3
ASSESSMENT AND HEALTH SITUATION MONITORING

Key points:

✓ Information is needed on: health status and risks, health resources availability (including services), and health system performance.

✓ The situation analysis provided by an assessment should be regularly up-dated on the basis of information from ongoing situation monitoring and early warning system reports.

✓ Assessments should be undertaken, situation monitoring assured, and information managed and disseminated with the maximum possible involvement of national and sub-national-level health authorities as well as other partners. All should use common, gender-sensitive indicators, standards, protocols and case definitions.

✓ Information and knowledge generated by the information collected should be disseminated, in time to inform decisions on the planning and management of response activities. Data should be disaggregated by geographical area, population group, age and sex, as much as possible.

Expected Health Cluster outputs

✓ Joint needs assessments.

✓ Regular joint situation updates based on monitoring of the situation of the health sector response.
The following are the key requirements:

| ✓ Good health *pre-crisis secondary data* including sub-national (e.g. district) level profiles; |
| ✓ Quality health *assessments* completed in a timely manner at the beginning of a crisis and whenever necessary during an ongoing crisis covering; |
| ✓ An appropriate *early warning and response system* for epidemic-prone diseases and other critical conditions; |
| ✓ An appropriate health *monitoring/surveillance* system that provides regular data on mortality, morbidity, injury treatment and rehabilitation, potential health risks, health service performance, and changes in the overall context that could affect health or health services; |

Good health *information management* including *dissemination* is also needed and should assure:
- systematic screening, compilation, analysis and storage of data;
- shared databases and/or a web site (linked with OCHA/HIC or equivalent); *and*
- the production and publication of regular health bulletins and, when appropriate, special reports.

See sections 2.5 and 2.6.

---

8 Normally, such context information should be available from the Humanitarian Coordinator/OCHA and other sources so that health teams should not need to invest time and effort in collecting them.
Assessment and ongoing situation monitoring are complementary elements. Together with an understanding of the pre-crisis situation, they progressively enhance knowledge and understanding of (i) the situation and possibilities for addressing the identified needs, and (ii) expediting the [re]establishment of essential health services and equitable access to them.

- **Assessments** are time-limited exercises that provide information on the situation at a particular point in time and on how the assessment team expects the situation to evolve, and the risks that might be faced.

- **Situation monitoring/surveillance** is a continuous activity that provides information on a regular basis to update the situation analysis provided by the last assessment, identify trends and detect any significant changes or new threats. It is broader than disease surveillance in that it also examines changes in the context as well the resources available, that could influence health and health risks.

Cluster partners must agree on a coherent, coordinated set of assessment and situation monitoring activities adapted to the local context that identifies priorities and provides timely information to decision-makers in relation to both humanitarian and early recovery needs.
Common “gaps” in relation to needs assessment  
Findings from 10 country case studies (2004-07)

<table>
<thead>
<tr>
<th>Examples</th>
<th>Some proposed remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector-wide assessment of health needs of the affected population not comprehensive, inclusive or timely. Examples include being conducted at central level, excluding the periphery, lacking gender- and age-based analysis of population needs; or being too slow to influence planning. Poor representation of health actors in inter-sectoral emergency assessments.</td>
<td>Conduct early epidemiological assessment of the whole affected population, with data disaggregated by age and gender. Ensure that needs assessment process is gender sensitive, involving men and women from the affected community, male and female assessors and translators, and that needs are analysed by gender and age. Ensure that joint assessments are linked to an outcome – e.g. funding mechanism or joint planning process – and that the conducting of joint assessments does not replace or delay individual agency assessments used for programme design, monitoring and evaluation. Ensure adequate representation of health agencies in early joint rapid assessments.</td>
</tr>
</tbody>
</table>

Common “gaps” in relation to health information

| Lack of data for monitoring and planning including malnutrition, mortality, and morbidity. Health Information System inappropriate to the phase of the response. For example, continued use of sentinel site surveillance rather than population based data in the early recovery phase. | Establish a common health information system coordinated by one agency aiming for timely complete reporting from all facilities. Put in place effective mortality data collection system (such as community-based mortality data collection using community health workers). Conduct mortality survey where indicated. Implement population-based Health Information System in early recovery (as appropriate). |
3.1 Key Health Information Needs, Processes and Tools

Good, shared information is essential if overall health response and the actions of individual cluster partners (and other health actors) are to appropriately and effectively address the priority problems.

Some basic principles

✓ Data must be collected and analysed – and the resulting information and recommendations provided to decision-makers – in time to inform policy and operational decisions for the health response.

✓ Maximum use should be made of secondary data but all such data, whether on the current situation or pre-crisis, should be reviewed for reliability and the precise area(s) and population(s) and time periods to which they relate.

✓ Data should be disaggregated by, as a minimum, geographic area, age and sex in order to determine who is affected and who is being reached and, therefore, provide a basis for planning.

✓ Local professionals who know the context must be mobilized and contribute to the assessment and analysis process.

✓ Arrangements must be designed to meet health information needs throughout the crisis while at the same time preparing the ground for the rehabilitation – and, where needed, upgrading of – the pre-existing health information and surveillance systems.

Specific assessment, monitoring and information management tools are needed to collect, analyse and manage health information during a crisis. They are needed because crisis usually disrupt regular health information and surveillance systems and also generate specific information needs that are not (or rarely) covered by routine systems.
**Information needs**

Data need to be collected and systematically analysed on three core aspects:

<table>
<thead>
<tr>
<th>Health Status and Risks</th>
<th>Health Resources and Services Availability</th>
<th>Health System Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current health status of affected population groups (e.g. mortality, morbidity and their major causes) and health risks (e.g. potential outbreaks or further interruption of services or critical disease control programmes).</td>
<td><em>Initial focus on:</em> the facilities, personnel, supplies and services of national health authorities, other national and non-state actors, and international partners. <em>Later,</em> once the initial, acute phase is over and especially when seeking to promote recovery: the above plus other health system components (management systems, financing, etc.)</td>
<td>The coverage and quality (effectiveness) of the services currently available; The access (physical and temporal access) that men, women, boys and girls have to those services and their utilization of them.</td>
</tr>
</tbody>
</table>

Figure 3a shows the tools available for the collection, collation and analysis of data on these core aspects and how – through comparison with established benchmarks – priorities and gaps are identified and a response strategy defined. Ongoing monitoring and evaluation provide feedback to enable information to be up-dated and plans adjusted. The *pre-crisis* situation, in order to put everything in context and understand what has changed, is critical for these three core aspects.

In addition the three core aspects, information is needed on:

- the *context* – political, social, economic and security conditions, etc. – to inform recommendations on actions to address priority health problems and gaps in services (see section 3.6);
- *lessons* from responses to previous crisis in the country, or in neighbouring countries, in order to be able to build on successes and avoid repeating mistakes.

The tools referred to are:

- the multi-cluster/multi-sectoral initial rapid assessment (IRA) – see section 3.3;
- the Global Health Cluster health resources availability and mapping system (HeRAMS) – see section 3.2;
Data collection and analysis processes and tools

It is useful to recognize four distinct phases for data collection and analysis, linked to response planning and management decisions following a major sudden-onset crisis. These four phases are shown in Figure 3b. They show the characteristics of each phase, the tools used, the information outputs, and the decisions they inform at different points in time.

- the WHO/global health cluster early warning and response system (EWARS) and the HINTS software produced by the health and nutrition tracking service – see section 3.5;
- regular health information system (HIS) – see section 3.6.

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9 These four phases were proposed by OCHA and adopted by participants in a multi-organization “common needs assessment” workshop in Bangkok in January 2009. They are expected to be reflected in IASC guidance.
**Figure 3b Phases of data collection, analysis and planning following a major, sudden-onset crisis**

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(0-3 days)</strong></td>
<td><strong>(4-10/15 days)</strong></td>
<td><strong>(15-30/45 days)</strong></td>
<td><strong>(30/45 + days)</strong></td>
</tr>
</tbody>
</table>

**Assessment methods**

- **Phase 1**
  - Expert interpretation of initial reports & remote data
  - Few site visits

- **Phase 2**
  - Rapid appraisal methods only (KI, O & GD)
  - Purposive sampling

- **Phase 3**
  - Household level survey + rapid appraisal methods
  - Representative sampling

- **Phase 4**
  - Household level survey + rapid appraisal methods
  - Representative sampling

**Information outputs**

- **Phase 1**
  - Preliminary working scenario

- **Phase 2**
  - Identification of main problems, risks and gaps – initial planning scenario

- **Phase 3**
  - Initial analyses of problems, risks and gaps – updated planning scenario

- **Phase 4**
  - Comprehensive and updated analyses and planning scenario *(ongoing, regular)*

**Use of the information**

- **Phase 1**
  - Preliminary health crisis response strategy (for response in the first few days)

- **Phase 2**
  - Initial health crisis response strategy
  - Adjustment of initial responses
  - Specific project proposals
  - Flash appeal

- **Phase 3**
  - Detailed health crisis response strategic plan
  - Refinement of ongoing projects
  - Additional project proposals
  - Consolidated appeal

- **Phase 4**
  - Updated health crisis response strategy, projects and appeals
Where arrangements for initial assessments and information management have been agreed *in advance* in the context of inter-agency contingency planning, those activities can be implemented rapidly and efficiently. Otherwise, much time is likely to be lost in the first few days and initial responses may be uncoordinated or delayed (some may even be inappropriate).

The time frames of the different phases may be adapted to each particular context including slow- and gradual-onset crisis. However, good information is required within 10 to 15 days of any crisis onset in order to inform early response and funding decisions and the OCHA Flash Appeal.

**HCC and Health Cluster action**

**At the onset of a crisis**

- ✓ Establish a basic initial *health resource availability and mapping system* (*i-*HeRAMS) immediately at the onset of a crisis. Expand this to a full-HeRAMS as soon as possible. See section 3.2.
- ✓ Work with the nutrition, WASH and other clusters and the MoH (and with relevant cross-cutting issues advisors, as necessary) to undertake a joint *initial rapid assessment* (IRA) in the first 10 to 15 days and produce a joint, initial analysis of priority problems, risks and gaps. See section 3.3.
- ✓ Establish, with the MoH whenever possible, an *early warning and response system* (EWARS). See section 3.5.
- ✓ Establish arrangements, with the MoH whenever possible, to *monitor the situation* and produce regular reports on the health situation and service usage. See section 3.6.

**Later and during an ongoing crisis**

- ✓ Keep up-to-date the *health resource availability and mapping system* (HeRAMS). See section 3.2.
- ✓ Collaborate in detailed *health sector/sub-sector assessments* or sample surveys focusing on aspects identified by the IRA as being important and needing more in-depth assessment. These may be led by the MoH, individual cluster members or other competent bodies. See section 3.4.
- ✓ Jointly *monitor* the situation on an ongoing basis. See section 3.6.
✔ Organize joint rapid assessments (using the IRA or similar) following any significant change in the situation or when a previously inaccessible area becomes accessible. See section 3.3.

✔ Collaborate in multi-agency, inter-sectoral “post-disaster” and “post-conflict” needs assessments – PDNAs and PCNAs – led by UNDP and the World Bank once the situation has stabilized, focusing on damage and related recovery and reconstruction needs. These assessments should benefit from information already available from the IRA and in HeRAMS as well as the additional, more detailed and up-to-date information available to cluster partners. See section 3.4.

Where a Cluster already exists at the onset of a sudden-onset crisis, it may jointly compile a “best-guess” situation analysis based on preliminary assessment/reconnaissance findings in the first 1 to 2 days. It can usefully be summarized in a “preliminary working scenario” that provides the basis for response actions by all parties in the first few days and the design of the IRA.10

Additional guidance

📖 Annex B, on the CD-ROM – Types of assessment – when, why and how they are undertaken.

📖 Annex C, on the CD-ROM – Guiding principles for all data collection activities – assessments, surveys & surveillance.


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3.2 MAPPING HEALTH RESOURCES AND SERVICES – USING HERAMS

HeRAMS is a software-based information system developed by the global health cluster to support the collection, collation and analysis of information on the availability of health resources in different areas and locations and by type of point of delivery and level of care. Health “resources” include health facilities (infrastructure), personnel, and also the services provided. While HeRAMS can be used to map geographical provision of services it does not monitor population access and utilization. These must be assessed and monitored separately, either using routine Health Information System and surveys. There are two versions:

- The Initial HeRAMS (“i-HeRAMS”) is the tool for use during the first few days/weeks of an acute crisis to record and analyse aggregate data on the numbers of active health partners, numbers of functioning health facilities by type, numbers of key health staff (doctors, nurses, midwives), and the level of health services available by administrative level (e.g. district, sub-district).

- The (“Full”) HeRAMS is the tool that should be used as soon as feasible and then throughout the duration of a crisis to record and analyse data on the resources available and the specific services being delivered at each “point of delivery”. Services are recorded against the checklist in section 9.1.11 “Points of delivery” are the precise locations at which health services are delivered and are not only health facilities. Services may be delivered by a health facility, mobile clinic or community-based health worker. To allow for a precise mapping of health resources and services, HeRAMS characterizes locations (town, rural village, IDP camps…) and modalities (health facility, mobile clinic, community base services…) independently, in order to make a retailed analysis and monitoring of the health sector response (see as an example the Darfur HeRAMS Case Study – Sudan, WHO, June 2008 – included in the CD ROM as a PowerPoint file).

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11 The system also records who owns each facility, who is currently managing it, who (if anyone) is providing support to the delivery of specific health services.
The full HeRAMS covers levels of care, sub-sectors, and services, by points of delivery

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The “initial essential services” or packages indicated in Figure 3c are suggested as the minimum that should be provided at the beginning of a crisis. The services proposed for the child health, nutrition, communicable and non-communicable diseases, and environmental health subsectors may be substituted by other priority services as required by the nature of the crisis or the local context. For the other subsectors, the recommended services or packages should be in place in full before expanding other services in the respective subsectors.
Inputs to and outputs from HeRAMS

Data are collected through structured interviews with health facility or health programme managers. Interviews are conducted by trained interviewers – usually health officers – based in the affected areas. They enter the data directly into a standardized data collection form/spreadsheet. (This enables the system to be deployed rapidly, ensure data homogeneity and quality, and to cover areas where access is restricted.)

A standard list of administrative areas and place names from OCHA is integrated into the system at the outset. This is a key element of the minimum common operational dataset (MCOD). This ensures compatibility and transferability with their “4W” database and other inter-agency information systems. The system includes automatic validation as data are entered to ensure correct, standardized entries and increase the reliability and consistency of the information.¹²

The standard list health service levels, sub-sectors and component services presented in section 9.1 is integrated in HeRAMS. These are the services that should be assured, to the maximum extent possible, for any crisis-affected population.

In addition to making information readily available on the services and resources at particular locations, the HeRAMS generates standard aggregate reports at different administrative levels, and summary and analytical reports on facilities, staff and health partners present. Additional reports can be generated in response to specific requests from decision-makers.

The system can also be used to illustrate the effects on resource and service availability of changes that might occur, e.g. the withdrawal of an organization when their project expires or funding runs out.

Data can be exported (in Excel format) for other, more detailed analysis in any database programme by a competent analyst. Standard locations are geo-referenced so data can be imported into any GIS software to map health resources, support decision-making in planning and make advocacy.

¹² As of end 2008, the system is based on an Excel spreadsheet and linked Access database. It may be up-graded in 2009. Automatic validation eliminates the need for – and the time often lost in – a separate data cleaning step.
HCC and Health Cluster action

☑ Adapt the definitions of health facilities to match the structure of the health system in the country.
☑ Identify, discuss and agree upon all standards related to the variables on which data is collected (staff, typologies...)
☑ Identify and train the health officers who will conduct the interviews to collect and manage HeRAMS data.

Lessons and practical hints from field experience

Experience in Sudan demonstrated the value of assigning responsibility for collecting HeRAMS data to Primary (district) Health Officers. Their understanding of the situation in their areas guaranteed a high standard of quality of the data gathered. The exercise also reinforced their relationships with all partners involved.

Face-to-face interviews are not always necessary. Data can be collected using telephone contacts.

Additional guidance

See on the CD-ROM the document HeRAMS health resources availability mapping system.

3.3 ORGANIZING AN INITIAL RAPID ASSESSMENT (IRA)

The initial rapid assessment (IRA) tool was developed jointly by the global health, nutrition and WASH clusters. It serves to collect, compile and analyse information on the health status of the population, the determinants of health (nutrition, water supply, sanitation, etc.), and current health services characteristics (coverage, resources, services available, access, etc.). The tool includes guidelines, a standard data collection form, an associated aide memoire for field teams, and a data entry and analysis template and software. It is designed to provide a quick, initial description of the current situation and identify the priority public health problems, risks and gaps in service provision. A 4-level (“severe”/of concern”/relatively normal”/more

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13 An IRA is a multi-sectoral, multi-stakeholder assessment and it has been suggested that the name (IRA) might be modified to reflect this. (One suggestion is to rename it as “multi-sectoral initial rapid assessment”.)
Some basic principles

- An IRA should be conducted as a joint effort of the health, nutrition, WASH and shelter clusters, coordinated and planned by the HCT or the ICCG and in collaboration with the MoH and other relevant government and/or non-governmental entities.

- An IRA should normally be initiated within 2 to 4 days of the onset of a crisis. A report with at least preliminary results should be produced within 10 to 15 days of crisis onset in order to inform initial response planning and the UN Flash Appeal. (An IRA may also be undertaken any time when a previously inaccessible area can be reached or when reassessment is required following a significant change in the overall humanitarian context.)

- The content of the IRA data collection form may be customized to country needs but changes should be kept to a minimum. To facilitate this, 4 open questions are presented at the end of each of the 5 technical sections. The data entry and analysis software include these open questions for each sector.

- The success of an IRA and the value of the report are heavily dependent on the quality of the planning done before the field visits. This is facilitated by inter-agency contingency planning in advance of the crisis.

Data recorded on the IRA forms are to be entered into the Excel-based IRA data entry and analysis tool. Automated analysis produces a report for each individual site and aggregated reports for multiple sites (e.g. all sites within a district), as required. The reports present the data in a standard template that provides space for assessment teams and sector specialists to add their own comments and interpretation.

The key elements of planning, undertaking and reporting on an assessment are indicated in Figure 3d. In most cases, planning steps 3 to 10 will be undertaken more-or-less concurrently. Brief guidance on analysis is provided in section 4.1.

Data required”) severity ranking system for each sector is integrated in the summary sheet completed for each site.

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14 It can be difficult and time-consuming to get inter-agency agreement on a common tool and how to undertake an assessment. Where such agreements have not been established in advance, weeks have been lost and the quality of information gathered from untested questions was low.
Figure 3d **Main steps in organizing and undertaking a rapid assessment**

<table>
<thead>
<tr>
<th>(1) <strong>Initial decision</strong></th>
<th>Agreement among health-related agencies and the MoH that an assessment is needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) <strong>Planning the assessment</strong>&lt;br&gt;1-2 days</td>
<td>Half-day planning meeting and follow-up work by individuals and sub-groups to:&lt;br&gt;1. compile available (secondary) data and agree a working scenario;&lt;br&gt;2. agree the objectives, scope of work and timeframe (dates) for the assessment, and its relationship to other assessment activities;&lt;br&gt;3. agree information requirements, data collection methods, and criteria for deciding where to go (site selection procedures) and with whom to talk;&lt;br&gt;4. design/customize the IRA form and translate into local language(s) if necessary; prepare related interview guides; adapt sensitive questions to the local context, identify any additional question(s) observation that eventually need to be added;&lt;br&gt;5. identify personnel (and interpreters, if required) for fieldwork;&lt;br&gt;6. prepare maps, supplies, equipment (including tents, food, if necessary) and background information kits for field teams;&lt;br&gt;7. assemble and train fieldwork teams;&lt;br&gt;8. arrange transport (including fuel), security and communications for teams;&lt;br&gt;9. inform key persons (MoH and others) in areas to be visited; and&lt;br&gt;10. plan (arrange for) the processing and analysis of data during and after the fieldwork.</td>
</tr>
<tr>
<td>(3) <strong>Field work</strong>&lt;br&gt;5-6 days</td>
<td>Visits by teams to purposively-selected areas/sites to:&lt;br&gt;• interview and collect data from officials and other key informants in administrative centres and health facilities; and&lt;br&gt;• interview community groups and households.</td>
</tr>
<tr>
<td>(4) <strong>Analysis and reporting</strong>&lt;br&gt;3-4 days</td>
<td>• Processing and analysis of data (primary and secondary)&lt;br&gt;• Identification of priority problems, needs, risks and gaps&lt;br&gt;• Analysis of possible strategies and development of recommendations&lt;br&gt;• Preparing the report&lt;br&gt;• Disseminating the report</td>
</tr>
</tbody>
</table>
Figure 3e indicates the main outputs that are expected from an IRA: these must be kept clearly in mind by all concerned when planning and undertaking an IRA and preparing the report.

### Outputs expected from an IRA in relation to health, including variations among geographic areas or population groups

<table>
<thead>
<tr>
<th>Health status and risks</th>
<th>Health resources available *</th>
<th>Health system performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indications of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● main causes of mortal-</td>
<td>● Functioning of health</td>
<td>● People’s access to</td>
</tr>
<tr>
<td>ity and morbidity</td>
<td>facilities</td>
<td>health facilities and</td>
</tr>
<tr>
<td>including changes</td>
<td></td>
<td>services</td>
</tr>
<tr>
<td>from normal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● potential sources of</td>
<td>● Human resources</td>
<td>● People’s use of health</td>
</tr>
<tr>
<td>future morbidity</td>
<td>available</td>
<td>services</td>
</tr>
<tr>
<td>and mortality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● availability of a</td>
<td>● Supplies and equipment</td>
<td>● Change in number of</td>
</tr>
<tr>
<td>functioning early</td>
<td>available</td>
<td>consultations per day</td>
</tr>
<tr>
<td>warning system for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>epidemic-prone</td>
<td></td>
<td>● Change in preventive</td>
</tr>
<tr>
<td>diseases</td>
<td></td>
<td>care activities</td>
</tr>
<tr>
<td>● Measles vaccination</td>
<td>● Disease control</td>
<td>● Overall functioning</td>
</tr>
<tr>
<td>coverage for children</td>
<td>programmes – current</td>
<td>of sub-sectors and</td>
</tr>
<tr>
<td>under five</td>
<td>situation and what’s</td>
<td>services</td>
</tr>
<tr>
<td></td>
<td>changed</td>
<td></td>
</tr>
</tbody>
</table>

* includes i-HeRAMS data

### Conclusions and recommendations

- Priority health problems (including any gender disparities)
- Main foreseeable health risks
- Critical gaps in health services (gaps in geographic coverage or particular sub-sectors)
- Contextual factors that affect health status, health services and possibilities for humanitarian health action
- Specific recommendations for initial health response actions
- Specific recommendations for follow-on, more detailed sub-sector assessments or surveys
HCC and Health Cluster action

☑ As soon as possible after crisis onset, discuss within the HCT or the ICCG, and consult relevant government and/or non-governmental entities, to agree on arrangements IRA. (Do this within the framework of the inter-agency contingency plan, where there is one.)

☑ Get as many as possible of the main health actors to attend a planning meeting together with key actors from the other sectors, on day 1 if possible:
  - Agree the purpose/objectives and time frame for the assessment.
  - Define responsibilities and timeframes for all preparatory actions.
  - Adapt the standard IRA data collection format to the local context, if necessary, and define how any additional data will be input and analysed. Contact the global health cluster support hub for guidance, if needed.15
  - Get advice on gender and other cross-cutting issues that may be critical in the local context.

☑ Rapidly review health-related secondary data available at national level (unless this has already been done as a part of contingency planning) – see IRA guidance note especially table 2.

☑ Then, jointly with the other clusters:
  - Assemble multi-disciplinary field assessment teams. Ensure they are balanced in terms of expertise and sex, and between national and international personnel. Prioritize general public health experience – see IRA guidance note.
  - Select the areas to be visited. Use stratified sampling to select not only areas that are believed to be particularly badly affected but also ones covering a range of different conditions and population groups that may be differently affected and face different health problems and risks – see IRA guidance note.
  - Define the criteria and procedures to be applied by assessment teams in selecting individual sites to be visited within the selected areas.
  - Specify the (few, key) items of data on other sectors that health members of assessment teams should collect in the absence of team members for the other sectors, and vice-versa.

15 Adaptation may be necessary if (i) significant urban populations are involved or there are a variety of population groups (e.g. refugees, IDPs and residents), or (ii) to take account of locally-endemic diseases [IRA form sections 5.2.2 & 6.2.2] and the structure of local health services [section 6.3]). Modifications should focus on clarification, removing items that are clearly inappropriate or highly-sensitive, or adding content. The core structure of the form should be preserved.
– Provide guidance notes (including case definitions) and organize rapid training – and security briefing, where needed – for all field assessment teams.
– Provide field teams with available secondary data on the areas they will visit before they start field visits, so their interviews and primary data collection can be appropriately focused.
– Plan logistics carefully and ensure that all teams have necessary permits (where needed), transport (including fuel, etc.), communications (radios and/or access to telephones), GPS (and are trained in its use), and access to accommodation (camping equipment, if necessary), water and food.
– Make arrangements to receive and rapidly collate and analyse incoming reports from assessment teams, health facilities, relief teams and other sources. (These arrangements must be made in advance, as part of the planning for the assessment. Too often, analysis of data from “rapid” assessments has taken several weeks!)
– Prepare a realistic budget for the whole assessment process – including field travel and the analysis of the data – and secure funds.

☑ Ensure constant monitoring of and support to the field assessment teams during field work.

☑ Ensure arrangements for the safe receipt of reports from field teams and the prompt entry of the data into the IRA analysis tool (and arrangements for any additions to the standard IRA form to be input separately).

☑ Arrange for the assessment team leaders/teams to review the automated reports for each site and to insert their own comments and interpretations, and for data from any questions added to the standard IRA form to be analysed and inserted separately.

☑ Specify the administrative levels at which aggregate reports are required, and arrange for a multi-disciplinary group of sector-specialists and experienced generalists to:
  – review the automated aggregate reports and insert their comments and interpretations; and
  – produce the overall report and recommendations.

☑ Arrange rapid clearance of the overall report by all clusters (and relevant government entities where necessary) and disseminate it immediately to all health actors, donors and other stakeholders using email, a web site, and hard copies.
If such joint planning is not feasible in the first few days: call a quick meeting with the main health actors; try to agree on a standard, common core of key information for inclusion in data collection formats and a standard approach to data collection; try to ensure reasonable coverage of all main areas; and then compile data from different organizations’ assessments and facilitate a joint analysis exercise.

Additional guidance


3.4 ORGANIZING FOLLOW-UP ASSESSMENTS AND SURVEYS

Depending on the findings of the initial assessment, the context and type of crisis, detailed follow-on assessments or sample surveys may need to be undertaken in particular localities in relation to some or all of the following:

- Mortality rates (CMR and U5MR) and morbidity rates.
- Main causes of death, injury and disease and their distribution among different population groups (disaggregated by age, sex, geographic area and other locally relevant characteristics).
- The psychological impact on the population and on health and relief workers.
- The impact on disease vectors and vector control programmes.
The impact on the ability of men, women, boys and girls to access health services.

Damage to health facilities – detailed surveys by competent technicians and engineers to prepare specific plans and cost estimates for repair/ reconstruction.

The human and other resources and capacity to assure health services in the medium term.

Other health system components: policies, infrastructure, financing, supplies and management.

All follow-on assessments and surveys need careful planning. Surveys require considerable resources (human, financial and logistic) if the results are to be reliable and useful. The results may sometimes be politically sensitive and need careful handling. Care must always be taken to avoid over-loading a survey by trying to respond to too many disparate demands for data!

**HCC and Health Cluster action**

When planning or contributing to follow-up assessments or surveys:

- Define objectives and scope carefully, and draw up an analysis plan.
- Mobilize relevant specialist expertise as well as cluster partners.
- Thoroughly review available secondary data before defining primary data collection requirements.
- Pre-test data recording formats and interview guides before training field teams.
- Clearly specify sampling procedures and sample size (for both population and facility surveys).16

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16 A more comprehensive list is being compiled by the Global Health Cluster in 2009.
Examples of tools for subsequent, detailed assessments


Additional guidance


3.5 ASSURING EARLY WARNING AND RESPONSE – ESTABLISHING AN EWARS

In a crisis situation – especially a protracted emergency – a very responsive system is required to rapidly detect selected epidemic-prone conditions and implement immediate outbreak control measures, when needed. An early warning and response system (EWARS) is needed with weekly routine reporting and immediate reports of specified critical conditions by regular health facilities and all health and medical relief teams (an early warning and response network). It may be built around a pre-existing disease surveillance system but that system alone will rarely be adequate.

Some basic principles

✓ The active participation of all humanitarian health actors is essential.

✓ Experienced epidemiologists should take the lead in choosing a small number of conditions (max. 10) to be monitored. These may include severe acute malnutrition (SAM) and toxic poisoning.

✓ Information should be gathered from a wide range of sources including the news-media and informal sources. Rumours should be investigated and either addressed or dispelled.

✓ Specific expertise should be mobilized – normally from WHO – to establish an EWARS.

HCC and Health Cluster action

Work with the MoH, as appropriate, to:

✓ Review pre-crisis surveillance procedures and agree on appropriate arrangements for early warning and response (EWAR) within the crisis-affected areas.

✓ Ensure that a central EWAR team is in place – with precise tasks and responsibilities and in an appropriate location – within the first few days of the onset of a crisis.
Ensure that all the essential elements listed in the box below are in place.

Ensure the inclusion of, and prompt reporting from, all cluster partners.

Ensure that information is fed back to reporting units and disseminated to all other interested parties within a few hours in case of an outbreak (or other event requiring an immediate response).

<table>
<thead>
<tr>
<th>ESSENTIAL ELEMENTS OF AN EFFECTIVE EWARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Consensus among all health agencies on a short list of priority conditions to be monitored, corresponding syndrome-based definitions, and a standard reporting format, and building on existing early warning systems.</td>
</tr>
<tr>
<td>✓ Reliable and rapid means of communication.</td>
</tr>
<tr>
<td>✓ Guidelines for field units including the criteria or thresholds at which they should make the alerts and take specified actions.</td>
</tr>
<tr>
<td>✓ Training of clinical workers at the primary and secondary care levels in the operation of the system.</td>
</tr>
<tr>
<td>✓ Laboratory support capacity and clear procedures for taking and dispatching biological samples, and providing feedback to reporting units.</td>
</tr>
<tr>
<td>✓ Stockpiles of sampling kits, drugs and vaccines.</td>
</tr>
<tr>
<td>✓ Contingency plans for comprehensive response to epidemics, including plans for isolation wards in hospitals.</td>
</tr>
</tbody>
</table>

Tools and additional guidance

The events Analysis & Nutrition Data Surveillance, HANDS, an application developed by HNTS, should be used to capture and analyse the data generated by the weekly early warning and response surveillance system, as well other routine facility based surveillance morbidity and mortality data. HANDS, together with a user guide (available in English and French), is available on the Global Health Cluster website and on the CD ROM annexed to this guide.
3.6 MONITORING THE HEALTH SITUATION – RE-ESTABLISHING A REGULAR HIS

Up-to-date information is needed on a continuous basis throughout the crisis to inform decisions on response actions, monitor the effects of health interventions and enable adjustments to be made when necessary, and to support resource mobilization efforts.

Some basic principles

✔ Monitoring during the crisis should build on the existing HIS/diseases surveillance system, where possible, but can be adapted to the context and needs of the crisis and cover:
  - the overall health situation;
  - the social (including gender and age) and economic determinants of public health;
  - the performance of the health system (including responsiveness, quality and equitable access); and
  - the progress and outputs of humanitarian (and early recovery) health activities.

✔ Information is best gathered through a combination of:
  - regular reports from health facilities and field teams – either all of them or a carefully-defined selection that serve as sentinel sites;
  - ad hoc or periodic sample surveys; or, very usefully,
  - regular reporting from community-level health committees (“community-based surveillance”).

✔ An appropriate national HIS should be re-established in a sustainable manner as quickly as possible.

✔ One organization – the CLA or another cluster partner – should take responsibility for coordinating the monitoring system and leading the international effort to (re)establish an appropriate HIS, where needed.

In many cases, especially where there have been repeated disasters and inadequate periods for recovery, national HIS capacity may be limited. Support to the re-establishment of an adequate HIS should then be an important component of the health crisis response strategy.
**HCC and Health Cluster action**

Work with the MoH, as appropriate, to:

- Agree on a set of key, gender-sensitive indicators adapted to the local situation and capacities, and on how, from where and at what frequency information will be collected.

- Regularly compile and analyse information from all sources on the health situation, the determinants of health, and health service performance, and thus identify any emerging problems, critical gaps or areas needing action.

- Agree on a strategy to progressively enhance the coverage and content of reporting from health facilities, health teams and other health actors, and strengthen or re-establish a national HIS including zonal-level HIS teams where appropriate.

- Agree on the organization (CLA or other) to take the lead in supporting the national HIS, and how other cluster partners will contribute in a coordinated effort.

- Ensure that the essential elements listed in the box below are in place and monitor the performance of the system.

- Ensure that monitoring findings are published promptly and delivered regularly to decision-makers in all the main stakeholder entities – MoH, the national relief coordination body, international agencies, the main national NGOs, donors, news-media, etc. (Reports may be distributed in conjunction with the regular *Health Bulletin*).

Zonal health cluster focal points supported by epidemiologists or other experienced data analysts, when available, should assure quick, local analysis in collaboration with district/provincial health authorities and other stakeholders. This should identify priorities for immediate action and provide the HCC and central HIS team with local interpretation together with the raw data.

**Lessons and practical hints from field experience**

In Uganda, the Health Cluster uses village health teams to conduct community-based disease surveillance to monitor disease trends at community level. Such an innovative approach might be replicated in other settings once the situation has stabilized.


ESSENTIAL ELEMENTS OF AN EFFECTIVE SYSTEM FOR MONITORING THE HEALTH SITUATION

- Starts early with a core set of few key (gender-sensitive) indicators (see table 9.2) and expand it to include more once the system is functioning and capacity allows.
- All main health actors in all areas are involved including, when feasible, local authorities and community organizations.
- Reporting formats are simple, designed to facilitate completion and subsequent data extraction, use precise language and are translated.
- Guidelines and training are provided for all health facilities, field teams and others who are expected to report. They clearly explain the purpose and importance of the reports and provide practical instructions to promote consistently good reporting by all facilities and teams.
- Arrangements for the transmission of reports are clearly defined and capacity is available to receive and rapidly screen, compile and analyse them with a focus on identifying changes, trends, and divergences from the established standards.
- A central HIS team has dedicated (full-time) staff and an appropriate workspace with dedicated computers, telephones and other equipment (e.g. radios), as needed.
- Clear procedures ensure the rapid clearance of reports. (Bureaucratic delays in producing and issuing information can greatly reduce its validity and usefulness.)

Additional guidance

3.7 MONITORING THE PERFORMANCE OF HEALTH SERVICES\textsuperscript{17}

**Some basic principles**

- Performance monitoring should focus on the services that are most critical in the prevailing situation.
- One or two gender-sensitive indicators should be chosen and tracked for each critical service.

General issues that deserve to be addressed relate to monitoring the availability of key services and their coverage.

The box below presents guidance on calculating coverage: changes in coverage are an important measure of the effectiveness of the overall health response and also of individual service-delivery projects.

Figure 3f provides example of indicators from Sudan showing how the level of compilation and analysis can be refined as the situation evolves from the initial acute phase through recovery. In Sudan, different conditions exist simultaneously in different parts of the country – some areas are still in an acute emergency phase while others are well into recovery; monitoring varies accordingly.

Where sexual and gender based violence is an important concern, it may be appropriate to include information on coverage of medical services for rape survivors and referral systems for legal, protection and psychosocial services.

\textsuperscript{17} The Global Health Cluster has not (yet) developed specific guidance on this topic; this will be an activity for 2009. The present section provides some preliminary indications with an emphasis on “coverage”.

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\textsuperscript{9} www.unhcr.org/his (UNHCR Health Information System 2008).
**Figure 3f  Example of key health service performance indicators and levels of geographic analysis during the different phases of the response**

<table>
<thead>
<tr>
<th>No.</th>
<th>Key indicators for the health &amp; nutrition sector</th>
<th>Initial acute phase</th>
<th>Continuing humanitarian focus</th>
<th>Early recovery</th>
<th>Recovery &amp; transition to development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Geographical availability of health facilities (HF): average population covered per HF and by type of HF</td>
<td>by State &amp; locality</td>
<td>by administrative unit</td>
<td></td>
<td>by administrative unit</td>
</tr>
<tr>
<td>2</td>
<td>Move to % of the population within 5km of a HF</td>
<td>by administrative unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Out patient utilization: average # of consultations per year</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Measles vaccination coverage (9 months to 15 years)</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Coverage of fully immunized children under one</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>% of HF with family planning service</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Add contraceptive coverage rate</td>
<td></td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>% of HF with antenatal care service</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Add antenatal care (3 and more visits) coverage rate</td>
<td></td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>% of expected deliveries which required caesarean section</td>
<td>by State</td>
<td>by locality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>% of outbreaks with investigation and response activated within 48 hours from the alert</td>
<td>by State</td>
<td>by locality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>% of HF having zero stock-out days for the 4 sentinel drugs</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Coverage of targeted supplementary and therapeutic feeding programmes</td>
<td>by State &amp; locality</td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Add coverage of growth monitoring in children under five</td>
<td></td>
<td></td>
<td>by administrative unit</td>
<td></td>
</tr>
</tbody>
</table>

1 Adapted from the Sudan UN Work Plan 2008.
2 Sentinel drugs: one for each of the following essential groups of drugs: anti-malarial, antibiotics, analgesic/antipyretics, antihelminths.
3 Targeted supplementary and therapeutic feeding programmes for estimated acute moderately and severely malnourished children under five, recovery rates for severe acute malnutrition among children under five.
A more detailed list of indicators is provided in section 9.2 together with some notes on estimating mortality rates. The table includes widely-accepted benchmarks and thresholds for concern, and shows whether the indicator relates to inputs, outputs or outcomes.

**HCC and Health Cluster action**

Work with the MoH and other health actors, as appropriate, to:

☑ Identify a minimum set of performance indicators relevant to the country situation, including gender-sensitive indicators, through a consultative process (e.g. an M&E group, a workshop).

☑ Ensure the inclusion of these indicators (or relevant data) in the standard reporting formats.

☑ Ensure that all cluster partners – and as many other health actors as possible – understand the indicators and report relevant data regularly.

**Additional guidance**


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**ESTIMATING COVERAGE**

Coverage, for epidemiological purposes, is “a measure of the extent to which the services rendered cover the potential need for these services in a community. It is expressed as a % in which the numerator is the number of services rendered and the denominator is the number of instances in which the service should have been rendered”. [Last JM. A Dictionary of Epidemiology. Oxford University Press, 2001]

Coverage estimates are usually calculated as a percentage:

\[
\text{Population coverage (\%)} = \frac{\text{No. of people with access to service} \times 100}{\text{Total population concerned (N)}}
\]

In a humanitarian crisis, coverage can be calculated in relation to the total affected population, the total affected population that can be reached, or, for a targeted intervention, the total targeted population.
These different coverage rates may be expressed as:

- **potential humanitarian** coverage, where \( N = \text{Total affected population} \).
- **operational humanitarian** coverage, where \( N = \text{Total affected population that can be reached} \).
- **targeted population** coverage, where \( N = \text{Total target population} \).

*Changes in coverage* can be used to monitor how well a programme is performing in reaching its target population. For purposes of evaluation, a change in coverage is a simple measure of the difference between coverage levels at different time points:

\[
\text{% Change in coverage} = \left( \frac{\text{Coverage at Time2} - \text{Coverage at Time1}}{\text{Coverage at Time1}} \right) \times 100
\]

For the comparison between estimates to be valid, coverage levels must be estimated using the same, standardized methodology at each time point.