Malteser International
Order of Malta Worldwide Relief

Indicators and Reference Data: A Practical Tool for Project Managers in Humanitarian Aid

Malteser International Operational Guideline

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Disclaimer
The idea, design and contents of this guideline have been purely driven by the context Malteser International is working in. Many of the indicators and standards in this booklet have been used from the World Health Organization (WHO), the SPHERE project, the World Bank, Centre for Disease Control and Prevention, Atlanta (CDC), the United Nations High Commissioner for Refugees (UNHCR) and others, but also from own practical experience in the field of humanitarian aid.

The tool is aimed to support project managers and health personnel in effective planning and result oriented managing of programmes by selecting appropriate and practical indicators. It covers the sector of health, nutrition, immunisation, psycho-social care, mental health and water, sanitation and hygiene. Malteser International fully endorses the international standards already produced and considers them as important references; nevertheless, this guideline is aimed to be as practical as possible and should be used as a flexible tool and adapted to the local context.

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Foreword

This manual is intended to help project managers alike to assess and plan humanitarian aid projects throughout all phases, from the emergency situation up to the developmental phase. The manual provides a set of compiled standards and key indicators, which have been developed by many people for various sectors and have reached a remarkable consensus in the humanitarian world. It gives practical advice for on-the-ground interventions. Additional some references have been made on further information sources.

Although this manual is a technical toolkit with a focus on standards and indicators, it does not neglect the importance of the human rights approach and the principles addressed in the Humanitarian Charter and the Code of Coduct, which has been signed by Malteser International. It rather confesses the strong commitment for quality, accountability and the respect of those affected by disaster or conflict.

I hope that this manual will support Malteser International staff and encourage other humanitarian aid organisations to increasingly use standards and indicators to show their effectiveness of work and to be accountable for those in need. It is a shared responsibility.

Ingo Radtke
Secretary General
Malteser International

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1. Introduction

Health Indicators are an important tool of project management, monitoring and evaluation in humanitarian aid and development. Measuring outcomes, results and effectiveness of interventions helps not only the programme manager to identify the most appropriate response according to the affected population, context and culture; it is also an increasing requirement of donors to reflect the agency's work and the overall quality and to show accountability towards the beneficiaries.

However, before planning and designing a project, it is imminent to get some information on the situation. The following section describes some approaches.

2. How to give meaning to data in a complex situation

Especially in complex emergencies, information systems are often interrupted, data are invalid and deficient, standards are not available and therefore health information are often not used even when large amounts of data are available. Even in extreme situations such as in Afghanistan, Sudan or the D.R. Congo, health data, although incomplete, of variable quality and collected with different stakeholders, are available. However, the capacity and the coordination to make meaning out of those scattered information is a challenge and often not practiced (**Pavignani E and Colombo A, 2001**).

The registration of absolute numbers of deaths or patients with specific diseases during a disaster or emergency is not very informative, unless they are reported in relation to the relevant population and reported in rates or ratios. This helps to make the death and disease pattern clearer. Data, which are collected over time, may even show change and may provide useful information for the respective aid programmes. Further dividing data by sex, age groups, ethnic or social groups (i.e. migrants or non-migrants) or working activities, may suggest factors behind the vulnerability of the affected population. However, collecting and manipulating data in the hope that something 'appealing' comes up is not giving the real evidence to make decisions and therefore not very useful (**Pavignani E and Colombo A, 2001**).

The following section will provide some ideas on where to collect information and how to make use of available data for decision making.

2.1 Possible information sources to obtain health relevant data

Ministry of Health: collects routinely data; availability has to be assessed

Ministry of Foreign Affairs: may collect information on specific social groups such as refugees or foreign migrants

WHO in respective country: collects routine country specific data and may support the country health information system

Standardised national surveys: such as *Demographic and Health Surveys* (DHS); sometimes published in relevant journals

Survey data: assess if surveys have been conducted in the country; they may be relevant for the programme planning and do not necessarily require another survey

Surveillance system: sometimes implemented by the health authorities and WHO and part of the national surveillance system

Key Message 1: Assess if and what information is already available through the relevant ministries, WHO or other NGOs. Take into account available information before planning your own survey or assessment.

3. Population estimations

To find out the total number of the target population and the breakdown by age and sex is always a challenge in emergencies and post-conflict situations. Rarely, exact figures can be attained. On the other hand, it is of utmost importance to decide on the number of people to be served – i.e. the target

population. The population is the basis to decide on the denominator, which gives an idea on quantities of commodities and services to be organised in a given timeframe. A helpful tool is to find out the number of health facilities and the estimated total population number in a specific area such as a district or province. If one has to plan just for a small population group within the province, look at the number of health facilities in this specific area and divide those by the total number of health facilities to get the percentage out of the total; this is also your estimated percentage of population to use as a denominator. Look at the following example:

EXAMPLE: the province in this example provides the baseline information while the district estimated population has been calculated out of the province data

Province	**No. of total health facilities**	**Estimated Population**
A	56	850,000
District		
A	24 (43%) out of 56	484,500 (43% of total 850,000)

The following table gives some indications for a more or less normal distributed population.

Table 1: Estimated population figures in a "normal" distributed society

Group	**% of population**	Remarks by the authors
0-4 years	12	Might be higher in societies with high birth rates --> 12 – 20 %
5-9 years	12	Might be higher in societies with high birth rates
10-14 years	11	Might be higher in societies with high birth rates
15-19 years	10	Might be higher in societies with high birth rates
20-59	49	
60 +	7	
Pregnant Women	2.5 – 4	Might be higher in societies with high fertility rates
Breastfeeding Women	2.5	Might be higher in societies with high fertility rates
People living with disabilities	5-10	Depends on definition, may include mental health. Distinguish those in need of assistance.
Male : Female Ratio	51 : 49	

Source: adapted from SPHERE Handbook, 2004; p. 190

Key Message 2: With the size of the population (denominator) and the common age distribution and some information about standard frequencies, the target population and therefore the situation can be better described. It is for example possible to estimate the number of deliveries to be expected in a given time period. This helps to identify and to understand expected upcoming problems and to plan a relevant intervention.

4. Planning a programme with limited available information

The following section provides information on what to expect when setting up a humanitarian aid programme in a region where only limited information are available. The following tables provide an overview on the

estimated health status in the various regions (Table 2), what might be expected in terms of reproductive health issues (Table 3) and what can be considered for planning a health care programme.

Table 2: Reference to annual rates and ratios by region

Indicator	**Sub-Saharan Africa**	**South-East Asia**	**Industrialised Countries**
Crude Birth Rate / 1,000 pop.	44	26	13
Neonatal Mortality Rate / 1,000 live births	53	36	5
Perinatal Mortality Rate / 1,000 live births	83	51	8
Maternal Mortality Ratio / 100,000 live births	971	447	31
Infant Mortality Rate / 1,000 live births	97	50	14
Coverage of Antenatal Care (%)	63	65	95
Low Birth Weight Percentage / 100 live births	16	15	6
Births attended by trained health personnel (%)	42	53	99
Institutional deliveries (% of live births)	20	41	98
Unsafe abortion (1,000 women 15-49 yrs.)	26	15	1
Anaemia in pregnant women (%)	52	57	18
Coverage of Tetanus Vaccination (Pregnant Women)	46	49	-
STI Incidence rate / 1,000 pop.	254	160	77
AIDS Cases / 100,000	94	80	27

Source: United Nations Development Programme. Human Development Report. New York: United Nations, 1997. IN: Centre for Disease Control and Prevention, Atlanta. 2003. *Public Health Surveillance applied to reproductive health; Epidemiology Series Module 1.* Atlanta: CDC

4.1 Reproductive Health

Table 3: Reproductive Health reference rates and ratios

Health Outcome	Estimates	*Remarks*
Labor and delivery complications	15%	of all pregnancies will require some type of intervention at delivery
	3%-7%	of all pregnancies will require caesarean section
	10%-15%	of all women will have some degree of cephalopelvic disproportion (higher in poorer socio-economic populations)
	10%	of deliveries will involve a secondary postpartum haemorrhage (within 24h of delivery)
	0.1%-1%	of deliveries will involve a secondary postpartum haemorrhage (occurring 24 h or more after delivery)
	0.1%-0.4%	of deliveries result in uterine rupture
	0.25%-2.4%	of all deliveries will result in some type of birth trauma to the baby
	1.5%	of all births will have a congenital malformation (does not incl. cardiac malformations diagnosed later in neonatal period)
	31%	of these malformations will result in death
Hypertensive Disorder of Pregnancy (HDP) or Pre-eclampsia	5%-20%	of all pregnancies develop HDP/ pre-eclampsia (5%-25% in primigravida)
Spontaneous Abortions	10%-15%	of all pregnancies may spontaneously abort before 20 weeks gestation
	90%	of these will occur during the first 3 months
	15%-20%	of all spontaneous abortions require medical interventions

Source: adapted from reproductive health in refugee settings: an inter-agency field manual. Geneva: UNHCR, 1999 IN: Centre for Disease Control and Prevention, Atlanta. *Public Health Surveillance applied to reproductive health; Epidemiology Series Module 1.* Atlanta: CDC. 2003, p. 79.

Key Message 3: Use reference data if none are available for planning your intervention. If you work in sub-Saharan Africa and you plan a reproductive health care programme in a certain district, you may expect that only 46% (Table 2) of the pregnant women are fully immunised against tetanus. You may also expect that about up to 7% of the pregnant women (Table 3) may need a caesarean section. Use those references only if there are none available through the Ministry of Health or WHO in the country. However, you have to assess in your area if e.g a caesarean section is actually possible? Is there a facility in your area where women can go for caesarean section? If not, how can you as an organisation address those needs? Discuss with the Ministry of Health and /or WHO how to address the need for e.g. for caesarean section to reduce morbidity and mortality.
However, be aware that you can not solve all problems yourself but you can advocate.

4.2 Nutrition

In emergencies, it is aimed to provide sufficient food baskets to avoid severe malnutrition for a specific target group during a period of time. The aim is not to balance the general inadequate food availability by selective feeding. (Connolly M.A., 2005, p. 69).

The following table (4) provides some indication of the nutrition status by using weight/height as a reference.

Table 4: Nutrition Classification

Measure	**severe**	**moderate**
Weight for Height	**severe wasting**	**moderate wasting**
%median	< 70%	70-79%
z-scores	<-3 SD	<-2 SD
Weight for Age	**severely stunting**	**moderate stunting**
%median	<85%	85-89%
z-scores	<-3 SD	<-2 SD

Source: WHO, 1999, p. 4

Rapid nutrition surveys using MUAC (mid-upper arm circumference) or weight/height are helpful to identify the major risk persons while selective **supplementing** (additional ration) and **therapeutic** (for rehabilitation for severe malnourished persons) feeding programmes are the major intervention tools. **Blanket feeding** is only recommended when the prevalence of malnutrition exceeds 15% or 10% if other influencing factors are present such as measles or a diarrhoea outbreak. **Targeted feeding** focuses on extra food rations for selected individuals and vulnerable groups if the prevalence of malnutrition exceeds 10%, or 5% if other influencing factors are present (**Connolly M.A., 2005)**.

WHO Classification of Severity for Acute Malnutrition
Wasting, measured by weight for height

severity	prevalence in <5 population
acceptable	<5%
poor	5-9%
serious	10-14%
critical	≥15%

'emergency' refers to acute malnutrition rates >20%

WHO Criteria for Severity for Chronic Malnutrition Stunting, measured by height for age

severity	prevalence in <5 population
low	<20%
medium	20-29.9%
high	30-39.9%
very high	≥40%

WHO Criteria for Severity of Iodine-Deficiency (Goitre)

severity	prevalence in population
normal	<5%
mild	5.0-19.99%
moderate	20.0-29.9%
severe	≥30%

WHO *Proposed* Criteria for Severity of Anemia

severity	prevalence in population
high	≥40%
medium	20-40%
low	5.0-20%

WHO Classification of Severity for Vitamin A Deficiency

public health problem	prevalence in <5 years age group
night blindness	>1%
conjunctival xerosis, Bitot spots	>0.5%
Corneal xerosis, ulceration, keratomalacia	>0.01%
corneal scars	>0.05%

WHO Classification of Severity of Thiamine Deficiency

severity	prevalence in population
mild	≥ 1 clinical case
moderate	1-4% of population
severe	≥5% of population

WHO Classification of Severity of Niacin Deficiency

severity	prevalence in population
mild	≥ 1 clinical case
moderate	1-4% of population
severe	≥5% of population

WHO Classification of Severity of Vitamin C Deficiency

severity	prevalence in population
mild	≥ 1 clinical case
moderate	1-4% of population
severe	≥5% of population

Key Message 4: Adequate nutrition is a basic right and is reflected in the Humanitarian Charter. Malnutrition and micronutrition deficiency are the major causes of morbidity and mortality while adequate and timely interventions can drastically reduce diseases such as diarrhoea, respiratory infections and severe anaemia among others. When carrying out assessments, always include, where possible and if not done earlier, a rapid nutrition survey. When planning a nutrition programme always consider priority groups and needs, the respective food culture and an exit strategy. Integrating local groups in the assessment and implementation is vital.

4.3 Immunisation

The most important vaccines in emergency situations are those against measles, meningococcal meningitis and yellow fever (**Connolly M.A., 2005).** Every mass vaccination campaign should be coordinated with the respective communities, the national Ministry of Health, WHO, UNICEF and other relevant partners.

To plan a vaccination campaign, the number of doses is based on the size of the targeted coverage, proportion of vaccine lost during mass campaign (15%), and reserves to be held (25%).

Table 5: Calculation for vaccine campaign

Total Population	50,000
Target Population i.e. 6 months to 15 years for measles (45%); Target Population for Meningitis i.e. 2 to 30 years (70% of total)	22,500 35,500
Target for coverage: 100%	22,500 (for measles)
Number of doses to administer	22,500
Including expected loss of 15% (22,500/85%)	26,470
Adding reserve of 25% (26470 x 125%)	33,088
TO ORDER:	34,000 DOSES (if 50 doses per vial order 680 vials)

Source: Connolly MA. Communicable disease control in emergencies. A field manual. Geneva: World Health Organization, 2005, p. 76.

Cold chain material, monitoring equipment (thermometers, refrigerator control sheets) and vaccination cards are mandatory.

Key Message 5: Immunisation programmes are of high priority in all health interventions in emergencies, conflict and post-conflict. Plan and implement those programmes in cooperation with the Ministry of Health, UNICEF, WHO and other NGOs. Be clear on your target group for proper planning purposes (see Table 5). In case of a meningococcal menigitis outbreak contact the International Coordinating Group for Vaccine Provision (ICG) through the Ministry of Health, which ensures rapid access to vaccine since this vaccine is usually not available in country.
ICG website: http://www.who.int/csr/disease/meningococcal/ICG_guidelines_2008_02_09.pdf

5. Indicators

The following section is aimed at helping managers planning, monitoring and evaluating their programmes.

Definition "Indicator":
"Variable that indicates or shows a given situation, and hence can be used to measure change" (**Pavignani E and Colombo A, 2001**) *or "signals, that measure the impact of processes used and programmes implemented. The indicators may be qualitative or quantitative in nature."* (**The SPHERE Project, 2004, p. 8)**

In all projects, Malteser International uses indicators to measure and to monitor the implementation process and the effectiveness of the chosen interventions. However, a lot of difficulties on identifying and selecting the right and appropriate indicators are still the reality; but this is normal since there are a lot of international debates on *what* indicators are measuring *where* and *when*, and most important, how it can be achieved that indicators are applied according to an agreed definition in order to make them comparable in different contexts and situations.

However, indicators used need to be, where possible, tested, and adapted before they are accepted for general use. The final decision always depends on the practicality and what information is gained by the indicator on one hand and its reliability, availability and respective costs on the other. Country specific demographic, health, economic and social data are collected routinely at the Ministry of Health, WHO or elsewhere. These data are helpful to compare with own data and are possibilities to use them as a reference.

"It is better to be vaguely right than precisely wrong"
John Maynard Keyes

5.1 Indicators should be

- directly linked with the programme or intervention
- straightforward and relevant to measure progress
- sensitive to changes and based on best practices
- cost-effective (worth to spent time and money)
- easy to understand (Definition!)
- reliable
- technically feasible (consistent with data available and the data collection capacity)

The indicators given in this booklet are divided for different periods and sectors within the project cycle and therefore are suitable for the emergency phase, early recovery, relief and rehabilitation and developmental approaches. We emphasized on a minimum set of context indicators (Chapters1 & 2 in the matrix), which are essential for an overall situation analysis and outcome /process indicators (Chapters 3-11 in the matrix).

6. Indicator Matrix

The following matrix provides a set of indicators which are most relevant in Malteser International programmes; they are divided by different phases and or sectors.

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
1. CONTEXT INDICATORS				
Polititcal situation	Political stability, armed conflicts, level of criminal risks, check points, restricted areas		The extent of instability influencing access to beneficiaries due to security problems; limited movement, check-points and restrictions are the result.	Coordination, local government, police, military, internet
Economical indicators	Market prices for basic food, salaries and payments for daily labour, inflation rate		Monitor price fluctuation over time	Market, shops, interviews
Socio-cultural context	Specific cultural-traditional-religious and gender issues		Consider special issues on tradition, customs, beliefs and norms and gender aspects. Check on common rules on how to and how not to interact with individuals. Intercultural sensitivity, awareness and respect may be a precondition to get information and participation.	
Environmental risks	Environmental risks & concerns affecting the population & operation		Environmental risks and concerns created by the disaster situation and / or environmental risks existing on top of the disaster situation. Examples are: collection of fire wood & deforestation; contamination of water sources; beneficiaries´ exposure to nature	

Nutrition specific context	Assess access to food Is food supply adequate to cover nutritional needs of all population groups? Assess causes and potential risks for malnutrition. What are the standard food rations in the country?		In sudden emergencies typically affected populations have no access to food other than provided through aid agencies therefore it is appropriate to estimate food requirements. Consider food assistance programmes also in chronic crisis but based on a comprehensive assessment which may include potential and self-reliant coping strategies and with resources available.	
Geographical situation and road conditions	Road type, average km/hour for transport, dry/rainy season, remoteness, geographical challenges of disaster/conflict zone, availability of appropriate means of transport		The differences of road conditions tremendously affect accessibility. Transport by road might not be possible at all. Estimate the need of airlifting or shipping of staff and commodities.	Coordination, local information, assessment
Technical Communication (Radio, cell phones networks)	Availability and function of high frequency radios, telephones, satellite, mobile phones and codan; Coverage of cell phone nets		Check practical and technical means of communication and be aware of possible legal issues when using high frequency radio and/or satellite communication.	Coordination, local government

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Local capacities and partners	Availability, experience, competence and capacities of local partners (NGOs and government services / structures)	Initial involvement of communities and local partners	Local partners, i.e. local health services, local NGOs or community based organisations are important resources with own capacities. It is strongly recommeded to identify, support and cooperate with them.	
Stakeholders	Assess actors and stakeholders, their roles and responsibilities. Identify supportive actors and opposing actors (refers to connectors and disconnectors in the "do no harm" approach)	Supportive actors as well as resisting or opposing actors are identified.	Stakeholder analysis through identification and documentation of their particular strengths and roles to play supports assessment, planning and implementation. Risk analysis and the development of assumptions are supported by stakeholder analysis. Representatives of affected populations and of groups within the affected population need to be included. Stakeholder lists are important project documents which help not loosing relevant information and keeping contacts and partners up to date.	Meetings, interviews, stakeholder list
2. BASIC SET OF "MINIMUM INDICATORS"*				
Population by age and sex	Total number of population by age and sex in the project /catchment area See SPHERE handbook, 2004, p. 300	Have population data by age group as soon as possible to decide on denominator.	Age groups could be initially divided into less than 5 yrs. and above 5 yrs. and later adapted as needed (e.g. <1; 1-5; 6-10; 10-14; 15-19; 20-24; >24). Include estimates on vulnerable groups, people with disabilities, elder persons, those living with chronic disease, pregnant women and lactating mothers.	Pre-existing local statistics

			Information on total population is essential - if no acurate data are available: ESTIMATE based on initial assessment	
Number of births expected	Total number of births expected in the project/ catchment area in a given time period	ranges around 2.5 - 4% from the total population / year	E.g. 2.5% out of 10,000 pop.=250 estimated birth/year Estimated no. of births is matching with the no. of pregnant women in the community. The proportion can be > 2.5% in societies with a higher fertility rate.	Assessment, local statistics, ESTIMATES
Crude Death Rate	Number of all deaths / 1,000 pop. / year by sex in project / catchment area	11-15 / 1,000 / year	**Numerator**: Number of total death during a given time period **Denominator**: Total population in the community (mid-year population) during the same period May compare with daily or monthly rates in emergencies and chronic crises. Precondition is existence of an emergency surveillance system, i.e. coordinate and communicate information on body counts and mortality figures between organisations.	Death rates, local statistics, body counts

* The minimum indicators should help to give an overall situation analysis of the project area and further help to develop the project plan. Assessments / Surveys or a review of national statistics are necessary for a context specific situation analysis

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Number of health facilities (HF)	Primary Health Care Centre **(PHC)**: provision of essential drugs, birth spacing, Immunisation, ANC& PNC,Vit.A, curative care, health promotion, water, sanitation & hygiene Central Health Facility: same as PHC plus minor surgery, blood transfusion, laboratory	1 Primary Health Care Centre for 10,000 pop. 1 Central Health Facility for 50,000 pop.	Depends very much on the local and cultural context. Get information on country specific health system and the services pro-vided in the various health facilities **(HF)**. Usually there is a primary, secondary and tertiary level; the tertiary level is a referral centre where most specialised services are offered, the secondary level is the district hospital where emergency intervention and some general operative services are offered. There may be no operations carried out at tertiary level. On assessment it is useful to find out whether the HF has inpatient beds and whether they conduct deliveries.	National statistics, HIS data of the health facilities, patient records, assessment
Functionality of Health System (facilities)	Primary Level Secondary level Tertiary Level		Give a brief functional description of the health facilities by considering: drugs availability, staffing, service provided, user fees, functionality of referrals, equipment, geographical distribution, funding.	Supervisory checklists or HF check lists
Geographic Access to health facilities (in % of total pop.)	Distance to HF in km and walking time in percentage	The percentage of the population living < 5km or within one hour walk to the HF	**Numerator:** Number of population live < 5km or less than one hour walk from health facility **Denominator:** Total target population **NB:** HF located at a longer distance may be more easy to reach because they may be situated at main road with bus and taxi services available.	Geographical data, maps, assessment

Health Worker Coverage proportional to population (Staff density)	The number of health professionals per population	1 qualified HW / 10,000 pop. 2 auxiliary nurses / 10,000 10 CHW / 10,000 1 medical doctor / 10,000 50,000 pop.	**Numerator:** Number of medical doctors/nurses/auxillary nurses/CHW/midwives **Denominator:** Number of population and then multiplied by 10,000 or 50,000 Check staff establishment versus actual staff present in the HF. Check no. of each staff category available, include midwifes and their status (only midwife or nurse & midwife). Get information on no. of auxiliary nursing staff and their qualification and legal competences.	Staff lists, local statistics HF data, assessment
Water availability/ person / day	Regular adequate amount of water available daily see SPHERE handbook, 2004, p. 64	Minimum of 15 l / person / day	**Numerator:** Litre of water available **Denominator:** Total population Key indicator to be adjusted to the context and environment, i.e. if resident population is used to 5 ltr. per day, the IDPs should get a similar amount Important aspect for the assessment is the quantity of water available, quality of water, and water sources such as surface water, wells closed or open, piped water. Means of distribution, water trucking, reservoir are important information too.	Assessment, reference documents, rapid household assessment

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Access to latrines	A maximum of 20 people use one latrine / toilet (separated by men and women)	1 latrine for 20 persons (not more than 50 metres from dwellings) best option is: one latrine per family	**Numerator:** Total population **Denominator:** 20 population Participation of local population essential in design and building; respect culture and custom and ensure separate facilities for women and men. Technical aspects to be considered like ground water level; design; affordability; technically sound through local available material.	Assessment, technical reference and standards
Security Situation	1. normal operation 2. restricted movement / precaution 3. minimal operation		Security situation needs to be re-assessed regularly. Make clear reference to security levels as set in the particular context. Communicate to all staff members.	Context analysis (see Malteser International security guidelines)
Literacy rate (by sex)	% of population literate (by sex)		This information is often available in government offices or through national statistics.	National statistics, household survey HDI
Average monthly income per person	Average income / person / month		This information helps to estimate the purchasing power of the population. It is useful to collect information on monthly salaries of typical functions like teacher, nurse, driver, unskilled worker.	National statistics, household Survey

General government expenditure on health as % of total government expenditure / year	Budget spent annually by the respective country on health as % of total budget		**NB:** Need of 34 US$/capita are essential for basic health care services (Jeffrey Sachs, Columbia University, New York), but in many developing countries the expenditure on health is less than 10 US$/capita/a.	National statistics, development reports, HDI
U 5 mortality rate	Death of children less 5 yrs. / 1,000 live births / year Average: Industrialised countries: 6 / 1,000 live births Developing countries: 79 / 1,000 live births	< 40 / 1,000 live births / year	**Numerator:** Death of children under 5 years in a given time period **Denominator:** Number of live birth during the same time period **Remark: Denominator can also be the total number of children < 5 yrs within the population; make denominator clear when reporting.**	Monthly statistics/ routine Data Source, local HF morbidity / mortality data, HIS
Crude Death Rate	Number of all deaths / 1,000 pop. / year OR total number of death per day per 10,000 population (see under TOP 6 Emergency, p. 11)	1,000 / year	**Numerator:** Number of total death during a given time period **Denominator:** Total population in the community (mid-year population) during the same period **NB:** Death rates can relate to differing time periods and differing populations. May compare with daily or monthly rates in emergencies and chronic crises.	Monthly statistics/ routine Data Source

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
3. EMERGENCY PHASE (Check case definition and standard reporting forms - keep it clear and simple)				
Mortality				
Deaths of U 5 years / 10,000 / day	Proportion of total number of deaths < 5 yrs per 10,000 population per day	< 1 / 10,000 / day (pre-crisis rate could be used)	**Numerator:** Deaths of children < 5 yrs. X number of days **Denominator:** Total number of children < 5 yrs during same time frame **NB:** Sensitive parameter to an upcoming crisis	Daily statistics from HF, community and cemetery staff, body counts
All deaths / 10,000 / day Crude Mortality Rate (CMR)	Proportion of total number of deaths per 10,000 population per day	< 0.3-0.5 / 10,000 / day	**Numerator:** All deaths during given time period **Denominator:** Total population during same time period	Daily statistics from HF, community and cemetery staff
Food				
Food supply	Sufficient food that people are used to of defined quality is available	2,100 kcal / person / day	Incl. 12% protein, 17% fat, thiamine, iodine salt, Vit. C, niacin; diversity of food should be major intervention. Consider cultural traditional context; food intake behaviour. Sphere standards on food and food security to be applied.	Assessment, nutritional survey

Malnutrition rate	% of children with global (moderate plus severe) malnutrition **NB:** New anthropometric reference data have been published recently by WHO	< 10% in children 6-59 months	**Numerator:** Number of children with a Z-score -3 or -2 (< 70% or < 80% of median) **Denominator**: Number of children < 59 month **NB:** Weight per height; Acute malnutrition may rise without substantial increases in mortality (4.5). The cause of and the extent of malnutrition need to be understood to choose appropriate response. Consider also malnutrition adolescents and adults in famine related emergencies.	Rapid anthropometric survey
Vitamin A Coverage	For supplementation: < 1 yr. 400,000 IU / in first year 1-5 yrs. 200,000 IU / every 3 months Lactating mothers: 200,000 IU after birth	> 95% coverage	**Numerator:** Children in respective age groups received Vitamin A **Denominator:** Total children in respective age groups **NB:** In emergencies, do not waste time assessing Vitamin A deficiency but rather include Vitamin A in a measle vaccination campaign.	Daily / weekly statistics, clinical assessment
Immunisation				
Measles Vaccination coverage	% of children covered If available information suggest that coverage was < 90%, measles vaccination should be a PRIORITY. See SPHERE handbook, 2004, p. 275	At least 95% of children aged 6 months to 15 years received measles vaccination	**Numerator:** Number of children immunised in respective age group **Denominator:** Total number of children in the respective age groups immunised **NB:** Children with HIV are more succeptible to measles, therefore ensure that they receive two doses.**NB:** Age depends on national policy; however, age group should be expanded where routine measles vaccination is low; re-vaccinate at 9 months; other vaccination campaigns can be added accordingly.	Daily / weekly statistics

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Vaccination coverage	Proportion of Children immunised against Measles, DPT, Polio, BCG and Hepatitis B *(and additional vaccine such as Yellow fever or Japanese Encephalitis according to the respective country protocol)*	> 90%	**Numerator:** Number of children immunised with respective antigens **Denominator:** Total number of children in the respective age group **NB:** Follow National protocol for EPI. Report on antigen coverage rate and/or EPI coverage rate.	Routine Data Source, EPI charts, household survey
Communicable disease control and public health issues				
Disease Control	Identify outbreak threshold for relevant communicable diseases in the region.	Define outbreak alert levels (threshold or index case)	A quantified definition of outbreaks for all diseases does not exist. However, if the number increases higher than expected in a defined population and defined geographical area, it may indicate an outbreak. For the following diseases a single case may indicate an outbreak: cholera, measles, yellow fever, shigella, viral haemorrhagic fever and meningococcal menigitis.	Epidemiological data, coordination, HIS
Morbidity Malaria	Number of positive confirmed tested malaria cases in proportion to population (in percent)	Prevent increase of malaria cases and respond to outbreaks	**Numerator:** Number of cases with a positive malaria smear or rapid test in a given timeframe **Denominator:** Total population Local malaria epidemiology needs to be analysed referring to mobidity, patterns of transmission, prevention and treatment.	Daily / weekly statistics, assessment and clinical data of HF

Access to long-lasting insecticidal nets	No. of households that have at least one impregnated net. Nets are available in different sizes so that all household members are protected.	Full coverage of all people at risk of malaria	**Numerator:** Number of households received long-lasting-impregnated **nets** **Denominator:** Total number of households **NB:** Identify risk groups and set priorities for LLINs distribution; **Scaling up of malaria prevention through free or highly subsidized distribution of LLINs either directly or through vouchers accompanied with information sessions on utilisation.** Long-lasting insecticides (LLITN) reccomended by WHO are PermaNet ® & Olysset Net® with a biological efficacy of at least three years. Position paper WHO: http://www.who.int/malaria/docs/itn/ITNspospaperfinal.pdf	Weekly statistics, household survey, spot checks & counting
Shigella dysentery case fatality rate	No. of positive confirmed tested cases died No. of cases with bloody diarrhoea died See SPHERE handbook, 2004, p. 281	< 1% of Shigella cases	**Numerator:** Number of positive tested Shigella infections in a given time period died **Denominator:** Number of total shigella cases **NB:** Many outbreaks have occurred in Sub-Saharan Africa and were the main cause of death. Once Shigella has been identified in an emergency, it can be assumed that bloody diarrhoea, i.e. dysentery cases are caused by shigella. Check sensitivity / resistance of antibiotics.	Daily / weekly statistics, laboratory tests for diagnosis and sensitivity of antibiotics, coordination

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Cholera case fatality rate	No. of cases with "rice water diarrhoea" died (the color does not necessarily look only like ‚rice water'; the color can be yellow or green as well) See SPHERE handbook, 2004, p. 281-282	< 1% of cholera cases	**Numerator:** Number of cases with "rice water diarrhoea" in a given time period died **Denominator:** Number of total cholera cases during the same time period **NB:** Cholera is a sensitive diagnose for a region or country affected. Confirmation by laboratory is of great importance. Once confirmed for some cases, it can be assumed that the cases of watery diarrhoea are cholera cases.	Daily / weekly statistics, laboratory tests, clinical assessment, coordination
Morbidity Meningococcal Meningitis	No. of positive confirmed tested cases See SPHERE handbook, 2004, p. 281-283 Strategy in outbreak: prevent death with case management; prevention of new cases with reactive immunisation (Key message 5, p.17)	< 5 cases / 100,000 / week (depends on region)	**Numerator:** Number of MM cases in a given time period **Denominator:** Total population **NB:** During outbreaks, case fatality rates can be as high as 20% or more. Alert threshold in African Belt: 5 cases / 100,000 / week Epidemic in African Belt: > 10 cases / 100,000 / week	Daily / weekly statistic, clinical assessment, coordination
Watery diarrhoea in children < 5 years	No. of children < 5 yrs. with > 3 times watery diarrhoea in 24 hours	< 100 cases / per 1,000 children < 5 yrs.	**Numerator:** Number of children < 5 yrs. with watery diarrhoea in a given time period **Denominator:** Total number of children < 5 yrs. in the same time period	Daily / weekly statistics

Water				
Water quality	Number of coliform bacteria in 100 ml filtered water See SPHERE handbook, 2004, p. 66-67, water quality ECHO Guideline	No faecal coliformes per 100 ml at point of delivery	Check water quality along the supply chain – mainly at the point of use. **NB:** Ensure quality with a disinfectant so that there is a free chlorine residual at the tap of 0.5 mg per litre and turbidity is below 5NTU.	Monthly/ bi-monthly screening, assessment
Jerry Can availability	Jerry Cans available for each household See SPHERE handbook, 2004, p. 69	Each household has at least two 10-20 litre Jerry Cans	**Numerator:** Number of 20 l Jerry Cans available **Denominator**: Number of households	Household survey, assessment
Distance to next water distribution point	Distance to the next water distribution point should not be more than 15 minutes walk See SPHERE handbook 2004, p. 63	< 500 m.	Number of families who walk < 500 m. to water point per total no. of families	Geographical survey, assessment
Number of distribution points	Distribution points which provide safe and adequate Water See SPHERE handbook, 2004, p. 65 guidance note	One distribution point for 250 people	**Numerator:** Total population **Denominator:** 250	Population estimates, assessment

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Hygiene & Sanitation				
Hand washing knowledge	% of persons washing their hands at least at 3 of the 5 critical times per day	Hand washing at least 3 of the 5 critical times per day	**Numerator**: number of respondents washing hands at least 3 times daily **Denominator:** number of survey participants Critical Times: 1. After defecating 2. Before eating 3. After changing diapers 4. Before preparing food 5. Before feeding infant	Household Survey, observation Reports of CHW and home visitors
Diarrhoea Transmission Knowledge	% of respondents knowing at least two ways to prevent diarrhoea	Respondents know at least two ways to prevent diarrhoea	**Numerator:** number of respondents knowing at least 2 prevention methods **Denominator:** number of survey participants **NB:** Transmission Routes: "F" Diagram= contaminated fields, fluids, flies, fingers and food	Household Survey, exit interviews at HF, establish water safety plans.
Access to soap	Soap is available in sufficient quantities See SPHERE handbook, 2004, p. 69	250 mg bar of soap / person / month	Can be less soap; also depends on the purchasing power and the market situation	Household survey OR distribution register

Access to gender sensitive bathing facilitites for men and women	See SPHERE handbook, 2004, p.69-70	Number, location and design depends on the needs.	Should be discussed with community and specifically with women and adolescent girls or women organisations.	Community survey, mapping observation reports of CHW and home visitor
Washing basins	There is at least one washing basin available for 100 people See SPHERE handbook, 2004, p.69	1 basin per 100 population	**Numerator:** Total population **Denominator:** 100 **NB:** Laundering areas should be available for women to wash and dry undergarments and sanitary clothes.	Household survey
Latrine coverage	Latrine/toilet per 20 people See SPHERE handbook, 2004, p.71-75	1 latrine per 20 persons For health facilities: 1 latrine for 20 inpatients or 50 outpatients	**Numerator:** Population **Denominator:** 20 **OR** no. of beds in HF or no. OPD cases in a day	Mapping observation, data
Environment/ Vector Control				
Area waste management	About 10-15 families have access to refuse bin container not more than 100 metre from their house See SPHERE handbook, 2004, p. 83-85	At least one 100 litre refuse bin container for 10 families	**Numerator:** Number of families **Denominator:** 10 **OR** 15	Community survey

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Community waste management	Final disposal area	1 refuse pit 2m x 5m deep per 500 persons	Should be discussed with community; preferably outside community. Check availability, safety and protection of the area.	Community survey, observation reports
Medical waste management	Incinerator for safe disposal of all medical waste available	1 incinerator per health facility	Check availability and function of incinerator.	Community / hospital survey
Mosquito net coverage (long-lasting insecticidal nets)	No. of LLINs distributed	1 net / 2-3 persons	Get quantified information on whether people are used to LLINs before distribution (see guidance note Communicable Disease/Public Health above).	Yearly household surveys
Dengue control by Container Index (CI) or Household Index (HI)	% of water holding containers infested with larvae or pupae (OR houses infested by larvae) **CAVEAT:** CI and HI do provide information on the general distribution but do not provide information on the dynamic of the disease.	Of the screened container, less than 10% are contaminated with *aedes agypti*	**Numerator:** Number of containers infested with larvae or purpae **Denominator:** Number of containers inspected **NB:** For Household Index the numbers of houses infested divided by number of houses checked; multiplied by 100	Monthly surveys of water containers

Site planning				
Space for shelter, housing and services	Area for camp construction available divided by population See SPHERE handbook, 2004, p. 215-218	45 sqm. / person with at least 2m between shelters	Including all public places except garden area	Community survey, site inspection
Shelter				
Covered Shelter	See SPHERE handbook, 2004, p. 219-221	3.5 sqm / person	Material should be adopted to the situation such as winterized tents in cold climates.	Community survey, site inspection
Emergency temporary shelter		4m x 6m sheet (tarpaulins) per household of 5 people	This is a quick initial short-term solution for acute emergencies. It has to be replaced by shelter according to minimum standards as soon as possible.	Community survey
Professional staff deployed				
Number of community health workers		1 CHW / 1,000 population	Ensure female staff CHW can be trained on site.	Staff register, assessment
Number of trained birth attendants		1 trained birth attendant / 2,000 population	Traditional midwives are NOT included. Check no. of deliveries assisted by TBA/month!	Staff register, assessment

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Number of qualified health workers (clinician)	See SPHERE handbook 2004, p. 266	1 qualified health worker for 50 consultations / day	Ensure female staff - qualified health workers are professional nurses, medical doctors or medical assistants.	Staff register, assessment
Number of laboratory technicians		1 laboratory technician / 10,000 pop.		Staff register, assessment
Number of inpatient health facilities		1 central health facility / 10,000 pop.	Number of HF with inpatient beds and total number of beds per HF to be assessed.	Health authorities, assessment
Number of health centres		1 health centre / 10,000 pop.		Health authorities, assessment
Number of senior camp managers		1 camp manager / 10,000 pop.		Staff register, assessment
Case Management				
Standardised essential drug list is established by the lead health authority	Essential drugs that satisfy the primary health care needs of the population. See: ECHO FPA on procurement of medicines	Essential Drug list used	Essential medicines are selected with due regard to disease prevalence, evidence on efficacy and safety, and cost-effectiveness. Essential medicines are available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality, and at a price the individual and the coomunity can afford.	National guideline

Standardised case management protocols are available	Case management guidelines are based on disease patterns, availability of diagnostics and treatment options.	Case management established and used	National treatment guidelines need to be respected and followed. all actors have to collect relevant information. There might be a need to check efficacy of medicines and resistance pattern.	National Treatment protocols
4. HEALTH SYSTEM AND INFRASTRUCTURE				
Outpatient utilisation rate	Number of NEW cases OR visits / population / year **NB:** Expect 50 – 100 new consultations / 10,000 per day See SPHERE handbook 2004, p. 302	0.5 – 1 new case OR visit / population / year	**Numerator:** Number of new cases OR new visits in one week x 52 **Denominator:** Total population Very good indicator to assess access to health services and to plan no. of patients to be expected in a HF. Utilisation rate varies and may get up to 5 in acute emergencies and in a refugee camp situation.	Monthly Statistics and HF patient records
Bed occupancy rate	Actual utilization of a inpatient health facility for a given time period expressed in percent	> 80%	**Numerator**: Sum of daily inpatients for 365 days **Denominator:** Bed days available (number of beds x 365 days) **Remark:** I.e. admission in the eve ning and discharged next morning counts 2 days! Consider to combine with ALS (average length of stay) to get the real picture.	Monthly Statistics

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Number of trained health staff / population	Number of qualified staff recommended to meet the needs within PHC service provision for the population See SPHERE handbook 2004, p. 266-267	Primary Health Centre: min. 2 - 5 skilled staff Central Health Facility: minimum 5 skilled staff	Ensure equal balance of female: male health workers and appropriate skills mix. Are the posts of the staff establishment filled or vacant?	Staff establishment, staff lists and staff present in the HF
Consultation per skilled health worker (by doctor, clinical assistant, nurse)	No. of consultations divided by skilled health worker working full time in health facility per day	Not more than 50 consultation / day	**Numerator:** Number of all consultations /day **Denominator:** Number of skilled health workers/day A skilled health worker should not consult more than 50 patients per day. If this threshold is exceeded more staff needs to be recruited.	Monthly Statistics, staff establishment
Number of staff received training per year	Health care staff are trained and supervised in the relevant topics	At least one training per staff per year	Health workers should have the proper training and skills for their level of responsibility. Health providers have the obligation to train staff to ensure their knowledge is up-to-date Where possible training should be standardised and linked to national programmes.	Staff lists, HF records
5. REPRODUCTIVE HEALTH INDICATORS & MORTALITY RATES				
Age-specific fertility rate	Number of live births in each age group divided by the total female population (in thousands)	No target defined. Fertility rates are high in	Rate given per thousand women in the particular age group. Varies from approx. 100 for the age group 15 – 19 years over 300 for the age 25 – 29 and below 100 for the age group older 45 years.	National and international data

	in each 5 year age group	developing countries and within poverty context	Analyse in development context linking with U5 mortality and maternal mortality.	
Total fertility rate	Number of children born to a women during her lifetime (global average is 2.6)	No target	Varies from country to country: highest in Mali with 7.34 and low in Germany with 1.41. Analyse in development context linking with U5 mortality and maternal mortality.	National and international data
Birth rate	Number of birth per 1,000 population per year (global average is 20.19)	No target Birth rate is a good proxy for estimates on population growth.	Annual birth rate can be expressed in percentage: globally 2.02%, Afghanistan 4.50%, Kenya 3.89%, India 2.2%. Use birth rate to estimate no.pf pregnancies and deliveries to be expected. Analyse in development context linking with U5 mortality and maternal mortality.	National and international data

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
HIV Seroprevalence and incidence (check for specific groups: age group, pregnant women, IDU, CSW etc)	% of a specified pop. whose blood tests are HIV positive (report as prevalence or incidence) Typical sentinel survey are including pregnant women attending ANC visits, patients in STI clinics, blood donors. The prevalence in these groups show a trend over years.	Prevent and reduce further transmission of HIV	**PREVALENCE:** **Numerator:** Number of persons with a positive HIV status in the specific group **Denominator:** Total number of specific group investigated (age group, pregnant women etc.) **INCIDENCE:** **Numerator:** Number of **NEW** persons with a positive HIV status in the specific group (cohort) during given time frame **Denominator:** Total number of specific group (cohort) followed over same time period (age group, pregnant women etc.) **NB:** HIV data are sensitive data. Make sure that they are used appropriately.	National statistics and HIS Incidence and prevalence data are officially reported by governments.
STI prevalence (15-49)	% of pop. aged 15-49 treated for STIs	< 1%	**Numerator:** Number of persons treated in the age 15-49 for STIs in a specific time period **Denominator**: Total number of pop. 15-49 years **NB**: 5% prevalence of STIs may be realistic in some countries.	STI prevalence in ANC (RPR pos. rate)
Birth spacing coverage	% of women of reproductive age (15-49) who are using (or whose partner is using) a birth spacing method at a particular point in time	40-75%	**Numerator:** Women age 15-49 practice birth spacing at a given time period **Denominator:** Total female pop. aged 15-49 during the same time period **NB:** Birth spacing reflects all methods—traditional & natural.	Routine data source, household survey

			Birth spacing focuses on safe motherhood and allows sufficient time between pregnancies; this intervention has an immense impact on the reduction of child and maternal death. Information and education on the methods are esential.	
Nutrition status in children	% of children malnourished (Weight for height inchildren < 5 years; consider specific age group) Weight / height reflects body proportion and is particularly sensitive to acute growth disturbance. In chronic malnutrition, weight or height for age is recommended; BMI (body mass index)	Malnutrition of:< 5% (accep table) 5-9% (poor) 10-14% (serious) > 15% (critical)	**Numerator:** Number of children in respective age group with moderate or severe malnutrition respectivelyscreened at one point in time **Denominator:** Total number of children screened in respective age group at the same time period **Definition:** Percent of median: 70-80% = moderate (-2 Z scores) < 70% = severe (- 3 Z scores)	Surveys in geographical areas or population sub-groups
Deliveries attended by trained personnel	% of births attended by skilled/trained health worker such as a doctor, nurse, midwife (excluded are trained or untrained TBA's)	40 – 80% of total deliveries	**Numerator:** Number of births attended by trained personnel in a given time period **Denominator**: Total number of births during the same time period	Monthly statistics/ Routine Data Source

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Deliveries in HF	% of HF based vs % home deliveries	< 10% home deliveries	Unattended home deliveries bear a high risk for the mother and the newborn. Therefore promotion of facility based deliveries should be promoted.	Safe motherhood assessment reports, routine data
Deliveries assisted by trained or untrained TBA or others with no training	Number of deliveries attended by the individual TBA per month / year Quality of TBA depends on whether they are linked to a HF.	< 60% of total deliveries TBA registered at HF	TBA may be very experienced based on the frequency they are involved in pregnancies and deliveries. Availability of CEOC and operative services plays a crucial role in reducing infant and maternal death.	TBA reports
Prevalence of anaemia in women aged 15-49 (can also focus on pregnant/ non-pregnant women)	% of women of reproductive age (15-49) with a haemoglobin level below 110g/ l (pregnant) and 120g/l (non-pregnant)	< 30%	**Numerator:** Number of (pregnant) women (or 15-49 years) screened having a haemoglobin < 110g / l **OR** 120g/l **Denominator:** Total number of (pregnant) women OR those aged 15-49 years Can be also limited to pregnant women only; current global anaemia in about 50%.	Monthly statistics/ Routine data
Tetanus Immunisation coverage in percent	Proportion of women in childbearing age (15-49) immunised against Tetanus (TT2 or booster) **OR** proportion of pregnant women who have	High level of coverage aiming at 100 % for TT2 (two dosis of tetanus toxoid	**Numerator:** Number of doses administered **Denominator:** Estimated number of newborns (in unstable settings) OR number of women 15-49 (in stable settings)	Routine data

	received at least TT2+ during the most recent pregnancy	received)	**Numerator:** Number of pregnant women who have received TT2+ TT3+TT4+TT5 / 4 (=average) during a given timeframe **Denominator:** Number of pregnant women during the same time period	
Antenatal care coverage (ANC coverage)	% of women who attended at least three or more (3+) ANC visits during her most recent pregnancy. The share of births attended by skilled health staff is an indicator of a health system's ability to provide adequate care for pregnant women.	> 50%	**Numerator:** Number of pregnant women who attended at least three visits to trained health personnel during her most recent pregnancy during a given time period **Denominator:** Total number of births during the same time period **OR** expected no. of pregnancies in the same time period. Good antenatal and postnatal care improve maternal health and reduce maternal and infant mortality.	Monthly statistics / Routine data, surveys
Availability of basic essential obstetric care (BEOC)	Number of facilities with functioning basic essential obstetric care / 500,000 population	Minimum 4 BEOC / 500,000 pop.	**Numerator:** Number of facilities with functioning BEOC **Denominator:** Total population **NB:** It is of utmost importance to ensure accessible BEOC for pregnant women. Basic essential obstetric care should include parenteral antibiotics, oxytocics and sedatives for eclampsia; the manual removal of placenta and retained products; and vaginal delivery (incl. manual vacuum extraction or forceps).	Routine data, assessment

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Availability of comprehensive essential obstetric care (CEOC)	Number of facilities that perform surgery (caesarean section) and bloodtransfusion	1 CEOC / 500,000 pop.	**Numerator:** Number of facilities with functioning CEOC **Denominator:** Total population If emergency interventions like Caesarean Section (CS) can not be performed, maternal mortality will not decline!	HF data, local statistics
Infant mortality rate	Death of children less than 1 yr. / 1,000 live births/ year	59-79 / 1,000 live births/ year	**Numerator** Deaths of children less than one year old per year **Denominator:** Number of live births in the same year The mortality indicators under TOP 3 are reflecting the health status of "low income " countries referenced by the World Bank (2004).	Monthly statistics/ Routine data
Perinatal mortality rate	Death of foetus or newborn in the perinatal period / 1,000 live & still births / year **Perinatal Period**: from 22 completed weeks of gestation to 7 days after birth	30-35 / 1,000 live & still births / year	**Numerator:** Number of death during perinatal period per year **Denominator:** Number of total live birth and still birth during the same year **NB:** Perinatal mortality is an indicator identifying problems arising within the postnatal period, i.e. the first days in the life of the newborn. Perinatal mortality is substantially contributing to mortality of all children under 5 years of age. Analyse data on child mortality and identify peaks related to age group of children < 5 years of age.	Monthly statistics/ Routine data

Maternal deaths	No. of maternal deaths in the population Definition of maternal death is often not known. Underreporting is common!	No maternal deaths	Maternal death is a rare event and it takes place mostly outside the health facilities; but if so, it needs to be reported to the health authorities. It is recommended to conduct a verbal autopsy to analyse the reasons for the death.	Safe motherhood assessment
Maternal mortality ratio	No. of maternal deaths per 100,000 live births in a year (in LDC & LLDC 250-1500/100,000 live births; in DC 10-20/ 100,000 live births)	No maternal deaths	**Numerator:** Deaths of women during pregnancy or up to 42 days after delivery in a country per year **Denominator:** Number of live births in the country in the same year **NB:** Report to health authorities. Rates of maternal mortality are only measurable on national level because it is related to a high number of live births. However, maternal mortality ratio is helpful for comparison reasons. Important indicator for the overall quality and availability of health services in a region or country	National data, DHS, mortality survey, monthly statistics/ Routine data
6. MALARIA SPECIFIC INDICATORS				
Malaria strategy	Early diagnosis and treatment	Reduce morbidity and mortality	Depending on the quality of care and accessibility of health services it might range from: every fever case is treated for malaria (don't miss other or additional disease, i.e. pneumonia); OR only lab-confirmed cases are treated for malaria as soon as possible (precondition is 24 h functioning lab diagnosis).	Local or regional malaria strategies to be followed

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Slide positive rate	% of malaria cases confirmed by blood smear of the total tested		**Numerator:** Number of slides positive **Denominator:** Number of total slides screened **NB:** Thick drop = Gold Standard	Laboratory reports
(Rapid) Test positive rate	% of malaria cases confirmed by rapid test of those tested		**Numerator:** Number of positive rapid tests **Denominator:** number of total rapid tests done **NB:** RDT useful in outbreaks or where no microscopists are available.	Laboratory reports
Endemicity of malaria	High or hyper endemic areas with perennial or seasonal transmission See Malaria Control in complex emergencies: An inter-agency field handbook. Geneva: World Health Organization, 2005	Incidence of symptomatic malaria remains fairly constant	**CAVEAT:** Resident population develop partial immunity over time; therefore people carry malaria parasites without showing clinical symptoms of disease, hence presence of parasites is not a clear indicator that malaria is the cause of illness. While more than 60% of the population may be parasite positive at any time, children are at highest risk for severe malaria. Rule out other disease.	
	Low or moderate endemic areas	< 10% parasitaemia in population and seasonal peaks of malaria incidence	No or low level of immunity. A positive test for malaria is likely to be malaria. Transmission rate may be unstable, outbreaks may occur	

Malaria assessment	- Transmission - Seasonality - Epidemics Vector	High – low What period of the year and where Reservoir, Vector, biting time, breeding	Incidence, prevalence and transmission of malaria depend on the geographical region, altitude, climate, the vector species – these factors need to be assessed to plan prevention and treatment.	Share information and coordinate with actors in the health sector
Plasmodium Falciparum – Plasmodium Vivax Ratio	% of P. falciparum cases and % of P. vivax cases of the total diagnosed		**Examples for countries:** Afghanistan: 15% p.f./ 85%p.v DR Congo: 95% p.f. / 5% p.m.+p.o. Timor Leste: 60% p.f. / 40% p.v. P.v. malaria might require treatment with primaquine	Laboratory surveys
Malaria prevalence rate	Number of confirmed malaria cases per 1,000 population/ year		**Numerator:** Number of all malaria cases at a given time frame **Denominator:** Total population at risk at the same time period **NB:** Consider to report cases by P. falciparum; P. vivax and others. Get information on laboratory confirmed cases vs. clinically diagnosed cases Breakdown by sex, age and maybe groups (ethnicity, workers, migrants etc.)	Weekly or monthly health statistics (Epidemic control)

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Cases of uncomplicated malaria/ per 1,000/month	Number of cases per 1,000 population per month **DEFINITION: Uncomplicated are those with** Fever, Chills, Sweats, Headaches, Nausea and vomiting, Body aches & general malaise.		**Numerator:** Number all uncompl.malaria cases at a given time frame **Denominator**: Total population at risk at the same time period Break down by age/sex (CDC, Atlanta http://www.cdc.gov/malaria/disease. htm#uncomplicated)	Weekly or monthly health statistics
Cases of complicated malaria/ 1,000/month	Number of cases per 1,000 population per month **DEFINITION: Complicated are those with** Cerebral malaria, with abnormal behaviour, impairment of consciousness, seizures, coma, or other neurological abnormalities; Severe anaemia, pulmonary oedema or acute respiratory distress syndrome (ARDS).		**Numerator:** Number of all complicated malaria cases at a given time frame **Denominator:** Total population at risk at the same time period	Weekly or monthly health statistics, HF records

Malaria fatality rate/ per 1,000/ month (week)	No. of confirmed malaria cases deaths divided by no. of confirmed positive cases per 1,000/ month (week)		**Numerator:** Number of all malaria cases died per month **Denominator:** Total positive malaria cases at the same time period	Weekly or monthly health statistics, HF records
Malaria prevalence in pregnant women	% of total malaria cases laboratory confirmed in pregnant women		**Numerator:** Number of all pregnant women with positive malaria test in a given time period **Denominator:** Total number of pregnant women at the same time period	Weekly or monthly health statistics
% of pregnant women receiving Intermittent Prophylaxis Treatment (IPT)	% of total pregnant women receiving malaria prophylaxis See: Malaria Control in complex emergencies: an inter-agency field handbook. Geneva: WorldHealth Organization, 2005 (p. 99-101)		**Numerator:** Number of pregnant women receiving IPT at a given time frame **Denominator**: Total number of pregnant women at the same time period **NB:** Follow national protocol; otherwise SP full treatment course in the second and third trimester has proven to be effective . **CAVEAT:** Women with HIV appear to respond less well to IPT with SP, therefore IPT should be given on a monthly basis.	Weekly or monthly health statistics
Sensitivity (Quality Control Laboratory)	% of slides correctly positive tested by first laboratory and confirmed by control Lab.	95-100%	A sample of 10-30 malaria positive slides of total slides should be controlled every six months. **Quality of Laboratory plays a crucial role in malaria control!**	Reference/ Control Laboratory

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Specificity (Quality Control Laboratory)	% of slides correctly negative tested by first laboratory and confirmed by control Lab	95-100%	A sample of 10-30% malaria negative slides of total slides should be controlled every six months.	Reference / Control Laboratory
No. of microscopists trained/ undergone refresher training	No. of microscopists trained / refresher training	2-3 microscopist's for 10,000 population		Health authorities or health service provider
No. of slides done per microscopists / day	Number of slides divided by number of microscopists / day	50-60 slides / microscopist / per day	Based on experience, one Lab technician can read about 50-60 slides per day (8-10 minutes per slide).	Laboratory
7. TUBERCULOSIS SPECIFIC INDICATORS				
Case Detection rate	% of TB cases detected from the total national TB cases estimated to occur countrywide each year. WHO estimates of incidence for each country. **Report data to national level.** See: WHO 2001. TB/ HIV, A clinical manual	70% of existing cases detected	**Numerator:** Number of new smear-positive TB cases detected **Denominator:** Estimated number of new smear-positive TB cases countrywide **NB:** National prevalence rate needs to be assessed to calculate the case detection rate. An effective national TB programme has a high cure rate and a low level of acquired drug resistance.	National Tuberculosis Register

Cure rate of smear positive PTB (Pulmonary Tuberculosis)	% of total new PTB cases who was initially smear positive and who was smear negative in the last month of treatment	85% of new detected cases	**Numerator:** Number of new sputum positive cases in a given time who completed treatment and had at least two smear negative results **Denominator:** Total number of new smear positive cases during the same time	TB register, HF data
Treatment completed	% of TB cases completed treatment but did not meet the criteria for 'cured' or 'failure'		**Numerator:** Number of TB cases completed treatment in a certain time period. **Denominator**: Number of total TB cases under treatment during the same time period	
Treatment success rate	% of total TB cases registered in a certain period that successfully completed treatment whether with bacteriologic evidence of success ('cured') or without ('treatment completed')		**Numerator:** Number of new smear-positive pulmonary TB cases registered in a specified period that were cured plus the number that comple ted treatment **Denominator:** Total number of new TB cases registered during the same time **NB:** The indicator measures a programme's capacity to retain patients through a complete course of chemotherapy with a favourable clinical result. It is the only outcome indicator that can be used at all levels.	TB register, HF data
Treatment failure	% of smear positive TB cases under treatment and where the sputum remained positive or became positive again at least 5 months after starting treatment		**Numerator:** Number of new sputum positive cases who remained or became positive after 5 months of treatment or later **Denominator:** Total number of new smear positive cases during the same time	TB register, HF data

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Defaulter rate (return after interruption of treatment)	% of TB cases under treatment and where treatment was interrupted for two consecutive months or more		**Numerator:** Number of new sputum positive cases whose treatment wasinterrupted for 2 months or more **Denominator:** Total number of new smear positive cases during the same time	TB register, HF data
Transferred out	% of TB patients transferred to another reporting unit and for whom the treatment outcome is not known		**Numerator:** Number of TB patients under treatment & transferred to another reporting unit **Denominator:** Number of total TB patients under treatment and in the surveillance system	TB register, HF data
Mortality rate through PTB	No. of cases that died of PTB from total PTB cases per 1,000 / yr.			TB register, HF data
Multi Drug Resistance (MDR)	% of PTB under treatment that have developed MDR		Often the absolut number of MDR cases reported. MDR cases are resistant to Isoniazid and Rifampicin. Exessive drug resisistance are XDR cases. XDR cases are resistant to all fluoroquinolones, Isoniazid and Rifampicin as well as to second line antibiotics (Capreomycin, Kanamycin and Amicacin).	TB register, HF data
HIV Seroprevalence among TB patients	% of all newly registered TB patients with positive HIV status		**Numerator**: Total number of **all** newly registered TB patients over a certain period who are HIV positive **Denominator:** Total number of **all** newly registered TB patients over the same time period who were tested for HIV and included in the surveillance system	Routine testing of TB patients, sentinel methods, or special

			NB: It is recommended to test all TB cases for HIV and test all HIV positive person for TB.	surveys
Drug and equipment supply	Drug regiment following national protocol and equipment for diagnostic available	Uninterrupted supply of TB essential drugs and diagnostic materials ensured	Supplies of medicines for TB treatment is essential. It needs to be organised in the particular DOTs (direct observed therapy, short course) scheme. Blister pacs, arranged according to combination therapy, increase compliance and supports monitoring.	TB register, HF dara
Reporting System	National reporting guideline or internationl standards (WHO, UNHCR etc.) could be established and followed for the time being	Standardised reporting system available	Where possible should follow national system	
Sensitivity (Quality Control Laboratory)	% of TB slides correctly positive tested by first laboratory and confirmed by control lab.	100%	A sample of 10-30% TB positive slides of total slides should be controlled every six months.	Reference / Control Laboratory
Specificity (Quality Control Laboratory)	% of TB slides correctly negative tested by first laboratory and confirmed by control lab.	100%	A sample of 10-30% TB negative slides of total slides should be controlled every six months.	Reference / Control Laboratory

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
DOTS coverage	% of the population living in an area of basic management units im plementing DOTS strategy in proportion to total population	1 basic management unit implementing DOTS per 50,000 population	**NB:** A basic management unit is where a TB register is kept and quarterly reports are made. Internationally, it is recommended to have a basic unit per 50,000 to 150,000 people. DOTS is a common strategy in TB control to ensure that TB patients take their medication regularly and on time to prohibit resistance development. The indicator measures the extent of a country's population covered by DOTS.	Local health authorities or from the direct health service provider.
Training	No. of (refresher) trainings held for CHWs (community health workers)		CWHs should have regular trainings on PTB and DOTS but also feedback on their work.	Staff / Training data
IEC	Information, Education and Communication strategy towards PTB is ensured	IEC strategy developed and established	IEC is a very important intervention tool in most health programmes, which needs to be well developed and established according to the problems and needs.	Protocol availability
8. HIV/AIDS SPECIFIC INDICATORS*				
HIV Seroprevalence	% of a specified pop. whose blood tests are HIV positive (can be specified by age group)		**Numerator:** No. of all HIV cases per year **Denominator:** No. of population at risk in the same year **CAVEAT:** Prevalence is often reported as adult prevalence aged 15-49 or refers to specific groups such as pregnant women or youth 15-24 years.	Sentinel surveillance and regular testing

HIV incidence rate	% of new HIV infections per year		**Numerator:** No. of new HIV infections per year **Denominator:** No. of population at risk in the same year **NB:** A cohort is very difficult to follow in unstable situations; it needs also information on the population exposed.	Annual statistics
STI prevalence rate	% of STIs in specific population group (by age or sex or social group)		STIs among pregnant women is a very good indicator to assess the STI situation in a population. People often do not report STIs because of embarrassment.	ANC data
Heard about HIV/AIDS	% of respondents who have heard of HIV or AIDS	Prevalence of having some knowledge of AIDS	Baseline survey required; can be assessed in a specific age group such as young people 15-24 yrs since interventions are more effective in young people.	Population survey, KAP Surveys
Accepting Attitude	% of respondents saying that they would be willing to care for a family member who became sick with the AIDS virus	> 60% have a positive attitude towards caring for a family member infected with HIV	Baseline survey required.	Population survey

* The WHO case definition for AIDS surveillance where HIV testing is not available is fulfilled in the presence of at least 2 major and at least 1 minor sign.
Major signs: weight loss >10% of body weight; chronic diarrhoea more than one month; prolonged fever more than one month
Minor sign: persistent cough more than one month; generalised pruritic dermatitis; history of herpes zoster; oropharyngeal candidiasis; chronic progressive or disseminated herpes simplex infection; generalised lymphadenopathy

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Knowledge about AIDS and rejecting misconceptions in youth 15-24	The percent of respondents age 15-24 yrs. who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can have HIV		This indicator is constructed from responses to the following set of prompted questions: • Can the risk of HIV transmission be reduced by having sex with only one faithful, uninfected partner? • Can the risk of transmission be reduced by using codoms? • Can a healthy-looking person have HIV? • Can a person get HIV from mosquito bites? • Can a person get HIV by sharing a meal with someone who is infected? *Only respondents who answer correctly on all five prompted questions are included in thenumerator. The denominator is all respondents, regardless of whether they have ever heard of AIDS.*	Population survey
Counsellors trained	Be clear on qualification and level of training of counsellors who might be professional or lay people.		Counsellors are most important in HIV prevention but also to offer psycho-social care for PLWHA or families affected.	Training data, performance date
Peer counsellors trained	Peer counsellors per no. of peers No. of peer groups	No. of peer cousellors trained	Peer counselling and education has proven to be very effective to share information on the transmission of HIV/AIDS in the community.	Training data, performance data

No. of VCT sessions in last 12 month	% of pop. 15-49 yrs. that were tested and received results		**Numerator:** Number of pop. aged 15-49 tested and received result **Denominator:** Population 15-49 yrs.	Regular statistics or population survey
No. of VCT sessions for new TB patients in last 12 month	% of new TB patients that were tested and received results		**Numerator:** Number of new TB patients tested for HIV during last 12 months **Denominator**: Total number of new TB cases in last 12 month	Monthly health statistics
Health promotion - IEC strategy is implemented	Information, Education and Communication (IEC) strategy towards HIV/AIDS is available	IEC strategy developed and established. Overall objective is behaviour of change	IEC is a very important intervention tool in most health programmes which needs to be well developed and established according to the problems and needs. Respect culture and customs of target population. Test all ICE-materials in the local context.	Programme protocol
ARV treatment protocol available and eligibility criteria established		ARV treatment protocol established and followed	Accessability to ARVs has to be strengthened and treatment needs to follow National Guidelines.	Follow national protocol, data on ART coverage
Maternal orphan prevalence	% of children <15 years of age whose natural mother had died		**Numerator:** No. of children <15 years whose mother died **Denominator:** Total no. of children in the same age group	Data on number of OVC (orphans and vulnerable children)

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
No. of scholarships for orphans	Amount paid / Orphan / year	Aimed to cover school fee and living costs	Aimed to support orphans. Orphans often have other care takers such as grandparents who may not be able to afford school fees, which are required in most countries.	Local records
9. VIOLENCE AGAINST WOMEN AND CHILDREN*				
Confidential Data Base	Records of incidences where access is restricted to the responsible person in charge Definition on what is GBV is required	Create a confidential data base for recording incidences but also measures taken	Assess and use the data to improve the situation for most likely women and children; always coordinate and expand response to the most possible needs.	Data on prevalence of GBV difficult to collect, because of stigma and discrimination
Rate of sexual violence	No. women & children violated multiplied by 100%, divided by total no. of these groups	Prevention, care and support of survivors	Indicator can also address a specific age group (15-49; 15-65 etc.) The primary aim is that all humanitarian actors must take action from the earliest stages of an emergency to prevent sexual violence and provide appropriate assistance to survivors and families.	Population survey or regular statistics
No. of women/ children medically treated / month	Absolute number / month	To ensure proper diagnostic, treatment and psychological	Conduct physical examination only with the survivor‘s consent; it should be compassionate, systematic, complete and confidential.	Monthly health statistics

		support To prevent transmission of STIs including HIV	Consider syndromic treatment of STIs and / or PEP. In case of injuries consider referral to specialised services.	
No. of women received psychosocial care	Absolute number / month	supportive counselling discuss safety issues	With the survivor's consent discuss referral to safety zones or other social support.	Monthly statistics
No. of women who received PEP	Absolute number/ month	To ensure access to PEP if applicable	See PEP guidelines	Monthly statistics
No. of women came for VCT	Absolute number/ month		Strong recommendation in a context where HIV prevalence is high	Monthly statistics
No. of family group discussions	Absolute number/ month	Raise awareness, offer support, prevent stigma	Can be organised and offered within community support and awareness programmes for different target groups.	Monthly statistics

* The topic reflects the recommendations made by the Inter Agency Standing Committee Task Force on Gender and Humanitarian Assistance, Geneva, 2005

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
IEC campaigns with communities, military, police	Sessions done for the respective groups in a month	To prevent GBV through dissimination of information to potential perpetrators to inform on psychosocial support and to reduce discrimination	Inform survivors /victims about the potential severe and life threatening consequences. Inform community about availability of services, how to access them and that it will save survivors and families. Build trust in the community. Inform the community about he need to protect and care for survivors of violence and not to discriminate them.	Monthly statistics
No. of women received legal support	Absolute number / month	Aim for high coverage	Action could be taken by the police, security, UNHCR, NGOs and CBOs, legal advice institutions, human rights groups local leaders or health care providers.	Depends on the responsible institution
Capacity Building	No. of local groups or persons trained in SGBV prevention and response	Most staff is trained on gender equality issues, GBV, guiding principals & legal standards	Strengthen local capacity to monitor and network to relevant sectors. Develop a complaint mechanism and investigation strategy. Minimise risk of sexual exploitation of beneficiary community by humanitarian workers and peacekeepers.	Reports on activities

10. PSYCHO-SOCIAL CARE AND MENTAL HEALTH				
No. of psycho-social support services available (individual or institution)	Service which is offered by lay counsellors or other personnel trained on mental health or psychosocial support	To provide social and emotional support within the communities To prevent stress disorder	People in need includes those who are vulnerable, living with disabilities, mental health problems or chronic diseases and/or need assistance in daily life referring to mobility, personal hygiene, food intake and protection.	Assesment reports
No. of persons trained on psycho-social support or mental health	No. of lay counsellors and supervisors for PSC available in the community or in the affected population	To cover emotional support within the communities	Community members are trained to identify and assess PSC needs in the community based on the criteria. They provide social and emotional support. PSC providers themselves need support and supervision.	Reports
Number of people who are in need of social and emotional support	Those affected by disaster and conflict who cannot cope. See: IASC guidelines on PSC and Mental Health	To assess and quantify the need for PSC and mental health support PSC is a cross-cutting issue and cluster in Humanitarian Assistance	Need for Psycho-Social Care (PSC) is depending on to what extend the coping strategies of the community are overstretched. Possible criteria for assessing needs for PSC in a community are: • loss of home / house • damage of the house • loss and/or damage of belongings • injuries and deaths of relatives • witnessing material and human losses of neighbours and friends	Reports, assessment

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
People living with disabilities	Person with any kind of disability and/or chronic disease. 5 – 10% of the population might live with disabilities. Needs attention during assessment and planning.	To identify and to support those persons with disabilities who need support and to prevent future dissabilities through appropriate care and support	During assessment and implementation it is important to identify those groups in the community who are most vulnerable because of immobility, disease and disability. Furthermore, following disaster and conflict, there is a need to refer patients to appropriate treatment to prevent future disability resulting from lack of care and support. Assess injuries and diseases for potential cause of future disability.	Assessment, reports
People exposed to traumatic events	People exposed to disaster are not directly traumatised. There is a potential to develop chronic stress disorder	Most in the community develop acute stress reaction and can cope with some support.	Disaster is exceeding usual coping capacities. Therefore there is a need for PSC which supports the local coping capacity.	Assessment
Traumatised person	PTSD – post traumatic stress disorder: psychiatric diagnosis. Those who are at risk to develop PTSD need referral to mental health services.	PTSD – cases should be prevented through PSC.	There are a few cases who might develop PTSD and need professional mental health intervention. Most community members get along with emotional support which can be provided by trained lay counsellors.	Assessment

11. PERFORMANCE BASED INDICATORS (Can be applied in all settings)				
% of symptoms and diagnostic that are correct	Documented symptoms and clinical findings match with diagnoses	> 75% are correct	Intensive training prior to the introduction of the indicator is important; case definitions should be available as well as treatment guidelines.	Monthly sample of 5-10% from records in the HF
% of diagnostic and prescription that are correct	Prescription and treatment matches with diagnosis	> 75% are correct	Intensive training prior to the introduction of the indicator is important; case definitions should be available as well as treatment guidelines.	Monthly sample of 5-10% from records
% of NC (new cases) that received not more than 3 medicaments	No. of medicaments prescribed or given to one patient	> 80% received < 3 medicaments	Rational use of medicines reflected in targeted treatment, i.e. use of antibiotics according to treatment guidelines	Monthly sample of 5-10% drawn from records
Referral rate per NC	No. of patients referred to secondary health service	> 5 / 1,000 / year	Referrals are from primary care to secondary health service. Depends on the size of the health facility and the competence and capacities of professional staff.	Monthly health statistics
Price list for health care service is transparent and respected		Availability, affordability, transparency, quality of care	In some settings people pay fees for health service; it is important that patients are not over charged. This can be ensured by having community representatives participating in health centre management issues and consenting on fees to be paid.	Ministry of Health or direct health service provider

Indicator	Definition / Reference	Aim	Remarks and comments	Data source
Free health service for most vulnerable	No. of those received free service out of total population	100% (vulnerability criteria available)	List should be established of the neediest. Criteria should be set and clarifyed who is eligible for free services. Try to verify if those are really receiving free services.	HF, Community representatives
Availability of essential drugs	Availability of essential drugs	No stock rupture OR 1-5 medicaments are not available for less than 5 days	Stock rupture is especially common in remote and conflict areas. May reflect poor planning and procurement procedures.	HF
Administration forms are updated and in use		All forms are available and in use	Refers to general management and reporting, financial management. procurement and inventory, personnel management.	HF
Community participation	No. of meetings held with communities/ month	1 / month	Communities need to be involved in HF manangement and planning through village committees or village health worker in the HF.	HF, community representatives

Abbreviations

ANC	Antenatal Care
ARV	Antiretroviral
BEOC	Basic Essential Obstetric Care
CEOC	Comprehensive Essential Obstetric Care
CHW	Community Health Worker
CMR	Crude Mortality Rate
CSW	Commerial Sex Worker
DOTS	Direct Observed Treatment Strategy
EPI	Expanded Programme of Immunisation
GBV	Gender Based Violence
HF	Health Facility
HHS	Household survey
HIS	Health Information System
HW	Health Worker
IDP	Internally Displaced Person
IDU	Intravenous Drug User
IEC	Information Education and Communication
IPT	Intermittent Prophylaxis Treatment
IU	International Units
LDC	Less Developed Country
LLDC	Least Developed Country
MDR	Multi Drug Resistance
NTU	Non-Turbity Unit
OPD	Outpatients Department
OVC	Orphans and Vulnerable Children
PEP	Post-exposure prophylaxis
PHC	Primary Health Care
PLWHA	People Living With HIV/AIds
PNC	Postnatal Care
PTSD	Post-Traumatic Stress Disorder
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
VCT	Voluntary Counselling and Testing

7. Annex

7.1 Case definitions[1]

Measles: generalised rash lasting > 3 days and temperature >38 C and one of the following: cough, runny nose, red eyes
Dysentery: three or more liquid stool per day and presence of visible blood in stools
Common Diarrhoea: severe, profuse, watery diarrhoea with or without vomiting.
Acute Respiratory Infection (ARI): cough or difficult breathing > 50/minute for infant age 2 months to 1 year; breathing >40/minute children 1-4 years; and no chest indrawing, stridor or danger signs.
Meningitis: sudden onset of fever > 38.9 C neck stiffness or purpura.

7.2 Glossary of terms[2]

The following paragraph clarifies common terms in the area of public health, humanitarian aid and development. The authors opted for the ones that may be most applicable to Malteser's work while other sources may offer different definitions.

Accountability: The ability to call state officials, public employees, or private actors to account, requiring that they be answerable for their policies, actions, and use of funds. Access to information and analysis about the performance of services and policies builds pressure for accountability.

Accuracy: The degree to which a measurement or an estimate based on measurements represents the true value of the attribute that is being measured.

1 Referenced from SPHERE handbook
2 Definitions are drawn from various World Bank publications and websites as well as Abbot and Guijt's Changing Views on Change: Participatory Approaches to Monitoring the Environment (1998) AND the European Commission handbook on AID Delivery Methods, March 2004

Beneficiary Assessments: A qualitative method of information-gathering which assesses the value of an activity as it is perceived by its principal users. The approach is qualitative, systematic but flexible, action-oriented, and targeted to decision makers. Beneficiary Assessments are often used during the project preparation phase, but are also performed during M&E phases as well. Key techniques involve participant observation and semi-structured interviews with individuals and focus groups.

Bias: Inferences leading to inaccuracy of results (selection bias, information bias, interview bias and others)

Coverage: The proportion of people benefiting from the intervention and usually expressed in percentage or proportions.

Cure Rate: Efficacy of a treatment (or drug) regimen; it is not really a rate but a proportion (Source: F. Checci et al, 2007)

Efficacy: Optimal administration of intervention (Source: F. Checci et al, 2007)

Empowerment: The expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lives.

Endemic Disease: Diseases that occur during the whole year in the area/community (Source: F. Checci et al, 2007)

Epidemic: A sudden increase of a disease that is usually absent or present on a low level

Epidemiology: The study of the distribution of diseases in the community by looking at factors affecting health or illness i.e what disease, when did it occur, which persons are affected, how has it been transmitted. Logic interventions and methodologies are applied.

Equity: Inputs and benefits reach the various stakeholders fairly.

Effectiveness: The contribution made by results to achievement of the project purpose; and how assumptions have affected project achievements.

Efficiency: Project results have been achieved at reasonable costs; this requires usually comparisons to alternative approaches.

Evaluation: Evaluation systematically judges the value of changes (planned and unplanned) resulting from project outputs and outcomes, in comparison against original plans. Evaluation provides an assessment of achievement of project objectives, efficiency, effectiveness, impact and sustainability. Evaluation should take into consideration the impact upon individuals and the community in terms of the development of new ideas and quality of life, resource mobilization, income distribution, self-reliance, and environmental and natural resource conservation. Evaluation helps to target project outcomes and qualify project benefits.

Evidence Based Public Health: "Evidence-based public health is defined as the development, implementation, and evaluation of effective programs and policies in public health through application of principles of scientific reasoning, including systematic uses of data and information systems, and appropriate use of behavioural science theory and program planning models" (Brownson et al., 2003).

Excess Mortality: Death that would not have occurred if the crisis had not taken place (Source: F. Checci et al, 2007).

Exposure: The event and degree of an individual getting in contact with an infectious pathogen or substance or other risk factors that increases the risk of a disease (Source: F. Checci et al, 2007).

Famine: A famine is a social and economic crisis that is commonly accompanied by widespread malnutrition, starvation, epidemics and increased mortality

Household Survey: Type of epidemiological study in which representatives from household level are selected to provide health information (or others).

Analogue to cross-sectional surveys; and are often used for baseline data or monitoring/evaluation of an intervention program.

Incidence: Occurrence of new cases of infection/diseases in a specific population

Impact: Impact indicators measure the ultimate effect of an intervention on a key dimension of the living standards (mortality rates or prevalence of diseases) of individuals- such as freedom from hunger, literacy, good health, empowerment or security

Impact Evaluation: The systematic identification of a development activity's effects – positive or negative, intended or not – on individuals, households, institutions, and the environment. Impact evaluation helps explain the extent to which activities reach poor people and the magnitude of their effects on people's welfare.

Impact Monitoring: The regular assessment of changes over time in the status of project beneficiaries.

Indicator: A variable to measure the progress of activities or changes resulting from the project activity, which assesses whether a change is in the desired direction and whether the objective will be achieved. A good indicator reflects both quantitative and qualitative change. Quantitative indicators (numerical) can be displayed as a single factor or a cumulative figure. Qualitative indicators measure either a behaviour or an indirect representation and often require open-ended responses.

Input: Input indicators track all the financial and physical resources used for an intervention.

Local Capacity Building: Development of skills and capacity either through training or technical assistance to either civil society's representatives (NGO's, Red Cross, church groups etc.) or to government/administration structures. Local capacity building does not include budgetary or financial support.

Local Organisational Capacity: The ability of people to work together, organize themselves, and mobilize resources to solve problems of common interest. Local organisational capacity may take the form of informal associations – lending circles or family groups – or formal associations – farmers' groups or neighbourhood associations. Local organisational capacity enables communities to collectively make decisions, manage funds, and solve problems.

Management: The act of controlling and directing an organisation

Methods: A regular systematic way of doing something

Monitoring: Monitoring is a continuous process to assess whether a project or policy is being implemented as planned, has made good progress, and faced any problems. It also considers how to solve such problems. Monitoring plays an important role to ensure that activities are performed on schedule and within the allocated budget, that all concerned are satisfied, and that project outputs and outcomes correspond to stated objectives. It enables a more responsive, accountable, and transparent system of operating.

Monitoring and Evaluation: Separate but interrelated activities to gather information and report findings on project or policy performance and results. Monitoring is a periodic, rather than a one-off, reassessment of indicators that are chosen to determine the effects of certain interventions or policies. Monitoring is almost always guided by pre-determined indicators, while evaluations are usually based on more general questions. Monitoring and evaluation yield the greatest benefits when they are performed in a participatory manner.

Outcome: Outcome indicators measure the level of access to public services (number of health facilities), use of these services (children vaccinated) and the level of satisfaction of users. Outcome typically depends on factors beyond the control of the implementing agency (such as behaviour of the individuals or other demand-side factors).

Outbreak: Equivalent to epidemic but usually refers to the very first group of epidemic cases (Source: F. Checci et al, 2007).

Output: Output indicators cover all the goods and services generated (staffing, availability of medicine) by the use of the inputs. These measure the supply of goods and services provided to individuals. Outputs typically are fully under the control of the agency that provides them.

Participation: A process through which stakeholder's influence and share control over development initiatives and the decisions and resources that affects them. There are different levels of stakeholder involvement, including information dissemination (one-way flow of information), consultation (two-way flow of information), collaboration (shared control over decision making), and empowerment (the transfer of control over decisions and resources). Different levels of participation ensure varying degrees of responsiveness, transparency, accountability, and equity.
Participation effects monitoring and evaluation in the following ways:

- Purpose of the evaluation
- Criteria and indicators identified
- Design and implementation of the evaluation
- Who participates in the monitoring and analysis
- How the information is used

Participatory Monitoring and Evaluation (PME): A systematic management tool designed to reveal the degree of effectiveness and efficiency in the achievement of objectives according to the perspectives of stakeholders. PME brings together diverse stakeholders, giving them an opportunity to negotiate regarding what success should look like and what indicators should be used to evaluate success. In this process, all stakeholders discuss and plan the project together from the outset, jointly setting the objectives, targets, indicators, and work process. It is a process that leads to knowledge generation, collaborative problem solving, and corrective action by involving all levels of stakeholders in shared decision-making.

Participatory Rural Appraisal (PRA)
A growing family of participatory approaches and methods that emphasize

local knowledge and enable local people to do their own appraisal, analysis and planning. The approach also enables shared learning and planning of appropriate interventions among local people and outsiders (development practitioners and government officials). PRA techniques have mainly been used early in the project cycle, but can also be applied during other phases. Visual techniques such as mapping, seasonal calendars or cause-impact diagrams are often featured so that non-literate people can participate. Other common methods include semi-structured interviewing with individuals and focus groups. Although originally developed for use in rural areas, PRA has been used successfully in a variety of settings.

Performance Monitoring: Continual assessment of actual results to demonstrate whether project, program, or policy is achieving its stated goals. Performance monitoring promotes efficiency, transparency, and targeting.

Point Prevalence: Proportion or percentage of the population (or subgroup) that has the infection/disease at a specific point in time i.e. yesterday. It is the most expressed type of prevalence (Source: F. Checci et al, 2007).

Prevalence: Number of cases of infection or diseases present in a population or sub-group; this includes incident (new cases) as well as existing cases(Source: F. Checci et al, 2007).

Process Monitoring: Continual assessment of how the processes, procedures and criteria of a project are working.

Proportion: Quantity A over quantity N; or A is a fraction of N (e.g. 15% of the population [=A] of 12.000 people [=N] got malaria); (Source: F. Checci et al, 2007).
Proxy: Indicator of something which is, by its complex nature, not measurable.

Primary Health Care (Alma Ata, 1978): WHO's holistic concept for providing equal access to health care for all, which include eight elements such as curative care, provision of essential drugs, health promotion, mother and child health, immunization, water and sanitation facilities, control of en-

demic diseases and capacity building. Participation of communities, decentralisation and sustainability are the key strategies or principals. Although there have been rapid changes in the last 30 years PHC is still valid and will play an important part to tackle diseases such as HIV/AIDS, TB, maternal health, mental health among others.

Public Health: It's a science and art of preventing diseases, prolonging life and promoting health. Health systems, epidemiology, health services, health economics, environmental and social behaviour are some of the important sub-fields.

Quality: Degree to which of the stated results of a project or programme at the outputs, outcome and impact levels, are being or have been achieved.

Quantitative and Qualitative Approaches: Quantitative and qualitative research methods are complementary techniques. The choice of methods will depend on the availability of time, skills, technology, and resources. Quantitative methods refer to random sampling for survey research, structured individual interviews for data collection and subsequent statistical analyses that allow the results to be considered representative, comparable and generalizable to a wider population. Qualitative methods refer to a spectrum of data collection and analysis techniques where sampling is not necessarily random and more in-depth, unstructured, open-ended efforts are incorporated. This allows for in-depth analysis of social, political, and economic issues.

Rate: The number of events occurring per unit (e.g. number of births per year). In epidemiology rates are expressed as events per unit people and unit time e.g. fertility rate: number of children per woman per lifetime. Note that incidence rates reflecting only new cases of a disease per unit people per unit time e.g. new HIV positive cases in pregnant women during the last 12 month.

Relevance: The appropriateness of project objectives to the problems that it was supposed to address, and to the physical and policy environment within which it operated.

Responsiveness: Project objectives are met according to the priorities of all stakeholders.

Sampling: The number of people, households, communities or other units of a population that have been selected in a systematic way.

Sensitivity: Often used for diagnostic quality control i.e. for the laboratory: the test are capturing the positive diagnosed cases (e.g. malaria or TB) as true positive.

Specificity: Often used for diagnostic quality control i.e. for the laboratory: the test are capturing the negative diagnosed cases (e.g. malaria or TB) as true negative.

Stakeholder: People, groups, or institutions those are likely to be affected by a proposed Intervention (either negatively or positively), or those which can affect the outcome of the intervention. Examples of stakeholders include: client governments, the poor and other vulnerable groups (e.g. landless, women, children, indigenous people, and minority groups), other individuals, families, communities or groups affected by the project or policy, and interested groups (donors, NGOs, religious and community organisations, local authorities, and private firms).

Stakeholder Analysis: The starting point of most participatory work and social assessments. It is used to develop an understanding of the power relationships, influence and interests of the various people involved in an activity, and to develop an appropriate plan for their participation.

Strategic Monitoring: Analysis of monitoring and evaluation data or special studies to help assess lessons learned in terms of needed policy changes or larger scale adjustments of programming strategies.

Surveillance: Systematic collection, analysis and interpretation of health data; used for regular monitoring, early detection of outbreaks and outbreak control.

Sustainability: An attempt to ensure that the best or desirable outcomes will be maintained and continue into the future.

Transparency: Clarity and openness regarding activities and relationships.

Vector: Pathogens, organism, parasite, insects or others that is involved in the transmission of diseases (e.g. aedes aegypti, anopheles etc.).

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WEEKLY MORBIDITY/MORTALITY SURVEILLANCE FORM						
Name and type of location (Temporary Shelter/ School/Monastry/ Relief camp etc)				population at the location		
Township: ……..						
State/division:				Week Number_____		
Reporting Date: ……..						
Main cause of illness/death	Cases				Deaths	
	Under 5		5 years plus		Under 5	5 years plus
	New	Follow up	New	Follow up		
Acute watery Diarrhoea						
Bloody Diarrhoea						
Acute Jaundice Syndrome						
ARI / Pneumonia						
Measles						
Suspected Meningitis						
Malaria confirmed by RT						
Suspected Dengue						
Suspect Dengue Haemorrhagic Fever						
Trauma cases						
Suspected Tetanus						
STI						
Unexplained cluster of health events						
Others consultations						
Total						

ID reporting agency: ……..

Source: adapted from Connolly M.A. (2005), p. 223

Malteser International is working in the following sectors:

1. Relief, Reconstruction and Rehabilitation
2. Health & Nutrition
3. Water, Sanitation and Hygiene (WASH)
4. Livelihood and Social Programmes
5. Disaster Preparedness

Malteser International is member of following networks and associations, among others:

- Action Campaign Germany Helps (ADH – Aktionsbündnis Deutschland Hilft)
- Action against AIDS Alliance (Aktionsbündnis gegen AIDS)
- Working Group on Medical Development Aid (AKME – Arbeitskreis Medizinische Entwicklungshilfe)
- Coordinating Committee for Humanitarian Relief of the Federal Foreign Office of Germany
- (KAHH – Koordinierungsausschuss Humanitäre Hilfe)
- Catholic Working Group of the German Bishops' Conference on Emergency and Disaster Relief
- (KANK – Katholischer Arbeitskreis Not- und Katastrophenhilfe)
- People in Aid
- National Association of German Non-Governmental Organisations for Development Policy
- (VENRO – Verband Entwicklungspolitik Deutscher Nicht-Regierungs-Organisationen)
- Voluntary Organisations in Cooperation in Emergencies (VOICE)

Malteser International has committed itself to observe, inter alia, the following national and international codes and standards:

- The Sphere Project: Humanitarian Charter and Minimum Standards in Disaster Response
- The Code of Conduct: Principles of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Response Programmes
- Principles for the international work of the German Caritas Association
- Code of Conduct to protect children and young people from abuse and sexual exploitation (Caritas Internationalis)

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