should be made to compare survey results with previous results from the population or similar areas and seasons as well as with emergency thresholds.

*Example:*

The results indicate serious levels of acute malnutrition because they are way above the WHO emergency thresholds of 15%. There is a significant increase in acute malnutrition levels (Weight for Height Z-score) when compared to the MSF-B October 2006 survey covering the same areas.

The survey reported U5MR of 0.23/10,000/day and CMR of 0.34/10,000/day. Both the mortality rates are within the acceptable levels for emergency situations; U5MR below 2 deaths/10,000/day and CMR less than 1 death/10,000/day. U5MR reported is also lower than the Health and Mortality Assessment rate (0.8/10,000/day) in February 2007.

*Source:* Nutritional Anthropometric and Mortality survey Mandera Central District, Kenya (Save the Children), March 2008

#### 4.3 Interpretation of results (Item 71)

Recommendations should be given at the end of the report.



*Example:*

- **General Ration**

- Increase the distributed general ration to meet the 2100 kcal minimum requirement
- Provide a full general ration, consisting of a cereal, pulse, CSB, fortified oil and salt

- Measles

- Immediate mop-up campaign targeting children missed by the previous campaign is needed as soon as possible. Consider adding a measles component to the upcoming National Immunization Days for polio
- ...

- ...

*Source:* Emergency Nutrition Assessment of Crisis Affected Populations Darfur Region, Sudan (CDC and WFP), August-September 2004