

Disaster Risk Management for Health

NON- COMMUNICABLE DISEASES

Key Points

- Non-communicable diseases (NCDs) include cardiovascular disease, diabetes, cancer, chronic lung diseases and others.^{1,2,3}
- People whose health is compromised by NCDs are more vulnerable to the stresses and disruptions of disaster.⁴
- Risk reduction of NCDs requires multi-sectoral action to promote healthy behaviours.¹
- NCDs are managed by a range of health services that address prevention, treatment, rehabilitation and palliative care.²
- Health infrastructure with resilience to disasters is necessary to ensure continuity of care for people with NCDs in emergencies. Specific measures may include protection of essential equipment and stockpiling of essential medicines.
- A significant number of deaths after a disaster are as a result of inadequate health care services to cater for pre-existing conditions and illnesses.^{2,3}



Nurses checking prescription medication, Malawi. (Marko Kerac)

Why is this important?

Non-communicable diseases are a major cause of poverty, a barrier to economic development, and a neglected global emergency.⁵

60% of all global deaths are as a result of NCDs, 80% of which occur in low to middle income countries.⁵

In disasters, essential medications may be destroyed or lost and evacuees may forget to take them.³

When critical healthcare infrastructure is destroyed or rendered inaccessible, access to chronic care treatment and medication is jeopardized.³

Acute care can be compromised by inadequately controlled NCDs (e.g. orthopedic surgery is much higher risk if a patient has poorly controlled cardiovascular disease).²

Disasters can exacerbate existing NCDs.^{3,4}

With the global population aging, the level of attention given in disaster risk reduction and response will continue to rise.⁶

What are the health risks?

NCDs include cardiovascular disease, diabetes, cancer, chronic respiratory disease, blood disorders (including Sickle Cell), renal disease, arthritis and epilepsy.^{1,2,3}

Many NCDs can result from behavioural risk factors like smoking, alcohol, lack of exercise and poor diet and are therefore, preventable.⁷

Those with NCDs often depend on a continuous supply of medication and/or treatments which may be interrupted or stopped as a result of disasters.⁴

Interruption of power or safe water in an emergency, can have life threatening consequences for those requiring to refrigerate medicines (insulin for diabetes) or attend for dialysis (renal failure).

Risk management considerations

Governments and communities can ensure that the risk of NCDs in disasters is appropriately managed by:

- Undertaking risk assessments based on knowledge of pre-emergency patterns and prevalence of NCDs.⁸

- Utilizing technologies such as geographical information systems for recording where those with NCD live and identifying them quickly in the response phase.⁶
- Developing and implementing national legislation, policies and strategies to strengthen action on prevention and control of NCDs, which also take account management of NCDs in emergency situations.^{9,10}
- Development and adoption of NCD prevention and control strategies that aim to reduce the risk factors for NCDs,¹⁰ such as health promotion, regular physical activity, healthy diet, regular health visits, and reducing consumption of alcohol and tobacco.
- Protection of health facilities and equipment which provide care for people with NCDs.
- Coordination with relevant NCD stakeholders, networks and partnerships for disaster risk assessment, preparedness and response and recovery planning.¹
- Recognising and addressing the special needs of those with NCDs in health sector plans in order to facilitate the transition of pre-emergency to emergency and post-emergency care.²
- Inclusion of essential drugs and supplies for people with chronic diseases in emergency health kits.
- Providing advice to individuals and carers on the development of personal management strategies for emergency situations including evacuation strategies and back-up supply of medications.
- Utilising surveillance tools to:
 - o Establish NCD baselines,
 - o Facilitate needs assessments before, during and after emergencies
 - o Monitor and assess the effects of an emergency on NCDs
 - o Monitor and audit the short and long term effects of emergency response on NCDs.

Examples

USA (2005): In their study, *Jhung et al* found that 68% of all medications dispensed to San Antonio evacuees following the 2005 New Orleans hurricane were for NCD treatment.³

Burkina Faso (2009): In 2009 in Ouagadougou, Burkina Faso, the Ministry of Health reported that 50 renal dialysis patients had to stop treatments when dialysis machines were damaged or destroyed by flooding of the Yalgado University Hospital Centre. Some patients were in a critical state until three generators were found to continue their care.

References and further reading

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