

# **Conference Proceedings**

## Measurement of Selected Sphere Indicators Expert Group Meeting, February 7-8, 2012

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## Background

Efforts to objectively evaluate the humanitarian community's response to populations affected by emergencies are critical to determine whether the population's needs are being met and to direct future response activities. The Sphere Project's *Humanitarian Charter and Minimum Standards in Humanitarian Response* represents the broadest consensus on accepted standards in humanitarian response. The Handbook emphasizes actions that support the human dignity of the affected population and provides key indicators to promote monitoring and evaluation of minimum standards.

The United States Centers for Disease Control and Prevention (CDC) endeavors to use widely accepted measures to promote consistent and meaningful evaluation and would like to include Sphere indicators in its own evaluation activities. However, to do this some practical challenges must first be addressed. The Handbook contains over 200 indicators covering several phases of humanitarian action and provides limited detail on how to measure them. For those indicators that have been previously measured in practice, methods have often varied, limiting comparability between emergencies or across time.

CDC's International Emergency and Refugee Health Branch (IERHB) created the Measurement of Selected Sphere Indicators (MeSSI) project early in 2011 in order to address these challenges and support the use of Sphere indicators in humanitarian response. The goal of the project is first to develop expert consensus on a select set of Sphere indicators related to the initial evaluation phase<sup>1</sup> of a humanitarian response, identify specific guidance on how to measure the identified indicators, and create and pilot test an evaluation toolkit for this phase. The toolkit will be applicable to a broad range of humanitarian settings, and is focused on evaluation rather than ongoing monitoring. While initiated to meet CDC's evaluation needs, the project seeks support and collaboration with partners. The process is intended to be transparent and all products will be available for adaptation and use by the humanitarian community.

## Project Development

As part of this project, IERHB convened an internal working group to refine the project's objectives, identify guiding principles and outline the project's approach. The working group included staff from CDC, Columbia University, and Deloitte with expertise in humanitarian emergencies and monitoring and evaluation. The working group identified the following guiding principles:

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<sup>1</sup> The initial evaluation phase is when interventions have been put in place and it is now time to take a cross-sectoral look at how they have been implemented.

- **Engage key stakeholders** such as the Sphere project and humanitarian experts among CDC partners, to increase the usefulness and relevance of products created by MeSSI.
- **Build on existing** measurement tools where appropriate, to encourage the use of best practices and promote harmonization of measurement activities.
- **Include external experts** in the identification and selection of indicators and measurement methods to make the toolkit more complete and accessible.

Following these guiding principles, the working group began by contacting the Sphere Project and asking for input to help refine project objectives and plans. The working group then conducted a rapid review of published and gray literature to get an overall view of prior use of Sphere indicators, how those indicators were measured and what lessons had been learned. The literature review was not designed to be comprehensive or exhaustive but did provide insight on Sphere indicator use in the field, clarity on challenges to using Sphere, and informed planning for the expert group.

The MeSSI meeting brought together experts and agencies whose collective experience guided the selection of indicators (for the particular emergency phase chosen) and provided initial input on measurement practices for selected indicators. Experts with substantial field experience in humanitarian emergencies as well subject matter expertise in evaluation were invited to participate in this process. The meeting objectives and focus of measurement included the following:

**Meeting Objectives:**

1. Develop expert consensus on a select set of Sphere indicators useful for the cross-sector evaluation of a humanitarian response in a broad range of settings at a particular phase of the response.
2. Begin process of identifying specific guidance on how to measure identified select indicators, incorporating existing tools, methods and data where appropriate.

**Focus of Measurement:**

**Who:** disaster or emergency-affected populations, excluding refugee populations

**When:** after interventions have initially been put in place, but still during the period of humanitarian response rather than recovery (typically 3-6 months after onset)

**Where:** applicable across most settings where a disaster has occurred

**What:** focus on outcome and impact, but take into account how process reflects Sphere's rights based and participatory approach

## Expert Meeting Process

On February 7-8, 2012, over 45 experts representing 19 organizations including governmental agencies, nongovernmental organizations, United Nations agencies, and academic institutions participated in the MeSSI meeting (participants listed on pg. 6). Prior to arrival, participants were asked to review three historically based scenarios and select up to 10 Sphere indicators to measure in each scenario within their identified sector.<sup>2</sup> The goal of this activity was to orient participants to the project and prepare them for meeting activities.

The meeting process included the following activities: (1) indicator selection; and (2) measurement recommendations. Participants were separated by sectors (Core, WASH, Nutrition/Food Security, Shelter/Non-Food Items, and Health Action) and worked in small group sessions with rotating facilitators to complete meeting activities. Suggested approaches for how to complete meeting activities were provided; however, groups were encouraged to complete the activities as they saw fit. Each sector was provided with activity worksheets and a note-taker to capture their output – an overview of meeting activities is provided below.

### *Indicator Selection: Identify Approximately 7 Select Indicators by Sector*

Each sector was asked to identify approximately 7 Sphere indicators for use in evaluation in the context of this project, and provide a rationale for their selection. Participants were provided with a summary of the pre-meeting screen results,<sup>3</sup> notecards and spreadsheets listing the indicators, the Sphere Handbook, and activity guides to complete this activity. If participants felt that the chosen Sphere indicator needed to be further clarified or narrowed in order to make it measurable, participants could do so. Modifications in indicator definitions are intended only to apply to the MeSSI toolkit, and should not be considered to be more generally applicable to the Sphere Handbook.

### *Measurement Recommendation: Identify up to 2 Measurement Options per Indicator*

For each identified indicator, sectors were asked to propose up to two options for measurement (choosing from quantitative population survey, qualitative survey, facility survey, and other). As time allowed, participants worked to capture how to measure each indicator and considerations for measurement.

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<sup>2</sup> For the pre-meeting exercise, participants were grouped into sectors depending on their area of expertise: Core, WASH, Nutrition/Food Security, Shelter/NFI or Health. For the meeting, Nutrition and Food Security were separated, for a total of 6 sectors.

<sup>3</sup> Frequencies of indicators chosen were shown separately for each scenario.

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## Meeting participants

Ribka Amsalu—SAVE  
Roodly Archer--CDC  
John Arnold--USAID  
Cecile Basquin--ACF  
Imanol Berakoetxea--ECHO  
Oleg Bilukha-CDC  
Erin Boyd-UNICEF  
Frank Broadhurst-USAID  
Mike Deming--CDC  
Susan Cookson--CDC  
Fruzsina Csaszar--PRM  
Richard Garfield--Columbia  
Richard Gelting--CDC  
Paul Giannone--CDC  
Langdon Greenhalgh--USAID  
Colleen Hardy--CDC  
Chris Haskew--UNHCR  
Chris Howard--USAID  
Farah Husain--CDC  
Robert Johnston--UNICEF  
Kumkum Kashiparekh-CARE  
Bonnix Kayabu--Trinity  
Daniele Lantagne--Harvard  
Osama Maher--WHO  
Jean McCluskey--Independent  
Nancy Mock--Tulane  
Daphne Moffett--CDC  
Bobi Morris--IRC  
Altaf Musani--WHO  
Aninia Nadig--Sphere  
Carlos Navarro-Colorado--CDC  
Heather Papowitz--UNICEF  
Mark Phelan--USAID  
Silke Pietzsch--ACF  
Alina Potts--Columbia  
Claudine Prudhon--WHO  
Monica Ramos--CARE  
Omar Saleh--WHO  
Charles Setchell--USAID  
Irshad Shaikh--Independent  
Iman Shantiki--WHO  
Priya Shete--USAID  
Romain Sirois--Food Security  
Laurence Slutsker--CDC  
Julia Smith--CDC  
Leisel Talley--CDC  
Mesfin Teklu--World Vision  
Basia Tomczyk--CDC  
Holly Williams--CDC

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A period of review was provided after both activities, where each sector group was given the opportunity to review and comment on the work of the other sectors. Feedback from these review periods was then incorporated as each sector group felt appropriate. After the first day of the meeting, participants received a copy of the indicators they had chosen and the rationales listed in order to ensure their output had been captured accurately.

On the final day, individual participants from the core sector were divided and asked to join one of the other 5 sector groups. All groups were asked to discuss how to integrate core indicators into their sector's selected indicators for measurement, and ideas were presented to the meeting participants as a whole.

## Results

Prior to the meeting 36 participants (73%) completed the pre-meeting exercise. The sector groups used this input along with meeting activities to identify a list of approximately 50 indicators based on Sphere indicators for use in our evaluation context from the over 200 listed in the Handbook (see Table 1). Group processes and results varied. Some groups combined indicators to form new composite indicators; others grouped indicators from sectors into categories<sup>4</sup>, while still other groups focused primarily on outcome indicators rather than process indicators.

Measurement options for selected indicators were defined and grouped into data collection options: (1) facilities survey; (2) quantitative population survey; (3) qualitative methods; or (4) other methods, which included mixed methods, shelter

<sup>4</sup> The WASH sector group used a tiered system of indicators to identify indicators for inclusion.

surveys, document reviews and laboratory surveys. The Appendix provides detailed results.

Beyond the four technical chapters, the Sphere Handbook also contains a group of Core indicators focused on the process of consultation and participation relevant for all sectors. While meeting participants in the Core sector group were initially asked to consider the Core indicators and their measurement separately (as shown in the Appendix), during the final exercise meeting participants were asked to discuss how Core indicators could be integrated into the technical sectors. While opinions varied, several themes emerged. Core indicators were viewed primarily as process indicators that were often not easily measured. Participants also noted that options for measuring Core indicators were generally limited to observation or the collection of opinions from relevant informants – not quantitative methods.

Meeting participants observed that measuring Sphere Core indicators effectively may involve a review of specifics in substantive technical fields. They also noted that cultural norms will guide participation of informants and that the appropriate level and type of participation depends on the context. Meeting participants agreed that variations in technical outcomes may be understood through an evaluation of the extent to which Core standards were achieved.

## **Limitations**

The meeting schedule and timeline did not provide all sector groups sufficient time to complete meeting activities, particularly with regards to proposing measurement guidance and options for integrating Core indicators into the technical sectors. Additionally, though the sector groups selected and wrote down indicators, rationales for selection, and measurement guidance, there were disparate opinions and full consensus was not always achieved within the group. Efforts were made to ensure participant input was accurately captured through the use of activity worksheets, note-takers, and review by a member who participated in sector activities. However, we cannot guarantee that all opinions are represented and some liberties were taken to harmonize presentation of the meeting results across sectors.

## **Conclusions and Next Steps**

The MeSSI Expert Group Meeting was an important first step in a three-step process to reach the ultimate goal of developing a toolkit for evaluation in this phase of the humanitarian response. There was consensus among the experts present that guidance is needed to better support the measurement of Sphere indicators and that the MeSSI project is a reasonable first step.

Experts worked together to identify 50 Sphere indicators most relevant to the context chosen and provided measurement guidance based on their collective

experience. Thirty-five experts in attendance indicated that they would engage in future participation in the project as it moves forward. Experts who were unable to attend the meeting have also indicated that they wish to participate in the future.

Next steps include the following:

- June 2012: complete measurement guidance (indicator summaries)
- September 2012: translate these indicator summaries into a cross sector toolkit
- Date to-be determined: pilot test toolkit

**We would like to sincerely thank all of you for your input and participation in this effort to date. We welcome continued comments and input moving forward.**

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**Table 1: Selected Indicators by Sector<sup>5</sup>**

Core	WASH	Food Security	Nutrition	Shelter	Health Action
<ul style="list-style-type: none"> <li>• Active participation</li> <li>• Complaints investigated</li> <li>• No duplication in coverage/commitments are acted on</li> <li>• Data disaggregated/analysis of vulnerability</li> <li>• Response to monitoring</li> <li>• Reports representative of affected population</li> <li>• People in Aid Code Good Practice</li> </ul>	<ul style="list-style-type: none"> <li>• Average water use</li> <li>• Water treatment effective</li> <li>• Household water free from contamination</li> <li>• Access to protected water sources</li> <li>• No water-borne disease outbreaks</li> <li>• Access to hygiene items</li> <li>• Hygiene promotion</li> <li>• Hand washing</li> <li>• Environment free from human feces</li> <li>• Maximum of 20 persons per latrine</li> <li>• Appropriate design of toilets</li> <li>• User satisfaction</li> <li>• System in place for management and maintenance</li> <li>• Use of insecticide-treated mosquito nets</li> </ul>	<ul style="list-style-type: none"> <li>• Food security assessment</li> <li>• Adequate access to a range of food</li> <li>• Primary needs, protection and promotion of livelihood</li> <li>• Local markets and basic food needs</li> <li>• Negative coping strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Standardized indicators and findings report</li> <li>• Breastfeeding rate</li> <li>• Breastfeeding support</li> <li>• Caregiver access</li> <li>• Coverage moderate malnutrition</li> <li>• Proportion of discharges moderate</li> <li>• Coverage severe malnutrition</li> <li>• Proportion of discharges severe</li> <li>• Micronutrient intervention</li> </ul>	<ul style="list-style-type: none"> <li>• Covered living space</li> <li>• Settlement planning, response</li> <li>• Local impact</li> <li>• Safe building practices</li> <li>• NFI needs met</li> </ul>	<ul style="list-style-type: none"> <li>• Standard case management protocol</li> <li>• Utilization rates</li> <li>• Mortality rates</li> <li>• Transfused blood screened</li> <li>• Epidemic disease reporting</li> <li>• Essential medicine stock</li> <li>• Proportion of deliveries by skilled provider</li> <li>• Deliveries by caesarean</li> <li>• Measles vaccines and vitamin A coverage</li> </ul>

<sup>5</sup> Indicators are described in detail in the appendix.

## Appendix: MeSSI Indicators and Measurement Guidelines by Sector

<b>CORE</b>			
<b>Indicator label</b>	<b>Relevant Sphere indicator(s)</b>	<b>Rationale for selection</b>	<b>Measurement options</b>
<b>ACTIVE PARTICIPATION</b>	<b>K1_C_PHR_2:</b> Disaster-affected people conduct or actively participate in regular meetings on how to organize and implement the response	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>To improve effectiveness, sustainability, and satisfaction with assistance provided.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Must be highly individualized to cultural context, as participation is expressed differently in various parts of the world.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative methods</b> Create participation scale to measure participation in meetings (attending, speaking, representing organizations, making critical comments, participating in decision-making). Data collection would involve interviewing meeting participants.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Key Informant interviews. Participants in meetings (meeting coordinators, local NGOs, and participant nationals) would be interviewed about the following topics:</p> <ul style="list-style-type: none"> <li>How they feel about their own levels of participation</li> <li>What groups are not represented or are misrepresented</li> <li>Whether appropriate government representatives attended the meetings</li> </ul>
<b>COMPLAINTS INVESTIGATED</b>	<b>K1_C_PHR_4:</b> Agencies have investigated and, as appropriate, acted upon complaints received about the assistance provided	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Feedback is a key element of participation.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Questionable feasibility of getting representative information or learning if it was actually acted upon.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Logbook review</b> Review logbook of complaints, responses, and suggestions. A third party may need to be present to monitor/evaluate data collection for this indicator.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Key informant interviews. Agency leaders will be interviewed to ascertain information on complaints. Complaints will need to be verified through investigation by the appropriate personnel.</p>

<p><b>NO DUPLICATION IN COVERAGE/ COMMITMENTS ARE ACTED ON</b></p>	<p><b>K1_C_CC2:</b> The humanitarian activities of other agencies in the same geographical or sectoral areas are not duplicated</p> <p><b>K1_C_CC3:</b> Commitments made at coordination meetings are acted upon and reported in a timely manner</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Measures presence and activity of agencies in various geographic areas.</li> <li>Designed to improve effectiveness and efficiency.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Important for agencies to identify the activity they will support. Some duplication may be necessary and important to the response, but the key is to avoid unnecessary duplication.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Mapping</b> OCHA has designed a 4W template (maps, tables), which is updated every 3 months. ACAPs produces Presituational Briefs, and there are sometimes large scale needs analyses performed. Analysis of coverage could be performed using these data sources as available.</p>
<p><b>DATA DISAGGREGATED/ ANALYSIS OF VUNERABILITY</b></p>	<p><b>K1_C_A3:</b> Assessment reports contain data disaggregated by, at the very least, sex and age</p> <p><b>K1_C_A4:</b> In-depth assessment reports contain information and analysis of vulnerability context and capacity</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>To design a response which focuses on the largest number of potential beneficiaries or those in greatest need.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Assessment report review</b> A third party will review assessment reports for information on:</p> <ul style="list-style-type: none"> <li>Disaggregation (sex, age)</li> <li>Vulnerability, context, and capacity</li> </ul> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Key informant interviews. Interview meeting participants about inclusion of information on disaggregation (sex, age) of data and vulnerability, context, and capacity.</p>
<p><b>RESPONSE TO MONITORING</b></p>	<p><b>K1_C_PTL1:</b> Programs are adapted in response to monitoring and learning information</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Useful to improve effectiveness and satisfaction with assistance provided.</li> <li>Measures program planning information.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Outcomes of monitoring and evaluation should include adaptation of programs (feedback loops) to improve design and resiliency based on findings.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative methods</b> Key informant interviews. Consultations with local authorities to assess appropriateness of response.</p> <p><b>Measurement Option B:</b></p> <p><b>Document review</b> Review survey sources or agency notes to assess whether programs are adapted in response to monitoring and learning information.</p>

<p><b>ASSESSMENT AND M&amp;E REPORTS ARE REPRESENTATIVE OF AFFECTED POPULATION</b></p>	<p><b>K1_C_AD2:</b> Rapid and in-depth assessment reports contains views that are representative of all affected people, including members of vulnerable groups and those of the surrounding population</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Useful to be inclusive of all affected groups as well as the local population.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Triangulation of information</b> Use interviews and reports to triangulate information from pre-event baseline context analysis and post-event assessments.</p> <p><i>Considerations:</i> Designed to measure the following:</p> <ul style="list-style-type: none"> <li>Sample contains all groups affected by program (directly and indirectly) disaggregated by criteria identified (e.g. age, sex, religions affiliation, etc.)</li> <li>Methods used to formulate goal and objectives are valid: sample size and selection method explicit.</li> </ul>
<p><b>PEOPLE IN AID CODE GOOD PRACTICE</b></p>	<p><b>K1_C_AWP3:</b> The principles, or similar of the People in Aid Code Good Practice are reflected in the agency's policy and practice</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Useful to improve quality and satisfaction with assistance provided.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative methods</b> Key informant interviews. Interview local leaders, beneficiary communities, and agency personnel to determine:</p> <ul style="list-style-type: none"> <li>Whether agency code meets measurable aspect of People in Aid Code</li> </ul>

**Abbreviations:** ACAPS (Assessment Capacities Project); NGO (non-governmental organization); OCHA (Office for the Coordination of Humanitarian Affairs)

## WASH

Indicator label	Relevant Sphere indicator(s)	Rationale for selection	Measurement options															
<b>AVERAGE WATER USE</b>	<b>KI_WASH_WS1_1:</b> Average water use for drinking, cooking and personal hygiene in any household is at least 15 liters per person per day	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Indicator combines physical and social aspects of access (distance, waiting time, preferential and restricted access, source capacity)</li> <li>Universally accepted and widely used metric</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Design of questionnaire depends on local context such as type of delivery system, schedule of delivery, access to water</li> <li>Data is self-reported rather than verified</li> <li>Data collection needs to be piloted in each context and refined accordingly</li> <li>Eliminate containers used for industry or other non-human purposes</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Ask question set:</p> <ul style="list-style-type: none"> <li>What are the sizes of all containers used to collect water?</li> <li>How many times per day does each of those containers get filled with water?</li> </ul> <p><i>Example</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Container size</th> <th style="text-align: center;">Times filled per day</th> <th style="text-align: center;">Human use?</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">20 L</td> <td style="text-align: center;">2</td> <td style="text-align: center;">Y</td> </tr> <tr> <td style="text-align: center;">10 L</td> <td style="text-align: center;">1</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">5 L</td> <td style="text-align: center;">0</td> <td style="text-align: center;">-</td> </tr> <tr> <td style="text-align: center;">20 L</td> <td style="text-align: center;">4</td> <td style="text-align: center;">N</td> </tr> </tbody> </table>	Container size	Times filled per day	Human use?	20 L	2	Y	10 L	1	N	5 L	0	-	20 L	4	N
Container size	Times filled per day	Human use?																
20 L	2	Y																
10 L	1	N																
5 L	0	-																
20 L	4	N																
<b>WATER TREATMENT EFFECTIVE</b>	<b>KI_WASH_WS2_2:</b> Any household-level water treatment options (HWTS) used are effective in improving microbiological water quality and are accompanied by appropriate training, promotion and monitoring	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>HWTS options are commonly distributed in emergencies but are rarely adequately and appropriately implemented</li> <li>Monitoring is key to improving practice and accountability</li> <li>Particularly important when water is not treated centrally and HWTS is primary means for the population to have access to safe water</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Indicator is not about coverage but about correct use</li> <li>May be difficult to determine which households or groups received a HWTS product</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Conduct survey with questionnaire and water testing.</p> <ul style="list-style-type: none"> <li>Survey question set concerning: <ul style="list-style-type: none"> <li>Tell/show how to use product</li> <li>What and how many trainings received on products</li> </ul> </li> <li>Test water for fecal coliforms and residual chlorine</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Enumerators must be trained on correct use of all options</li> <li>Survey questions asking what and how many trainings should be specific (for example household members may have received 2 household visits and 1 group training)</li> <li>Questions will vary based on product type (for example, one formulation for preparation of</li> </ul>															

			<p>water with <i>aquatabs</i> is 1 tab for 20L, allowed to sit for 30 minutes)</p> <ul style="list-style-type: none"> <li>• Access to stored household water needed</li> <li>• Accurate testing procedures needed</li> <li>• Trained enumerators needed</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Focus group discussions or key informant interviews with WASH agencies asking:</p> <ul style="list-style-type: none"> <li>• How did you select which household-level water treatment options to use?</li> <li>• Ask agencies for: <ul style="list-style-type: none"> <li>○ Training materials used</li> <li>○ # HWTS products distributed</li> </ul> </li> </ul> <hr/> <p><b>Measurement Option C:</b></p> <p><b>Document review</b></p> <ul style="list-style-type: none"> <li>• Review of training materials</li> <li>• Review of administrative data on product distribution and population data</li> </ul>
<b>HOUSEHOLD WATER FREE FROM CONTAMINATION</b>	<b>KI_WASH_WS3_4:</b> Water at household level is free from contamination at all times	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• This is the critical outcome for safe water</li> <li>• Combines treatment process, hygiene and safe storage and transport and handling</li> <li>• If source water is available, can determine where contamination occurs</li> <li>• Relatively simple to measure during household surveys</li> </ul>	<hr/> <p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Stored drinking water is tested during population based surveys for:</p> <ul style="list-style-type: none"> <li>• Fecal coliforms</li> <li>• Turbidity</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Access to stored household water needed</li> <li>• Accurate testing procedures needed</li> <li>• Trained enumerators needed</li> </ul>

<p><b>ACCESS TO PROTECTED WATER SOURCES</b></p>	<p><b>KI_WASH_WS2_5:</b> All affected people drink water from a protected or treated source in preference to other readily available water sources</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Outcome indicator</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b></p> <ul style="list-style-type: none"> <li>• Survey question on where HH collects drinking water and if they report water treatment at HH with current drinking water</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Need to train enumerators or data entry staff on categorization of protected and unprotected sources given the current context.</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Source survey</b></p> <ul style="list-style-type: none"> <li>• Visit each water source mentioned and conduct sanitary survey</li> </ul>
<p><b>NO WATER-BORNE DISEASE OUTBREAKS</b></p>	<p><b>KI_WASH_WS2_5:</b> There is no outbreak of water-borne or water-related diseases</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• This is the primary impact indicator related to all WASH programming</li> <li>• This is the only health related WASH impact indicator</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Was an outbreak declared?</li> <li>• Diseases to consider: shigella, cholera, typhoid, malaria, dengue</li> <li>• Must have outbreak definition <ul style="list-style-type: none"> <li>○ Cholera, shigella, hepatitis E (one case)</li> <li>○ Typhoid, malaria dengue (possibly double the baseline)</li> </ul> </li> </ul>	<hr/> <p><b>Measurement Option A:</b></p> <p><b>Facility survey</b></p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b></p> <p>Focus group discussions and key informant interviews.</p> <hr/> <p><b>Measurement Option C:</b></p> <p><b>Surveillance</b></p> <p>Surveillance for water-borne disease outbreaks.</p>
<p><b>ACCESS TO HYGIENE ITEMS</b></p>	<p><b>KI_WASH_HP2_1:</b> Women, men and children have access to hygiene items and these are used effectively to maintain health, dignity and well-being</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• These items provide the means to carry out good hygiene practices (potential or improving behavior)</li> <li>• Reflects a successful hygiene promotion strategy</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• KI_WASH_HP2_2 could be measured also to check on gender sensitivity</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative methods</b></p> <ul style="list-style-type: none"> <li>• Gender specific focus group discussions</li> <li>• Household observations</li> </ul> <p>Triangulate with survey data.</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Ensure that gender does not get lost by carrying out gender specific focus group discussions</li> <li>• Potential correlation with DEWS/EWARN data (diseases rates)</li> </ul>

<b>HYGIENE PROMOTION</b>	<b>KI_WASH_HP1_4:</b> All hygiene promotion activities and messages address key behaviors and misconceptions and are targeted at all user groups	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Addresses promotion and knowledge</li> <li>If not addressed interventions will not be used</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Use when KI_WASH_HP1_3 is not met</li> <li>Potential correlation to related surveillance data</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Knowledge, attitudes, and practices survey.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Focus group discussions and key informant interviews.</p>
<b>HAND WASHING</b>	<b>KI_WASH_HP2_1:</b> All people wash their hands after defecation, after cleaning a child's bottom, before eating and preparing food	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Measure of hygiene behavior; direct relationship to outbreaks transmitted by fecal-oral route</li> <li>Most effective intervention in breaking fecal-oral transmission</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Potential correlation to related surveillance data</li> <li>Note: this indicator does not mention soap</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Knowledge, attitudes, and practices survey focusing on knowledge of hand washing.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Focus group discussions and key informant interviews.</p>
<b>ENVIRONMENT FREE FROM HUMAN FECES</b>	<b>KI_WASH_ED1_1:</b> The environment in which the affected population lives is free from human feces	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Provides an easily observable outcome indicator for successful sanitation interventions</li> <li>Top indicator for safe excreta disposal</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Quantitative/observational</b></p> <ul style="list-style-type: none"> <li>Household survey with observation</li> <li>Public area survey with observation</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Enumerators will need to be trained on observation methodology</li> <li>Public areas need to be defined prior to survey</li> </ul>
<b>MAXIMUM OF 20 PERSONS PER LATRINE</b>	<b>KI_WASH_ED2_2:</b> A maximum of 20 people use each toilet	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Accepted WASH indicator</li> <li>Effective if “use” instead of solely “access” is measured</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> The survey may contain questions and/or observation.</p> <p>The question set may include:</p> <ul style="list-style-type: none"> <li>Ownership and sharing</li> <li>Where do you defecate? In some recall period did you ever defecate in the bush?</li> <li>Others in the household? (Include children under-five)</li> </ul>



			<p>Combine with observation of feces in compound.</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• First, need to determine if latrines are actually being used, rather than solely accessible. <ul style="list-style-type: none"> <li>○ Need to ask where the family members “typically” defecate.</li> <li>○ Observation of feces in compound relates to actual “use”.</li> </ul> </li> <li>• Household census may be needed</li> <li>• Need to take into account ownership and sharing of latrines (if one family shares a latrine with three others they are assigned 1/3 of a latrine)</li> <li>•</li> </ul>
<b>APPROPRIATE DESIGN OF TOILETS</b>	<b>KI_WASH_ED2_1:</b> Toilets are appropriately designed, built and located to meet the following requirements (see details pg. 107 Sphere Handbook)	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Broad indicator incorporating safety, security, protection, distances to water points, access, use, hand washing, vector control, setting specific flooding requirements, etc.</li> <li>•</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• What is “appropriate” needs to be defined within the specific context</li> </ul>	<p><b><i>Measurement Option A:</i></b></p> <p><b>Population based survey</b> Combine a household survey with observation at the level of the household and latrine.</p> <ul style="list-style-type: none"> <li>• Ask household members if they like and use their latrines</li> <li>• Conduct a public latrine survey to evaluate design, and for the presence of feces outside</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Public latrines should be visited and the presence of hand washing facilities noted</li> </ul>
<b>USER SATISFACTION</b>	<b>WASH_WASH1_4:</b> All users are satisfied that the design and implementation of the WASH program have led to increased security and restoration of dignity	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• If user satisfaction is achieved, interventions are more likely to be used, which in turn increases impact</li> <li>• Related to accountability</li> <li>• Related to community participation</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Potential correlation to related surveillance data</li> </ul>	<p><b><i>Measurement Option A:</i></b></p> <p><b>Qualitative methods</b> Conduct focus group discussions and key information interviews with the community, doctors nurses, etc. to address protection, security, and acceptance.</p> <p><b><i>Measurement Option B:</i></b></p> <p><b>Population based survey</b> Conduct knowledge, attitudes, and practices (KAP) survey.</p>

<b>SYSTEM IN PLACE FOR MANAGEMENT AND MAINTENANCE</b>	<b>WASH_WASH1_3:</b> There is a system in place for the management and maintenance of facilities as appropriate, and different groups contribute equitably	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Measures ability of population to use facilities; snapshot for sustainability</li> <li></li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>The indicator is challenging to measure</li> <li>Is there a written plan for water points and latrines? <ul style="list-style-type: none"> <li>If yes, is it being implemented?</li> </ul> </li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Document review</b> Perform a document review looking for the following:</p> <ul style="list-style-type: none"> <li>Plan developed with community involvement</li> <li>Evidence of monitoring and evaluation</li> <li>Includes all WASH activities</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b> Focus group discussions with management committee.</p>
<b>USE OF INSECTICIDE-TREATED MOSQUITO NETS</b>	<b>WASH_VC1_3:</b> All people supplied with insecticide-treated mosquito nets use them effectively	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Malaria is one of biggest challenges in most humanitarian settings; the effective use of treated nets helps prevent malaria</li> <li>A feasible measure of an outcome for vector borne disease</li> <li>Means of disease protection/community action</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Context dependent: should only should be included in malaria risk settings</li> <li>Potential correlation to related surveillance data</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Mixed methods</b> The population based survey should be quantitative to determine access, and qualitative to determine use.</p> <ul style="list-style-type: none"> <li>Include questions on access and use</li> <li>Consider questions on alternative use of nets</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Focus groups not necessary unless large outbreak, however, in some clusters age and sex (surrogates for privacy) may be an issue</li> </ul>

Abbreviations: DEWS (Disease Early Warning System); EWARN (Early Warning System for Communicable Diseases Surveillance System)

## FOOD SECURITY

Indicator label	Relevant Sphere indicator(s)	Rationale for selection	Measurement options
<p><b>FOOD SECURITY ASSESSMENT</b></p>	<p><b>KI_FSN_FSA1_2:</b> Assessment findings are synthesized in an analytical report including clear recommendations of actions targeting and the most vulnerable individuals and groups</p> <p><b>KI_FSN_FS-FSL2_2:</b> Responses providing employment and livelihood activities available to women and marginalized groups</p> <p><b>KI_FSN_FS-FT6_4:</b> Full household access to adequate and safe food preparation materials and equipment</p>	<p><i>Rationale KI_FSN_FSA1_2</i></p> <ul style="list-style-type: none"> <li>• The assessment and analytical report provides baseline information for program development and evaluation and will provide data important to a variety of other indicators including:                             <ul style="list-style-type: none"> <li>○ Relevant alternative distribution modes for persons with reduced mobility</li> <li>○ Agreed upon targeting mechanisms; targeting criteria based on vulnerability criteria</li> <li>○ Whether program decisions are based on full participation</li> <li>○ Whether program design takes into account access to water, cooking fuel and food processing</li> </ul> </li> </ul> <p><i>Rationale KI_FSN_FS-FSL2_2</i></p> <ul style="list-style-type: none"> <li>• Related to the importance of equality of access for important vulnerable or marginalized groups.</li> <li>• May be a disaggregation of FS-CVT1_1:All targeted populations meet some or all their basic food needs and other livelihood needs (e.g. productive assets, health, education and transportation, shelter, transport) through purchase from the local markets)</li> </ul> <p><i>Rationale KI_FSN_FS-FT6_4</i></p> <ul style="list-style-type: none"> <li>• Ensures people are able to use food assistance provided for defined purpose, without needing to offset part of ration or sell some portion of the ration</li> <li>• Indicator to consider food utilization on household level</li> <li>• Measureable through household and community questionnaire</li> <li>• Linkages to environmental impact (i.e. firewood).</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Document review</b> Standard checklist to review documents for the following components:</p> <ul style="list-style-type: none"> <li>• Planning participation</li> <li>• Vulnerable groups</li> <li>• Distribution models</li> <li>• Targeting mechanisms</li> <li>• Access to water</li> <li>• Access to cooking fuel</li> <li>• Access to food processing</li> <li>• Access to food processing equipment</li> <li>• Distance to distribution site</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Use similar checklist for document review as those used by donors for proposals.</li> <li>• Checklist to include reference to K1_FSN_FS-FSL2_2</li> <li>• We support using scoring mechanisms for reports in order to add reproducibility and consistency</li> <li>• Design document quality score using checklist to include information such as vulnerability, targeting mechanisms, etc. This could be similar to donor checklists for proposal review.</li> <li>• If this document is not available or is of poor quality based on score review then go to method B – population – qualitative survey</li> <li>• A: there has been an assessment on the basic needs in the beginning and by 3 months, probably a follow-up assessment. There will be multiple assessments as time passes. Not monitoring over time: looking at whether or not needs assessment has been done and is being used.</li> <li>• Could develop an adequacy of assessment scale of 1-5; has done assessment, has done analysis, has provided recommendations, etc. This scaled score could be the entire indicator. Helps make it more measurable.</li> </ul>

			<ul style="list-style-type: none"> <li>• Timeframe may be difficult if evaluation is very short term. So either instrument might have to be adapted or evaluation might need to be extended.</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative Survey</b> Survey of key stakeholders to gather data on checklist. Information could be gathered through semi-structured interviews, focus groups or other methods as appropriate.</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Qualitative survey to be done only if not recent food and nutrition assessment available</li> </ul>
<p><b>ADEQUATE ACCESS TO A RANGE OF FOOD</b></p>	<p><b>KI_FSN_FS-FT1_1:</b> There is adequate access to a range of foods, including a staple (cereal or tuber), pulses (or animal products) and fat sources, that together meet nutritional requirements</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• It is important to understand whether the population has access to diverse food items, taking into account quality and food safety considerations</li> <li>• Access can be through domestic production or markets</li> <li>• Specific methods exist to collect this information in a reliable and fast manner</li> <li>• Part of household and community interviews through HDDS, IDDS, FIS</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Need contextualization of interpretation; taking food on credit might not be coping, but actually back to using “normal” livelihood strategies;</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population survey</b></p> <ol style="list-style-type: none"> <li>1. “Household dietary diversity score” (HDDS), which measures 24 hours of household food consumption</li> <li>2. “Individual dietary diversity score” (IDDS) , which measures 24 hours of individual food consumption</li> <li>3. Percentage of household which have adequate consumption of a range of foods based on “food consumption score”</li> </ol> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Could consider FIAS as option tool (check FANTA tools);</li> <li>• <a href="http://www.fantaproject.org">http://www.fantaproject.org</a>;</li> <li>• <a href="http://www.wfp.org/content/coping-strategies-index-field-methods-manual-2nd-edition">http://www.wfp.org/content/coping-strategies-index-field-methods-manual-2nd-edition</a></li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative survey</b></p> <ul style="list-style-type: none"> <li>• Needs consideration of dietary quality issues. Even use of “nutrival” to define details on food quality and nutritious values;</li> </ul>

			<ul style="list-style-type: none"> <li>Consider as well household consumption log book -&gt; weighing and recording exact household food consumption (note: not feasible on a large scale).</li> </ul>
<p><b>PRIMARY NEEDS, PROTECTION AND PROMOTION OF LIVELIHOOD</b></p>	<p><b>KI_FSN_FSA1_3:</b> The response is based on people's immediate food needs but will also consider the protection and promotion of livelihood strategies</p> <p><b>KI_FSN_FS1_1:</b> All the disaster-affected people in need of food security responses receive assistance that meets their primary needs, prevents erosion of their assets, gives them choice and promotes their dignity</p>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>Consolidated / combined indicator: the response is based on people's immediate food needs but will also consider the protection and promotion of livelihood strategies.</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Need to ensure the link between relief and recovery</li> <li>Will include coverage of food/cash assistance and livelihood support activities</li> <li>Will be context specific in terms of response</li> <li>Livelihood strategies need to consider options such as livestock, fishery, etc.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative Survey</b> Conduct a qualitative surveys or focus groups of trader and beneficiaries to determine market availability, livelihoods, utilization of cash/vouchers, and erosion.</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>EMME-2 is an established method to do a market analysis (this tells if tool is available)</li> <li>Market price summary – this will determine whether the beneficiaries have full access to food benefits</li> </ul>
<p><b>LOCAL MARKETS AND BASIC FOOD NEEDS</b></p>	<p><b>KI_FSN_FS-CVT1_1:</b> All targeted populations meet some or all their basic food needs and other livelihood needs (e.g. productive assets, health, education and transportation, shelter, transport through purchase from the local markets</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>This uses the basic rationale of cash transfer programs (i.e. access to functioning markets)</li> <li>The focus on local markets allows: <ul style="list-style-type: none"> <li>Support for the recovery of local markets</li> <li>Reduces the need for additional resources to be sacrificed by the household to be able to access the goods (time to travel to far markets, fees to pay for transport etc.)</li> </ul> </li> <li>Measureable through market and trader surveys, as well as household/community interviews</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>There is no established consensus or quantifiable threshold to consider whether a market is good or not</li> <li>EMME-2 is for needs survey</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b></p> <ol style="list-style-type: none"> <li>Market observation to establish available goods, in respective quantities</li> <li>Collection of market prices on a regular basis, compare with provided cash transfer and its intended objective</li> <li>Household surveys / discussions on access to and available good of market</li> <li>Expenditure on household level following cash transfer to compare intended expenditure (calculated cash transferred) and reality expenditure</li> </ol> <p><b>Measurement Option B:</b></p> <p><b>Qualitative Survey</b> Similar to above</p>

<b>NEGATIVE COPING STRATEGIES</b>	<b>KI_FSN_FS1_2:</b> Households do not use negative coping strategies	<i>Rationale</i> <ul style="list-style-type: none"> <li>• Important that assets are not sold leading to depletion of assets</li> <li>• Means that nutritious food will be available to all</li> <li>• Related to food accessibility, availability and stability of pipeline</li> <li>• Can be used as an indicators within monitoring systems through comparison between baseline data and data collected during evaluation</li> <li>• Existing tools are available such as household interviews. CSI and HFIAS</li> </ul>	<hr/> <b>Measurement Option A:</b> <hr/> <b>Population Survey</b> The Coping Strategies Index <hr/> <b>Measurement Option B:</b> <hr/> <b>Qualitative Survey</b> The Coping Strategies Index  <i>Considerations</i> <ul style="list-style-type: none"> <li>• Trader semi-structured interviews</li> <li>• Market price collection for key commodities / goods</li> </ul>
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**Abbreviations:** CSI (Coping Strategies Index); EMME-2 (software package for transportation planning); FIS (Field Information Service); FIAS (Food Intake Analysis System); FANTA (Food and Nutrition Technical Assistance); FCS (Food Consumption Score); HDDS (Household Dietary Diversity Score); HFIAS (Household Food Insecurity Access Scale); IDDS (Individual Dietary Diversity Score); SMART (Standardized Monitoring and Assessment of Relief and Transitions)

## NUTRITION

Indicator label	Relevant Sphere indicator(s)	Rationale for selection	Measurement options
<b>STANDARDIZED INDICATORS AND FINDINGS REPORT</b>	<p><b>KI_FSN_FSA2_1:</b> Assessment and analysis methodologies including standardized indicators adhering to widely accepted principles are adopted for both anthropometric and non-anthropometric assessments</p> <p><b>KI_FSN_FSA2_2:</b> Assessment findings are presented in an analytical report including clear recommendations of actions targeting the most vulnerable individuals and groups.</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>High quality data are needed to recognize and respond to nutrition emergencies in an appropriate and timely fashion.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Only necessary when nutrition conditions are affected, and data has not been recently collected or is not of good quality.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Qualitative assessment</b> Review of evaluation report(s) to assess the following: <u>Report:</u></p> <ul style="list-style-type: none"> <li>Is there a report? How timely was it produced and disseminated?</li> </ul> <p><u>Key sectoral indicators:</u></p> <ul style="list-style-type: none"> <li>Were key sectoral indicators assessed? Were the results from the key sectoral indicators presented in the report?</li> </ul> <p><u>Reported indicators:</u></p> <ul style="list-style-type: none"> <li>For each reported indicator, was the measurement method a standardized/recommended one (from indicator-specific guidance sheets)?</li> </ul>
<b>BREASTFEEDING RATE</b>	<p><b>K1_FSN_IYF2_1:</b> Measurement of standard WHO indicators for early initiation of breastfeeding, exclusive breastfeeding rate in children &lt; 6 months, and continued breastfeeding rate at 1 and 2 years</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Optimal infant and young child feeding practices affect overall nutrition status and help prevent diarrhea and other diseases.</li> <li>This indicator is useful to understand current behavior, whether behavior has changed, and if additional responses or interventions are necessary.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Breastfeeding practices may be unlikely to improve 3-6 months after onset of an emergency, but it is still useful to measure to ensure that the situation has not declined.</li> <li>It could also be useful to measure 'negative' feeding practices (for example, bottle feeding or use of solid foods at an early age).</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Data should be collected as part of a population based survey on:</p> <ul style="list-style-type: none"> <li>the early initiation of breastfeeding</li> <li>exclusive breastfeeding rate in children &lt; 6 months –and-</li> <li>continued breastfeeding rate at 1 and 2 years</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>A representative sample of sufficient size is needed. <ul style="list-style-type: none"> <li>The data should either come from a large level survey (a national or provincial survey such as DHS/MICS) or an interagency assessment/survey.</li> </ul> </li> <li>The focus should be on all children, rather than solely on malnourished children.</li> </ul> <p><i>Example resources</i></p> <ul style="list-style-type: none"> <li>DHS/MICS, nutrition surveys, IYCF modules, or CARE package</li> </ul>



<p><b>BREASTFEEDING SUPPORT</b></p>	<p><b>KI_FSN_IYF2_3:</b> Breastfeeding mothers have access to skilled breastfeeding support</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Helps promote best breastfeeding practices and knowledge, and prevent abrupt weaning.</li> <li>• Promotes exclusive breastfeeding for first 6 months of life.</li> <li>• Provides a protective and supportive environment for IYCF.</li> <li>• Minimizes risks and optimizes nutrition, health and survival outcomes.</li> <li>• Identifies challenges breast feeding mothers face, and helps mothers receive support.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Nutrition survey with correctly framed breastfeeding support questions.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Facility survey</b> Survey of facilities to determine if breast feedings support services are provided.</p> <p>Can also administer exit surveys to beneficiaries to address the following questions:</p> <ul style="list-style-type: none"> <li>• Did you receive services?</li> <li>• What was the quality of the services?</li> </ul> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>• Will need to determine what constitutes breast feeding support? For example, the definition of a breastfeeding counselor would need to be defined (such as a health center worker trained in lactation counseling).</li> <li>• Knowledge of breastfeeding counselors could be assessed.</li> </ul>
<p><b>CAREGIVER ACCESS</b></p>	<p><b>KI_FSN_IYF2_2:</b> Caregivers have access to timely, appropriate nutritionally adequate and safe complementary foods for children 6 to &lt;24 months</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Appropriate use of complimentary foods are indicative of care practices for young children.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Nutrition assessment</b> Conduct a nutrition assessment to estimate or understand access, availability and utilization of complementary food.</p> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>• The exact method may include multiple components, and needs to be more clearly defined.</li> </ul>



<p><b>COVERAGE MODERATE MALNUTRITION</b></p>	<p><b>KI_FSN_MAC1_2:</b> Coverage is &gt;50 per cent in rural areas, &gt;70 per cent in urban areas and &gt;90 per cent in a camp situation</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Access to treatment is critical to stimulate recovery, prevent further deterioration of nutritional status, and prevent excess morbidity and mortality in children with moderate acute malnutrition.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Exhaustive screening</b>  <u>Numerator:</u> The # MAM cases that received treatment  <u>Denominator:</u> The total # MAM cases identified</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Methodology has not been developed for measuring coverage in a large area (ie-district).</li> </ul>
<p><b>PROPORTION OF DISCHARGES MODERATE</b></p>	<p><b>KI_FSN_MAC_1_3:</b> The proportion of discharges from targeted supplementary feeding programs who have died is &lt;3 per cent, recovered is &gt;75 per cent and defaulted is &lt;15 per cent</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Assure efficiency / performance of supplementary feeding programs.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Only need to measure this indicator if targeted supplementary feeding programs are implemented.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Minimum Reporting Package or other equivalent</b>  Basic analysis contained within MRP (or equivalent).</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>See Sphere definitions (pg. 167 Handbook-discharges recovered, died, defaulted, and non-recovered).</li> </ul>
<p><b>COVERAGE SEVERE MALNUTRITION</b></p>	<p><b>KI_FSN_MAC2_2:</b> Coverage is &gt;50 per cent in rural areas, &gt;70 per cent in urban areas and &gt;90 per cent in camp situations</p>	<p><i>Rationale:</i></p> <ul style="list-style-type: none"> <li>Children with severe acute malnutrition have markedly increased risk of mortality and often have multiple co-morbidities that require treatment.</li> <li>It is critical that they have unimpeded access to therapeutic foods and medical treatments to prevent excess mortality and morbidity.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Alternate methodologies including:</b></p> <ul style="list-style-type: none"> <li>SQUEAC methodology</li> <li>SLEAC methodology</li> <li>S3M methodology</li> <li>CSAS methodology</li> </ul> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>These methods have not been rigorously tested yet, and require further statistical/epidemiologic review before being accepted as standard for the field.</li> <li>Projection from prevalence from a nutrition survey to estimate expected caseload and subsequent coverage should not be used.</li> </ul>

<b>PROPORTION OF DISCHARGES SEVERE</b>	<b>KI_FSN_MAC2_3:</b> The proportion of discharges from therapeutic feeding programs who have died is <10%, recovered is >75% and defaulted is <15%	<i>Rationale:</i> <ul style="list-style-type: none"> <li>Measures performance of therapeutic feeding programs.</li> </ul>	<b>Measurement Option A:</b> <b>Preexisting data</b> Possible options for data include standard reporting formats and existing systems from UNICEF.
<b>MICRONUTRIENT INTERVENTION</b>	<b>KI_FSN_MAC3_2:</b> Micronutrient interventions accompany public health interventions to reduce common disease associated with emergencies such as measles (vitamin A) and diarrhea (zinc)	<i>Rationale:</i> <ul style="list-style-type: none"> <li>To ensure that health programs are appropriate to prevent and/or reduce select micronutrient deficiencies and associated diseases.</li> </ul>	<b>Measurement Option A:</b> <b>Population survey</b> Measure the following as part of a population-based survey: <ul style="list-style-type: none"> <li>Number of children who received 100,000 IUs vitamin A</li> <li>Number of children who received 200,000 IUs vitamin A</li> <li>Number of children who received zinc</li> </ul> <i>Considerations:</i> <ul style="list-style-type: none"> <li>Zinc supplementation can be collected as part of a WASH question (“did you receive zinc as part of diarrhea treatment?”).</li> <li>Tally sheets from a polio/measles campaign can be used to measure vitamin A coverage.</li> </ul>

**Abbreviations:** CARE package (Minimum Health and Nutrition Care Package); CSAS (Centric Systematic Area Sampling); DHS (Demographic and Health Surveys); IUs (International Units); IYCF (Infant and Young Child Feeding); MAM (Moderate acute malnutrition); MICS (Multiple Indicator Cluster Survey); MRP (Minimum Reporting Package); S3M (Simple Spatial Sampling Methods); SLEAC (Simplified LQAS Evaluation of Access and Coverage); SQUEAC (Semi-quantitative Evaluation of Access and Coverage); WASH (Water, Sanitation, and Hygiene)

## SHELTER

Indicator label	Relevant Sphere indicator(s)	Rationale for selection	Measurement options
<b>COVERED LIVING SPACE (3.5M<sup>2</sup> PER PERSON)</b>	<b>KI_SSN_SS3_1:</b> All affected individuals have an initial minimum covered floor area of 3.5m <sup>2</sup> per person	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• A foundational measure of whether adequate covered shelter has been provided.</li> <li>• Quantitative and relatively straightforward to measure.</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• This indicator needs to be used with flexibility. Expected values may be different in urban versus rural areas or settlements.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b>            Conduct a population survey to estimate covered space per structure (See guidance note 258-9 for definition of covered space).</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• A stand-alone survey should not be conducted for this indicator - it should be part of a larger survey.</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Administrative data</b>            Use to estimate average family size</p> <ul style="list-style-type: none"> <li>• Update with qualitative data if family size may have changed</li> </ul>
<b>SETTLEMENT PLANNING AND RESPONSE</b>	<b>K1_SSN_SS1_1:</b> Shelter and settlement solutions to meet the essential needs of all the disaster affected population are agreed with the population themselves and relevant authorities in coordination with all responding agencies	<p><i>Rationale K1_SSN_SS1_1</i></p> <ul style="list-style-type: none"> <li>• Overarching process indicator that reflects the main goal of the sector's work.</li> <li>• Relies on measurement against pre-existing assessment to identify essential needs.</li> </ul> <p><i>Considerations K1_SSN_SS1_1</i></p> <ul style="list-style-type: none"> <li>• Measurement is predicated on the assumption that inclusive surveys are being done (anticipate that the larger surveys would take 2-3 weeks to complete) and that the shelter cluster is analyzing, coordinating and disseminating findings of such assessments, making this indicator measurable.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Document review</b>            Look at available documents for:</p> <ul style="list-style-type: none"> <li>• Evidence of population involvement in needs assessments/response to their views</li> <li>• Coordination with all actors</li> <li>• Consistency with cluster strategy</li> </ul> <p>Look for the following documents</p> <ul style="list-style-type: none"> <li>• Needs assessments</li> <li>• Cluster coordination meeting minutes</li> <li>• Community coordination meeting minutes</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b>            Perform focus group discussions, key informant interviews, and participatory ranking methods with:</p> <ol style="list-style-type: none"> <li>a) affected population</li> <li>b) agencies</li> <li>c) local authorities</li> </ol> <p>Evaluate the participation of the above actors in assessment and their agreement with response</p>

	<p><b>K1_SSN_SS2_2:</b> All settlement plans demonstrate that risks and vulnerabilities in the use of shelters, covered areas and essential services have been identified and mitigated</p>	<p><i>Rationale K1_SSN_SS2_2</i></p> <ul style="list-style-type: none"> <li>• Measureable – can look at plans and existing efforts toward disaster risk reduction</li> <li>• Indicator reflects issues of safety, environmental impact planning</li> <li>• Important area currently overlooked – putting as a priority could help address this</li> <li>• A way in which shelter can incorporate protection</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Same as for KI_SSNSS2_1 above.</li> <li>• Link to Core Standard 3.</li> <li>• This is a process indicator.</li> </ul>	<p>efforts.</p> <p>Also perform discussions with community members to determine community perceptions on whether needs were met.</p> <hr/> <p><b>Measurement Option A:</b></p> <p><b>Document review</b> Review same documents listed for KI_SSNSS2_1 (above) for evidence of:</p> <ul style="list-style-type: none"> <li>• Needs assessments identify previous risks and vulnerabilities</li> <li>• Risk assessment and contingency planning documents exist</li> <li>• Vulnerable populations have been identified</li> <li>• Budget covers risks</li> <li>• A disaster evacuation plan exist</li> <li>• Stockpiles of essential materials exist</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative survey methods</b></p> <ul style="list-style-type: none"> <li>• Focus group discussions with community members to examine community perception on risk and vulnerabilities <ul style="list-style-type: none"> <li>○ Can conduct transect walks and have community do mapping of perceived risk areas and identification of vulnerabilities</li> </ul> </li> </ul> <hr/> <p><b>Measurement Option C:</b></p> <p><b>Observation checklist</b></p> <ul style="list-style-type: none"> <li>• Overcrowding</li> <li>• Types of structures</li> <li>• Rubble, other hazards</li> </ul>
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<p><b>LOCAL IMPACT</b></p>	<p><b>K1_SSN_SS5_2</b> : The construction processes and sourcing of materials for all shelter solutions demonstrate that adverse impact on the local natural environment has been minimized and/or mitigated</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Related to pollution, spread of disease, impact on local economies, pest control, livelihoods, disaster risk reduction and imperative to do no harm</li> <li>• Important for sustainability and long-term settlement needs of the displaced / or host population (as majority of emergencies become protracted crises)</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• A process indicator rather than estimating a %.</li> <li>• Achievement of this indicators needs to be balanced against saving lives early in the emergency</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Document review</b></p> <ul style="list-style-type: none"> <li>• Identify key shelter actors and how they source materials</li> <li>• Match against shelter cluster plan</li> <li>• Evaluate how each actor rates sourcing considerations</li> <li>• Examine both intent and action</li> <li>• Compare actions to cluster strategy <ul style="list-style-type: none"> <li>○ Environmental impact assessment conducted?</li> <li>○ All options for material sourcing considered?</li> <li>○ Sources with least negative impact for environment, human economic resources chosen?</li> </ul> </li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative survey methods</b></p> <p>Focus group discussions with community members.</p>
<p><b>SAFE BUILDING PRACTICES</b></p>	<p><b>K1_SSN_SS4_1</b>: All construction is in accordance with safe building practices and standards</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Promotes safe structures and settlements</li> <li>• Aims to “build back better” through training</li> <li>• Addresses safety and adequacy aspects of shelter</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Document review</b></p> <p>Evaluate building plans for conformance with shelter cluster strategy guidance on safe building practices and standards.</p> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Qualitative survey methods</b></p> <p>Focus group discussions, key informant interviews, with:</p> <ol style="list-style-type: none"> <li>a) affected population</li> <li>b) agencies</li> <li>c) local authorities</li> </ol> <p>Looking at:</p> <ul style="list-style-type: none"> <li>• Concerns around safety and vulnerability</li> <li>• Degree to which these have been addressed</li> </ul> <p>(Continued next page)</p>

			<p><b>Measurement Option C:</b></p> <p><b>Representative survey</b>  Survey complete and in progress structures. Ascertain degree of adherence with agreed cluster safe building plans. Can document with photographs.</p>
<p><b>NFI NEEDS MET (BLANKETS, BEDDING, SLEEPING MATS)</b></p>	<p><b>KI_SSN_NF1_1:</b> The assessed non-food item needs of the entire disaster-affected population have been met</p> <p><b>KI_SSN_NF2_2:</b> All affected populations have a combination of blankets, bedding and sleeping mats or mattresses where required to ensure sufficient thermal comfort and enable appropriate sleeping arrangements</p>	<p><i>Rationale KI_SSN_NF1_1</i></p> <ul style="list-style-type: none"> <li>• Overarching indicator - gets at the core of NFI. If needs are successfully assessed and met, NFI needs have been successfully addressed.</li> <li>• Implies the concept of ongoing assessment of needs</li> </ul> <p><i>Considerations KI_SSN_NF1_1</i></p> <ul style="list-style-type: none"> <li>• Can be measured as a % coverage</li> </ul> <p><i>Rationale KI_SSN_NF2_2</i></p> <ul style="list-style-type: none"> <li>• Of all the NFIs described in list of indicators these items can be most closely correlated to saving lives and reducing suffering</li> <li>• Prevention of exposure is essential in most emergency contexts</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Quantitative methods</b></p> <ul style="list-style-type: none"> <li>• Population based survey <ul style="list-style-type: none"> <li>○ <u>Numerator</u> = % of units surveyed receiving blankets, bedding, sleeping mats</li> <li>○ <u>Denominator</u> = # targeted (outcome)</li> <li>○ % of units surveyed using items</li> </ul> </li> <li>• Review of administrative data <ul style="list-style-type: none"> <li>○ <u>Numerator</u> = # of recipients/units supplied with blankets, bedding, sleeping mats</li> <li>○ <u>Denominator</u> = # targeted (output indicator)</li> </ul> </li> <li>• Observation checklists <ul style="list-style-type: none"> <li>○ Are NFIs being sold on open market? (If yes, conduct qualitative research as to why)</li> <li>○ Distribution monitoring</li> </ul> </li> </ul> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b>  Focus group discussions, key informant interviews with affected population regarding the following:</p> <ul style="list-style-type: none"> <li>○ Agreement with assessed needs? Was there anything essential that was missed?</li> <li>○ Needs have been met?</li> <li>○ Timely receipt of items?</li> <li>○ Can ask community to rate usefulness of items</li> </ul> <p><i>(Continued next page)</i></p>

			<p><i>Considerations</i></p> <ul style="list-style-type: none"><li>• For the qualitative methods, need to pay attention to when these methods are conducted and place the findings within that context. Current conditions at time of interviews may be quite a bit different than earlier in the emergency.</li></ul>
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Note- Discussion pertaining to coverage of long-lasting insecticidal nets has been removed, as not included within Shelter chapter of Sphere.

**Abbreviations:** NFI (Non-food Items)

## HEALTH

Indicator label	Relevant Sphere indicator(s)	Rationale for selection	Measurement options
<b>STANDARD CASE MANAGEMENT PROTOCOL</b>	<p><b>KI_HA_EHS-CCD2_1:</b> Use standardized case management protocols for the diagnosis and treatment of pneumonia and diarrhea among children, and other context-specific diseases such as malaria and neonatal illness. Determine consistent use.</p> <p><b>KI_HA_EHS-CH2_2:</b> All children under 5 years old presenting with diarrhea have received both oral rehydration salts (ORS) and zinc supplements</p> <p><b>KI_HA_EHS-CH2_3:</b> All children under 5 years of age presenting with pneumonia have received appropriate antibiotics</p> <p><b>Context dependent:</b>  <b>KI_HA_EHS-CH2_1:</b> All children under 5 years old presenting with malaria have received effective anti malarial treatment within 24 hours of onset of their symptoms</p>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>Use standardized case management for diagnosis and treatment of children &lt; 5 years (pneumonia, diarrhea and in appropriate contexts, malaria).</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Assesses compliance with protocols for major causes of morbidity/mortality (pneumonia, diarrhea, and in appropriate contexts, malaria)</li> <li>Specific and measurable</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>Malaria is context-dependent.</li> <li>Standardized case management should be compared to IMCI (or national guidelines).</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility survey (quantitative)</b>            Perform register /record review at health facilities to measure adherence to IMCI (or national guidelines).</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>The focus should be on first-level health facilities, and include treatment by trained community health workers.</li> <li>This survey would require standard patient registers or other records with sufficient information for assessment, diagnosis, and treatment of diarrhea, pneumonia, and malaria (if relevant) among children age &lt; 5 years.</li> </ul> <p><b>Measurement Option B:</b></p> <p><b>Qualitative methods</b>            Survey involving observation of patient care at facilities followed by examination of the child by an expert clinician.</p>
<b>UTILIZATION RATES</b>	<p><b>KI_HA_HS1_2 :</b> Utilization rates at health facilities are 2-4 new consultations/person/year among the disaster-affected population and &gt;1 new consultations/person/year among rural and dispersed populations</p> <p><b>KI_HA_HS1_1 :</b> There are an</p>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>People have equal access to effective, safe and quality health services that are standardized and follow accepted protocols and guidelines.</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>Proxy to access and availability of services.</li> <li>Measure of community use of available services.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility survey</b>            Use facility registers to determine # new consults per month for:</p> <ul style="list-style-type: none"> <li>Calendar month prior to evaluation</li> <li>Calendar month 2 months prior to emergency</li> </ul> <p>And compare to:</p> <ul style="list-style-type: none"> <li>Calendar month 2 months prior to emergency</li> </ul> <p>Potential data sources could include:</p> <ul style="list-style-type: none"> <li>Health Resources Availability Mapping System</li> </ul>



	<p>adequate number of health facilities to meet the essential health needs of all the disaster-affected population: (1) one basic health unit/10,000 population (basic health unites are primary healthcare facilities where general health services are offered); (2) one health center/50,000 people; (3) one district or rural hospital/250,000 people; (4) &gt;10 inpatient and maternity beds/10,000 people</p>	<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Need to know # of clinics and consults (combine with KI_HA_HS1_1) to determine a denominator.</li> </ul>	<p>(HeRAMS)</p> <ul style="list-style-type: none"> <li>• National or regional data</li> <li>• Random PPS sample of facilities</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Need to know catchment population for denominator. <ul style="list-style-type: none"> <li>◦ If unknown, determine proportion of new consults of total consults and determine if a benchmark can be established</li> </ul> </li> <li>• The # of facilities may be unknown</li> <li>• If an outbreak occurred, the number of new consults may increase.</li> <li>• To conduct (PPS) sampling of facilities, would need to know the total # of facilities, and the # of beds at each facility.</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Population based survey</b> As part of a population survey, the following question could be asked:</p> <ul style="list-style-type: none"> <li>• Over the last two weeks, did you or your child go to a health facility for a <u>new</u> “health problem”?</li> </ul>
<p><b>MORTALITY RATES</b></p>	<p><b>KI_HA_EHS1_1:</b> The crude mortality rate (CMR) is maintained at, or reduced to, less than double the baseline rate documented for the population prior to the disaster</p> <p><b>KI_HA_EHS1_2:</b> The under-5 mortality rate (U5MR) is maintained at, or reduced to, less than twice the baseline rate documented for the population prior to the disaster</p>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>• The crude mortality rate (CMR) is maintained at, or reduced to, less than double the baseline rate documented for the population prior to the disaster, disaggregated by under 5 and over 5 years.</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Measures status of the population, and whether people have access to health services that are prioritized to address the main causes of excess mortality and morbidity.</li> <li>• Reflects severity of a crisis.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Perform a household (HH) survey (Standardized Monitoring &amp; Assessment of Relief &amp; Transitions: SMART) to determine mortality rates. Calculated mortality rates would need to be compared to a prior census or UNICEF baseline mortality data by region to assess whether it has doubled.</p> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• CMR should be disaggregated by age group, and therefore capture CMR and U5MR</li> <li>• Disaggregation by gender would require a larger sample size</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Secondary sources of data</b> Consider:</p> <ul style="list-style-type: none"> <li>• Community death surveillance (if it exists)</li> <li>• Grave counting ( if the denominator is known)</li> <li>• Key informants</li> </ul>

<p><b>TRANSFUSED BLOOD SCREENED</b></p>	<p><b>KI_HA_EHS-SRH2_3:</b> 100 per cent of transfused blood is screened for transfusion-transmissible infections including HIV</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Reflects basic principle of do no harm.</li> <li>• To reduce risk of blood borne diseases among a small population of beneficiaries who need and receive transfusions (post-partum hemorrhage, severe anemia, congestive heart failure, and injury).</li> <li>• Easy to measure.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility based survey</b>  Measure whether transfused blood is screened using one of the following data sources:</p> <ul style="list-style-type: none"> <li>• Random sample from HeRAMs</li> <li>• National/regional data of all facilities providing transfusions. Consider measuring: <ul style="list-style-type: none"> <li>○ All facilities providing transfusions if the total # is small and they are accessible.</li> <li>○ Alternatively, could measure blood screening only at district hospitals.</li> </ul> </li> </ul> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>• The bloodbank may serve as a resource for distribution of blood and methods used.</li> <li>• Use of tests does not ensure that they are valid. Stockouts of tests will need to be considered and accounted for.</li> <li>• Number tested = number of units.</li> </ul> <p><i>Resources</i></p> <ul style="list-style-type: none"> <li>• Sphere Guidance note 5, pg 298: information on coordination, collection, laboratory practice, use of transfusions, and training of clinical staff.</li> <li>• WHO guidelines for safe blood transfusions (HIV, HBsAg, HCV)</li> </ul>
<p><b>EPIDEMIC DISEASE REPORTING</b></p>	<p><b>KI_HA_HS5_2:</b> All health facilities and agencies report cases of epidemic-prone disease within 24 hours of onset of illness</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Need to follow development of outbreaks and epidemics to reduce mortality and morbidity.</li> <li>• Contributes to rapid response and containment.</li> <li>• Proxy for how well the health information system is functioning.</li> </ul>	<p><b>Measurement Option A:</b></p> <p>This could be asked as a simple yes/no question: Is there epidemic disease reporting?</p> <p>Further measurement guidance not provided.</p>
<p><b>ESSENTIAL MEDICINE STOCK</b></p>	<p><b>KI_HA_HS3_1:</b> No health facility is out of stock of selected essential medicines and tracer products for more than one week</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Need to maintain essential prescriptions to decrease morbidity and mortality.</li> <li>• Measurement of providing minimal required level of care.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility based survey</b>  Survey of all functioning facilities in the affected area to determine the percentage of facilities that had no stock outs of essential medicines and tracer products for more than one week.</p>

			<p>Calculation of the indicator:</p> <ul style="list-style-type: none"> <li>• <u>Numerator</u>: # facilities reporting no stock-outs for &gt; 7 days</li> <li>• <u>Denominator</u>: # facilities assessed/reporting</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Central reporting and supply records can be considered as an alternate to a facility survey.</li> <li>• Selection of what constitutes “essential prescriptions” needs to be driven by epidemiologic data of the most important diseases and treatment medications in the context.</li> </ul>
<p><b>PROPORTION OF DELIVERIES BY SKILLED PROVIDER</b></p>	<p><b>KI_HA_EHS-SRH1_3:</b> There are at least four health facilities with BEmOC and newborn care/500,000 population</p>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>• Redefined as the proportion of deliveries in BEmOC health facilities delivered by a skilled attendant.</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Measures access to basic delivery and healthcare services.</li> <li>• Contributes to reduction of neonatal morbidity and mortality.</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility survey</b> Perform a facility based survey of all BEmOC health facilities to determine the proportion of babies delivered by a skilled attendant.</p> <p>Calculation of the indicator:</p> <ul style="list-style-type: none"> <li>• <u>Numerator</u>: # of deliveries in a health facility</li> <li>• <u>Denominator</u>: expected number of deliveries in the catchment area</li> </ul> <p>Data sources may include:</p> <ul style="list-style-type: none"> <li>• Health Information Systems</li> <li>• Estimated catchment population (OCHA, UNFPA)</li> <li>• Crude birth rate (DHS, MICS, 4 year CBR)</li> </ul> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>• Do Health Information System (HIS) records exist?</li> <li>• What is the proportion of health facilities that report?</li> <li>• What is the accuracy of catchment population</li> <li>• Should only BEmOC facilities be included, or all health facilities where deliveries may be occurring?</li> <li>• Assumes providers in the health facilities are skilled. “Skilled provider” can be defined by the WHO standard.</li> </ul>

			<p><i>Benchmarks</i></p> <ul style="list-style-type: none"> <li>• Compare to baseline within the specific context</li> <li>• In no baseline available, use MDG5</li> </ul> <p><i>Resources</i></p> <ul style="list-style-type: none"> <li>• Reproductive Health Access, Information and Services in Emergencies (RAISE)/ Averting Maternal Death and Disability (AMDD)</li> </ul> <hr/> <p><b>Measurement Option B:</b></p> <p><b>Population based survey</b>  Perform a population survey sampling from the entire catchment population to determine the proportion of babies delivered by a skilled attendant in the last three months.</p> <p>Calculation of the indicator:</p> <ul style="list-style-type: none"> <li>• <u>Numerator</u>: # live births in the last 3 months in a health facility by a skilled health attendant</li> <li>• <u>Denominator</u>: # live births in the last 3 months</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Will require a large sample size</li> <li>• Includes live births (therefore excluding stillbirths)</li> </ul> <p><i>Benchmarks</i></p> <ul style="list-style-type: none"> <li>• Baseline data available from DHS/MICS, and therefore can assess progress</li> </ul> <p><i>Resources</i></p> <ul style="list-style-type: none"> <li>• DHS, MICS</li> <li>• RAISE/AMDD</li> </ul>
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<p><b>DELIVERIES BY CAESAREAN</b></p>	<p><b>KI_HA_EHS-SRH1_5:</b> The proportion of deliveries by caesarean section is not less than 5 per cent or more than 15 per cent</p>	<p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Proxy for access and availability to CEmOC.</li> <li>• Allows for assessment of whether referral mechanisms are working properly.</li> <li>• Addresses causes of maternal and neonatal mortality and disability (for example, maternal fistulas).</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Facility survey</b> Conduct a facility based survey to estimate the proportion of deliveries which occur by caesarean section.</p> <p>Calculation of the indicator:</p> <ul style="list-style-type: none"> <li>• <u>Numerator</u>: # of cesarean sections conducted in the facility (based on the register)</li> <li>• <u>Denominator</u>: total # deliveries at the facility</li> </ul> <p><i>Considerations:</i></p> <ul style="list-style-type: none"> <li>• The target of 5-15% applies to the estimated number of all pregnancies, rather than the number of deliveries which occur in a health facility.</li> <li>• It is important to disaggregate by geographic origin then use the estimates of the number of pregnancies per area <ul style="list-style-type: none"> <li>○ Disaggregation by geographic origin may show different levels of access to services/referrals</li> </ul> </li> <li>• Will need to interpret the indicator with caution. For example, if the proportion of deliveries by cesarean sections exceeds 15%, it could either be due to bias from clinically complex cases, or be due to over-use.</li> </ul>
<p><b>MEASLES VACCINES AND VITAMIN A COVERAGE</b></p>	<p><b>KI_HA_EHS-CH1_1:</b> Upon completion of the vaccination campaign:</p> <ul style="list-style-type: none"> <li>- at least 95% of children aged 6 months to 15 years have received measles vaccination;</li> <li>- at least 95% of children aged 6-59 months have received an appropriate dose of vitamin A.</li> </ul>	<p><i>Indicator definition</i></p> <ul style="list-style-type: none"> <li>• Redefined as children aged 6 months to 15 years have been vaccinated against measles and have access to routine Expanded Programme on Immunization (EPI) services.</li> </ul> <p><i>Rationale</i></p> <ul style="list-style-type: none"> <li>• Contributes to risk reduction, which is critical during the 3-6 months following a disaster.</li> <li>• Inaccurate coverage estimates can contribute to large outbreaks.</li> <li>• Indicates access to vaccination services (safety and accessibility of clinic).</li> </ul>	<p><b>Measurement Option A:</b></p> <p><b>Population based survey</b> Conduct a population based survey of the target population to determine the proportion of children who have been vaccinated against measles and received vitamin A.</p> <p>Calculation of the indicator:</p> <ul style="list-style-type: none"> <li>• <u>Numerator</u>:# children 6 months to 15 years* vaccinated against measles/vitamin A</li> <li>• <u>Denominator</u>: total # children 6 months to 15 years targeted</li> </ul> <p>Measles and vitamin A calculated separately.</p>

		<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Whether this indicator should be measured might be context specific, depending on whether a campaign has occurred prior to the evaluation.</li> </ul>	<p>Data sources may include:</p> <ul style="list-style-type: none"> <li>• If a campaign occurs: campaign coverage survey</li> <li>• If no campaign occurs, but routine EPI is in place: use secondary data from previous surveys (ie- DHS/MICS) or HIS</li> </ul> <p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• The age range measured may need to be adjusted for the specific situation.</li> <li>• The denominator may change with population movements.</li> <li>• Need to be aware of assumptions: <ul style="list-style-type: none"> <li>○ Vaccinators have kept records properly.</li> <li>○ The vaccine is efficacious (functioning cold chain).</li> </ul> </li> </ul>
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**Abbreviations:** AMDD (Averting Maternal Death and Disability); BeMOC (Basic Emergency Obstetric Care); CeMOC (Comprehensive Emergency Obstetric Care); CMR (Crude Mortality Rate); DHS (Demographic and Health Surveys); HeRAMS (Health Resources Availability Mapping System); IMCI (integrated Management of Childhood illness); MICS (Multiple Indicator Cluster Survey); OCHA (UN Office for the Coordination of Humanitarian Affairs); PPS (Population Proportional to Size); RAISE (Reproductive Health Access, Information and Services in Emergencies); SMART (Standardized Monitoring & Assessment of Relief & Transitions); UNFPA (United Nations Population Fund); UNICEF (United Nations Population Fund)