PART II

The aftermath

As the hours and days go by, the problems change. Sometimes rescue work continues for several days, but very soon a mass of other problems arise as a result of the disaster. This part of the Guide deals with the organization and activities of the communities and the local health personnel in the period following the disaster.

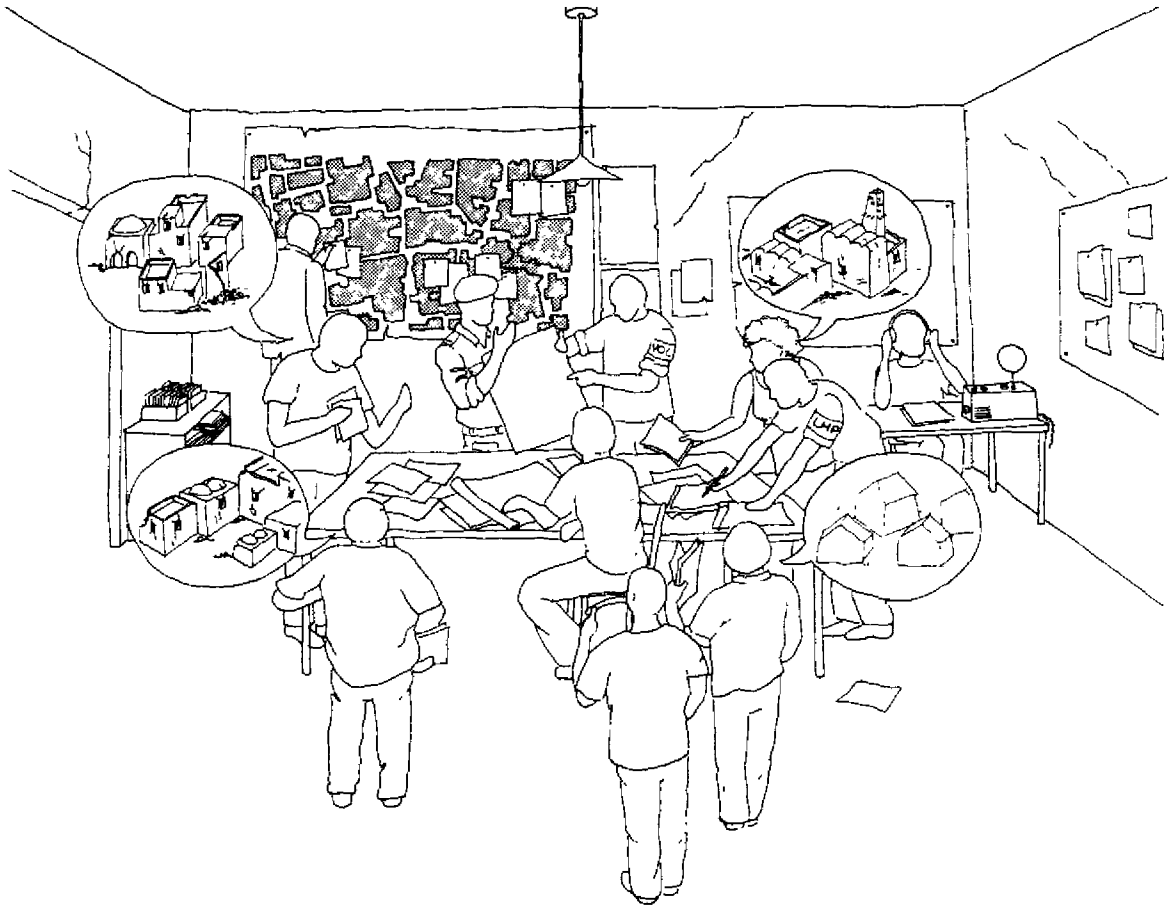
Chapter 3

Action by the community

The coordination committee

To make the efforts of the community, mobilized after disaster has struck, more effective, the local authority must at once set up a committee with the task of coordinating action to cope with the emergency. The committee takes stock of the consequences of the disaster and concerns itself with the essential problems:

Rescue operations · Where are there people to be rescued (collapsed buildings, places invaded by mud, isolated families, fires)? What means should be used?



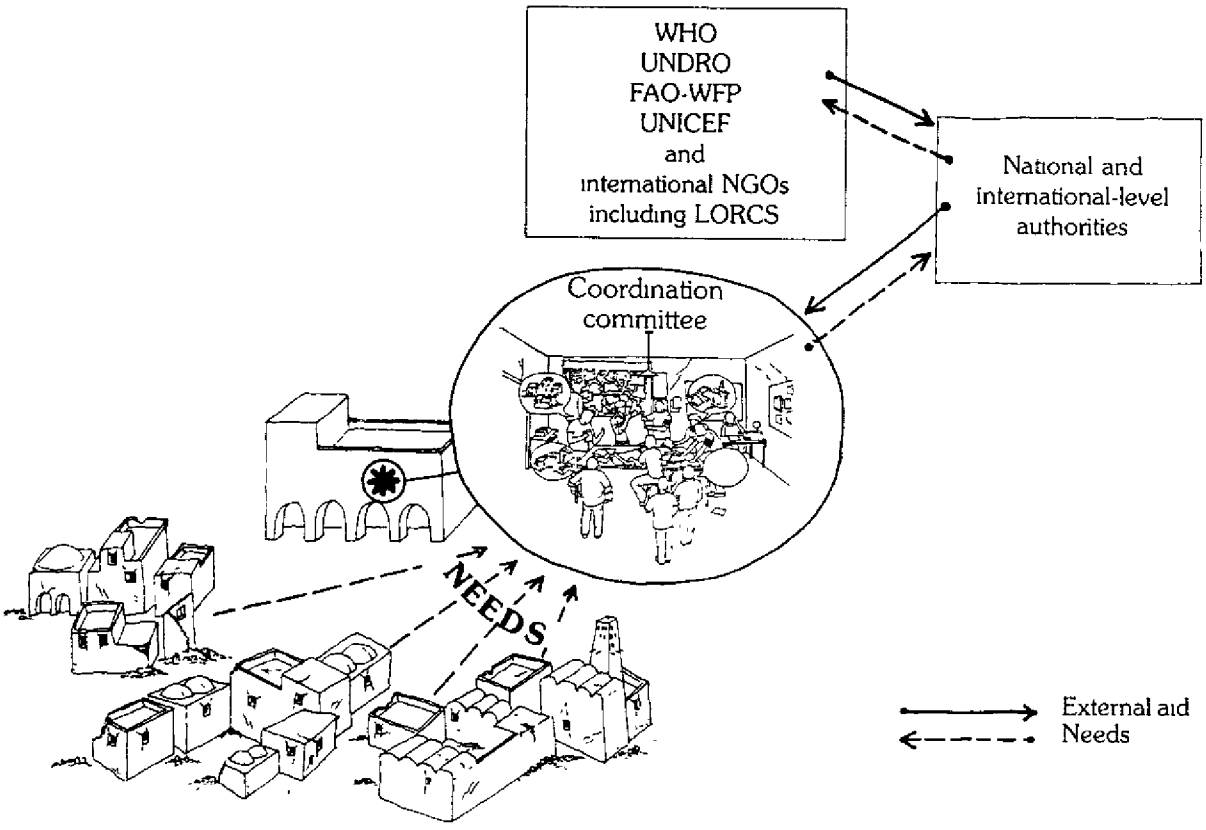
Water Is there water available? How can the water supply be ensured (tanker-trucks or other means of distributing water, urgent repair of the pre-existing water supply network, creation of new supply points)?
Shelter: Is temporary shelter needed for the victims of the disaster? How can it be provided (public buildings, tents, other means)?
Food: Is there a shortage of food? What steps can be taken to ensure food supply (stocks on the spot, outside assistance) and distribution?
Communications: What means of communication can be used (radio, telephone, other)?
Transport: What roads are practicable? By what means of transport? Do means of transport exist?

Gradually the Committee will organize itself to deal with the post-disaster period, assigning responsibilities in various fields:

- health,
- transport and highway maintenance; communications and information,
- water supply, food, means of survival,
- public works, building,
- sanitation,
- public order.

Assessment of requirements

As soon as contact has been established with the intermediate-level or central authorities, the committee will inform them of the requirements



The purpose is to avoid confusion and obtain appropriate outside assistance. The exchange of information will cover general problems and activities for health:

A. General information:
- assessment of the number of homeless,
- estimate of the number of victims,
- evaluation of the type, extent and seriousness of the material damage,
- information on isolated villages,
- information on people cut off from their families,
- forecasts as to how the natural phenomena responsible for the disaster will develop.

B. Requests for assistance:
- machines for clearing rubble,
- means of transport, fuel,
- shelters (tents, materials for constructing shelters, caravans, other),
- blankets, clothing, boots, raincoats,
- food,
- tools, batteries, containers, materials,
- persons specializing in rescue work,
- others

C. Requests made by the local health personnel on the basis of the number of people needing assistance and the type of care required:
- health equipment and material,
- medicaments,
- any health personnel required,
- suitably equipped hospitals to which patients may be sent who cannot be looked after on the spot,
- means and organization for evacuating the injured and the sick.

When there is no telephone or the lines are down, contact can only be established by radio. If the community does not possess radio equipment, radio amateurs can sometimes re-establish contact. In any event, the committee must have the communications centre at its disposal.

Outside assistance

National and international solidarity is certainly of very great importance for disaster-stricken communities. It may happen, however, that assistance from outside is more in line with the idea that the donors have formed of the disaster, or with what they are at any rate ready to give, than with real local requirements. Thus, certain forms of inappropriate assistance crop up again and again, such as consignments of medicaments not requested, field hospitals that will remain empty or unnecessary medical personnel.

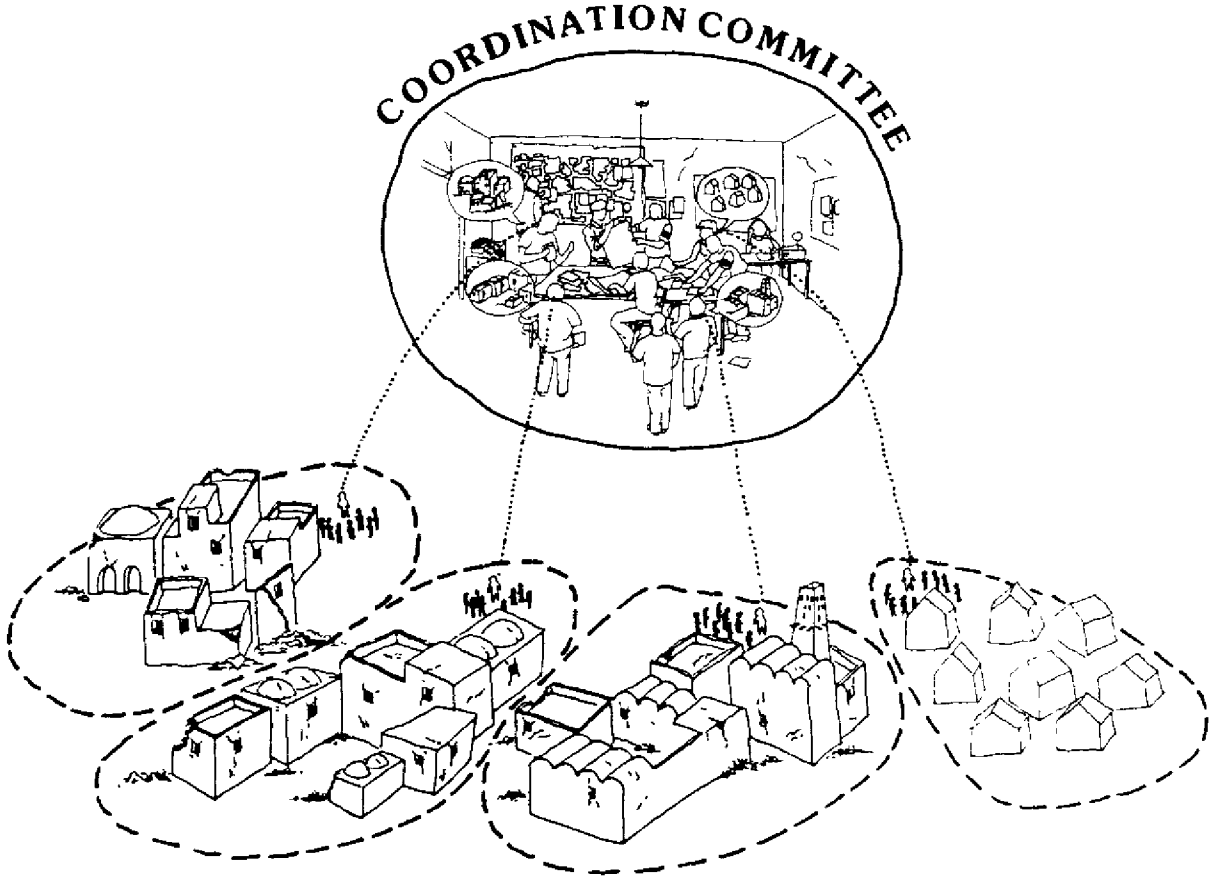
It is therefore important for the community to request very early the assistance it really requires. In order to channel outside assistance more effectively in the period following the disaster, the community can ask the donors to send out first of all an expert with the task of helping to assess requirements and to formulate rehabilitation/reconstruction programmes that outside assistance can sustain. Experience shows that international assistance is much more important in the post-disaster period than in respect of emergency aid.

Coordination of groups from outside

Assistance from external groups (volunteers, associations) is important. However, steps must be taken to avoid each acting on its own account, without coordination, sometimes in competition or downright conflict. Especially when the community is poor and weakly organized, groups from outside may provoke serious imbalances, cause splits or induce dependence.

The ideal is for the coordination committee to be able to coordinate and guide the activities of the outside groups. When a community has lost its bearings, an essential task for the outside groups is to encourage the local authority, the local health personnel and the community and help them to organize so as to regain control of the situation However, the community will be unable to coordinate disparate groups with their separate aims, resources and funding, unless the national government makes it obligatory for outside groups to consult the committees in the stricken communities and to act only with their consent.

International bodies can play an important role by themselves consulting the local committees and inviting the donors and outside groups to do the same.



ORGANIZATION BY FAMILY GROUPS

Family groupings

Rapid steps must be taken to establish a system of continuous contact with the families stricken by the disaster. An effective way of setting up such a system is to subdivide the community into groups consisting of neighbouring family nuclei and to put someone in charge of each group The person may be designated by the group or, failing that, selected by the local authority. Each such person can delegate special tasks to members of the group.

Those in charge of groups are in daily touch with the community's coordination committee. A system of this kind makes it possible:

- to collect information on requirements,
- to pass on instructions and information,
- to distribute where necessary the means of survival (clothing, blankets, food, etc)

The local health personnel can also use the system for health activities.

Temporary shelter and sanitation

When the disaster has made houses uninhabitable and there has been no evacuation of the area, temporary shelter must be arranged for those affected, who generally prefer to remain on the spot, in or near their property. It may happen that the population settles all over the place (waste ground, gardens, parks, squares, parking areas, sports grounds, etc.), using anything that comes to hand (planks, plastics, tents, cars, containers, boats, railway wagons, buildings under construction, schools, public buildings, etc.). The sanitary situation may then rapidly deteriorate and it becomes very difficult to assess requirements.

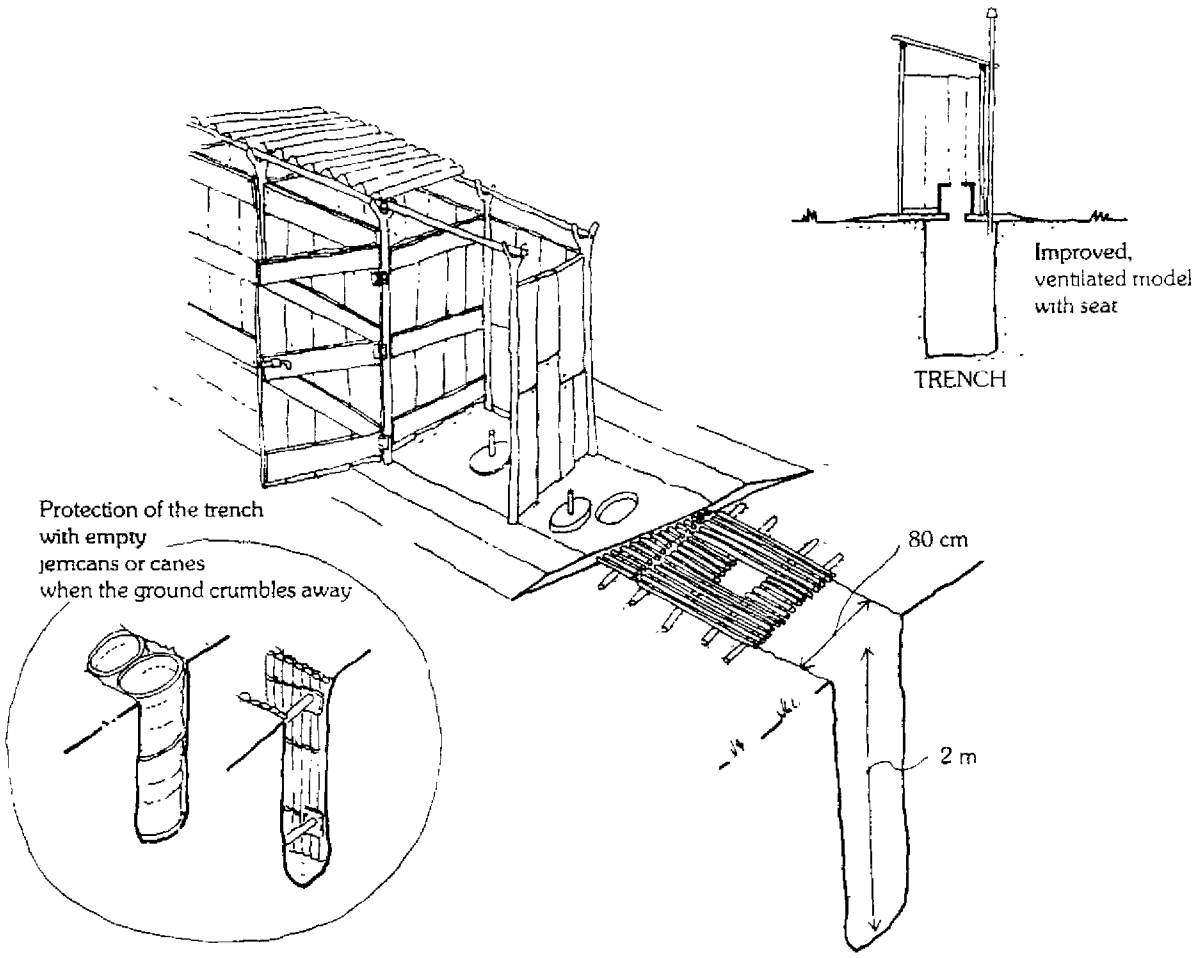
Communities exposed to the risk of disaster (and those that propose to give shelter to displaced persons) should select sites for temporary shelter (before a disaster strikes) and carry out the necessary preparatory work. The sites chosen for erecting shelters should be:

- flood-proof, above high-water level,
- preferably on a gentle slope to facilitate rainwater and waste water drainage,
- not too close to the water table, otherwise the ground could become marshy in the rainy season,
- protected against landslides and subsidence,
- easily accessible, not far from the centre of population,
- at a higher level than waste tips,
- downstream from sources of drinking-water

On the site of temporary shelter it is necessary to arrange water-supply points, latrines and waste tips.

During the first few days it is sometimes necessary to use tanker-trucks for transporting water but as soon as possible water-supply points should be established by sinking boreholes, digging wells or laying pipes. If there is a shortage, people will obviously congregate near supply points. There should be one for every 200/250 persons, but it is sometimes difficult to achieve this ratio.

The simplest method of installing latrines is to dig trenches about 2 metres deep and 80 cm wide (the length will vary) and cover them with planks, with seats or slabs for squatting. The opening should have a



cover to stop flies getting in The latrines should not be installed too far away from the temporary dwellings.

Rubbish tips should be arranged for disposing of solid waste, which will be burnt and covered with earth to keep flies and rodents away.

In laying out camps of temporary dwellings, geometric designs with shelters arranged in anonymous rows should be avoided. On the contrary, groupings of families and the spontaneous choice of neighbourhoods must be encouraged while keeping the sanitary situation under control. If the settlement is expected to be used for a long period, the plan should make provision for housing the local administration, the health centre or hospital and the school and as far as possible other community services and activities.

Displaced persons

Only people displaced as a result of drought or famine are under consideration here. It is generally beyond the power of communities to manage displacements of population. It is for governments to plan the settlement of displaced persons by distributing them in areas best suited to receive them (with water, cultivable land, pasturage, possibilities of development, favourable sociocultural conditions, etc.).

But when no planned action is undertaken, displaced persons end by settling down on the outskirts of towns on sites with no facilities. If there are large numbers of them, an emergency situation arises characterized by considerable problems of health and survival. It is essential to begin to act as soon as possible while waiting for government intervention and international assistance. The local authority should set up a community committee for dealing with emergencies. When international bodies intervene, they should work in collaboration with that committee. Essential steps are:

A. Appraisal of the site If on the site of spontaneous settlement there is no possibility of water supply or if there are considerable risks (floods, subsidence, etc.), another site must be chosen and equipped with the participation of the displaced persons The features of an acceptable site were described in the preceding section

B. Organization of the displaced persons into family groupings[1] and the selection of persons to be in charge This implies taking a census of the displaced persons already settled on the site and of new arrivals.

C. The tackling by the community and the displaced persons' organization of the most urgent problems:

- installation of water-supply points,[1]
- digging of latrines,[1]
- organization of waste collection and disposal [1]

D. The local health personnel should establish a system to monitor:

- communicable diseases, giving priority to endemic diseases, including those of the area of origin of the displaced persons,[1]
- the nutritional and health status of the children [1]

The advisability of setting up a provisional health post near the displaced persons should be considered. An attempt should be made to provide them with.

- routine care,
- vaccinations in accordance with the national plan,
- health education,[1]
- community activities

The local health personnel will be assisted by volunteers from the community and by the displaced persons' organization.

Monitoring food supplies

When there is a danger of food shortages, the local authority and the community should organize a monitoring system to avoid speculation. It is a question, in particular, of monitoring arrangements for supply, storage and distribution to prevent foodstuffs disappearing from the market to be sold "under the counter" and to control prices.

[1] See the paragraph dealing specifically with this question

Food distribution

When there is a risk of malnutrition because of food shortage, it may be necessary to distribute foodstuffs to the population. This happens particularly in the case of displaced persons. In most cases food aid comes from outside. It is, however, important that the community play an active part in organizing its distribution. A local committee can be set up with representatives of the community, the displaced persons and the donors. Establishing a committee to coordinate food distribution should reduce shortcomings and prevent favouritism and abuses.

It is important that the foods distributed should be culturally acceptable, of a kind known and used by the population. If it is necessary to hand out foodstuffs donated from outside, with which the local population is not familiar, demonstrations must be given of how they should be prepared. In very poor communities the distribution of manufactured foodstuffs should be avoided so as not to interfere with eating habits and the capacity to make use of local produce. Jars of baby food should be forbidden since they may give rise to the idea that only imported foodstuffs ensure that children are well fed. Feeding bottles should not be given.

As far as possible the distribution of ready-prepared meals should be avoided, since it may suggest that the disaster-stricken population is to be assisted *en masse*. In the field of nutrition also it is important to affirm the principle that the community should be helped to resume its activities, its autonomy and its initiative.

Dealing with the dead

When the disaster results in a large number of deaths, the community should organize:

- transport of the bodies,
- a place to put them before burial,
- their burial

Although it is not one of their tasks, the local health personnel often have to supervise and control what is done in this domain. In particular, it is necessary to

- remove the bodies from the disaster area as rapidly and discreetly as possible and, as soon as this has been done, attempt to gather and note down information necessary for identifying them (place where they were found, information from relatives and neighbours),
- transport the bodies, which should be covered, to the place where they are to await burial and where personal belongings are also deposited,
- identify the bodies and attach tags to them giving the identification particulars,
- draw up an official register of the deaths, containing identification particulars,
- bury the dead as late as is compatible with the laws and customs of the country, so as to enable identification; common graves should be avoided; the site of the graves, numbered and marked with identification data, should be entered on maps,
- hand over personal effects to the nearest relatives

It is known that the risk of epidemics comes not from a large number of deaths but from endemic diseases already existing in the area. When it is feared that an endemic disease may spread (cholera, for example, in a displaced persons' camp), the staff handling corpses should wear gloves, wash frequently with soap and use disinfectant. Personal effects should also be disinfected before being given back to relatives.

Dealing with animals

In a disaster animals may be killed (in large numbers in floods, for instance) or dispersed. They may lose their shelter. Endemic zoonoses may spread. Dogs may revert to the wild and go about in packs. The community, possibly using groups of volunteers (who will be more effective if they have been trained in advance), should take steps to carry out the essential tasks:

- Destruction of animal carcasses: this is not easy because they are difficult to burn and burying them involves a great deal of labour Often they have to be sprinkled with petrol and covered with earth to protect them against predators until they can be destroyed or buried.
- Destruction of parts of animals The same treatment as that described for carcasses should be given to parts of animals in butchers' shops, slaughterhouses and dwellings when they can no longer be kept refrigerated.
- Housing of shelterless animals, capture and treatment of stray animals. The animals must be brought together in specially prepared premises, fed, milked and looked after
- Re-opening of slaughterhouses: existing ones if they are usable, otherwise in temporary premises or in lorries equipped for the carriage of meat.

As soon as possible the veterinary services in the area should:

- organize the monitoring of communicable animal diseases and of slaughterhouses,
- carry out mass vaccinations, depending on the local hazards, such as rabies, foot-and-mouth disease, swine fever, anthrax, fowl pest, etc.,
- eliminate any sick animals or isolate the farms affected.

Measures to save stock may be very important in the rural areas and have a great impact on the morale and economic recovery of the community.

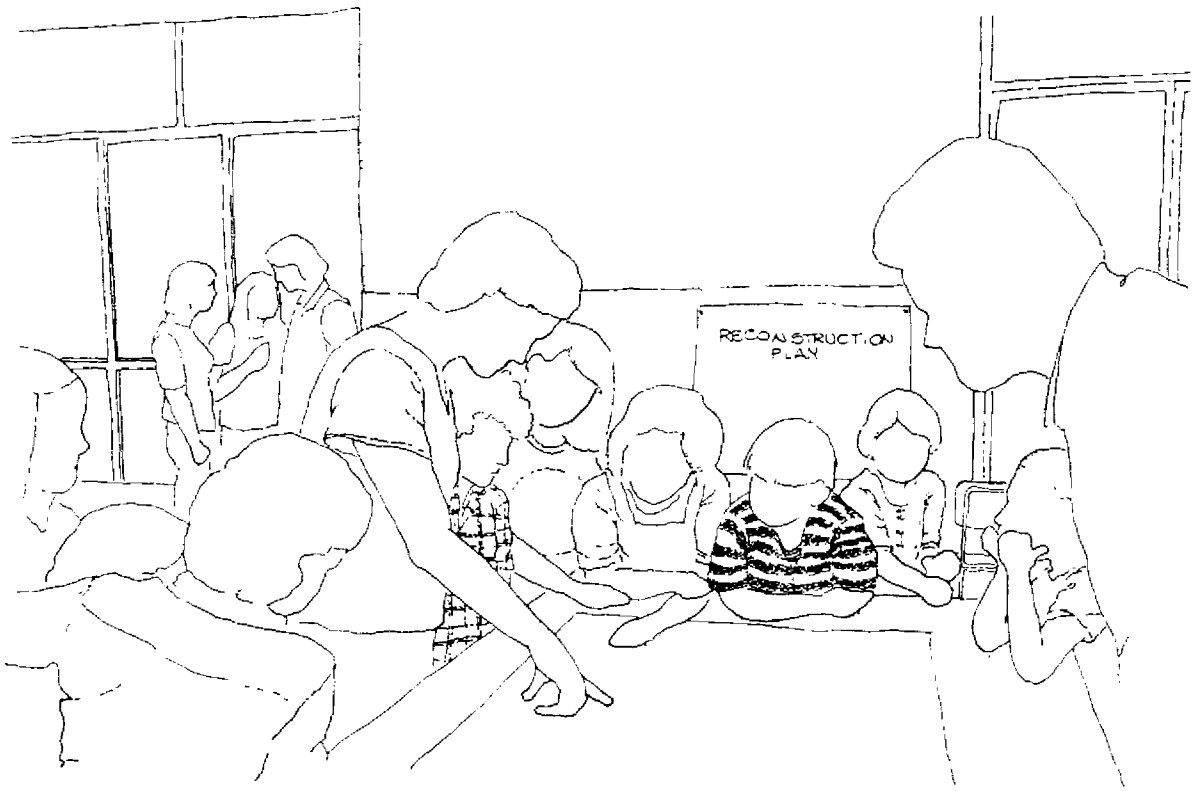
Post-disaster development

Structural damage (to houses, public buildings, factories, warehouses, etc.) and damage to crops and livestock raising, together with the interruption of production and commercial activities, cause serious economic difficulties for the disaster-stricken community. Some countries in case of disaster pass special laws covering the areas involved, which provide not only for financial assistance but also for measures essential to a return to normal economic and social life. reconstruction, repair of housing, development plans, measures of protection and temporary concessions for the stricken populations.

However, care must be taken to avoid certain dangers. Often it is necessary to make sure that administrative red tape does not hinder the

real availability of the sums set aside for the local communities. Administrative and control procedures must be devised for the emergency situation that do not hamper activities in the field

Sometimes the financial resources made available to meet the emergency may give rise to speculation or illegal activities (exorbitant prices, corruption, organized crime). This is at once a political problem and one of public order and it is essential to be ready to bring it under control with the utmost severity, firstly because such phenomena delay, hinder and besmirch economic recovery during a precarious and difficult phase and secondly because they dishearten people, deprive public action of all credibility and create conditions for serious distintegration and degradation in the community.



Care must be taken to avoid the launching of inappropriate economic activities that create disruption and imbalance in relation to local resources and potentialities. Sometimes, pressure from certain firms or commercial groups, attracted by the prospect of making profits, may influence the public authorities or private persons by urging them to undertake activities and make choices that are not in line with the priority needs of the disaster area. Occasionally, the allocation of subsidies or special individual or family allowances ends by the population sinking into a state of dependence. Any such phenomenon created by gifts inappropriate in quality and quantity must be avoided. If these dangers are not forestalled, the development of the area may be seriously hindered or completely blocked.

The resources committed to renewed development should be used above all for:

- the launching and sustaining of local productive and commercial activities based on the utilization and exploitation of the resources that exist in the area (schemes must be avoided whose success depends mainly on supplies, machines or spare parts coming from abroad),
- occupational training based on the above-mentioned economic activities and the creation of jobs in line with local realities,
- the establishment of infrastructures and services essential to the community,
- the improvement of transport and communications in and for the disaster area

Experience of disasters shows that recovery is made easier by the active participation of the different sections of the community in preparing and carrying out reconstruction and development plans.

The local health personnel can make an important contribution to development through what they do in the community and by integrating health activities in activities designed to improve the quality of life.

As far as the health services are concerned, the main danger is restoring the situation to what it was before the disaster without subjecting the functioning of the preexisting structures to critical analysis. This danger may be aggravated by offers from donor countries to build hospitals, establishments for the handicapped or other institutions without their proposals being based on a correct evaluation of requirements and the most appropriate solutions. It is very important that the rehabilitation and reconstruction phase should make it possible to go beyond the limitations of the health services revealed by the disaster. A disaster is all the more serious in a country in which the existing resources and services are not sufficient to meet requirements in normal times. It provides an opportunity that should not be missed to give priority to policies of establishing and organizing health services in line with the objectives, structures and methods of work of primary health care.

Chapter 4

Action by the local health personnel

Post-disaster health problems and the organization of the local health personnel

After the emergency treatment phase, in addition to the need to resume routine health activities, problems arise that are specific to the post-disaster period:

- possible complications and sequelae of injuries, fractures, cuts and burns,
- the possibility that poor sanitary and living conditions may favour the recrudescence and spread of diseases already present in the area,
- the psychological suffering and disquiet that affect individuals and diminish the community s power of recuperation.

The local health workers must organize themselves to take on these new problems as part of their activities, which include:

- the running of the health centre or local hospital and provision of routine care,
- the disease-monitoring system,
- health education,
- the resumption of health programmes in progress before the disaster (vaccinations, maternal and child health, control of tuberculosis, malaria, diarrhoeal diseases, malnutrition and other health problems, depending on the circumstances),
- activities to alleviate psychological suffering and disquiet

Most of these activities require intimate involvement with the community. This can be ensured only by the local personnel organizing their work on the basis of support from volunteers and the persons in charge of the family groupings. In this context the local branches of the Red Cross can make a contribution by providing well-organized volunteers, already trained. In all their activities the local health personnel should try to obtain help from the community while reserving for themselves tasks that specifically require professional skills. This requires considerable efforts to coordinate and train volunteers. The local personnel must keep in touch with the intermediate-level authorities, from whom, on the basis of the estimated number of people to be cared for and the types of intervention needed, they can request the assistance and the supplies they require.

- medicaments,
- articles of medical consumption,
- visits to the disaster area by specialists (surgeons, orthopaedists, rehabilitation experts, etc.),
- liaison with suitably equipped hospitals to which they can send cases which cannot be dealt with on the spot,

- means of communication and transport,
- general supplies for the health centre or hospital (blankets, linen, food, fuel, tools, cleaning products, etc)

Monitoring the community's health status

The system for monitoring the community's health status is based on a few essential elements:

- the basic network made up of voluntary workers and those in charge of the family groupings,
- the instructions issued at national or intermediate level on the diseases that must be kept under special scrutiny,
- the possibility for the local health personnel to send specimens to an intermediate-level laboratory for examination to confirm diagnoses,
- the drafting of regular reports.[1]

Disease monitoring must be particularly meticulous when one or more of the following conditions exist:

- presence of endemic foci,
- people living in shelters,[2]
- concentrations of displaced persons in camps or on sites without services,
- precarious or unsatisfactory nutritional status,
- difficulties in drinking-water supply,
- difficulties in disposal of refuse and waste water,
- unfavourable climatic conditions.

Monitoring should not be based merely on the data concerning patients who attend the local health establishment. It should also take into account the activities carried out by the local health personnel in people's homes or in the community. An important means of monitoring is to use the network of persons in charge of the family groupings. All such persons, possibly with assistance from voluntary workers trained by the local health personnel, should do the rounds (daily to begin with) of the shelters in their charge, noting information on a card.[3] This also provides an opportunity for them to discuss health problems. They can act as health education workers if the local health personnel give them clear and simple information on the essential subjects and teach them how to conduct meetings and organize educational activities. Cases of disease detected or suspected will be indicated in the local health personnel's report. Information received from the local personnel will enable the intermediate-level authorities to summarize the data obtained, pinpoint disease foci and trends and take the necessary steps.

The epidemiological study of recent disasters shows that epidemics resulting from disasters are the exception. However, the possibility must be borne in mind that the precarious hygienic situation after a disaster may encourage the spread of diseases that already existed in the area beforehand. The worse the situation before, the more real will the danger be. Often, alarming rumours on the appearance of foci of infectious diseases are spread and sometimes the press, the other media and even medical circles end up by confirming and amplifying the rumours. If

[1] See page 36
[2] See Annex 1
[3] See Annex 2

faced with such a situation, characterized by the existence of a potential risk and irrational reactions, the local health personnel must intensify their monitoring of communicable diseases in order to obtain objective information on the situation so as to be able to reassure the authorities and the public.

Vaccinations

The fact that, in general, disasters do not give rise to epidemics means that on the face of it there is no reason to improvise special vaccination campaigns after a disaster. However, the public, the authorities or the newspapers press for the launching of mass vaccinations. This is an attitude that has no valid basis in fact or experience. Indeed, experience seems to show that diverting precious energies to performing unnecessary vaccinations (for instance, against cholera or typhoid), acts to the detriment of important programmes (e.g. malaria control) and of more urgent tasks.

It is essential, therefore, to continue and strengthen the vaccinations routinely practised in the country concerned and not to launch special campaigns after a disaster. Epidemiological monitoring and objective information should reassure the people and their political leaders.

Nutrition

Nutritional problems arise above all following prolonged drought but may also occur after certain other types of disaster involving damage to crops, to stock and to food distribution systems and thus leading to difficulties in maintaining supplies.

The countries where these problems are the most likely to occur are those in which even in normal times the nutritional status of the population is unsatisfactory. The most vulnerable groups are:

- infants (particularly those not breast-fed),
- children,
- pregnant women,
- nursing mothers,
- the sick.

Children have very high nutritional requirements compared with adults. A table in Annex 3 provides information on energy and protein requirements.

Nutritional status is monitored on the basis of the clinical signs of malnutrition and measurements of the following values:

- Weight for height. It is considered that children with a weight of under 70 % of the normal weight for their height are suffering from a serious degree of malnutrition and those with a weight between 70 % and 80 % of normal from a moderate degree of malnutrition. Annex 3 summarizes the percentage deviations from normal weight for height.
- Arm circumference (a more rapid but less reliable measurement). The circumference is measured on the left arm half way between the tip of the shoulder (acromion) and the tip of the elbow (olecranon). A child with an arm circumference of under 70 % of the standard value is considered to be in a state of

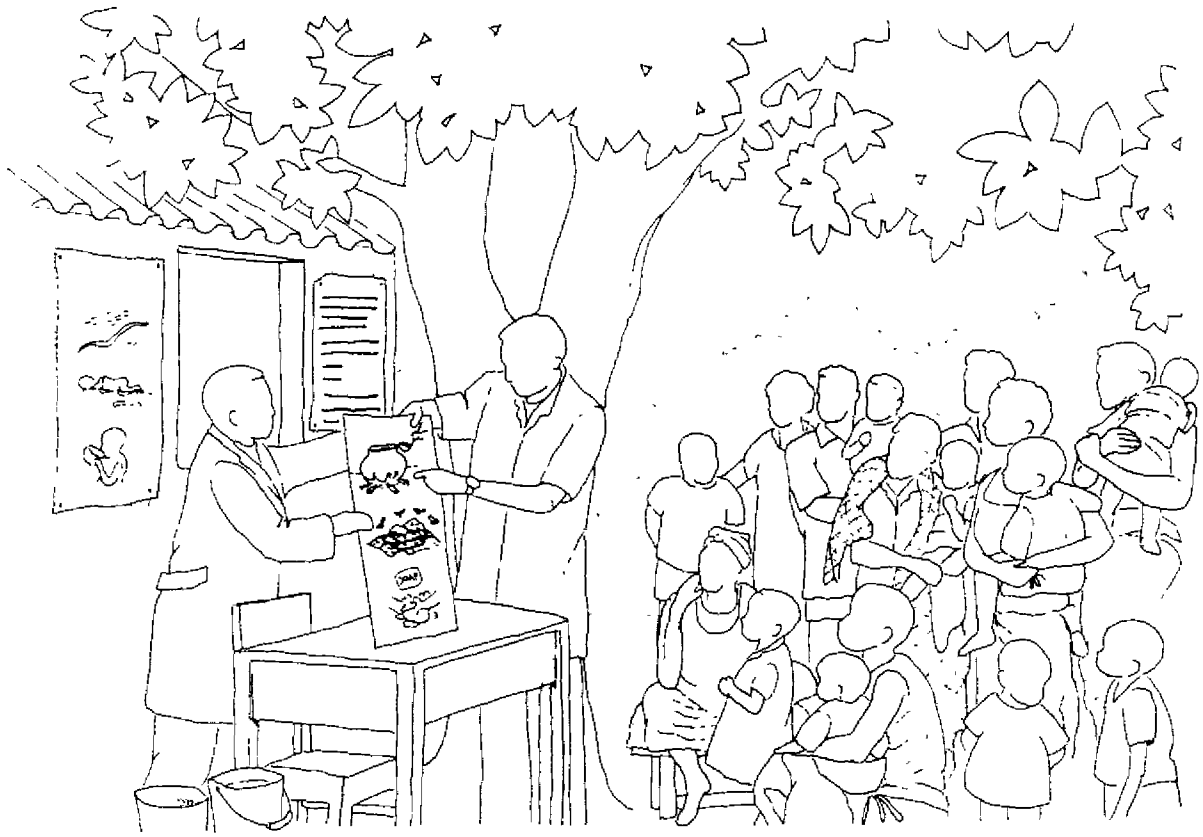
serious malnutrition. Annex 3 summarizes deviations from normal in arm circumference.

Education on nutrition should be based on using foodstuffs available on the spot to prepare balanced meals. In general a balanced meal should contain at least 20 g of protein and fats should contribute between 20 % and 40 % of total calories. It should contain carbohydrates (sugar, cereals, edible tubers), vitamins and mineral salts.

Health education and sanitation

When people are living in temporary shelters, and particularly where there are concentrations of displaced persons, health education is very important. A few of the subjects on which informational and educational activities are developed are:

- the utilization of water, cleanliness and protection of drinking-water containers, making water fit to drink (boiling, filtration), disposal of waste water,
- the utilization and cleaning of latrines,
- waste disposal, education on keeping public areas clean by using supervised tips,
- cleanliness of the temporary dwellings,
- control of lice and other parasites,
- control of flies, insect disease vectors and rodents · keeping everywhere clean, protection of food, minor cleaning work.



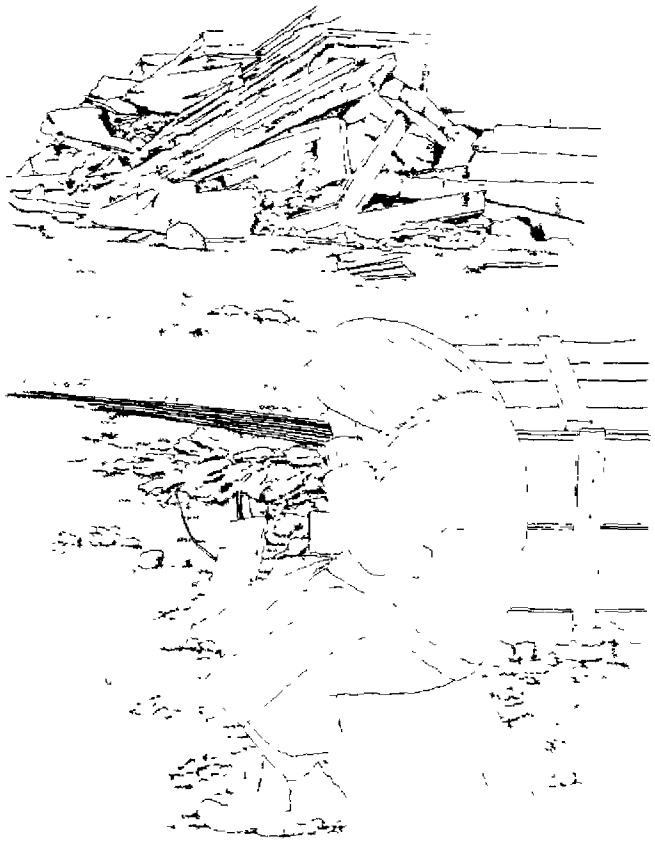
The local health workers should obtain the assistance of health volunteers, who must be trained in a few days (unless they have already had training) and given guidance in their work. It is important that people do not merely participate but are committed to their work. As far as possible, members of the community should be given the tasks of organization, information and assistance. The objectives and methods used must be discussed, shared and felt by the population.

Mental health

The psychological reactions observed in most disasters can be divided into three phases.

In the first few minutes after a disaster strikes, panic rarely occurs but may arise when the event surprises a crowd indoors in an enclosed space (cinema, place of worship, etc.). In some cases fear is accompanied by a dazed reaction; people lose their bearings and cannot do anything. In general, this is a short-lived phenomenon.

In the hours that follow, a psychological reaction can be observed in most cases that is characterized by an urge to act, to seek contact with others and to participate spontaneously in rescue work. Bureaucratic and political barriers are swept away and suddenly psychological barriers and defences characteristic of private reserved behaviour also disappear. Their place is taken on the instant by types of behaviour marked by spontaneity, solidarity and outpourings of emotion. Whatever the reason



for this positive psychological reaction, it should be known to the local health personnel (who experience it themselves in any case) and considered as the most valuable resource for coping with the situation.

In some instances, subsequent days witness the gradual onset of less active types of behaviour. The state of excitement dies down and its place may be taken first of all by a feeling of mental disquiet, which moves towards an attitude approaching slight depression, lack of confidence, fatigue, sadness and passivity Gradually the reality of hard, competitive, sometimes pitiless relationships and the restoration of the barriers, stratification and conflicts of ordinary social life gain the upper hand. The reactions of disappointment and depression are aggravated by suspicion of favouritism and preferential treatment in the distribution of relief supplies When confronted by this situation, the local health personnel must try to maintain and strengthen all the initiatives taken by the community.

Numerous experiments conducted after disasters either by local health workers or by volunteers have shown that community action influences the state of mind of the population and represents an effective means of preventing and controlling reactions of disquiet and depression. In fact, activities to maintain the community's mental well-being largely coincide for the local health personnel with the capacity to stimulate and encourage the association of groups with projects aimed at achieving concrete objectives, i.e. a capacity to spur the community on to act for itself, which is moreover essential to the success of any programme of health education.

So far as psychological disorders are concerned, depression remains the main danger to be prevented and controlled. On the other hand, it does not seem as though pre-existing mental disorders get particularly worse. Spontaneous improvements may even be observed. In any event an attempt must be made to avoid shutting out or interning the mentally ill and the handicapped: the atmosphere of solidarity and the web of intense emotional relationships which develop after a disaster may make it easier to integrate them into the community and may have a real psychotherapeutic effect.

In many cases there are reports of insomnia, bed-wetting among children, anxiety states or psychosomatic disorders (palpitations, sweating, shortness of breath, feelings of giddiness, etc.), often accompanying slight depression. One very frequent phenomenon is worth mentioning: in the weeks and sometimes months following a particularly violent earthquake which has caused great damage, it is possible to detect instability and confusion, such as those that afflict people with head injuries. They generally disappear without treatment after a few months.

Vulnerable groups

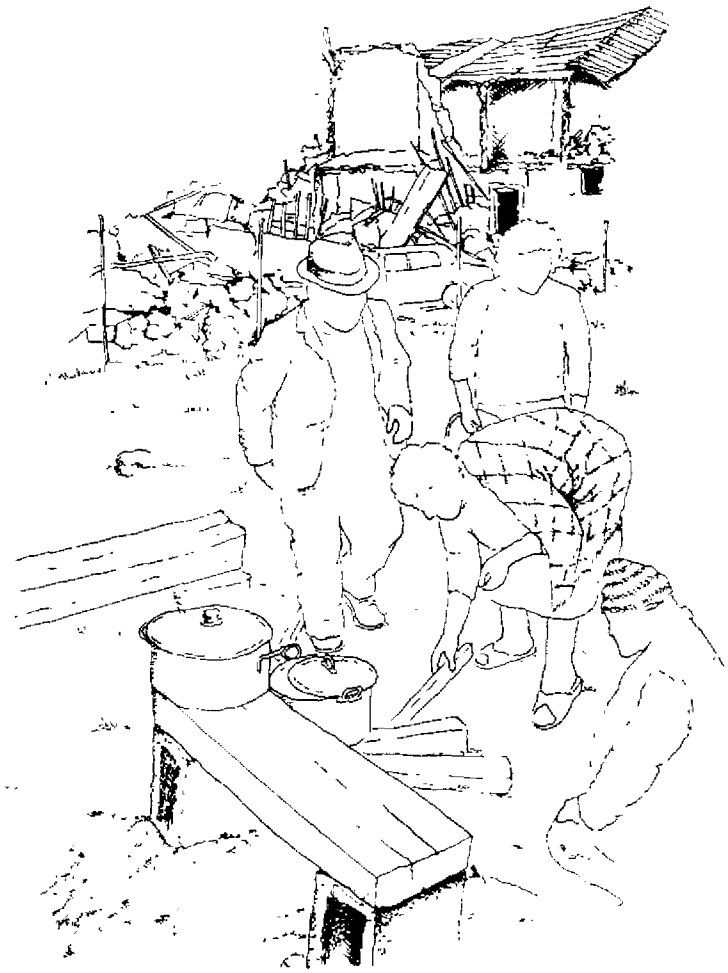
Among the various members of the community it is possible to single out groups which, having been exposed to specific risks before the disaster, may find themselves facing increased difficulties. The risk is determined by the potentially harmful effect on these groups that the environment

may exert after the disaster. Two aspects of the risk should be considered:

- the biological aspect, i.e the specific relative weakness of certain individuals in relation to the difficulties that may arise after the disaster,
- the social aspect, i.e. the specific cultural and socio-political factors that may place certain groups in difficulty

The biological risks threaten expectant and nursing mothers, children during the first few years of life and those suffering from chronic diseases. For all these groups the following factors represent supplementary risks:

- exposure to climatic changes (cold, humidity, sudden changes in weather, winds),
- the difficulty of keeping to the diet prescribed (shortage of certain foods, difficulty of preparing meals),
- the fact that everyday life causes stress and a greater expenditure of energy (travel, transport of objects, repair work, etc.),
- the increased frequency of minor accidents (cuts, injuries, burns) that may disturb a precarious balance,
- the lack of objects that make life easier (spectacles, hearing-aid batteries, etc),
- possible difficulties, delays or irregularities in the supply of particular medicaments (hypotensive agents, insulin, etc.).



The social aspect of the risks varies greatly from society to society. In certain cases superstitions, religious beliefs and rumours tend to try to point the finger at the "guilty" in the disaster. There may be ostracism of, or aggressiveness towards, particular social groups or individuals. In other cases, once the initial phase of solidarity and mutual assistance is over, the disaster may reinforce the ostracizing or marginalizing tendencies already present in social life. Certain social groups or individuals are exposed to these risks: immigrants, the mentally ill, the handicapped and socially weaker or "different" groups in general. All the social risks are accentuated and accelerated by the occurrence of corruption, crime and degradation of political life.

The local health personnel should organize specific programmes for the vulnerable groups. Every programme should encourage meetings between people with the same problems, mutual assistance and community solidarity. The periodic reports submitted by the local health workers should take into consideration the special supplies needed for the vulnerable groups.

Periodic reports by the local health personnel

As soon as possible the local health personnel should prepare periodic reports (weekly at the outset, then monthly) summarizing the information collected daily on a large sheet of paper or in an exercise book. The reports should be sent to the intermediate level, which will thus have available a supplementary source of information essential for getting to know and evaluating the local situation.

The record sheets normally provided for health reports can be used, but it should be borne in mind that under emergency conditions the following items of information take on particular importance:

- *The composition of the community* in a disaster considerable variations may occur not only because of deaths and the evacuated but also because a certain number of families or individuals may decide to leave the disaster area either temporarily or for good On the other hand persons originally from the area but living elsewhere may turn up, or else, after weeks or months, those who left the area in the first few days after the disaster may come back. It is important to know the age-structure of the local population in order to adapt health activity programmes accordingly and to assess requirements in the way of vaccines, medicaments, foodstuffs and other supplies.
- *The number and type of health personnel* among whom should also be counted local volunteers and volunteers from elsewhere.
- *The causes of death,* which constitute a universally used indicator for assessing the health situation
- *The cases it has not been possible to deal with on the spot,* and the reasons behind the decision to evacuate. This makes it possible to define realistically the sphere of action of the local health team.
- *The establishments to which people have been evacuated:* this makes it possible to adapt the data received from the intermediate level so as to make rational use of support structures and specialized centres.
- *The symptoms and diseases seen by the local health team* · this indicates the disease pattern that is developing and the number of people affected.
- *The programmes and activities under way* · this enables the intermediate level to take into account what the local team has already undertaken and to give the team indications on how to adapt its activities to the epidemiological forecasts made at intermediate level and in accordance with the evolution of the health situation in the whole of the disaster area.