HeRAMS

Health Resources Availability Mapping System

Approach & Roles and Responsibilities of the Cluster

Global Health Cluster / Health Actions in Crisis / World Health Organization

© World Health Organization, 2009

This document is not a formal publication of the World Health Organization (WHO), and all rights are reserved by the Organization. The document may, however, be freely reviewed, abstracted, reproduced and translated, in part or in whole, but not for sale or for use in conjunction with commercial purposes.

The designations employed and the presentation of the material in this document, including tables and maps, do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

Summary

Ι.	Problem Statement / Issues to be addressed	p.4
Π.	A centralized data collection methodology	p.4
<i>III</i> .	A standardized Data Structure	p.5
	III.1. Metadata	p.5
	III.2. Point of Delivery	p.5
	III.3. Modality of Delivery	p.6
	III.4. Health Personnel	p.6
	III.5. Health Services	p.6
IV.	. Roles and responsibilities of the Health Cluster	p.7
V.	The IT Platform	p.8
	V.1. Platform's Architecture	p.8
	V.2. Standards Module	p.8
	V.3. Data Collection Module	p.9
	V.4. Data Storage and Management Module	p.9
	V.5. Data Analysis Module	p.10

Preface

A study on Health Cluster implementation lead by Merlin on behalf of the Global Health Cluster has recently identified the "lack of data for decision making" as a major gap.

Through HeRAMS, the Global Health Cluster aims at <u>promoting and supporting good practice in</u> <u>mapping health resources and services availability in emergencies</u> so as to strengthen informed based decision making by the Health Cluster.

I. Problem statement / Issues to be addressed

If data on health resources and services availability is often available, experience has shown that the large variety of processes, methods and tools used to generate this data in the context of humanitarian emergencies often prevent adequate analysis and informed decision making.

The main causes are related to:

- Lack of time, resources and access to conduct comprehensive routine assessments resulting in a disruption of routine information systems, when existing, and a lack of up to date information capturing the changes induced by the emergency
- Lack of exhaustiveness of the data over the areas of interest, which is essential for identifying gaps and inequities / inequalities in resources allocation
- Lack or inadequacy of the data structure preventing sharing / transfer of data and flexible analysis
- Lack of agreed upon standards adhered to throughout the information cycle preventing the generation of the "overall picture" and the maturation of an assessment approach into a monitoring system

HeRAMS aims at ensuring that:

- Assessment and monitoring of health resources and services availability can be conducted systematically and quickly despite limited time, resources and accessibility
- Assessment and monitoring is exhaustive and homogeneous over the area of concern
- Data structure is a meaningful disaggregation of the information in its most granular form to allow flexible analysis
- Standards are discussed and agreed upon at the start of the process and adhered to throughout the information cycle (collection, management, analysis, dissemination)

II. A centralized data collection methodology

In order to address the limitation in time and resources as well as the lack of accessibility the cluster will face, HeRAMS limits the data collection to information that is deemed critical for coordination and planning purposes and that is available at the central level.

The approach does therefore not necessitate field visits that are time and resource hungry, when feasible. HeRAMS data is to be generated and updated through structured interviews between trained public health officers and health program directors of the various partner organizations.

Experience has moreover shown the added value of integrating HeRAMS work in the regular activities of the Cluster in that it participates in partnership building.

It is therefore suggested that interviews and subsequent updates are embedded as a regular agenda item of Cluster meetings. These meetings should also be a forum for results dissemination and discussion, as this would clearly favour their use in coordination and decision making.

III. A standardized Data Structure

HeRAMS intends to strike a balance by focussing only on the information that will be crucial for coordination and decision making.

Efficiently mapping health resources and services availability requires that <u>5 key areas of</u> information are tackled. These constitute the backbone of the IT Platform.

III1. Metadata

Metadata, usually described as "data about data", is a description of the data collected. HeRAMS considers 2 sets of Metadata:

 \rightarrow The first set describes the data collection process itself by defining:

- "Time Stamp": the date at which the data was collected
- "Interviewer / Data Collector": the entity who collected the data
- "Interviewee / Information Source": the entity who provided the data
- → The second set the "Data Dictionary" is a compilation of the definitions of the various data item collected, as discussed and agreed by the Cluster (e.g. health personnel classes, health facility types, notion of functionality).

-			
Data Dic	tionary		
Field Name	Data Type	Full Field Name	Field Description
	Test	Patter Name	State the name of the Pattner interviewed
HF_Name	Teut	Health Facility Mame	State the name of the HF
State	Text	State	State where the H#T is located
Locality	Test	Locality	Locality where the HF is located
Admin_Unit	Test	Administrative Unit	Administrative Unit where the HII' is located
Latitude	Number	Latitude	Latitude of the Health Facility in DECIMAL DEGREES - with min. 5 decimals - (munus)
Longitude	Number	Longitude	Longitude of the Health Facility in DECIMAL DEGREES - with min. 5 decimals - (scasses)
DP_Tge	Test	Delivery Point Type	IOPC (HF include in DP Camp and serving esclusively DP c) - 5 (HF included in Sentement and serving esclusively Residen IOPC/5 (HF included in DP Camp but also serving Residents) S2IOPC (HF included in Settlement but also serving DP c)
DP_Name	Teut	Delivery Point Name	Name of the IDP camp/settlement that is delivering the service
HF_Type	Test	Health Facility Type	RH (Rushiospita) - PHCC (PrimaryHealth Care Center) - PHCU (PrimaryHealth Care Unit) - Mob_clinic (Mobile Ch
HF_Status	Teut	Health Facility Status	F (functioning), NF (Non-functioning), UR (Under Rehabilitation), P (Planned)
Building	Test	Building	Specify the status of the building if it is Permanent (P) or Temporary (T)
Ownership	Test	Ownership	State the entity (ies) owning of the Facility
Management	Test	Management	State the entity (ies) in charge of running the Facility
Support	Test	Support	State the entity (ies), if any, supporting the operations of the facility
EVARS RS	Teut	EVARS Reporting Site	YIN - Is the facility reporting regularly as part of the Early Manning System?
Inpatient_Cap	Number	Inpatient Capacity	Number of beds in the HF
MO	Number	Medical Officers	Number of Medical Officers in the HIF
MA	Number	Medical Assistant	Number of Medical Assistants in the HP
Nutre	Number	Nurse	Number of Nurses in the HII'
PHO	Number	Primary Health Officer	Number of Primary Health Officers in the HP
MV	Number	Monte	Number of Midwivez in the HF
Vace	Number	Vaccinator	Number of Vaccinators in the HF
Lab Person	Number	Laboratory Personnel	Number of Laboratory personent, J.e. Lab Associate or Lab Technician
	thomas .	Williams Walkerstore	Under of all on order to all of the order.

III2. Point of Delivery

The Point of Delivery is the <u>location</u> at which health resources and services are being made available. Points of Delivery are defined both <u>geographically</u> and <u>thematically</u>. They are characterized both by the name of the given location (as well as the subsequent administrative units it belongs to and the p-codes whenever available) and its' type.



Note that both the type and geography of Points of Delivery should strictly refer to commonly agreed upon and shared standards. Please refer to chapter IV. for further details.

Mapping points of delivery allows geo-referencing resources and services in situations where geographical coordinates of the modalities of service delivery themselves may not be available. It is to note that HeRAMS also supports the storage of specific geographical coordinates when these are available.

Mapping points of delivery also allows additional information on the size and type of the population for example to be linked. It will more generally allow linking HeRAMS data to any other dataset generated along the same standard, which will prove crucial when trying to move the analysis of the situation at the inter cluster level.

III3. Modality of Delivery

The "Modality of Delivery" is the way through which resources and services are made available.

It therefore generally consists in describing health facilities but was developed so as to accommodate for modalities that require a more specific approach, such as Field Hospitals, Mobile Clinics or Community Based Workers.

Experience in implementing HeRAMS has allowed the definition of fixed parameters in defining the Modalities of Delivery. These include:

- → <u>Type</u>: Health Cluster standard will usually be a combination of the national standard of health facilities and emergency specific modalities (such as mobile clinics)
- → <u>Status</u>: this parameter reflects the degree of functionality of each modality of delivery. It is left to each Health Cluster to define the various options of this parameter
- → <u>Ownership</u>, <u>Management</u> and <u>Support</u>: these 3 independent parameters are key in clearly and systematically reporting situations where several partners are collaborating in a given delivery modality (e.g. Facilities owned by the Ministry of Health, managed by an INGO and in which salaries are paid by WHO, or drugs supplied by Pharmacists Without Borders)

In addition to those 5 fixed parameters, users are given the opportunity to generate 5 additional parameters to accommodate for context specific needs. These may for example include dimensions such as "State" of the modality (e.g. Intact, Partially Damaged, Destroyed) in disasters, or such as "Electric Supply" (Continuous, Discontinuous, Inexistent).

III4. Health Personnel

The Health Personnel section gathers the number, by type, of health personnel operating through a given modality of service delivery.

In addition to defining health personnel types, users are also given the possibility to group health personnel in two categories, depending on specific analysis needs of the cluster (e.g. Facility Based Personnel vs. Community Based Personnel or Female vs. Male).

III5. <u>Health Services</u>

The list of Key Health Services is standard and attached to this guide for reference.

IV. Roles and responsibilities of the Health Cluster

HeRAMS was designed to support the activities of the Health Cluster. The role and responsibilities of the Cluster in implementing and sustaining HeRAMS throughout the different phases of the crisis and the various stages of the information cycle is therefore essential.

Aspects of the role and responsibilities of the cluster in data collection and dissemination were touched upon in Chapter II. Data Analysis is described in Chapter V. This chapter focuses on the most critical function of the cluster: defining standards.

In defining standards, Cluster Partners should strike a balance between reflecting the complexity of health interventions, allowing a refined understanding of the situation and providing adequate visibility to all and simplify data collection to ensure that intra-cluster analysis remains feasible and meaningful.

👩 Thematic Standards

The complexity and specificity of each given crises may not be crystallized in a fixed frame. HeRAMS was designed so as to allow context specific customization.

The 5 key information areas to be informed are presented in chapter III.



The geography is an essential component of any information system. It is in most cases the smallest and commonest denominator of any dataset. If standardized it will therefore allow:

- \rightarrow The maturation of the first "baseline assessment" into a monitoring system
- → The generation of situational analysis at the inter-cluster level by allowing the linkage of health resources and services availability data to any other dataset produced by partner clusters using the same standard

A geographical standard should list all geographical locations and the respective administrative units (including Health Administrative Units when existing) they belong to.



An agreement was reached at the Global Level designating OCHA as the provider of the "Minimum Common Operational Dataset*", which includes the geographical standard and various key attributes such as population estimates and composition. When not feasible, Cluster Leads should verify the validity of the various standards available and agree commonly with other clusters on the source to be used.

V. The IT Platform

V1. Platform's Architecture

HeRAMS IT Platform was designed to ensure that the standards defined and agreed upon by the Cluster are adhered to throughout the crises phases and the information cycle.

The IT platform is composed of 3 interconnected blocks organized around the Standard Module.



V2. Standards Module

The Standards Module supports the storage and management of standards agreed upon by the Cluster.

Access to this core module is restricted to ensure quality control. The module is split in a section for thematic standards and another for the geographical standard.

Once standards are integrated they will instantly and automatically be enforced in the other modules of the system, namely the Data Collection, the Data Storage and Management and the Analysis Modules.



V3. Data Collection Module

Data collection is possible through User Forms or through the Spreadsheet that will both display as only choices the standards and references defined previously, avoiding a large amount of mistakes during the process of data entry.

A large number of other logical validation rules also apply to ensure data entry is as sound as possible. A certain number of default values are also pre programmed to avoid meaningless blanks in the dataset: "what is not reported does not exist".



V4. Data Storage and Management Module

The Central Database is the module in which the information will be stored. The Database will automatically be restructured according to the thematic and geographical standards defined by the cluster.

1	Metadata		Point of Delivery													
Date	Data_Col	Info_Source	HF_Code	State	Locality	Admin Uni		N/A	N/A	PD_Name	PD_Type	Lat	Long	MD_Type	Ownership	Managemen
2009-10-19	Mussab	IRC		Northern Darfur	El Fasher	DarelSal	am			Abu Delek			5	PHCC	IRC	IRC
				Southern Darfur	Buram		Gughana							2		
2009-10-23	Mussab	Care		Northern Darfur	Kebkabiy	ElSireaf	Sarafom	a		IDPC				PHCC	Care	IRC
			-	Northern Darfur	El Fasher	-	Abu Delei	6		1						
2009-10-23	Isabelle	Care		Northern Darfur	Kebkabiy	ElSireaf	Sarafom	a		1		1		()		
2009-10-23	Isabelle	MSF-F		Northern Darfur	Kutum	Karnoi, U	mm Baru, I	k Tina						j į		
				Western Darfur	El Genein	9							RH			
				Northern Darfur	Kebkabiy	ElSireaf	Saraf Om	a						RH	IRC	Care
2009-10-23	Isabelle	ACF		Northern Darfur	Kutum	Karnoi, U	mm Baru, I	k Tina						RH	Care	Care
2009-10-23	Mussab	Care		Northern Darfur	Kebkabiy	v El Sireaf & Saraf Omra						, j		RH	ACF	ACF
24/10/2009	Isabelle	ACF		Northern Darfur						1			ŝ	RH	ACF	ACF
24/10/2009				Southern Darfur	Adila					Al Gura			2	8 2		
24/10/2009	Isabelle			Northern Darfur						10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -						
24/10/2009	Isabelle	ACF		Northern Darfur	Kutum	Karnoi, U	mm Baru, I	k Tina						i i i		
18.50				Southern Da r fur	Buram					IDPC				(T
2009-10-24	Isabelle	Care		Northern Darfur	Mellit	Malha										
2009-10-24	Mussab	ACF		Northern Darfur	Kutum	Karnoi, U	mm Baru, I	k Tina								
2009-10-24	Isabelle	ACF		Northern Darfur	Kebkabiy	a				Affia	IDPC			RH	ACF	ACF
				Northern Darfur												
				Western Darfur										, , , , , , , , , , , , , , , , , , ,		
2009-10-10	Mussab	Care		Northern Darfur	▼ asher	El Fasher	& Kuma	6		Abu Diqn	IDPC		-	PHCC	Ministry of	MSF-F
2009-11-13				Northern Darfur Southern Darfur Western Darfur												

V5. Data Analysis Module

The Analysis Module Three sections are currently under development focusing on "Infrastructure", "Health Personnel" and "Services" availability.

Filters will be added so that end users can easily define the characteristics of the sample they want the indicators to be defined on.

The possibility to define had hoc indicators (based on filtering independently for the numerator and the denominator) is also being explored.

