Chapter 5: Minimum Standards in Health Services

How to use this chapter

This chapter is divided into three main sections: Health Systems and Infrastructure; Control of Communicable Diseases; and Control of Non-Communicable Diseases. The organisation of the chapter promotes a systems approach to the design, implementation, monitoring and evaluation of health services during a disaster. This is the most reliable means of ensuring that priority health needs are identified and met in an efficient and effective manner. Principles such as supporting national and local health systems, coordination and standardisation are stressed throughout.

Each of the sections contains the following:

- *the minimum standards:* these are qualitative in nature and specify the minimum levels to be attained in the provision of health services;
- *key indicators:* these are 'signals' that show whether the standard has been attained. They provide a way of measuring and communicating the impact, or result, of programmes as well as the process, or methods, used. The indicators may be qualitative or quantitative;
- *guidance notes:* these include specific points to consider when applying the standard and indicators in different situations, guidance on tackling practical difficulties, and advice on priority issues. They may also include critical issues relating to the standard or indicators, and describe dilemmas, controversies or gaps in current knowledge.

Appendices at the end of the chapter include a checklist for assessments, sample data collection forms, formulas for calculating rates of mortality and morbidity, and a select list of references, which point to sources of information on both general issues and specific technical issues relating to this chapter.

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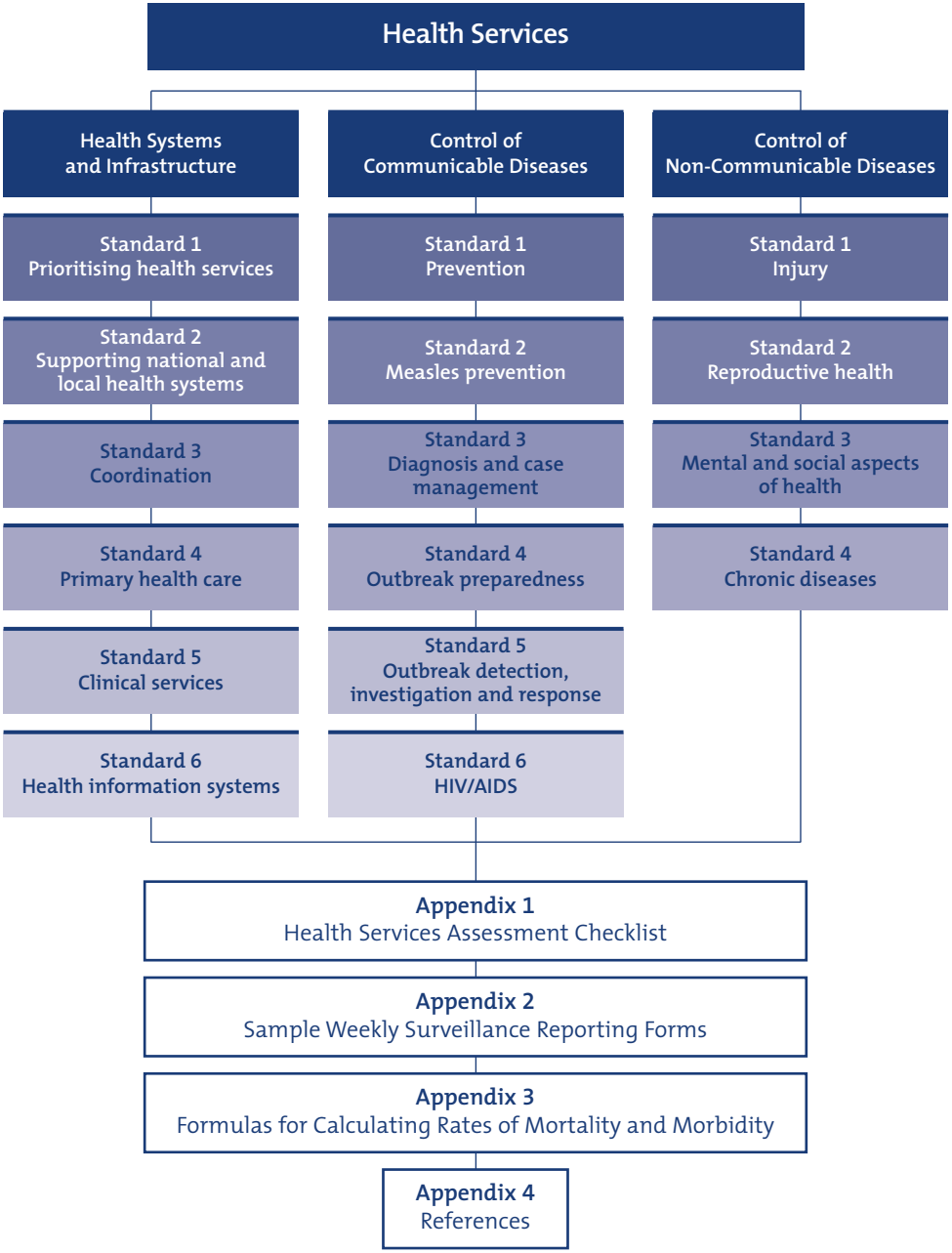
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Introduction

Links to international legal instruments

The Minimum Standards in Health Services are a practical expression of the principles and rights embodied in the Humanitarian Charter. The Humanitarian Charter is concerned with the most basic requirements for sustaining the lives and dignity of those affected by calamity or conflict, as reflected in the body of international human rights, humanitarian and refugee law.

Everyone has the right to health, as recognised in a number of international legal instruments. This embraces not only the right to equal access to health care but also to the underlying determinants of health, all of which involve the fulfilment of other human rights, such as access to safe water and adequate sanitation; an adequate supply of safe food, nutrition and housing; healthy environmental conditions; access to health-related education and information; non-discrimination; and human dignity and the affirmation of individual self-worth.

The right to health can be assured only if the population is protected, if the professionals responsible for the health care system are well trained and committed to universal ethical principles and professional standards, if the system in which they work is designed to meet minimum standards of need, and if the state is disposed to establish and secure these conditions of safety and stability. Essential to this human rights perspective are the issues of dignity and equity, and the obligations of states and non-state actors in fulfilling the individual's right to health. In times of armed conflict, civilian hospitals and medical facilities may in no circumstances be the object of attack, and health and medical staff have the right to be respected and protected.

The Minimum Standards in this chapter are not a full expression of the Right to Health. However, the Sphere standards reflect the core content of the Right to Health and contribute to the progressive realisation of this right globally.

The importance of health services in disasters

Health care is a critical determinant for survival in the initial stages of a disaster. Disasters almost always have significant impacts on the public health and well-being of affected populations. The public health impacts may be described as direct (e.g. injury, psychological trauma) or indirect (e.g. increased rates of infectious diseases, malnutrition, complications of chronic diseases). These indirect health impacts are usually related to factors such as inadequate quantities and quality of water, breakdowns in sanitation, interruption in food supplies, disruption of health services, overcrowding and population displacements.

The primary goals of humanitarian response to disasters are to: 1) prevent and reduce excess mortality and morbidity, and 2) promote a return to normalcy. Different types of disaster are associated with differing scales and patterns of mortality and morbidity (see table on page 257), and the public health and medical needs of an affected community will therefore vary according to the type and extent of disaster.

Prioritisation of health services requires a clear understanding of the affected community's prior health status, needs, health risks, resources and capacities. In the early stages of a disaster, information may be incomplete and important public health decisions may have to be made without all of the relevant data being available and/or analysed. A multi-sectoral assessment that includes community representatives should therefore be conducted as soon as possible to determine the public health impact of the disaster, the priority public health needs, the availability of local resources and the requirements for external assistance (see Initial assessment standard on page 29 and Appendix 1).

In general, priority public health interventions are designed to ensure that the greatest health benefit is provided to the greatest number of people. As far as possible, interventions should be based on the principle of evidence-based practice: those with a demonstrated public health benefit are preferred. Such interventions will usually include adequate quantities of safe water, sanitation, nutritional services, food aid/food security, shelter and basic clinical care. Preventive and clinical services should aim primarily to control diseases of epidemic potential.

A mass measles vaccination campaign will be a major priority for populations at risk of a measles outbreak, especially refugees and those affected by complex emergencies. In most disaster settings, referral services and hospital-based care, while important, have a smaller public health impact than primary health care interventions.

Participation of disaster-affected communities in the design, implementation, monitoring and evaluation of health services is essential. During this process there should be efforts to identify and build on existing capacities within the health sector. Building local capacity together with affected populations is probably the most effective means of helping communities to recover from disasters and to prepare them for future disasters. Refugees and internally displaced persons (IDPs) are likely to place additional strains on the health services of host populations. Humanitarian efforts should therefore aim to integrate with and support the health services of host populations as much as possible.

In most disaster situations, women and children are the main users of health care services, and it is important to seek women's views as a means of ensuring that services are equitable, appropriate and accessible for the affected population as a whole. Women can contribute to an understanding of cultural factors and customs that affect health, as well as the specific needs of vulnerable people within the affected population. They should therefore actively participate in the planning and implementation of health care services from the outset.

Links to other chapters

Many of the standards in the other sector chapters are relevant to this chapter. Progress in achieving standards in one area often influences and even determines progress in other areas. For a response to be effective, close coordination and collaboration are required with other sectors. Coordination with local authorities and other responding agencies is also necessary to ensure that needs are met, that efforts are not duplicated, and that the quality of health services is optimised. Reference to specific standards or guidance notes in other technical chapters is made where relevant.

Links to the standards common to all sectors

The process by which a response is developed and implemented is critical to its effectiveness. This chapter should be utilised in conjunction with the standards common to all sectors, which cover participation, initial assessment, response, targeting, monitoring, evaluation, aid worker competencies and responsibilities, and the supervision, management and support of personnel (see chapter 1, page 21). In particular, in any response the participation of disaster-affected people – including the vulnerable groups outlined below – should be maximised to ensure its appropriateness and quality.

Vulnerabilities and capacities of disaster-affected populations

The groups most frequently at risk in emergencies are women, children, older people, disabled people and people living with HIV/AIDS (PLWH/A). In certain contexts, people may also become vulnerable by reason of ethnic origin, religious or political affiliation, or displacement. This is not an exhaustive list, but it includes those most frequently identified. Specific vulnerabilities influence people's ability to cope and survive in a disaster, and those most at risk should be identified in each context.

Throughout the handbook, the term 'vulnerable groups' refers to all these groups. When any one group is at risk, it is likely that others will also be threatened. Therefore, whenever vulnerable groups are mentioned, users are strongly urged to consider all those listed here. Special care must be taken to protect and provide for all affected groups in a non-discriminatory manner and according to their specific needs. However, it should also be remembered that disaster-affected populations possess, and acquire, skills and capacities of their own to cope, and that these should be recognised and supported.

Public Health Impact of Selected Disasters					
Effect	**Complex emergencies**	**Earthquakes**	**High winds (without flooding)**	**Floods**	**Flash floods/ tsunamis**
Deaths	Many	Many	Few	Few	Many
Severe injuries	Varies	Many	Moderate	Few	Few
Increased risk of communicable diseases	High	Small	Small	Varies	Small
Food scarcity	Common	Rare	Rare	Varies	Common
Major population displacements	Common (may occur in heavily damaged urban areas)	Rare	Rare	Common	Varies

Source: adapted from Pan American Health Organization, *Emergency Health Management After Natural Disaster*. Office of Emergency Preparedness and Disaster Relief Coordination: Scientific Publication No. 47. Washington, DC. Pan American Health Organization, 1981.

NB: Even for specific types of disaster, the patterns of morbidity and mortality vary significantly from context to context. For example, the enforcement of building codes can dramatically reduce the number of deaths and serious injuries associated with earthquakes. In some complex emergencies communicable diseases and malnutrition are the major causes of morbidity and mortality, while in others violent trauma is the major cause of mortality and complications of chronic disease a major cause of excess morbidity.

The Minimum Standards

1 Health Systems and Infrastructure

During an emergency response, when mortality rates are frequently elevated or could soon become so, priority humanitarian interventions must focus on urgent survival needs, including basic medical care. Once survival needs have been met, and mortality rates have declined to near-baseline levels, a more comprehensive range of health services should be developed. Throughout all phases of the response, a health systems approach to the design, implementation, monitoring and evaluation of services will contribute to ensuring that the most important needs are met, that coverage is appropriate, that access is optimised, and that quality is promoted.

The standards that follow apply to all disaster settings, but are particularly relevant to resource-poor settings. They are designed primarily to ensure that disaster-affected communities have access to good-quality health services during the disaster response. Promoting the sustainability of health services following disasters is especially important when there has been major disruption of health infrastructure and services. However, ensuring sustainability requires consideration of many different factors, including political, managerial, institutional, financial and technical, and is therefore beyond the scope of this document. Health agencies and staff must bear in mind that frequently decisions made during a disaster response can either help to promote or undermine the longer-term sustainability of services.

Health systems and infrastructure standard 1: prioritising health services

All people have access to health services that are prioritised to address the main causes of excess mortality and morbidity.

Key indicators (to be read in conjunction with the guidance notes)

- The major causes of mortality and morbidity are identified, documented and monitored.
- Priority health services include the most appropriate and effective interventions to reduce excess morbidity and mortality (see guidance note 1).
- All members of the community, including vulnerable groups, have access to priority health interventions (see guidance note 2).
- Local health authorities and community members participate in the design and implementation of priority health interventions.
- There is active collaboration with other sectors in the design and implementation of priority health interventions, including water and sanitation, food security, nutrition, shelter and protection.
- The crude mortality rate (CMR) is maintained at, or reduced to, less than twice the baseline rate documented for the population prior to the disaster (see guidance note 3).
- The under-5 mortality rate (U5MR) is maintained at, or reduced to, less than twice the baseline rate documented for the population prior to the disaster (see guidance note 3).

Guidance notes

1. ***Priority health interventions*** vary according to the context, including the type of disaster and its impact. Basing the design of these interventions on public health principles will ensure that the greatest health benefit is provided to the greatest number of people. Priority public health interventions include adequate supplies of safe water, sanitation,

food and shelter, infectious disease control (e.g. measles vaccination), basic clinical care and disease surveillance. Expanded clinical services, including trauma care, are given higher priority following disasters that are associated with large numbers of injuries, e.g. earthquakes.

2. ***Access to health services:*** access should be based on the principle of equity, ensuring equal access according to need, without any discrimination that could lead to the exclusion of specific groups. In practice, the location and staffing of health services should be organised to ensure optimal access and coverage. The particular needs of vulnerable groups who may not have ready access should be addressed when designing health services. Where user fees are charged, arrangements should be made to ensure that those unable to afford the fees still have access, e.g. fee waivers, vouchers, etc.

3. ***Crude Mortality Rate and Under-5 Mortality Rate:*** the daily crude mortality rate (CMR) is the most specific and useful health indicator to monitor in a disaster situation. A doubling of the baseline CMR indicates a significant public health emergency, requiring immediate response. The average baseline CMR for the least developed countries is approximately 0.38 deaths/10,000 persons/day, with sub-Saharan Africa at 0.44; for industrialised countries the average CMR is approximately 0.25/10,000/day. When the baseline rate is unknown, health agencies should aim to maintain the CMR at below 1.0/10,000/day. The baseline under-5 mortality rate (U5MR) for the least developed countries is approximately 1.03 deaths/10,000 U5s/day, with sub-Saharan Africa at 1.14; for industrialised countries the rate is approximately 0.04/10,000 U5s/day. When the baseline U5MR is unknown, agencies should aim to maintain the rate at below 2.0/10,000 U5s/day (see Appendices 2-3 and the table opposite).

Baseline Reference Mortality Data by Region				
Region	**CMR (deaths/ 10,000/day)**	**CMR emergency threshold**	**U5MR (deaths/ 10,000 U5s/day)**	**U5MR emergency threshold**
Sub-Saharan Africa	0.44	0.9	1.14	2.3
Middle East and North Africa	0.16	0.3	0.36	0.7
South Asia	0.25	0.5	0.59	1.2
East Asia and Pacific	0.19	0.4	0.24	0.5
Latin America and Caribbean	0.16	0.3	0.19	0.4
Central and Eastern European Region/CIS and Baltic States	0.30	0.6	0.20	0.4
Industrialised countries	0.25	0.5	0.04	0.1
Developing countries	0.25	0.5	0.53	1.1
Least developed countries	0.38	0.8	1.03	2.1
World	0.25	0.5	0.48	1.0

Source: UNICEF's *State of the World's Children 2003* (data from 2001).

Health systems and infrastructure standard 2: supporting national and local health systems

Health services are designed to support existing health systems, structures and providers.

Key indicators (to be read in conjunction with the guidance notes)

- Representatives of the Ministry of Health lead the health sector response, whenever possible.
- When the Ministry of Health lacks the necessary capacity, an alternate agency with the requisite capacity is identified to take the lead in the health sector (see guidance notes 1-2).

- Local health facilities are supported and strengthened by responding agencies (see guidance notes 1-2).
- Local health workers are supported and integrated into health services, taking account of gender and ethnic balance (see guidance note 3).
- Health services incorporate or adapt the existing national standards and guidelines of the disaster-affected or host country (see guidance note 4).
- No alternate or parallel health facilities and services are established, including foreign field hospitals, unless local capacities are exceeded or the population does not have ready access to existing services. The lead health authority is consulted on this issue (see guidance note 5).

Guidance notes

1. ***Lead health authority:*** when the Ministry of Health (MOH) lacks capacity to assume the role of lead health authority, a United Nations agency will generally take this responsibility, e.g. WHO, UNHCR, UNICEF. On occasion, when both the MOH and UN agencies lack capacity at regional, district or local level, another participating agency may be required to coordinate activities, at least temporarily. The lead health authority should ensure that responding health agencies support and strengthen the capacities of local health systems. In addition, the lead health authority will be responsible for ensuring that the activities of health agencies are coordinated and complementary.
2. ***Health sector strategy and policy:*** an important responsibility of the lead health authority is to develop an overall strategy and policy for the emergency response within the health sector. Ideally, a policy document should be produced that specifies health sector priorities and objectives and provides a framework for achieving them. This document should be developed after consultation with relevant agencies and community representatives.
3. ***Local health workers:*** health professionals and other health workers from the disaster-affected communities, including skilled/traditional birth attendants, should be integrated into health services where appropriate.

Gender balance, while always preferred, may not be practical in communities where health care providers are predominantly of one sex.

4. ***National standards and guidelines:*** in general, agencies should adhere to the health standards and guidelines of the country where the disaster response is being implemented, including treatment protocols and essential drug lists (see Health systems and infrastructure standard 5). These standards and guidelines should be reviewed in consultation with the MOH or lead health authority early in the disaster response to determine their appropriateness. When they are outdated or do not reflect evidence-based practice, they should be updated.

5. ***Foreign field hospitals:*** occasionally, field hospitals may be the only way to provide health care when existing hospitals are not functioning properly. However, it is usually more effective to provide resources to existing hospitals so that they can start working again or cope with the extra load. It may be appropriate to deploy a field hospital for the immediate care of traumatic injuries (first 48 hours), secondary care of traumatic injuries and routine emergencies (days 3-15), or as a temporary facility to substitute for a damaged local hospital until it is reconstructed (up to several years). In determining whether a field hospital deployment is appropriate, there must be a well-defined need; the field hospital must be able to provide appropriate services; it should not be a drain on local resources; and it must be cost-effective.

Health systems and infrastructure standard 3: coordination

People have access to health services that are coordinated across agencies and sectors to achieve maximum impact.

Key indicators (to be read in conjunction with the guidance notes)

- Coordination mechanisms are established at central level (national or regional) and at field level within the health sector, and between health and other sectors.

- Specific responsibilities of each health agency are clarified and documented in consultation with the lead health authority to ensure optimal coverage of the population and complementarity of services (see guidance note 1).
- Regular health sector coordination meetings are held for local and external partners at both central and field levels (see guidance note 2).

Guidance notes

1. ***Coordination among health agencies:*** regardless of whether the lead health authority is the Ministry of Health or another agency, all organisations in the health sector should coordinate with national and local health services. In refugee settings, agencies should coordinate with the health system of the host country. When several health agencies are operational in the field, coordinated allocation of responsibilities will help to ensure that health sector gaps are met and that duplications are avoided.
2. ***Coordination meetings:*** these should provide a forum in which information is shared, priorities are identified and monitored, common health strategies are developed and adapted, specific tasks are allocated, and standardised protocols and interventions are agreed upon. Meetings should initially be held at least weekly.

Health systems and infrastructure standard 4: primary health care

Health services are based on relevant primary health care principles.

Key indicators (to be read in conjunction with the guidance notes)

- All people have access to health information that allows them to protect and promote their own health and well-being (see guidance note 1).
- Health services are provided at the appropriate level of the health system: household/community, peripheral health facilities, central health facilities, referral hospital (see guidance note 2).

- A standardised referral system is established by the lead health authority and utilised by health agencies. Suitable transportation is organised for patients to reach the referral facility.
- Health services and interventions are based on scientifically sound methods and are evidence-based, whenever possible.
- Health services and interventions utilise appropriate technology, and are socially and culturally acceptable.

Guidance notes

1. ***Health information and education:*** an active programme of community health education and promotion should be initiated in consultation with local health authorities and community representatives. It should take into account health-seeking behaviour and health beliefs of the population. It should provide information on the major endemic health problems, major health risks, the availability and location of health services, and behaviours that protect and promote good health. Public health messages and materials should utilise appropriate language and media, and be culturally sensitive. As far as possible, the content of priority health messages should be consistent among implementing health agencies.
2. ***Mobile clinics:*** during some disasters, it may be necessary to operate mobile clinics in order to meet the needs of isolated or mobile communities that have limited access to care. Experience has demonstrated that when operated appropriately, such clinics can fill a vital need. When operated inappropriately, mobile clinics may be under-utilised, may displace existing health services and represent an inefficient use of limited resources. They should be introduced only following consultation with the lead health authority and with local health representatives.

Health systems and infrastructure standard 5: clinical services

People have access to clinical services that are standardised and follow accepted protocols and guidelines.

Key indicators (to be read in conjunction with the guidance notes)

- The number, level and location of health facilities are appropriate to meet the needs of the population (see guidance notes 1-2).
- The number, skills and gender/ethnic balance of staff at each health facility are appropriate to meet the needs of the population (see guidance notes 1-2).
- Adequate staffing levels are achieved so that clinicians are not required to consistently consult on more than 50 patients per day. If this threshold is regularly exceeded, additional clinical staff are recruited (see Appendix 3).
- Utilisation rates at health facilities are monitored and corrective measures taken if there is over- or under-utilisation (see guidance note 3).
- Standardised case management protocols are established by the lead health authority, and adhered to by health agencies (see guidance note 4).
- A standardised essential drug list is established by the lead health authority, and adhered to by health agencies (see guidance note 4).
- Clinical staff are trained and supervised in the use of the protocols and the essential drug list (see guidance notes 5-6).
- People have access to a consistent supply of essential drugs through a standardised drug management system that follows accepted guidelines (see guidance note 7).
- Drug donations are accepted only if they follow internationally recognised guidelines. Donations that do not follow these guidelines are not used and are disposed of safely.

- Bodies of the deceased are disposed of in a manner that is dignified, culturally appropriate and is based on good public health practice (see guidance note 8).

Guidance notes

1. ***Health facilities and staffing:*** the number and location of health facilities required and the number and skills of staff at each level can vary from context to context. Ensuring the presence of even one female health worker or one representative of a minority ethnic group on a staff may significantly increase the access of women or people from minority groups to health services. The carrying out of acts or activities that jeopardise the neutrality of health facilities, such as carrying arms, is prohibited.

2. ***Staffing levels:*** the following guidelines provide a useful reference, but may need to be adapted according to the context. The term 'qualified health worker' refers to a formally trained clinical provider, such as a physician, nurse, clinical officer or medical assistant.

   a. Community level: one community health worker per 500-1,000 population; one skilled/traditional birth attendant per 2,000 population; one supervisor per 10 home visitors; one senior supervisor.

   b. Peripheral health facility (for approximately 10,000 population): total of two to five staff; minimum of one qualified health worker, based on one clinician per 50 consultations per day; non-qualified staff for administering oral rehydration therapy (ORT), dressings, etc. and for registration, administration, etc.

   c. Central health facility (for approximately 50,000 population): minimum of five qualified health workers, minimum of one doctor; one qualified health worker per 50 consultations per day (out-patient care); one qualified health worker per 20-30 beds, 24-hour services (in-patient care). One non-qualified health worker for administering ORT; one/two for pharmacy; one/two for dressings, injections, sterilisation. One lab technician. Non-qualified staff for registration, security, etc.

   d. Referral hospital: variable. At least one doctor with surgical skills; one nurse for 20-30 beds per shift.

3. ***Utilisation rate of health services:*** attendance at health facilities will help to determine the utilisation rate. There is no definitive threshold for utilisation, as this will vary from context to context, and often from season to season. However, it usually increases significantly among disaster-affected populations. Among stable populations, utilisation rates are approximately 0.5-1.0 new consultations/person/year. Among displaced populations, an average of 4.0 new consultations/person/year may be expected. If the rate is lower than expected, it may indicate inadequate access to health facilities, e.g. due to insecurity or poor capacity of health services. If the rate is higher, it may suggest over-utilisation due to a specific public health problem (e.g. infectious disease outbreak), or under-estimation of the target population. In analysing utilisation rates, consideration should also be given to gender, age, ethnic origin and disability, to ensure that vulnerable groups are not under-represented (see Appendix 3).

4. ***Standardised treatment protocols and essential drug lists:*** most countries have established essential drug lists or national formularies, and many have treatment protocols for the management of common diseases and injuries. These protocols and drug lists should be reviewed in consultation with the Ministry of Health or lead health authority early in the disaster response to determine their appropriateness. Occasionally, alterations to established national protocols and drug lists may be necessary, e.g. if there is evidence of resistance to recommended antibiotics or anti-malarial agents. If protocols and/or essential drug lists do not exist, guidelines established by WHO or UNHCR should be followed, e.g. New Emergency Health Kit.

5. ***Training and supervision of staff:*** health workers should have the proper training and skills for their level of responsibility. Health agencies have an obligation to train staff to ensure that their knowledge is up-to-date. Training and supervision will be high priorities especially where staff have not received continuing education, or new health systems and protocols are introduced. As far as possible, training programmes should be standardised and linked to national programmes.

6. ***Patients' rights:*** many factors associated with disasters may make it difficult to consistently enforce a patient's rights to privacy, confidentiality and informed consent. However, as far as possible, health personnel

should attempt to safeguard and promote these rights. Health facilities and services should be designed in a manner that ensures privacy and confidentiality (see Health systems and infrastructure standard 6, guidance note 3). Informed consent should be sought from patients prior to medical or surgical procedures. Patients have a right to know what each procedure involves, as well as its expected benefits, potential risks, costs and duration.

7. ***Drug management:*** in addition to utilising the essential drug list, health agencies need to establish an effective system of drug management. The goal of such a system is to ensure the efficient, cost-effective and rational use of drugs. This system should be based on the four key elements of the drug management cycle: selection, procurement, distribution and use (see Management Sciences for Health (1997), *Managing Drug Supply. Second Edition).*

8. ***Handling the remains of the dead:*** when disasters result in high mortality, the management of a large number of dead bodies will be required. Bodies should not be disposed of unceremoniously in mass graves, as this cannot be justified as a public health measure, violates important social norms and may waste scarce resources. The mass management of human remains is often based on the false belief that they represent an epidemic hazard if not buried or burned immediately. In fact, the health hazard presented by dead bodies is usually negligible. In only a few special cases do human remains pose health risks and require specific precautions, e.g. deaths resulting from cholera or haemorrhagic fevers. Families should have the opportunity to conduct culturally appropriate funerals and burials. When those being buried are victims of violence, forensic issues should be considered (see also Shelter and settlement standard 2, guidance note 3 on page 217).

Health systems and infrastructure standard 6: health information systems

The design and development of health services are guided by the ongoing, coordinated collection, analysis and utilisation of relevant public health data.

Key indicators (to be read in conjunction with the guidance notes)

- A standardised health information system (HIS) is implemented by all health agencies to routinely collect relevant data on demographics, mortality, morbidity and health services (see guidance notes 1-2 and Appendices 2-3).
- A designated HIS coordinating agency (or agencies) is identified to organise and supervise the system.
- Health facilities and agencies submit surveillance data to the designated HIS coordinating agency on a regular basis. The frequency of these reports will vary according to the context, e.g. daily, weekly, monthly.
- A regular epidemiological report, including analysis and interpretation of the data, is produced by the HIS coordinating agency and shared with all relevant agencies, decision-makers and the community. The frequency of the report will vary according to the context, e.g. daily, weekly, monthly.
- Agencies take adequate precautions for the protection of data to guarantee the rights and safety of individuals and/or populations (see guidance note 3).
- The HIS includes an early warning component to ensure timely detection of and response to infectious disease outbreaks (see Control of communicable diseases standard 5 on page 281).
- Supplementary data from other relevant sources are consistently used to interpret surveillance data and to guide decision-making (see guidance note 4).

Guidance notes

1. ***Health information system (HIS):*** the HIS builds upon the pre-existing surveillance system whenever possible. In some emergencies, a new or parallel system may be required and this is determined in consultation with the lead health authority. The HIS should be designed to be flexible and should evolve over time. During the disaster response health data should include, but not be limited to, the following:

    a. crude mortality rate

    b. under-5 mortality rate

    c. proportional mortality

    d. cause-specific mortality rate

    e. incidence rates for most common diseases

    f. health facility utilisation rate

    g. number of consultations per clinician per day.

2. ***Disaggregation of data:*** data should be disaggregated by age and sex as far as is practical in order to guide decision-making. Detailed disaggregation may be difficult during the early stages of a disaster. However, mortality and morbidity data for children under five years old should be documented from the outset, as this group is usually at special risk. In addition, gender breakdown for mortality and morbidity is useful for detecting gender-specific differences. As time and conditions allow, more detailed disaggregation should be sought, to detect further differences according to age (e.g. 0-11 months, 1-4 years, 5-14 years, 15-49 years, 50-59 years, 60+ years) and sex.

3. ***Confidentiality:*** confidentiality of medical records and data should be ensured. Adequate precautions should be taken to protect the safety of the individual, as well as the data itself. Staff members should never share patient information with anyone not directly involved in the patient's care without the patient's permission. Data that relates to trauma caused by torture or other human rights violations must be treated with the utmost care. Consideration may be given to passing on this information to appropriate actors or institutions, if the individual gives their consent.

4. ***Sources of other data:*** sources of relevant health data include laboratory reports, surveys, case reports, quality of service measurements and other programmatic sectors.

See Appendix 2 for sample weekly mortality and morbidity forms and Appendix 3 for formulas for calculating rates of mortality and morbidity.

2 Control of Communicable Diseases

Increased rates of morbidity and mortality due to communicable diseases occur more frequently in association with complex emergencies than other disasters. In many of these settings, especially those occurring in developing countries, between 60% and 90% of deaths have been attributed to one of four major infectious causes: measles, diarrhoea, acute respiratory infections and malaria. Acute malnutrition is often associated with increased case fatality rates of these diseases, especially among young children. There have also been outbreaks of other communicable diseases, such as meningococcal meningitis, yellow fever, viral hepatitis and typhoid, in certain settings.

Outbreaks of communicable diseases are far less commonly associated with acute onset natural disasters. When they do occur, they are generally associated with disruptions of sanitation and poor water quality. The potential use of biological agents as weapons by terrorists and military forces raises new concerns for disaster response agencies and those involved in humanitarian assistance. The response to incidents involving biological weapons is not specifically addressed in the following standards, although several of the standards and indicators are applicable to such incidents.

Control of communicable diseases standard 1: prevention

People have access to information and services that are designed to prevent the communicable diseases that contribute most significantly to excess morbidity and mortality.

Key indicators (to be read in conjunction with the guidance notes)

- General prevention measures are developed and implemented in coordination with other relevant sectors (see guidance note 1).
- Community health education messages provide individuals with information on how to prevent common communicable diseases and how to access relevant services (see Health systems and infrastructure standard 4 on page 264).
- Specific prevention measures, such as a mass measles vaccination campaign and Expanded Programme on Immunisation (EPI), are implemented as indicated (see guidance note 2 and Control of communicable diseases standard 2).

Guidance notes

1. ***General prevention measures:*** most of these interventions are developed in coordination with other sectors, including:
   - water and sanitation: sufficient water quantity and quality; sufficient sanitation; hygiene promotion; vector control, etc. (see Water, Sanitation and Hygiene Promotion, page 51).
   - food security, nutrition and food aid: access to adequate food and management of malnutrition (see Food Security, Nutrition and Food Aid, page 103).
   - shelter: sufficient and adequate shelter (see Shelter, Settlement and Non-Food Items, page 203).

2. ***Prevention of measles and Expanded Programme on Immunisation (EPI):*** because measles has high potential for outbreaks and mortality, mass vaccination of children against the disease is often a high priority among disaster-affected populations, especially those who are displaced and/or affected by conflict. Vaccination against other childhood diseases through EPI is generally a lesser priority, as outbreaks of these diseases are less frequent and the health risks associated with them are lower. Therefore, other EPI vaccines are generally introduced only when the immediate needs of the population have been met. The exceptions to this guideline include ongoing outbreaks of diseases such as pertussis or diphtheria, when vaccination against these diseases also becomes a priority.

Control of communicable diseases standard 2: measles prevention

All children aged 6 months to 15 years have immunity against measles.

Key indicators (to be read in conjunction with the guidance notes)

- An estimation of measles vaccination coverage of children aged 9 months to 15 years is made at the outset of the emergency response, to determine the prevalence of susceptibility to measles (see guidance note 1).
- If vaccination coverage is estimated to be less than 90%, a mass measles vaccination campaign for children aged 6 months to 15 years (including administration of vitamin A to children aged 6-59 months) is initiated. The vaccination campaign is coordinated with national and local health authorities, including the Expanded Programme on Immunisation (see guidance note 2).
- Upon completion of the campaign:
  - at least 95% of children aged 6 months to 15 years have received measles vaccination;
  - at least 95% of children aged 6-59 months have received an appropriate dose of vitamin A.

- All infants vaccinated between 6-9 months of age receive another dose of measles vaccine upon reaching 9 months (see guidance note 3).
- Routine ongoing vaccination of 9-month-old children is established to ensure the maintenance of the minimum 95% coverage. This system is linked to the Expanded Programme on Immunisation.
- For mobile or displaced populations, an ongoing system is established to ensure that at least 95% of newcomers aged between 6 months and 15 years receive vaccination against measles.

Guidance notes

1. ***Measles prevention:*** measles is one of the most contagious viruses known and can be associated with high mortality rates. Whenever there are crowded emergency settings, large population displacements and high levels of malnutrition, there is a high risk of a measles outbreak. Mass measles vaccination campaigns should therefore be given the highest priority at the earliest possible time in these settings. The necessary personnel, vaccine, cold chain equipment and other supplies to conduct a mass campaign should be assembled as soon as possible. If the vaccination coverage for the population is unknown, the campaign should be carried out on the assumption that the coverage is inadequate.
2. ***Age ranges for measles vaccination:*** some older children may have escaped both previous measles vaccination campaigns and measles disease. These children remain at risk of measles and can serve as a source of infection for infants and young children who are at higher risk of dying from the disease. This is the reason for the recommendation to vaccinate up to the age of 15 years. In resource-poor settings, however, it may not be possible to vaccinate all children aged 6 months to 15 years. In these settings, priority should be given to children aged 6-59 months.
3. ***Repeat measles vaccination for children aged 6-9 months:*** the repeat measles vaccination should be administered as soon as the child reaches 9 months of age, except for children who received their first dose after 8 months of age. These children should receive the repeat dose after a minimum interval of 30 days.

Control of communicable diseases standard 3: diagnosis and case management

People have access to effective diagnosis and treatment for those infectious diseases that contribute most significantly to preventable excess morbidity and mortality.

Key indicators (to be read in conjunction with the guidance notes)

- Standardised case management protocols for diagnosis and treatment of the most common infectious diseases are consistently used (see guidance note 1; see also Health systems and infrastructure standard 5).
- Public health education messages encourage people to seek early care for fever, cough, diarrhoea, etc., especially children, pregnant women and older people.
- In malaria-endemic regions, a protocol is established to ensure early (<24 hours) diagnosis of fever cases and treatment with highly effective first-line drugs (see guidance note 2).
- Laboratory services are available and utilised when indicated (see guidance note 3).
- A tuberculosis control programme is introduced only after consideration of recognised criteria (see guidance note 4).

Guidance notes

1. ***Integrated management of childhood illness:*** where the integrated management of childhood illness (IMCI) has been developed in a country, and clinical guidelines adapted, these guidelines should preferably be incorporated into the standardised protocols. IMCI has been demonstrated to improve the quality of care provided to children under the age of five years.
2. ***Malaria:*** malaria incidence is likely to rise within a few days/weeks of mass population movements in endemic areas. Because of widespread and increasing resistance to chloroquine and sulphadoxine-pyrimethamine

(Fansidar), more efficacious anti-malarial drugs may be required. This will be especially important for non-immune and vulnerable populations exposed to falciparum malaria. Combination therapies utilising artemisinin derivatives are preferable. Drug choice should be determined in consultation with the lead health authority, following a consideration of drug efficacy data. Standardised WHO protocols should be used to evaluate drug efficacy.

3. ***Laboratory services:*** establishing a clinical laboratory is not a priority during the initial phase of most disasters. The most common communicable diseases can usually be diagnosed clinically and treatment will generally be presumptive. Laboratory testing is most useful for confirming the diagnosis during a suspected outbreak for which mass immunisation may be indicated (e.g. meningococcal meningitis) or where culture and antibiotic sensitivity testing may influence case management decisions (e.g. dysentery). Therefore, it will be important to identify an established laboratory either nationally or in another country that can conduct the appropriate microbiological investigations. Guidelines on correct specimen collection and transportation will be required.

4. ***Tuberculosis control:*** a high prevalence of TB has frequently been documented among refugees and other war-affected populations. However, poorly implemented TB control programmes can potentially do more harm than good, by prolonging infectivity and by contributing to the spread of multi-drug-resistant bacilli. While the management of individual patients with TB may be possible during emergencies, a comprehensive programme of TB control should only be implemented following a consideration of recognised criteria (see WHO, *Tuberculosis Control in Refugee Situations: An Interagency Field Manual*). When implemented, TB control programmes in these settings should be integrated with the national/host country programme and follow the well-established DOTS strategy (Directly-Observed Therapy, Short-course).

Control of communicable diseases standard 4: outbreak preparedness

Measures are taken to prepare for and respond to outbreaks of infectious diseases.

Key indicators (to be read in conjunction with the guidance notes)

- An outbreak investigation and control plan is prepared (see guidance note 1).
- Protocols for the investigation and control of common outbreaks are available and distributed to relevant staff.
- Staff receive training in the principles of outbreak investigation and control, including relevant treatment protocols.
- Reserve stocks of essential drugs, medical supplies, vaccines and basic protection material are available and can be procured rapidly (see guidance note 2).
- Sources of vaccines for relevant outbreaks (e.g. measles, meningococcal meningitis, yellow fever) are identified for rapid procurement and use. Mechanisms for rapid procurement are established (see guidance note 2).
- Sites for the isolation and treatment of infectious patients are identified in advance, e.g. cholera treatment centres.
- A laboratory is identified, whether locally, regionally, nationally or in another country, that can provide confirmation of diagnoses (see guidance note 3).
- Sampling materials and transport media for the infectious agents most likely to cause a sudden outbreak are available on-site, to permit transfer of specimens to an appropriate laboratory. In addition, several rapid tests may be stored on-site (see guidance note 4).

Guidance notes

1. ***Outbreak investigation and control plan:*** the following issues should be addressed in the plan:
   a. the circumstances under which an outbreak control team is to be convened;
   b. composition of the outbreak control team, including representatives from appropriate sectors, e.g. health, water and sanitation;
   c. specific roles and responsibilities of organisations and positions on the team;
   d. arrangements for consulting and informing authorities at local and national level;
   e. the resources/facilities available to investigate and respond to outbreaks.
2. ***Reserve stocks:*** on-site reserves should include material to use in response to likely outbreaks. Such stocks might include oral rehydration salts, intravenous fluids, antibiotics, vaccines and consumable medical supplies. Single use/auto-destruct syringes and safe needle containers should be available, to prevent the spread of viral hepatitis and HIV. A pre-packaged cholera kit may be indicated in some circumstances. It may not be practical to keep some stocks on-site, such as meningococcal vaccine. For these items, the mechanisms for rapid procurement, shipment and storage should be determined in advance so that they can be rapidly available.
3. ***Reference laboratories:*** a reference laboratory should also be identified either regionally or internationally that can assist with more sophisticated testing, e.g. antibiotic sensitivity for *Shigella*, serological diagnosis of viral haemorrhagic fevers.
4. ***Transport media and rapid tests:*** sampling materials (e.g. rectal swabs) and transport media (e.g. Cary-Blair, Amies' or Stuarts' media for cholera, *Shigella, E. Coli* and *Salmonella*; Translocate for meningitis) should be available on-site, or readily accessible. In addition, several new rapid tests are available that can be useful in confirming diagnoses of communicable diseases in the field, including malaria and meningitis.

Control of communicable diseases standard 5: outbreak detection, investigation and response

Outbreaks of communicable diseases are detected, investigated and controlled in a timely and effective manner.

Key indicators (to be read in conjunction with the guidance notes)

- The health information system (HIS) includes an early warning component (see guidance notes 1-2).
- Initiation of outbreak investigation occurs within 24 hours of notification.
- The outbreak is described according to time, place and person, leading to the identification of high-risk groups. Adequate precautions are taken to protect the safety of both individuals and data.
- Appropriate control measures that are specific to the disease and context are implemented as soon as possible (see guidance notes 3-4).
- Case fatality rates are maintained at acceptable levels (see guidance note 5):
  - cholera: 1% or lower
  - *Shigella* dysentery: 1% or lower
  - typhoid: 1% or lower
  - meningococcal meningitis: varies (see guidance note 6).

Guidance notes

1. ***Early warning system for infectious disease outbreaks:*** the key elements of such a system will include:
   - case definitions and thresholds defined and distributed to all reporting health facilities;
   - community health workers (CHWs) trained to detect and report potential outbreaks from within the community;

– reporting of suspected outbreaks to the next appropriate level of the health system within 24 hours of detection;

– communications systems established to ensure rapid notification of relevant health authorities, e.g. radio, telephone.

2. ***Confirmation of the existence of an outbreak:*** it is not always straightforward to determine whether an outbreak is present and clear definitions of outbreak thresholds do not exist for all diseases.

   a. Diseases for which a single case may indicate an outbreak: cholera, measles, yellow fever, *Shigella,* viral haemorrhagic fevers.

   b. Meningococcal meningitis: for populations above 30,000, 15 cases/100,000 persons/week in one week indicates an outbreak; however, with high outbreak risk (i.e. no outbreak for 3+ years and vaccination coverage <80%), this threshold is reduced to 10 cases/100,000/week. In populations of less than 30,000, an incidence of five cases in one week or a doubling of cases over a three-week period confirms an outbreak.

   c. Malaria: less specific definitions exist. However, an increase in the number of cases above what is expected for the time of year among a defined population in a defined area may indicate an outbreak.

3. ***Outbreak control:*** control measures must be specifically developed to halt transmission of the agent causing the outbreak. Often, pre-existing knowledge about the agent can guide the design of appropriate control measures in specific situations. In general, response activities include:

   – controlling the source. Interventions may include improving water quality and quantity (e.g. cholera), prompt diagnosis and treatment (e.g. malaria), isolation (e.g. dysentery), controlling animal reservoirs (e.g. plague, Lassa fever).

   – protecting susceptible groups. Interventions may include immunisation (e.g. measles, meningitis, yellow fever), chemoprophylaxis (e.g. malaria prevention for pregnant women), improved nutrition (e.g. acute respiratory infections).

   – interrupting transmission. Interventions may include hygiene promotion (e.g. for all diseases spread by the faeco-oral route), vector control (e.g. malaria, dengue).

(See also chapter 2: Water, Sanitation and Hygiene Promotion on page 51).

4. ***Vector control and malaria:*** during a malaria outbreak, vector control measures such as indoor residual spraying and the distribution of insecticide-treated bed net (ITN) programmes should be guided by entomological assessments and expertise. These interventions require substantial logistical support and follow-up that may not be available in the initial phase of the disaster. For populations that already have a high level of ITN usage (>80%), rapid re-impregnation of nets with pyrethroids may help to stem transmission (see Vector control standards 1-2 on pages 77-81).
5. ***Case fatality rates (CFRs):*** if CFRs exceed these specified levels, an immediate evaluation of control measures should be undertaken, and corrective steps taken to ensure CFRs are maintained at acceptable levels.
6. ***CFRs for meningococcal meningitis:*** the acceptable CFR for meningococcal meningitis varies according to the general context and accessibility to health services. In general, health agencies should aim for a CFR that is as low as possible, though during outbreaks it may be as high as 20%.

Control of communicable diseases standard 6: HIV/AIDS

People have access to the minimum package of services to prevent transmission of HIV/AIDS.

Key indicators (to be read in conjunction with the guidance notes)

- People have access to the following essential package of services during the disaster phase:
  - free male condoms and promotion of proper condom use;
  - universal precautions to prevent iatrogenic/nosocomial transmission in emergency and health-care settings;
  - safe blood supply;

- relevant information and education so that individuals can take steps to protect themselves against HIV transmission;
- syndromic case management of sexually transmitted infections (STIs);
- prevention and management of the consequences of sexual violence;
- basic health care for people living with HIV/AIDS (PLWH/A).

- Plans are initiated to broaden the range of HIV control services in the post-disaster phase (see guidance note 1).

Guidance note

1. ***HIV control:*** during the post-emergency and rehabilitation phase of disasters, the expansion of HIV control activities will be based on an assessment of local needs and circumstances. Involvement of the community, especially people living with HIV/AIDS (PLWH/A) and their carers, in the design, implementation, monitoring and evaluation of the programme will be crucial to its success. In addition to services already implemented during the initial phase, more comprehensive surveillance, prevention, treatment, care and support services should be introduced. The provision of antiretroviral medications to treat PLWH/A is not currently feasible in most post-disaster humanitarian settings, although this may change in the future as financial and other barriers to their use fall. Protection and education programmes to reduce stigma and to protect people against discrimination should be implemented as soon as is feasible.

Note

Caritas Internationalis members cannot endorse standard 6 in the Control of Communicable Diseases section as it relates to the promotion of condom use, or standard 2 in the Control of Non-Communicable Diseases section concerning the Minimum Initial Service Package (MISP). By the same token, Caritas Internationalis members cannot endorse standards related to the use of condoms or the MISP which might appear in other parts of this handbook.

3 Control of Non-Communicable Diseases

Increases in morbidity and mortality due to non-communicable diseases are a common feature of many disasters. Injury is usually the major cause following acute onset natural disasters, such as earthquakes and hurricanes. Injury due to physical violence is also associated with all complex emergencies, and can be a major cause of excess mortality during such crises. The reproductive health (RH) needs of disaster-affected populations have received increased attention in recent years, especially in light of the greater awareness of problems such as HIV/AIDS, gender-based violence, emergency obstetric care needs and the poor availability of even basic RH services in many communities. The need for improved RH programmes has been especially recognised in association with complex emergencies, but it is also relevant to many other types of disaster.

Although difficult to quantify, mental health and psychosocial problems can be associated with any type of disaster and post-disaster setting. The horrors, losses, uncertainties and other stressors associated with disasters can place people at increased risk of various psychiatric, psychological and social problems. Finally, there is evidence to suggest that there is an increased incidence of acute complications from chronic diseases associated with disasters. These complications are generally due to disruptions of ongoing treatment regimens. However, a variety of other stressors may also precipitate an acute deterioration of a chronic medical condition.

Control of non-communicable diseases standard 1: injury

People have access to appropriate services for the management of injuries.

Key indicators (to be read in conjunction with the guidance notes)

- In situations with a large number of injured patients, a standardised system of triage is established to guide health care providers on assessment, prioritisation, basic resuscitation and referral (see guidance notes 1-2).
- Standardised guidelines for the provision of first aid and basic resuscitation are established (see guidance note 3).
- Standardised protocols for the referral of injured patients for advanced care, including surgery, are established. Suitable transportation is organised for patients to reach the referral facility.
- Definitive trauma and surgical services are established only by agencies with appropriate expertise and resources (see guidance note 4).
- In situations with a potentially large number of injured patients, contingency plans for the management of multiple casualties are developed for relevant health care facilities. These plans are related to district and regional plans.

Guidance notes

1. ***Prioritising trauma services:*** in most disasters, it is not possible to determine the number of injured persons who will require clinical care. Following acute onset disasters such as earthquakes, 85-90% of those rescued alive are generally extracted by local emergency personnel or by their neighbours and families within 72 hours. Therefore, in planning relief operations in disaster-prone regions the major emphasis should be on preparing local populations to provide the initial care. It is important to note

that priority health interventions are designed to reduce preventable excess mortality. During armed conflict, most violent trauma deaths occur in insecure regions away from health facilities and therefore cannot usually be prevented by medical care. Interventions that aim to protect the civilian population are required to prevent these deaths. Health interventions implemented during conflict should emphasise community-based public health and primary care, even in situations where there is a high incidence of violent injury.

2. ***Triage:*** triage is the process of categorising patients according to the severity of their injuries or illness, and prioritising treatment according to the availability of resources and the patients' chances of survival. The underlying principle of triage is allocating limited resources in a manner that provides the greatest health benefit to the greatest number. Triage does not necessarily mean that individuals with the most serious injuries receive priority. In the setting of multiple casualties with limited resources, those with severe, life-threatening injuries may, in fact, receive lower priority than those with more survivable injuries. There is no standardised system of triage, and internationally several are in use. Most systems specify between two and five categories of injury, with four being the most common.

3. ***First aid and basic medical care:*** definitive trauma and surgical care may not be readily available, especially in resource-poor settings. But it is important to note that first aid, basic resuscitation and non-operative procedures can be life-saving for even severe injuries. Simple procedures such as clearing the airway, controlling haemorrhage and administering intravenous fluids may help to stabilise individuals with life-threatening injuries before transfer to a referral centre. The quality of the initial medical management provided can therefore significantly affect a patient's chances of survival. Other non-operative procedures, such as cleaning and dressing wounds, and administering antibiotics and tetanus prophylaxis, are also important. Many severely injured patients can survive for days or even weeks without surgery, provided that appropriate first aid, medical and nursing care are provided.

4. ***Trauma and surgical care:*** all health-care providers should be able to provide first aid and basic resuscitation to injured patients. In addition, life-saving triage capacity at strategic points, with a linkage to a referral system, is important. However, definitive trauma care and war surgery are

specialised fields that require specific training and resources that few agencies possess. Inappropriate or inadequate surgery may do more harm than doing nothing. Only organisations and professionals with the relevant expertise should therefore establish these sophisticated services.

Control of non-communicable diseases standard 2: reproductive health

People have access to the Minimum Initial Service Package (MISP) to respond to their reproductive health needs.

Key indicators (to be read in conjunction with the guidance notes)

- An organisation(s) and individual(s) are identified to facilitate the coordination and implementation of the MISP in consultation with the lead health authority (see guidance note 1).
- Steps are taken by health agencies to prevent and manage the consequences of gender-based violence (GBV), in coordination with other relevant sectors, especially protection and community services (see guidance note 2).
- The number of cases of sexual and other forms of GBV reported to health services, protection and security officers is monitored and reported to a designated lead GBV agency (or agencies). Rules of confidentiality are applied to data collection and review.
- The minimum package of services to prevent the transmission of HIV/AIDS is implemented (see Control of communicable diseases standard 6).
- Adequate numbers of clean delivery kits, based on the estimated number of births in a given time period, are available and distributed to visibly pregnant women and skilled/traditional birth attendants to promote clean home deliveries.
- Adequate numbers of midwife delivery kits (UNICEF or equivalent) are distributed to health facilities to ensure clean and safe deliveries.

- A standardised referral system is established and promoted within the community, incorporating midwives and skilled/traditional birth attendants, to manage obstetric emergencies. Suitable transportation is organised for patients to reach the referral facility (see guidance note 3).
- Plans are initiated to implement a comprehensive range of reproductive health services integrated into primary health care as soon as possible (see guidance note 4).

Guidance notes

1. ***Minimum Initial Service Package:*** the MISP is designed to respond to the reproductive health (RH) needs of the affected population in the early phase of a disaster. The MISP is not only a set of equipment and supplies, but also a series of specific health activities. Its objectives are to identify an organisation(s) or individual(s) to facilitate its coordination and implementation; prevent and manage the consequences of gender-based violence; reduce HIV transmission; prevent excess neonatal and maternal mortality and morbidity; and plan for the provision of comprehensive RH services. The UNFPA RH Kit has been designed specifically to facilitate the implementation of the MISP. It consists of a series of 12 sub-kits that can be used at each sequential level of care: community/health post, health centre and referral centre.
2. ***Gender-based violence (GBV)*** is a common feature of many complex emergencies and even many natural disasters. It includes abuses such as rape, domestic violence, sexual exploitation, forced marriage, forced prostitution, trafficking and abduction. The prevention and management of GBV requires collaboration and coordination among members of the community and between agencies. Health services should include medical management for sexual assault survivors, confidential counselling and referral for other appropriate care. The layout of settlements, distribution of essential items, and access to health services and other programmes should be designed to reduce the potential for GBV. Sexual exploitation of disaster-affected populations, especially children and youth by relief agency staff, military personnel and others in positions of influence must be actively prevented and managed. Codes of conduct should be

developed and disciplinary measures established for any violations (see Aid worker competencies and responsibilities standard on page 40).

3. ***Emergency obstetric care:*** approximately 15% of pregnant women will develop complications that require essential obstetric care and up to 5% of pregnant women will require some type of surgery, including Caesarean section. Basic essential obstetric care services should be established at the health centre level as soon as possible and should include initial assessment; assessment of foetal well-being; episiotomy; management of haemorrhage; management of infection; management of eclampsia; multiple birth; breech delivery; use of vacuum extractor; and special care for women who have undergone genital mutilation. Comprehensive essential obstetric care should be available at the referral hospital as soon as possible and should include Caesarean section; laparotomy; repair of cervical and third-degree vaginal tears; care for the complications of unsafe abortion; and safe blood transfusion.

4. ***Comprehensive reproductive health services:*** health agencies should plan for the subsequent integration of comprehensive RH services into primary health care. RH services should not be established as separate, vertical programmes. In addition to interventions addressed in the MISP, other important elements of comprehensive, integrated RH services include safe motherhood; family planning and counselling; comprehensive GBV services; comprehensive management of STIs and HIV/AIDS; the specific RH needs of youth; and monitoring and surveillance.

Control of non-communicable diseases standard 3: mental and social aspects of health

People have access to social and mental health services to reduce mental health morbidity, disability and social problems.

Key social intervention indicators[1] (to be read in conjunction with the guidance notes)

During the acute disaster phase, the emphasis should be on social interventions.

- People have access to an ongoing, reliable flow of credible information on the disaster and associated relief efforts (see guidance note 1).
- Normal cultural and religious events are maintained or re-established (including grieving rituals conducted by relevant spiritual and religious practitioners). People are able to conduct funeral ceremonies (see guidance note 2).
- As soon as resources permit, children and adolescents have access to formal or informal schooling and to normal recreational activities.
- Adults and adolescents are able to participate in concrete, purposeful, common interest activities, such as emergency relief activities.
- Isolated persons, such as separated or orphaned children, child combatants, widows and widowers, older people or others without their families, have access to activities that facilitate their inclusion in social networks.

[1] Social and psychological indicators are discussed separately. The term 'social intervention' is used for those activities that primarily aim to have social effects. The term 'psychological intervention' is used for interventions that primarily aim to have a psychological (or psychiatric) effect. It is acknowledged that social interventions have secondary psychological effects and that psychological interventions have secondary social effects, as the term 'psychosocial' suggests.

- When necessary, a tracing service is established to reunite people and families.
- Where people are displaced, shelter is organised with the aim of keeping family members and communities together.
- The community is consulted regarding decisions on where to locate religious places, schools, water points and sanitation facilities. The design of settlements for displaced people includes recreational and cultural space (see Shelter and settlement standards 1-2, pages 211-218).

Key psychological and psychiatric intervention indicators

(to be read in conjunction with the guidance notes)

- Individuals experiencing acute mental distress after exposure to traumatic stressors have access to psychological first aid at health service facilities and in the community (see guidance note 3).
- Care for urgent psychiatric complaints is available through the primary health care system. Essential psychiatric medications, consistent with the essential drug list, are available at primary care facilities (see guidance note 4).
- Individuals with pre-existing psychiatric disorders continue to receive relevant treatment, and harmful, sudden discontinuation of medications is avoided. Basic needs of patients in custodial psychiatric hospitals are addressed.
- If the disaster becomes protracted, plans are initiated to provide a more comprehensive range of community-based psychological interventions for the post-disaster phase (see guidance note 5).

Guidance notes

1. ***Information:*** access to information is not only a human right but it also reduces unnecessary public anxiety and distress. Information should be provided on the nature and scale of the disaster and on efforts to establish physical safety for the population. Moreover, the population should be informed on the specific types of relief activities being undertaken by the government, local authorities and aid organisations, and their location.

Information should be disseminated according to principles of risk communication i.e. it should be uncomplicated (understandable to local 12-year-olds) and empathic (showing understanding of the situation of the disaster survivor).

2. ***Burials:*** families should have the option to see the body of a loved one to say goodbye, when culturally appropriate. Unceremonious disposal of bodies of the deceased should be avoided (see Health systems and infrastructure standard 5, guidance note 8 on page 269).
3. ***Psychological first aid:*** whether among the general population or among aid workers, acute distress following exposure to traumatic stressors is best managed following the principles of psychological first aid. This entails basic, non-intrusive pragmatic care with a focus on listening but not forcing talk; assessing needs and ensuring that basic needs are met; encouraging but not forcing company from significant others; and protecting from further harm. This type of first aid can be taught quickly to both volunteers and professionals. Health workers are cautioned to avoid widespread prescription of benzodiazepines because of the risk of dependence.
4. ***Care for urgent psychiatric complaints:*** psychiatric conditions requiring urgent care include dangerousness to self or others, psychoses, severe depression and mania.
5. ***Community-based psychological interventions:*** interventions should be based on an assessment of existing services and an understanding of the socio-cultural context. They should include use of functional, cultural coping mechanisms of individuals and communities to help them regain control over their circumstances. Collaboration with community leaders and indigenous healers is recommended when feasible. Community-based self-help groups should be encouraged. Community workers should be trained and supervised to assist health workers with heavy caseloads and to conduct outreach activities to facilitate care for vulnerable and minority groups.

Control of non-communicable diseases standard 4: chronic diseases

For populations in which chronic diseases are responsible for a large proportion of mortality, people have access to essential therapies to prevent death.

Key indicators (to be read in conjunction with the guidance notes)

- A specific agency (or agencies) is designated to coordinate programmes for individuals with chronic diseases for which an acute cessation of therapy is likely to result in death (see guidance note 1).
- Individuals with such chronic diseases are actively identified and registered.
- Medications for the routine, ongoing management of chronic diseases are available through the primary health care system, provided that these medications are specified on the essential drug list.

Guidance note

1. ***Chronic diseases:*** no generally accepted guidance on the management of chronic diseases during disasters has previously been established. During recent complex emergencies in countries where patients had previously had access to ongoing treatment for chronic diseases, priority was given to those conditions for which an acute cessation of therapy was likely to result in death, including dialysis-dependent chronic renal failure, insulin-dependent diabetes and certain childhood cancers. These were not new programmes, but a continuation of ongoing life-saving therapy. In future disasters, programmes for other chronic diseases may also be relevant. It is not appropriate to introduce new therapeutic regimens or programmes for the management of chronic diseases during the relief effort if the population did not have access to these therapies prior to the disaster. The routine, ongoing management of stable chronic diseases should be available through the primary health care system, using medications from the essential drug list.

Appendix 1

Health Services Assessment Checklist

Preparation

- Obtain available information on the disaster-affected population and resources from host country and international sources.
- Obtain available maps and aerial photographs.
- Obtain demographic and health data from host country and international sources.

Security and access

- Determine the existence of ongoing natural or human-generated hazards.
- Determine the overall security situation, including the presence of armed forces or militias.
- Determine the access that humanitarian agencies have to the affected population.

Demographics and social structure

- Determine the total disaster-affected population and proportion of children under five years old.
- Determine age and sex breakdown of the population.
- Identify groups at increased risk, e.g. women, children, older people, disabled people, people living with HIV/AIDS, members of certain ethnic or social groups.
- Determine the average household size and estimates of female- and child-headed households.
- Determine the existing social structure, including positions of authority/influence and the role of women.

Background health information

- Identify pre-existing health problems and priorities in the disaster-affected area prior to the disaster. Ascertain local disease epidemiology.
- Identify pre-existing health problems and priorities in the country of origin if refugees are involved. Ascertain disease epidemiology in the country of origin.
- Identify existing risks to health, e.g. potential epidemic diseases.
- Identify previous sources of health care.
- Determine the strengths and coverage of local public health programmes in refugees' country of origin.

Mortality rates

- Calculate the crude mortality rate (CMR).
- Calculate the under-5 mortality rate (U5MR: age-specific mortality rate for children under 5 years of age).
- Calculate cause-specific mortality rates.

Morbidity rates

- Determine incidence rates of major diseases that have public health importance.
- Determine age- and sex-specific incidence rates of major diseases where possible.

Available resources

- Determine the capacity of and the response by the Ministry of Health of the country or countries affected by the disaster.
- Determine the status of national health facilities, including total number, classification and levels of care provided, physical status, functional status and access.
- Determine the numbers and skills of available health staff.
- Determine the capacity and functional status of existing public

health programmes, e.g. Expanded Programme on Immunisation (EPI), maternal and child health services.

- Determine the availability of standardised protocols, essential drugs, supplies and equipment.
- Determine the status of existing referral systems.
- Determine the status of the existing health information system (HIS).
- Determine the capacity of existing logistics systems, especially as they relate to procurement, distribution and storage of essential drugs, vaccines and medical supplies.

Consider data from other relevant sectors

- Nutritional status
- Environmental conditions
- Food and food security.

Appendix 2 Sample Weekly Surveillance Reporting Forms

Mortality Surveillance Form 1*

Site .....

Date from Monday .....To Sunday: .....

Total population at beginning of this week: .....

Births this week: .....Deaths this week:.....

Arrivals this week (if applicable):.....Departures this week: .....

Total population at end of week:.....Total under 5 years population: .....

	0-4 yrs		5+ yrs		Total
	male	female	male	female	
Immediate cause					
Acute lower resp. infection					
Cholera (suspected)					
Diarrhoea – bloody					
Diarrhoea – watery					
Injury – non-accidental					
Malaria					
Maternal death – direct					
Measles					
Meningitis (suspected)					
Neonatal (0-28 days)					
Other					
Unknown					
Total by age and sex					
Underlying cause					
AIDS (suspected)					
Malnutrition					
Maternal death – indirect					
Other					
Total by age and sex					

* This form is used when there are many deaths and therefore more detailed information on individual deaths cannot be collected due to time limitations.

– Frequency of reporting (i.e. daily or weekly) depends upon the number of deaths.

– Other causes of mortality can be added according to the context and epidemiological pattern.

– Ages can be further disaggregated (0-11 mths, 1-4 yrs, 5-14 yrs, 15-49 yrs, 50-59 yrs, 60+ yrs) as feasible.

– Deaths should not be reported solely from site health facilities, but should include reports from site and religious leaders, community workers, women's groups and referral hospitals.

– Whenever possible, case definitions should be put on back of form.

Mortality Surveillance Form 2*

Site.....

Date from Monday.....To Sunday: .....

Total population at beginning of this week: .....

Births this week: .....Deaths this week: .....

Arrivals this week (if applicable): .....Departures this week:.....

Total population at end of week:.....Total under 5 years population:.....

			Direct Cause of Death												Underlying Causes						
No	Sex (m, f)	Age (days=d mths=m yrs=y)	Acute lower resp. infection	Cholera (suspected)	Diarrhoea – bloody	Diarrhoea – watery	Injury – non-accidental	Malaria	Maternal death – direct	Measles	Meningitis (suspected)	Neonatal (0-28 days)	Other (specify)	Unknown	AIDS (suspected)	Malnutrition	Maternal death – indirect	Other (specify)	Date (dd/mm /yy)	Location in site (e.g. block no.)	Died in hospital or at home
1																					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

* This form is used when there is enough time to record data on individual deaths; it allows analysis by age, outbreak investigation by location and facility utilisation rates.

– Frequency of reporting (i.e. daily or weekly) depends upon the number of deaths.

– Other causes of death can be added as fits the situation.

– Deaths should not be reported solely from site health facilities, but should include reports from site and religious leaders, community workers, women's groups and referral hospitals

– Whenever possible, case definitions should be put on back of form.

Weekly Morbidity Surveillance Reporting Form

Site .....

Date from Monday: ..... To Sunday: .....

Total population at beginning of this week: .....

Births this week: ..... Deaths this week: .....

Arrivals this week (if applicable): ..... Departures this week: .....

Total population at end of week: ..... Total under 5 years population: .....

Morbidity	Under 5 years (new cases)			5 years and over (new cases)			Total	Repeat cases
Diagnosis*	Male	Female	Total	Male	Female	Total	new cases	Total
Acute respiratory infections**								
AIDS (suspected)								
Anaemia								
Cholera (suspected)								
Diarrhoea – bloody								
Diarrhoea – watery								
Eye diseases								
Malaria								
Malnutrition								
Measles								
Meningitis (suspected)								
Injuries – accidental								
Injuries – non-accidental								
Sexually transmitted infections								
Genital ulcer disease								
Male urethral discharge								
Vaginal discharge								
Lower abdominal pain								
Scabies								
Skin diseases (excluding scabies)								
Worms								
Others								
Unknown								
Total								

* More than one diagnosis is possible; diseases can be removed or added as fits the current situation.

** Acute respiratory tract infections: in some countries, this category may be divided into upper and lower tract infections.

– Causes of morbidity can be added or subtracted according to context and epidemiological pattern.

– Ages can be further disaggregated (0-11 mths, 1-4 yrs, 5-14 yrs, 15-49 yrs, 50-59 yrs, 60+ yrs) as feasible.

Visits to health facility	Under 5 years			5 years and over			Total	
	Male	Female	Total	Male	Female	Total	Male	Female
Total visits								

Utilisation rate: Number of visits per person per year to health facility = total number of visits in 1 week / total population x 52 weeks

– Ages can be further disaggregated (0-11 mths, 1-4 yrs, 5-14 yrs, 15-49 yrs, 50-59 yrs, 60+ yrs) as feasible.

Number of consultations per clinician: Number of total visits (new and repeat) / FTE clinician in health facility/ number of days health facility functioning per week.

Appendix 3

Formulas for Calculating Rates of Mortality and Morbidity

Crude Mortality Rate (CMR)

- *Definition:* The rate of death in the entire population, including both sexes and all ages. The CMR can be expressed with different standard population denominators and for different time periods, e.g. deaths per 1,000 population per month or deaths per 1,000 population per year.
- *Formula most commonly used during disasters:*

$$\frac{\text{Total number of deaths during time period}}{\text{Total population}} \times \frac{10{,}000 \text{ persons}}{\text{No. days in time period}}$$

= deaths/10,000 persons/day

Under-5 Mortality Rate (U5MR)

- *Definition:* The rate of death among children below 5 years of age in the population.
- *Formula most commonly used during disasters* (age-specific mortality rate for children less than 5 years)*:*

$$\frac{\text{Total number of deaths in children <5 years during time period}}{\text{Total number of children <5 years}} \times \frac{10{,}000 \text{ persons}}{\text{No. days in time period}}$$

= deaths/10,000 /day

Incidence Rate

- *Definition:* The number of new cases of a disease that occur during a specified period of time in a population at risk of developing the disease.
- *Formula most commonly used during disasters:*

$$\frac{\text{Number of new cases due to specific disease in time period}}{\text{Population at risk of developing disease}} \times \frac{1{,}000 \text{ persons}}{\text{No. months in time period}}$$

= new cases due to specific disease/1,000/month

Case Fatality Rate (CFR)

- *Definition:* The number of people who die of a disease divided by the number of people who have the disease.
- *Formula:*

$$\frac{\text{Number of people dying from disease during time period}}{\text{People who have the disease during time period}} \times 100 = x\%$$

Health Facility Utilisation Rate

- *Definition:* The number of out-patient visits per person per year. Whenever possible, a distinction should be drawn between new and old visits, and new visits should be used to calculate this rate. However, it is often difficult to differentiate between new and old visits, so they are frequently combined as total visits during a disaster.
- *Formula:*

$$\frac{\text{Total number of visits in one week}}{\text{Total population}} \times 52 \text{ weeks}$$

= visits/person/year

Number of Consultations per Clinician per Day

- *Definition:* Average number of total consultations (new and repeat cases) seen by each clinician per day.
- *Formula:*

$$\frac{\text{Total number of consultations (new and repeat)}}{\text{Number FTE* clinicians in health facility}} \div \text{Number of days health facility open per week}$$

* FTE ('full-time equivalent') refers to the equivalent number of clinicians working in a health facility. For example, if there are six clinicians working in the out-patient department but two of them work half-time, then the number of FTE clinicians = 4 full-time staff + 2 half-time staff = 5 FTE clinicians.

Appendix 4

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Thanks to the Forced Migration Online programme of the Refugee Studies Centre at the University of Oxford, many of these documents have received copyright permission and are posted on a special Sphere link at: http://www.forcedmigration.org

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Notes

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