

International Standards for Public Health Activities

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Background

Humanitarian disasters such as was experienced during the Great East Japan Earthquake in 2011 are becoming more common around the world. Disasters of this scale lead to large numbers of displaced individuals, often from vulnerable populations. With climate change, this is becoming a global issue. As contradictory as it may sound, discrepancies in the quality of the response to disasters by aid organizations exist more in developed countries than in the developing world. Developing countries are more used to responding to humanitarian crises and are therefore more practiced, leading to a more coordinated and successful response.

When refugees fled Rwanda in 1996 many NGOs actively offered assistance. The quality of the assistance, however, varied greatly between the various NGOs, which led to poor outcomes for some refugees. In order to avoid such disparity from occurring again, over 800 people from 225 humanitarian organizations in over 60 countries, led by the International Red Cross and Red Crescent Societies, started the *Sphere Project*. The *Sphere Standards*, the core international standards for humanitarian assistance, was thus born, created by consensus between all of the parties involved. These standards aim to quantify international legal instruments, strengthen the accountability of humanitarian

agencies to affected communities, and improve the performance of aid agencies in humanitarian responses, all while standardizing the quality of disaster relief activities.

The first edition of the *Sphere Handbook*, which contains the *Sphere Standards*, was published in 2000, and has been regularly updated ever since. The most recent edition, published in 2011, is available online from the *Sphere Project* homepage¹ in multiple languages. In fact, the Japanese version was released in May of 2012.² This is an easily downloadable resource that all disaster responders should be familiar with.

About the *Sphere Standards*

The terminology for humanitarian assistance activities described in the *Sphere Standards* is as follows. The *minimum standards* shown in **Fig. 1** are the minimum level of activities that any humanitarian assistance activities should practice. The *indicators* shown in **Fig. 2** are the quantitative and qualitative parameters that indicate whether or not the *minimum standards* have been achieved. In other words, the *minimum standards* are conceptual indices, whereas the *indicators* are measures of whether those indices are functioning in a practical manner.

The structure of the *Sphere Handbook* is described in **Fig. 3**. The first and largest section is the *Humanitarian Charter*. The next section

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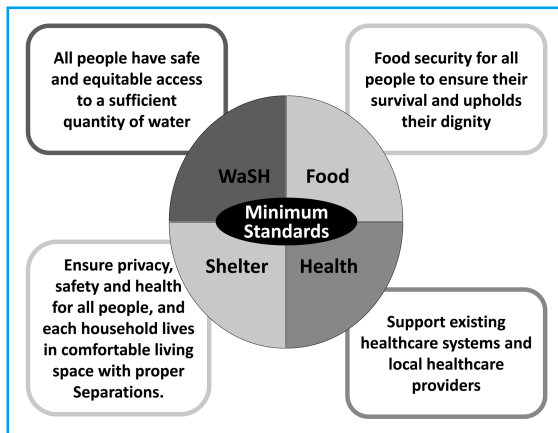


Fig. 1

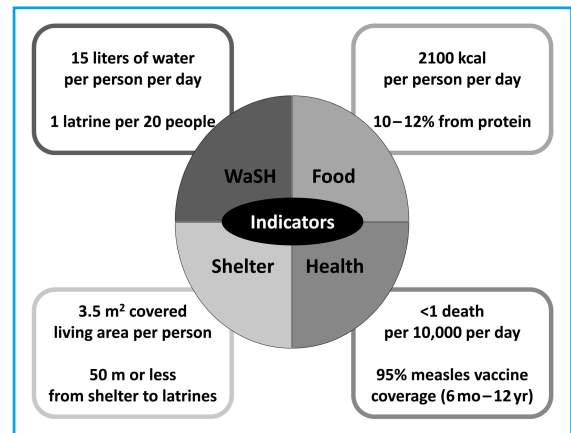


Fig. 2

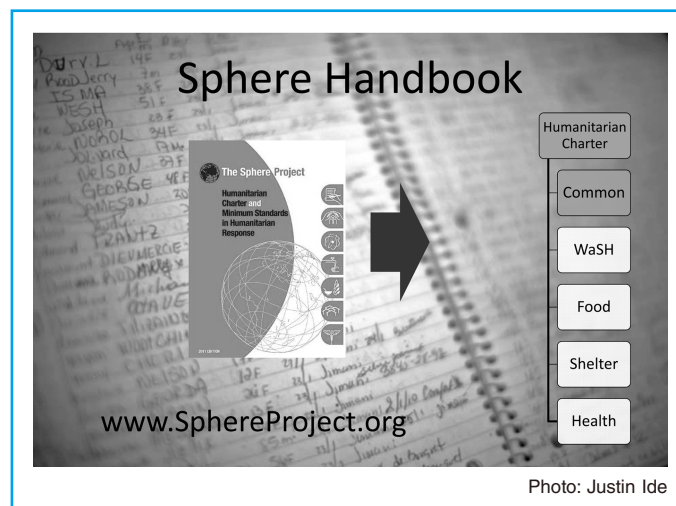


Photo: Justin Ide

Fig. 3

breaks into several sectors, the first one being the *Common Core Standards*. This section describes the ideal humanitarian response, such as how to coordinate and design a response, what to evaluate and how to perform assessments, and how to evaluate achievements, achieve transparency, and understand lessons afterward. The next sections include *WaSH (Water, Sanitation, and Hygiene)*, *Food*, *Shelter*, and *Health*. In order to effectively provide humanitarian assistance, healthcare professionals must understand not only the *Health* standards but also the *WaSH*, *Food*, and *Shelter* standards since each one can have a direct impact on the others.

Details of Minimum Sphere Standards

The specific details of a sample of each of the four categories of *Sphere Standards*, namely *WaSH*, *Food*, *Shelter*, and *Health*, are as described below. There are many more indicators than are listed here.

WaSH (Water, Sanitation, and Hygiene)

The following are emergency standards. As needs increase, these minimum amounts may also need to increase.

- 15 L of water per person per day (**Table 1**)
- 1 latrine per 20 people

Table 1 The amount of water per person

Amount of water required for:	(per day)	
Staying alive	2.5–3 L	Depends on weather conditions and physiological difference among individuals
Basic sanitation and hygiene	2–6 L	Depends on social and cultural standards
Basic cooking	3–6 L	Depends on types of food and social/cultural standards
(TOTAL)	7.5–15 L	

- No detectable fecal coliforms in 100 mL of water
- Minimum of 30 m distance from a water source to a toilet facility
- Guaranteed safety and privacy in toilet and bathing facilities (for different genders, age groups, and families)

Food

While malnutrition is not a baseline problem in Japan, following these standards will help prevent it from becoming one in a humanitarian emergency. When people become more active because of moving or rebuilding, they often have higher metabolic demands and these minimum numbers may need to increase.

- 2,100 kcal per person per day
- 10 to 12% of the energy from a protein source
- 17% of the energy from fat
- Sufficient intake of micronutrients: Nicotinic acid, thiamine, riboflavin
- Guaranteed access to various kinds of food: Good balance of carbohydrates, proteins, and fat in a culturally appropriate manner

Shelter

The word *Shelter* does not only refer to typical shelters but also includes any situation into which people are displaced, such as temporary housing

- 3.5 m² of covered living area per person
- Distance from a shelter to toilet facilities is 50 m or less
- Maintain and support existing social support networks by organizing shelters by families, neighborhoods, and towns
- Provide privacy for different genders, age groups, and families

Health & medical issues

- Crude Mortality Rate (CMR): <1 death per

10,000 per day, or less than twice of the CMR value before disaster

- Measles vaccine coverage for small children (6-mo to 12-yr): >95%
- Healthcare professionals
 - 1 physician per 50,000
 - 1 nurse per 10,000
 - 1 mid-wife per 10,000
- Medical facilities
 - 1 clinic per 10,000
 - 1 general hospital per 250,000
 - 10 beds per 10,000, for the use of general patients and in-hospital delivery
- Essential medical supply list: A list of essential medical supplies prepared by the Japanese Society of Internal Medicine (which includes medical supplies for chronic diseases)

Formulas for main health indices

- Crude Mortality Rate (CMR)

Definition: Number of deaths divided by a total population size, regardless of sex or age

Formula: $[(\text{Total number of deaths during the specified period}) / (\text{Total population})] \times [10,000 / \# \text{ of days in time period}] = \text{deaths} / 10,000 / \text{day}$

Goal: Less than twice the pre-disaster value (baseline CMR in Japan = 0.27)
- Under 5 Mortality Rate (U5MR)

Definition: Mortality of small children (under 5 years of age, U5) in a population

Formula: $[(\text{Total number of U5 deaths}) / (\text{Total U5 population})] \times [10,000 / \# \text{ days in time period}] = \text{deaths} / 10,000 \text{ of children under 5} / \text{day}$

Goal: Less than twice the pre-disaster value (baseline U5MR in Japan = 0.017)

Mental health and support

Psychological first-aid is an essential part of the *Health* standards and the disaster response. This

mental first-aid should take on a non-intrusive approach to alleviate the anxiety of affected persons. When providing this care, one must focus on listening but not forcing affected individuals to speak. It is important to assess basic needs and concerns (water, food, shelter, etc.), encourage social support from a family member, friend, and others if available, and try to protect affected individuals from further psychological harm. If possible, avoid using medications to deal with the acute stress.

Mental health concerns of not only disaster victims but also disaster responders should be addressed. Disasters are not a frequent occurrence and often first responders are not fully mentally prepared for what they will encounter. Responders are often overwhelmed and overworked and can become burnt out after long hours of stressful work. When responding to a disaster, there must be an awareness of the mental status of team members as well as of team leaders. Below are some basic concepts to ensure that all team members are mentally cared for.

1. Debrief with team members before and after each project and keep in touch with them regularly
2. Temporarily remove people from their positions if necessary
3. Provide team members with mental support services
4. Team leaders should make themselves the example by:

- Not working alone
- Removing themselves from their posts if necessary
- Seeking help as needed

Vulnerable populations

Certain populations are inherently more vulnerable and therefore more susceptible to various challenges during a time of disaster. They tend to suffer more in disasters, and therefore, there needs to be a plan in place for these populations prior to a disaster. The elderly, pregnant women, mothers and small children, physically or mentally disabled persons, and people with chronic conditions that require chronic treatments such as dialysis or chemotherapy all represent vulnerable populations. A successful response ensures that there are plans in place to help all of these specific disadvantaged populations.

Conclusion

The *Sphere Standards* were created to help humanitarian aid workers understand and plan for how to best assist victims of disasters and other humanitarian emergencies. It is important to be familiar with these international minimum standards with regards to Water, Sanitation and Hygiene, Food, Shelter and Health indicators. One must also take into consideration issues of mental health and the particular challenges that arise with vulnerable populations.

References

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