

“STAYING **ALIVE** AND WELL”

Child health and disaster risk reduction



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Cover photo: "It's cold here and I want to go home. I miss my friends and I miss
my home." Karen, six, stands in the tsunami-ravaged streets of Ishinomaki, Japan.
(Photo: Jensen Walker/Getty Images for Save the Children)

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Child health and disaster risk reduction

Disaster risk reduction (DRR) is any activity carried out by a village, community, aid agency or government that helps to prepare for, mitigate, adapt to or increase resilience towards the impact of disasters. DRR saves lives. It can reduce deaths and help minimise the impact of disasters on people’s health. Examples of DRR activities include early warning systems that allow governments and communities to prepare in advance of a hurricane or drought and identifying potential hazards to allow hospitals and other health facilities to be built to withstand them. This means people are more likely to have access to healthcare in the aftermath of a disaster.

In order for DRR to have an impact on health, it must increase the resilience of health systems at all levels: community, primary, secondary and tertiary. An effective health system that improves a population’s health before a disaster, and continues to function after a disaster, is one of the most critical elements in making a country resilient to disaster. Investing in health systems before a disaster is much more efficient than merely responding to the health problems that a disaster brings. It is also cost effective – the United Nations estimates that for every \$1 invested in preparing for a disaster, \$7 of losses can be prevented.

While we know and recognise the importance of DRR, hazards such as floods, cyclones and droughts

continue to have significant impacts on people’s health around the world. There is a significant possibility that these impacts will increase as factors such as climate change and urbanisation continue apace.

Governments, NGOs and communities need to do much more to reduce risks and build the resilience of both communities and health systems. DRR must be viewed in the broader context. *We must mainstream DRR in health policies and programmes at national and local levels, while at the same time integrating health into the broader aspects of DRR and climate change adaptation.*

It is vital that all efforts consider people with specific vulnerabilities. Children are particularly vulnerable to disasters. They are more likely than adults to be injured or separated from their families and unable to access care. The main causes of child mortality – diarrhoea, acute respiratory infections, malaria and malnutrition – remain the same in times of disaster, but their incidence increases.

This paper provides guidance to encourage policy-makers (particularly those within ministries of health) and health professionals in national and international organisations to consider the impact of disasters on children’s health, and calls on them to integrate DRR into all health policies and programmes. The paper applies the Hyogo Framework for Action (see page 5) to guide the priority interventions. It also provides practical examples of activities that can help build the resilience of health systems at national, local and community levels, allowing us to safeguard children’s lives before disaster strikes.

I CHILD HEALTH AND DISASTERS

Disasters affect health – whether it is the immediate impact of a flood or earthquake causing death, injury, contamination of water, and loss of food and shelter; or the longer-term consequences from loss of livelihoods, disruption of health, water and sanitation infrastructure and systems, or rises in food and fuel prices. The exact effects of a disaster on people's health depend on the type of hazard and the specific vulnerabilities of the people affected. Many of these impacts can be anticipated and minimised through DRR.

Different people have different vulnerabilities and capacities, and therefore face different risks. Older people, women, children, and people with disabilities have unique needs in disaster situations and must be included in measures taken to identify risks, build resilience and prepare for disasters – especially measures to safeguard health and health services.

Children are particularly vulnerable. They form almost half of the population of many at-risk countries for disasters, and have very specific dependencies and needs before, during and after a disaster which, if not addressed, lead to lasting impacts not only on the child but also on their community. Children in poorer countries are, on the whole, more vulnerable to disasters than their counterparts in richer societies, due to poorer baseline health status, incomplete immunisation and malnutrition.

The exact impact of a disaster on a child's health varies depending on the nature of the hazard, but it also differs according to the age of the child.

Children under five are most vulnerable to disasters and the primary and secondary risks they pose. Most health impacts result from reduced access to basic health services, overcrowding and environmental factors such as lack of access to safe water and sanitation facilities.

While the main global causes of child mortality during humanitarian crises are the same as in non-emergency contexts, mortality rates for young children are significantly higher than average during a crisis.¹ Neonatal mortality increases due to disrupted access to health services. Children are at greater risk from communicable and vector-borne diseases such as acute respiratory infections, diarrhoea, malaria and outbreaks of measles and cholera. There is also an increased likelihood of malnutrition due to food insecurity and poor infant and young child feeding practices.² This is of particular concern as malnutrition, particularly in children under two, has long-lasting impacts on a child's development, leading to stunting and lowered cognitive abilities. Older children, while also at risk of communicable diseases, face additional risks. They may be at increased risk of abuse or child labour if separated from their family or community, and may need psychosocial help following a disaster. They may also have specific sexual and reproductive health needs which are often overlooked or not addressed.

2 CHILD HEALTH AND DISASTER RISK REDUCTION

DRR is any activity that aims to reduce the risks people face from disasters, whether carried out by a village, community, aid agency or government. These activities help to increase resilience by trying to prevent, prepare for, and mitigate or adapt to the impact of hazards. They include legislation, policies, strategies and practices that are developed and applied throughout a society to minimise vulnerability and disaster risks.³ In short, through building people's capacity in a variety of ways, DRR aims to reduce their vulnerability to hazards, and in doing so reduce the risks they face.

"In many of the countries, access to healthcare remains an issue for children and is increasingly threatened by disasters. Children want access to healthcare in their communities, with many requesting the construction of medical centres and hospitals and also renovating healthcare facilities that have been damaged by disasters."

Children's Charter for Disaster Risk Reduction, 2011

In order for DRR to be effective at reducing the impacts of disasters on child health, it is critical that the following components are addressed.

Health systems: Universal access to strong community, primary, secondary and tertiary-level healthcare, free at the point of delivery, is critical to improving child health, both before a disaster and after. The World Health Organization (WHO) states that a health system comprises six building blocks:

1. service delivery
2. health workforce
3. health information system
4. medical products, vaccines and technologies
5. health financing
6. leadership and governance.

In order for a health system to be resilient against local hazards, DRR activities must be specific to the local context and considered for each of the six components of a health system, at all levels: community, primary, secondary and tertiary care.

Mainstreaming and multi-sector working:

In order for DRR to be effective in improving child health, it must be mainstreamed across all programmes and policies. The health of a child is dependent on much more than the health sector alone. Children who are well nourished, breastfed, healthy, have access to clean water, and have received all their routine immunisations are much more likely to survive a disaster than those who don't have these advantages.⁴ Children need access to food, clean water and safe sanitation; they need to be housed and educated in buildings that are safe and appropriately placed to protect them from hazards such as floods; and they must be protected from physical and psychological hazards such as exploitation and abuse.

International coordination and campaigning can encourage leadership and uptake of DRR activities among national governments and regional bodies, which is crucial for reducing risks at scale. The UN International Strategy for Disaster Reduction (UNISDR)'s World Disaster Reduction Campaign on Hospitals Safe from Disasters outlined the need to ensure the structural and functional resilience of health facilities and improve the risk reduction capacity of health workers.⁵ 23,340 health institutes (mostly in south-east Asia) have signed up to UNISDR's 1 Million Safe Schools and Hospitals initiative since April 2010.⁶

INVOLVING CHILDREN AND THEIR COMMUNITIES IN DRR

Community and child participation are central to effective DRR and should be part of the process of addressing all priorities of the Hyogo Framework for Action. In the immediate aftermath of a disaster, it is the community itself that responds first, simply by virtue of being there.⁷ It is therefore critical that children, communities and health workers participate in risk assessments to identify local hazards, and especially the potential impact on vulnerable groups. To do this effectively, **DRR and health training** needs to be incorporated at national, local and community levels in both the formal and non-formal education curricula of high-risk countries.

The Children’s Charter for Disaster Risk Reduction has been developed through consultations with more than 600 children in 21 countries in Africa, Asia and Latin America. Children were asked about the impact of disasters on their lives, the networks that exist in their communities to tackle disasters and their priorities for DRR. The aim of the Charter is partly to raise awareness of the need for a child-centred approach to DRR. It also aims to secure stronger commitment from governments, donors and agencies to take appropriate steps to protect children and use their energy and knowledge to engage in DRR and climate change adaptation.⁸

3 THE HYOGO FRAMEWORK AND HEALTH

In January 2005, 168 governments signed up to the Hyogo Framework for Action (HFA). Its goal is to substantially reduce disaster losses by 2015 – not only loss of lives, but the loss of social, economic and environmental assets of communities and countries.

The Hyogo Framework is guided by five **priorities for action**:

- 1. Governance:** fostering an institutional basis for implementation of DRR as a priority.
- 2. Assessment, monitoring and early warning:** knowing the risks and taking action.
- 3. Knowledge and education:** building a culture of safety and resilience.
- 4. Reduce underlying risks:** in social norms, infrastructure and development practices.
- 5. Preparedness and response:** increasing people's ability to cope in the event of disaster.

The following section provides practical guidance on how to reduce the impact of disasters on child health according to the Hyogo Framework priorities for action.

PRIORITY 1 – MAKING DISASTER RISK REDUCTION A PRIORITY

HFAI highlights the important role of governance in creating an environment conducive to the implementation of DRR and the need to make DRR a priority in national and local-level planning and practice.

Leadership and governance: In order to strengthen health systems and ensure their resilience to disasters, governments, and in particular health ministries, must give strong political commitment to

making DRR in health a priority. National disaster management agencies (NDMAs), who have the lead responsibility for DRR policies, plans and guidelines, must work with the ministry of health and ministries of children's and women's affairs to identify the most appropriate DRR activities for health, ensuring that the specific needs of children are considered and incorporated into national DRR policies and planning processes. In addition, health ministries need to ensure that the DRR principles of preparedness, mitigation, early warning and education are built into strategies, policies and programmes on child health.

Health systems financing: Funding for DRR is usually made available after a disaster occurs rather than being invested in risk reduction; it is also often restricted to NDMA spending. Work on DRR and child health in poor and vulnerable communities must be carried out as a matter of routine (that is, before a disaster strikes). Governments, donors and international organisations should prioritise funding for this, as well as being aware of the principles of DRR when planning and budgeting. Health budgets should have flexibility to invest in DRR to mitigate the effects of disasters and enable an effective response to disasters as required.

Integration and coordination: In order for DRR to be effective in protecting children's health, strong coordination is required between relevant national and international agencies before, during and after a disaster. This includes integration between sectors such as education, food and agriculture, water and sanitation, and urban planning (see box on page 6). Multi-hazard risk reduction plans should be shared across sectors, allowing joint learning and coordination when preparing for and responding to disasters. In addition, integration and coordination between sectors will allow the areas of synergy to be identified, providing an opportunity to maximise resources and increase impact.

EXAMPLES OF INTEGRATION OF DRR AND CHILD HEALTH

Social services: Pregnant women and new mothers can be given support for breastfeeding and other forms of health promotion following a disaster.

Education: Children and teachers can be taught first aid and hygiene promotion to help protect them (and their families) in the immediate aftermath of a disaster.

Urban planning: Local government can identify high-risk populations where child health may be affected by hazards such as flooding or landslides.

Water and sanitation: Sharing information on water and sanitation challenges that may arise following a disaster can help the health sector plan its needs in terms of supplies in advance.

Environmental data: National meteorological offices can communicate timely information on hazards that may have an impact on health to the ministry of health. This information can also be used in conjunction with disease surveillance and response systems.

Actor	Activity
National policymakers	Make DRR a priority for health: Incorporate DRR into child health policies, plans and guidelines AND incorporate child health in disaster management policies, plans and guidelines, across sectors, as part of a comprehensive primary healthcare system.
Ministry of health, NDMAs, donors and NGOs	Make resources available to implement child health and DRR activities.
Ministry of health and NDMAs and other government departments, eg, education, agriculture, environmental health	Coordination between health and disasters offices and with departments relevant to child health to ensure maximum impact of child health and DRR activities.
Ministry of health, local health authorities and health management	Strengthen health systems to ensure that local-level health services conduct DRR activities, also ensuring that they can continue functioning in the event of an emergency and can prioritise the needs of children and other vulnerable groups.
All actors in health and DRR	Ensure community and child participation in local and national health and DRR activities, including risk identification, decision-making for DRR, action and monitoring and evaluation.

PRIORITY 2 – KNOWING THE RISKS AND TAKING ACTION

HFA2 focuses on identifying, assessing and monitoring disaster risks and taking action to respond quickly and effectively. This requires involvement and action at all levels – from national government to children and communities – and there needs to be strong communication between all actors.

Health workforce: In order for DRR to be effective in ensuring the preparedness and continuity of a health system, the health workforce must be engaged and involved in DRR activities at all stages of preparedness, response and recovery. They must play a role in risk assessment and monitoring – and planning and preparedness (HFA5) at community, primary, secondary and tertiary levels.

Assessments: Risk assessments must be conducted for all levels of a healthcare system: community, primary, secondary and tertiary. These should be multi-hazard in their approach – identifying all risks faced by populations such as floods, epidemics, droughts and earthquakes – and, where possible, considering future trends and impacts associated with climate change. The results from these risk assessments (such as the assessment of critical infrastructure including health facilities, or the mapping of high-risk areas and identification of safe spaces) must be communicated in an easily accessible format appropriate for the audience. Children’s participation in assessments is important to consider, if the context allows. Children who are involved in risk assessments are more likely to be engaged with all components of DRR.

Health management information system (HMIS): The HMIS includes national and international information systems, surveillance and early warning systems, and monitoring and evaluation systems that can detect, investigate and communicate information on hazards and vulnerable populations. This information should be collected at regular

intervals and reported at local and district levels. The data must then be communicated to the relevant district and national authorities for analysis where it can trigger prompt public health interventions as required. One example of an early warning system is the Disease Early Warning System (DEWS), which detects and highlights suspected outbreaks.

Once information has been gathered, it must then be communicated appropriately and effectively to alert officials and communities in the health sector. Staff should be trained to recognise and respond to alerts using tested emergency plans which outline correct actions in the event of an emergency. A health information system should itself be resilient, maintained and backed up, so that the information it contains is not destroyed by the disaster (as happened to the paper-based Health Information System in the 2010 Haiti earthquake).

The HMIS must collect disaggregated data. Currently, the majority of data gathered by governments on the human impact of disasters (such as mortality, morbidity or number of people displaced) is not disaggregated by gender, age or other socio-economic factors. Disaggregated data are important in allowing governments to plan for the needs of vulnerable groups and also allow the impact of disasters on these groups to be measured and monitored. This makes it easier to develop evidence-based indicators that can then be used and fed into DRR planning and policy.⁹

Another major concern when considering the impact of disasters on children is the prediction that the number of disasters will continue to increase, both in frequency and severity, as a result of the combined effects of urbanisation, environmental degradation and climate change. The past two decades have already witnessed a twofold increase in the number of disasters, and current estimates suggest that the number of people affected by disasters will continue to increase.¹⁰ Save the Children estimates that by 2017, 175 million children will be affected by disasters every year.¹¹

Actor	Activity
Leading staff in all health facilities and children’s facilities such as schools	Conduct risk assessments and ensure that facilities are built according to locally relevant hazard-resistant building codes. Conduct a risk assessment of children’s health services as part of the primary health care system, including community-based healthcare. These assessments should involve children and communities.
National and local health agencies or authorities	Develop or strengthen systems to monitor hazards and diseases that could have an impact on children’s health during disasters, as part of national hazard assessment. This information must be disseminated widely and in easily understandable formats to all relevant parties, including health and children’s facilities.
International, regional, national and local health authorities	Develop early warning systems and indicators (evidence-based where possible) that are timely and understandable to those at risk. In particular, this includes health facilities, staff at children’s facilities such as schools, children and their carers.
National, district and community-level disaster and health authorities	Collect and have access to environmental and disease surveillance data such as DEWS (including cross-border information) that allows the forecasting of potential issues of concern such as outbreaks of disease or changing weather patterns. Use this information to prepare and respond at national, district and community levels. There should also be mechanisms and processes in place to link the DEWS to early action through a timely release of contingency funding and activation of contingency plans.
NDMAs and communities	Train and assist communities to conduct participatory and community-based risk assessments, including hazard, vulnerability and capacity assessments to identify their own hazards and vulnerabilities, and support them in developing plans or policies to tackle them.

PRIORITY 3 – BUILDING A CULTURE OF SAFETY AND RESILIENCE

Increasing understanding and awareness through knowledge, innovation and education is critical to building a culture of safety and resilience. If people have access to clear and relevant information on disaster risk and preparedness plans, in appropriate formats, they will be in a much stronger position to cope in the face of disaster.

Children’s participation: While children are highly vulnerable in disasters, they are not just victims. Children are active and capable citizens who enthusiastically participate in issues that affect their

lives. Children who learn about DRR tell their peers and family members, and even educate their own communities on what to do in the event of a disaster, and where the safe places are. In our programming in India, Sri Lanka and the Philippines, among other countries, this has come hand in hand with the identification of safe escape routes from schools and communities. Practising evacuation drills enables children and adults to remain calm and evacuate safely in emergencies.

Older children can play an important role in disaster response. Ensuring that children are involved in identifying and addressing disaster risks not only strengthens the content of the messages and plans but

embeds DRR within a community and helps people understand what to do when a disaster happens. DRR must be incorporated into the formal and non-formal health education curricula of high-risk countries. DRR curricula and teaching materials should also include a focus on health and, in particular, on health education and sanitation, for girls and boys. Examples of specific

teaching activities that can help build community resilience include teaching on risk assessment and risk reduction, first aid training, safe health and hygiene training, and teaching tailored towards specific hazards such as swimming lessons for children living in areas prone to floods.

Actor	Activity
Education, in particular health education and DRR education authorities and facilities	Formal and non-formal education curricula must include teaching material on DRR and health education – and DRR training for teachers.
Community health worker trainers	Training for community health workers should include the concepts of risk awareness and risk reduction (in particular, risk assessment) and training on child health.
Local authorities and community leaders	Help communities to understand their risks and have the knowledge and tools to reduce these risks and stimulate a culture of disaster resilience that recognises the importance of focusing on children’s needs and capacities in DRR.
All DRR and health authorities or agencies, including NGOs and civil society organisations, research bodies, and local, national or international academic institutions	Plan and conduct research and evaluations to provide evidence on effectiveness of linked DRR and health interventions. This evidence should then be published and disseminated to encourage evidence-based practice.

PRIORITY 4 – REDUCE UNDERLYING RISKS

There are many ways in which people’s vulnerability to hazards is increased. In particular, as more and more people move to urban areas, new risks arise regarding sanitation and shelter. In many cases, buildings and critical infrastructure in unplanned urban areas are unable to withstand the impact of common disasters. Geographical features such as floodplains and mountainsides can pose new risks as development changes their stability or natural ability to absorb shocks. HFA4 addresses risks like these, outlining ways in which they can be minimised through investment in simple, well-known measures.

Infrastructure: When hospitals and health centres collapse or are disrupted during a sudden-onset disaster, lives are lost and children’s health suffers. Children may be unable to access vital health services when they need them most, particularly if services are unable to continue functioning or there are staff shortages as a result of the disaster.¹² Critical infrastructure and systems must be adapted and strengthened according to the outcomes of risk assessments. It is essential that donors and governments prioritise the development and enforcement of legal frameworks to ensure that vital infrastructure such as hospitals and health centres can withstand disasters and save children’s lives in emergencies. There are many ways in which health facilities can be adapted to

be resilient to disasters. The Safe Hospitals campaign highlighted the importance of adapting and reinforcing buildings to reduce the risks of damage in earthquake-prone regions. Health centres in flood-prone regions of Vietnam are built on stilts.

Service delivery: It is critical that a health system (from national to community level) is able to prepare for, cope with and recover from disasters. Service delivery includes health infrastructure, health workforce planning, management and demand for care. Service delivery must be flexible in order to plan for and respond to disasters. For example, if there is indication of an impending drought, services must be able to plan in advance and respond to increased demand. Any social barriers to accessing services in emergencies should be identified and addressed through contingency planning.

OUTLINE OF RISKS TO HEALTH

Risk = hazard × vulnerability

DRR programming works to *minimise the risks* faced by communities. It is important that it is carried out at all levels, from national government to the local community, thus building overall community resilience. It allows communities and individuals to prepare for and cope with a disaster by increasing their knowledge and awareness about risks, and facilitating preparedness activities, building better infrastructure and resources, and adjusting behaviours such as infant and young child feeding or hygiene and sanitation practices.

Actor	Activity
Government and civil society	Encourage an integrated approach to improving child health, linking health together with nutrition, water, sanitation and hygiene, food and education sectors, improving the baseline health status of children.
Governments and local authorities	Develop and adopt mandatory building codes and land use plans, particularly in urban areas, ensuring that all existing and new health and educational infrastructure is adapted or built to withstand local hazards and can remain functional in a disaster, including access to clean water and safe sanitation.
Local and national governments, NGOs and donors	Encourage, develop and implement social protection programmes such as food security and parental livelihoods programmes and programmes promoting universal access to healthcare, to assist the poorest people. These programmes should have a child-centred approach and limit the impacts of a disaster on children’s health.
The disaster and health communities	Promote an integrated cross-sectoral approach to community-based DRR and ensure the incorporation of children’s health. An example includes highlighting the importance of mitigation activities on food and livelihoods, water and sanitation, building and construction, and their impact on children’s health.
Individuals, families and communities	Promote good health and hygiene practices, and prevention of disease epidemics and pandemics by promoting the 16 key family practices: these include exclusive breastfeeding for six months, complementary feeding after six months, micronutrients for children in adequate amounts, full vaccination coverage, correct behaviour when caring for sick children, good sanitation and hygiene practices, antenatal care for pregnant women, child abuse prevention and HIV prevention and care.

PRIORITY 5 – PREPAREDNESS AND RESPONSE

HFA5 addresses the main components of preparedness and response in disaster situations. This includes physical preparedness measures such as emergency response kits, fully equipped emergency rescue services and standby arrangements (including stocks of medical supplies). It also includes 'software' arrangements such as training, coordination, contingency planning and response capacity analysis.

Preparedness and contingency planning: Health sector preparedness and contingency plans must be in place at national, district and community levels and linked effectively to early warning systems. These should outline national and local health authority responsibilities in the event of a crisis. In addition, governments, particularly health ministries and hospital or healthcare facility administrators, must empower their staff to conduct risk assessments that allow them to understand the local hazards, especially health hazards faced by children. This includes developing contingency plans for the health workforce, including pre-identified and trained surge capacity. Examples include the training of health staff to identify, manage and control likely disease outbreaks (eg, meningitis or cholera) and training health staff in the management of displaced populations.

Communities, including children, should be trained and supported to conduct local risk assessments and to develop contingency plans and strategies to

mitigate and minimise the impact of the risks they identified. These community emergency plans must consider and prioritise children in the emergency response, ensuring that they have access to food, water, shelter, protection and health services.

Networks of volunteers from the community should be identified and trained to care for, communicate with and protect children following a disaster. In addition, communities should identify key health personnel who have the relevant technical guidance and tools for managing common children's health complaints following a disaster.

Preparedness and contingency planning should also include flexibility in long-term programming and flexible funding, enabling programmes to scale up quickly in response to a crisis.

Medical products, vaccines and technology: Health system preparedness planning must include guidance on procurement, storage and use of medical products, vaccines and technologies in the event of a disaster. The procurement, for example, of contingency stocks of antibiotics and vaccines at national and district levels for annual predicted outbreaks of infectious diseases, such as meningitis, must be appropriately planned for, and contingency stocks should be held on a rotating basis to avoid expiry of stocks. Systems should also be in place to ensure that donations of breast milk substitutes are managed correctly and that breastfeeding is not undermined during an emergency.

Children with their mothers during a mothers' group meeting in Bangladesh. During the meetings, women discuss the disaster risk reduction programme. The programme includes projects that prepare children and their families for a disaster and reduce the impact it will have. This includes everything from teaching children in vulnerable coastal areas to swim, building disaster-resistant schools and other public buildings, clear evacuation routes and setting up early warning systems.



PHOTO: LOUISE DYRING NIELSON, SAVE THE CHILDREN

Actor	Activity
<p>Ministry of health and local health authorities</p>	<p>Work with other actors including NDMA to improve coordination and contingency planning and to develop a strong health system that is well informed and prepared about hazards and risks, and ready to withstand or respond to them. This includes activities focused on the six health system building blocks and also developing strong local systems for key components such as procurement of medicines and vaccines or financial control. This can help limit the impact of a disaster on service provision in countries experiencing political turmoil or in circumstances where central government is affected by natural hazards.</p>
<p>Ministry of health, NDMAs, local health services and community health workers</p>	<p>Strengthen national disease surveillance systems and health information systems to enable regular disease report collection at local and district levels. This must include systems to enable communication to the relevant health authorities at district and national levels for analysis and action.</p>
<p>Child health and education services</p>	<p>Train health staff on management of potential emergencies for the area they are working in (this could include training health staff on the likely outbreak of diseases predicted to affect their area, or on health management of mass populations if they are in a border area with the potential for population displacement).</p>
<p>Emergency health workforce and health services</p>	<p>Ensure preparedness and training so that services can continue to function during an emergency. Conduct simulation exercises to train staff and test the systems. Develop contingency plans for the likely crises. Identify trained surge capacity to respond to disasters and emergency stocks of medicines and supplies.</p>
<p>Communities and community health services</p>	<p>Develop and document networks of community health workers and volunteers trained to provide community case management, provide education messages and care for, communicate with and protect children following a disaster. In addition, identify key health personnel who are aware of the signs and symptoms of notifiable diseases and the reporting procedures. Prioritise children’s involvement in emergency preparedness planning and responses.</p>

CHILD HEALTH TO 2015 AND BEYOND

Both the Hyogo Framework for Action and the Millennium Development Goals (MDGs) are aiming towards the target year of 2015.

Disasters impede, undermine and sometimes even reverse progress towards the MDGs. Particular stress is experienced by health systems, which undermines progress towards MDG 4 (child mortality), MDG 5 (maternal mortality) and MDG 6 (HIV and AIDS, malaria and other diseases). MDG 1 (hunger and poverty) and MDG 7 (environmental sustainability, including water resources) are also affected by natural disasters.

In 2010, the MDG Review Summit produced an action plan for ‘making it happen’ – achieving the goals by 2015. The biennial *Global Assessment Report* produced by the UN International Strategy for Disaster Reduction has been monitoring HFA progress since 2005, and it is clear that significant progress is being made (though on some priorities more than others).

As the international community prepares for a new or renewed set of development goals, and the future of the HFA is decided, a conscious effort must be made by all to highlight and address the importance of DRR for child health throughout development systems.

CHILD-CENTRED APPROACHES TO DRR

Children can make a number of positive contributions to DRR, including:

- as analysers of risk and risk reduction activities
- as designers and implementers of DRR interventions at community level
- as communicators of risks and risk management options (especially to parents and adults)
- as mobilisers of resources and action for community-based resilience
- as constructors of social networks and capital.

Source: E Back, C Cameron, and T Tanner, *Children and Disaster Risk Reduction: Taking stock and moving forward*, UNICEF/Institute of Development Studies (IDS), 2009

4 SUMMARY

- Disaster risk reduction (DRR) saves lives and can help minimise the impact of disasters on children's health, both in the immediate aftermath of a disaster and in the long term. DRR is the responsibility of all those working in the health sector – from ministries of health to community health workers. They must be empowered and trained to be able to plan, prepare for and respond to disasters.
- Children are particularly vulnerable to the impact of disasters. They are more at risk of injury and loss of basic care services, and more susceptible to communicable diseases and malnutrition, which often go hand in hand. They are also vulnerable to disease, which can lead to a decrease in food consumption, creating a vicious circle of weakened immunity, more disease, and further malnutrition, which can have long-lasting impacts on their future development.
- Despite being more vulnerable, children should not be perceived as victims. Children and young people are active participants in their communities and it is important that they have the opportunity to participate in DRR activities before, during and after a disaster (child-centred action).
- In order for DRR to have an impact on health, it must increase the resilience of health systems (at community, primary, secondary and tertiary levels). An effective health system that improves a population's health before a disaster, and continues to function after a disaster, is one of the most critical elements in making a country resilient to disaster. Being proactive, by investing in health systems before a disaster, is much more efficient than being reactive, merely responding to the health problems that a disaster brings. It is also cost effective – £1 spent today on DRR saves £7 tomorrow on recovery and treatment.
- DRR should be embedded within communities to help them gain a better understanding of the hazards they are exposed to and the locally appropriate actions they can take to reduce their vulnerability; including options for more effective disaster response. Risk assessments and risk reduction planning processes should be participatory, with active engagement of children and other community members, to ensure ownership and sustainability.
- The health of a population is not solely dependent on the health sector. It requires multi-sector coordination and the integration of health into the DRR plans of other sectors, including education, water and sanitation, food, livelihoods and agriculture and urban planning. Health should also be included as an integral component within national disaster risk management and national adaptation policies and plans. Effective coordination mechanisms and monitoring and evaluation of their impact should be established at local and national levels.

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GLOSSARY

Climate change adaptation

Climate change adaptation (CCA) is the capacity of individuals, societies and systems to plan for and adapt to climate change, including climate variability (ongoing, short term and long term) and extremes (fast onset and slow onset), prevent or moderate potential damages, maximise benefits from changes in climate, or cope with the consequences.

Disaster

A serious disruption of the functioning of a community or a society, involving widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. (UNISDR)

Disaster risk reduction

Disaster risk reduction (DRR) is any activity carried out by a village, community, aid agency or government that helps to prepare for, mitigate, adapt to or increase resilience towards the impact of disasters. These activities can be legislation, policies, strategies and practices that are developed and applied throughout a society to minimise vulnerability and disaster risks. (Save the Children)

Health system

A health system consists of all organisations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more

direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example: a mother caring for a sick child at home; private providers; behaviour change programmes; vector-control campaigns; health insurance organisations; and occupational health and safety legislation. It includes inter-sectoral action by health staff – for example, encouraging the ministry of education to promote female education, a well-known determinant of better health. (WHO 2007)

Millennium Development Goals

The Millennium Development Goals (MDGs), endorsed by governments at the United Nations in September 2000, aim to improve human well-being by reducing poverty, hunger and child and maternal mortality, ensuring education for all, controlling and managing diseases, tackling gender disparity, ensuring sustainable development and pursuing global partnerships.

Resilience

The capacity of a system, community or society potentially exposed to hazards to adapt by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures. (UNISDR)

ENDNOTES

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“STAYING **ALIVE** AND WELL”

Child health and disaster risk reduction

Children are particularly vulnerable to disasters. They are more at risk of injury than adults, more likely to be separated from their families, and more susceptible to disease and malnutrition.

Disaster risk reduction activities, whether carried out by villages, communities, agencies or government save lives and can help minimise the impact of disasters on children.

One of the most critical elements in making a country resilient to disaster is an effective health system – one that improves the population’s health before a disaster strikes, and continues to function afterwards. All those working in the health sector – from community health workers to health ministry officials – must be empowered and trained to be able to prepare for and respond to disasters.

The education, water and sanitation, food, livelihoods and agriculture and urban planning sectors also all need to integrate health into their disaster risk reduction plans.

If disaster plans are to address people’s real needs and capacities, then risk assessment and planning must be done with the active involvement of communities – including children.

This paper provides guidance to encourage policy-makers and health professions to integrate disaster risk reduction into their health policies and programmes, in order to safeguard children – before and after disaster strikes.

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