MANAGING PROJECTS ADDRESSING NON-COMMUNICABLE DISEASES: OPERATIONAL GUIDELINES FOR FIELD STAFF

REFERENCE

ICRC

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ACRONYMS

DM	Diabetes mellitus
CERAH	Centre d'Enseignement et de Recherche en Action Humanitaire
FA	First aid
GAP	Global action plan
GDPR	General Data Protection Regulation
HCD	Health Care in Detention
HCiD	Health Care in Danger
HeRAMS	Health Resources Availability Monitoring System
HIS	Health information services
HMIS	Health management information system
HSP	Hospital Services Programme
HU	ICRC headquarters health unit
IATF	Interagency Taskforce
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
IEHK	Interagency Emergency Health Kit
IDP	Internally displaced person

IRC	International Rescue Committee
LMICs	Low- and middle-income countries
mhGAP	Mental Health Gap Action Programme
MHPSS	Mental health and psychosocial support
MIRA	Multi-Cluster Initial Rapid Assessment
MoH	Ministry of health
MSF	Médecins Sans Frontières
NCD	Non-communicable disease
OPD	Outpatient department
PCI	Primary Care International
PEN	Package of Essential Noncommunicable Disease Interventions
PfR	Planning for Results
PHC	Primary health care
PHEC	Prehospital Emergency Care
PMT	Planning and Monitoring Tool
PRP	Physical rehabilitation programme
RBM	Results-based management
SF	Substandard or falsified medical product
STEP	Standardized method for collecting, analysing and disseminating data in WHO member countries
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

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PURPOSE AND SCOPE

These operational guidelines are designed for ICRC staff who deliver health-care services in emergency settings[1] in the area of non-communicable diseases (NCDs). This document is an amended version of the *Operational Guidelines on Non-Communicable Diseases in Humanitarian Settings*, published in June 2018; the ICRC was part of the technical advisory group and editorial committee. These guidelines describe the rationale and guiding principles for addressing NCDs in humanitarian settings. They also provide operational guidance on addressing NCDs through an integrated approach that combines the ICRC's existing health programmes and activities; economic security, water and habitat experts; prevention, cooperation and protection activities; and expertise in the core issue of violence against health care (drawing on experience gained from the Health Care in Danger (HCiD) initiative). It also incorporates a continuum of care[2] between different health programmes (First Aid (FA), Prehospital Emergency Care (PHEC), Primary Health Care (PHC), Hospital Services Programme (HSP), Health Care in Detention (HCD), Physical Rehabilitation (PRP) and Mental Health and Psychosocial Support (MHPSS)), ensuring a referral pathway throughout people's lives.

These operational guidelines apply in all types of humanitarian crises, covering the initial, acute and continuing response phases. They are meant primarily for public health managers. While they do not include clinical guidance, they refer to clinical and other potentially useful guidelines and tools. They are based on an article published by the ICRC, in collaboration with the HUG, on the principles to be considered when providing NCD support in conflict settings.[3]

1 This category, which includes both natural and man-made disasters, disease outbreaks, armed conflicts and other situations of violence, is the focus of these guidelines.

2 Continuum of care refers to a person's uninterrupted access to comprehensive services and interventions that address that person's health needs and well-being, from the moment a health condition is identified until the person recovers a functional state consistent with the context.

3 S. Aebischer Perone *et al.* "Non-communicable diseases in humanitarian settings: ten essential questions", *Conflict and Health*, Vol. 11, 17 September 2017.

RATIONALE

The NCD burden is increasing globally in all age groups and all regions of the world. In 2019, 70% (41 million) of global deaths are expected to result from NCDs.[4] Almost three quarters of NCD-related deaths and 82% of premature deaths (before the age of 70) occur in low- and middle-income countries (LMICs). In addition, LMICs will see the highest increase in the NCD burden in the coming years; these countries also experience a heavy burden of acute diseases owing to economic and living conditions, and this results in a double burden of disease.

In addition to being disproportionately affected by NCDs and both acute and infectious diseases, LMICs also suffer from the highest burden of humanitarian crises.[5] Importantly, as the duration of displacement grows[6] – the average was 26 years in 2015 – the humanitarian community has increasingly needed to address NCD care in their operations.

NCD management is never easy, but it is particularly challenging in humanitarian crisis settings. This can be attributed to a number of factors,[7] including the varying demographic traits of those who are affected, the different types of humanitarian crises and the many types of NCDs and how they present. The appropriate response to such situations has been affected by recent changes in the humanitarian sphere, with conflicts occurring in higher-income countries, a growing number of protracted crises and multiple crises taking place in the same country. What's more, refugees are now outnumbered by internally displaced people, who are more likely to be housed in urban areas rather

4 World Health Organization, "Ten threats to global health in 2019", WHO, Geneva, 2019: https://www.who.int/emergencies/ten-threats-to-global-health-in-2019, accessed 29 March 2019.

5 United Nations High Commissioner for Refugees, "Figures at a glance", UNHCR, Geneva, 2019: http://www.unhcr.org/figures-at-a-glance.html, accessed 1 November 2019.

6 A protracted refugee situation refers to when 25,000 or more refugees of the same nationality have been in exile for five or more years in a given country of asylum.

7 K. Jobanputra *et al.* "Three Steps to Improve Management of Noncommunicable Diseases in Humanitarian Crises", *PLoS Medicine*, 13(11), 8 November 2016.

than camp settings.[8,9] And with increasing urbanization and population density, natural disasters are affecting far larger groups of people.

Humanitarian emergencies disrupt health-care services for those with NCDs, as health facilities are damaged or destroyed, medical staff and medications become harder to find, and health facilities get cut off by damaged transportation networks or security constraints. Patients' treatments are often interrupted.

Until now, no guidelines have been developed on responding to NCD care needs under such challenging circumstances. As a result, the responses have not been standardized[10,11,12] or evidence-based.[13,14,15] The WHO developed the Package of Essential Noncommunicable Disease Interventions (PEN) for managing NCDs at the primary health-care level in low-resource settings; these are a useful starting point, but they are not suitable for humanitarian settings. Organizations that provide NCD care in humanitarian settings should consider conducting operational research in order to improve the evidential basis for future NCD operations. The ICRC Health Strategy 2014–2018 highlighted the need for a coherent and innovative approach to managing non-communicable diseases.[16]

8 "Non-communicable diseases in humanitarian settings" (see note 3 above).

9 P.B. Spiegel *et al.* "Health-care needs of people affected by conflict: future trends and changing frameworks", *The Lancet*, 375(9711), 23 January 2010, pp. 341–345.

10 E.Y. Chan and E. Sondorp, "Medical interventions following natural disasters: missing out on chronic medical needs", *Asia-Pac J Public Health*, Vol. 19, Issue 1_suppl, 2007, pp. 45–51.

11 E.Y. Chan, "The untold stories of the Sichuan earthquake", *The Lancet*, 372(9636), 2 August 2008, pp. 359–62.

12 A.J. Demaio *et al.* "Non-Communicable Diseases in Emergencies: A Call to Action", *PLOS Currents Disasters*, Ed. 1, 6 September 2013.

13 "Three Steps" (see note 7 above).

14 A. Ruby *et al.* "The Effectiveness of Interventions for Non-Communicable Diseases in Humanitarian Crises: A Systematic Review", *PLoS ONE* 10(9), 25 September 2015.

15 P. Boulle *et al.* "Challenges associated with providing diabetes care in humanitarian settings", *The Lancet*, 7(8), 1 August 2019, pp. 648–656.

16 ICRC, *Non-communicable diseases in armed conflict: ICRC's perspective*, ICRC, Geneva, 2017.

These guidelines were written to help ICRC health staff improve how the NCDs that the ICRC treats with priority – diabetes, cardiovascular disease with hypertension, asthma, chronic obstructive pulmonary disease, epilepsy, depression and schizophrenia – are managed, in accordance with the NCD framework (see Figure 1).

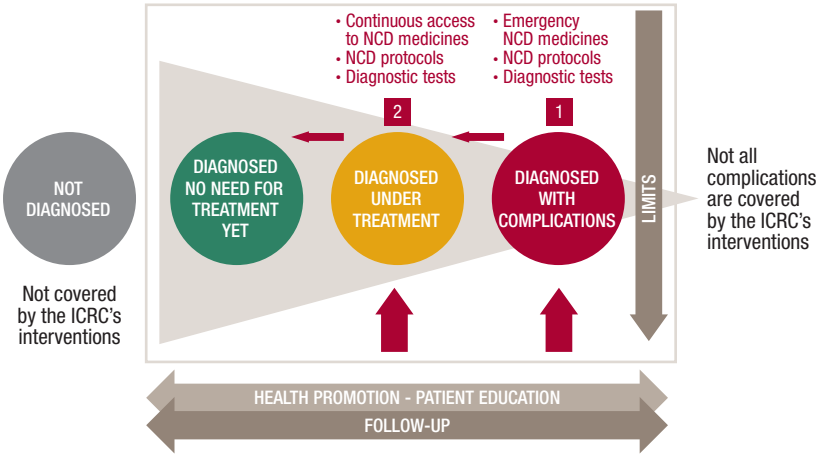

Figure 1. The ICRC's NCD framework[17]

17 In its interventions, the ICRC only addresses highly prevalent NCDs that have, if left untreated, severe consequences (e.g. cardiovascular diseases with a focus on hypertension, diabetes, COPD/asthma and epilepsy; and psychosis and depression within MHPSS programmes). Its interventions do not include screening, and they set out guidelines for how complications (such as cardiovascular complications) should be managed, i.e. with patients being referred to higher levels of care. The public health approach described in the ICRC's Health Strategy does not allow for hemodialysis support (tertiary level of care) in crisis situations if there are significant levels of unmet primary and secondary healthcare needs.

KEY COMPONENTS OF NCD MANAGEMENT

NCD management should be incorporated as quickly as possible into the health services provided by the ICRC in response to humanitarian crises, with the goal of preventing excess mortality and morbidity.

Not all of the following components of NCD care are systematically addressed in a "traditional" medical humanitarian response – particularly the question of follow-up care – but they all play an important role in preventing the negative consequences of non-communicable diseases.

LIFE-SAVING CARE/SYMPTOMATIC PATIENTS

In a humanitarian emergency, saving lives is usually the top priority. Maintaining some capacity for managing acute, potentially life-threatening symptoms should therefore be a component of NCD management – whether through direct care or referrals.

FOLLOW-UP CARE

Most NCDs require a continuum of care. In addition to managing acute, life-threatening or uncontrolled conditions, health-care staff must provide follow-up care. This includes monitoring disease progression and managing long-term complications. Follow-up care includes regular clinical consultations (including, whenever necessary, specialized services), medicines, medical devices, laboratory tests and ongoing patient education. Patients should be monitored for treatment adherence, side effects and complications.

CONTINUUM OF CARE[18]

Properly caring for people with NCDs requires reliable and affordable access to medicines. If their treatment is interrupted, patients' condition may worsen and they can suffer rebound effects. During an acute crisis, however, it may not be possible to maintain expensive and complex medical regimens. In such cases, it is recommended to use non-proprietary medicines; health-care providers and patients should be trained on their use. For certain diseases, treatment bundles – comprising both medicines and diagnostic devices and equipment – can help ensure uninterrupted treatment.

New medicines should not be introduced if they will be discontinued after responsibility for treatment is handed over to the local authorities.

Patients in transition, especially if they are migrants, should have individual contingency plans for treating their NCDs. For example, they could be informed of locations along their route where they could consult with a health-care professional, or they could be provided with extra medication to cover periods during which they will not have access to the medications they need or to a health facility.

Wherever feasible, patients should bring their medical records with them, as this will make it easier for the new health facility to treat them properly. The records could be carried in digital form, for example, by taking a picture of their file, record, card or paper.

Whenever possible, the medicines prescribed and provided in all health facilities should be the ones found on the national government's list of essential medicines and/or the WHO's model list of essential medicines. The staff must therefore be trained on Rational Drug Prescription, which ensures they will prescribe appropriate and affordable NCD medications and guarantees the continuum of treatment. And because counterfeit medications are sometimes sold, staff members must ensure genuine medications are provided.

18 See note 2 above.

The continuum of care is more easily achieved when all health providers and the local health authorities are able to work together, and when existing health structures are able to provide the required treatments.

Patients are more likely to adhere to treatment when the staff follow the simplified protocols and guidelines set out by the local health authorities, such as the ministry of health (MoH). Good communication and consultation skills among the staff, and an emphasis on prescribing medicines that are known and tolerated by patients, also help.

REFERRAL PATHWAYS[19]

Managing acute conditions once the initial situation has stabilized (e.g. kidney failure, myocardial infarction or stroke) requires referral pathways from the community to the primary (PHC), secondary and tertiary level care centres. Staff should rapidly put these pathways into place, depending on local availability and the local situation. The initial needs assessment should provide the necessary information on which health services and transport systems are available locally. Likewise, the staff should set up a strategy to ensure that new and returning patients attend consultations and comply with their treatments and that appropriate consultations and services are offered. Costs, including for transport, should be considered wherever necessary.

For example, an insulin-dependent diabetic woman who has been amputated visits the PHC clinic. During the consultation it comes out that she is not compliant in her treatment and has not made follow-up visits to the PRP centre. The patient is given treatment, a follow-up appointment, a referral letter and money to pay for transport to the PRP centre. A call ahead to the centre is made, and a return call confirming attendance is planned.

19 United Nations High Commissioner for Refugees, *UNHCR's Principles and Guidance for Referral Health Care for Refugees and Other Persons of Concern*, UNHCR, Geneva, 2009: http://www.unhcr.org/4b4c4fca9.pdf, accessed 1 November 2019.

THERAPEUTIC PATIENT EDUCATION/PATIENT SELF-MANAGEMENT

Besides medical treatment, NCD patients require information, education and appropriate local tools to help them manage their condition. Educating patients on their therapies is empowering and promotes self-management. These are key aspects of managing any chronic condition, and they are particularly pertinent when dealing with a mobile population that frequently changes health services and providers.[20]

ACCOUNTABILITY TOWARDS BENEFICIARIES

Engagement with beneficiaries can contribute to NCD management by promoting autonomy, increasing the level of support, enhancing the continuum of care and easing the pressure on existing health structures.

Most primary health care centres have their own health committee on which beneficiaries are represented. Activities such as providing information on available services, follow-up care (e.g. supervision of therapy), and patient education (e.g. healthy lifestyle) can be delegated to community health volunteers, self-help groups or NCD community leaders.

The health committee will oversee the whole process, ensuring that the "invisible are made visible": committee members will go out in search of particularly vulnerable NCD patients who are not going to the health centre on their own.

Patient support groups should be put in place where they do not exist. Furthermore, key messages on healthy living could be delivered to individuals with NCDs during individual therapy sessions, thereby promoting self-management.

20 Diabetes Education Study Group of the European Association for the Study of Diabetes. "Survival Kit: The Five-Minute Education Kit. A Document for Health Care Providers and Patients", *Diabetic Medicine*, 12(11), 1995, pp. 1022–43.

PREVENTION

Promoting healthy behaviour is not the top priority in any humanitarian response, but it can be implemented once the situation has stabilized and resources allow. However, in patients who have already been diagnosed, it is important to take the necessary measures to prevent the disease from progressing and to avoid complications. These include simple, cheap and proven measures such as regular foot care in diabetic patients and aspirin after myocardial infarction.

Promoting the prevention of NCDs within communities is not a priority in emergency situations, but where community programmes exist, the promotion of healthy behaviour can be integrated into all health programmes, including outreach activities, and be part of community engagement and empowerment efforts.

Diet is a key component of managing cardiovascular disease and diabetes, and dietary advice from a specialist should be provided. However, people in humanitarian settings may have limited access to a variety of foods, especially if they rely on food aid. In this case, preparing a balanced diet that covers their specific nutritional needs may not be feasible. In such circumstances, links with organizations that provide food supplies are needed so that they can help people achieve the right balance of nutrients in their food, provide aid baskets or offer vouchers for specific food groups in order to supplement people's rations. Ensuring that food rations do not contain high levels of sugar, oil and salt represents a general benefit and addresses the needs of specific patient groups. Depending on what kind of programmes the ICRC has in a specific location, linking the project to EcoSec programmes should be explored (to facilitate community gardening, for example). Giving people the chance to grow their own fruits and vegetables would provide them with a physical activity, improve their nutrition and empower them personally, potentially benefiting their mental health. And when EcoSec teams deliver seeds, they could also pass on nutrition-related messages (regarding dietary diversification, for example).

Specific groups, such as pregnant women, children, the elderly and people with Type 1 diabetes, need special attention, as they may require specific types of food rations very early in an intervention.

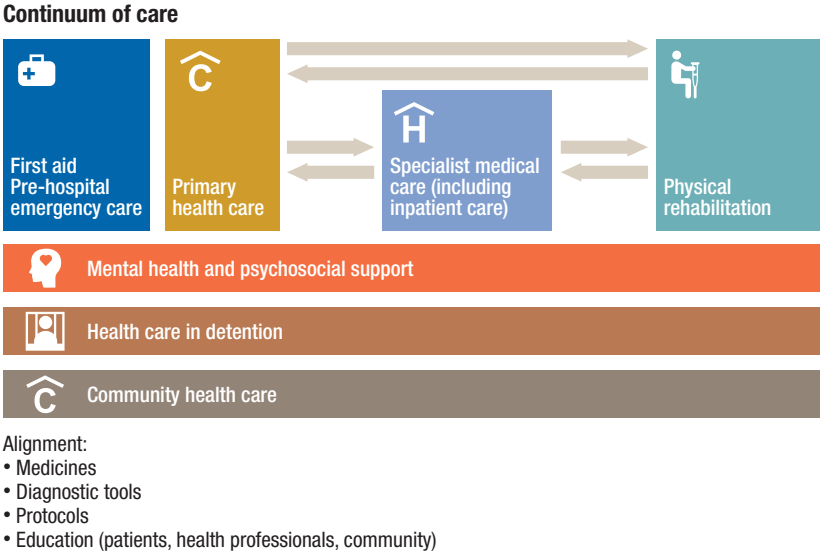

Figure 2. The ICRC's continuum of care

All key components of NCD management play a part in the continuum of care for NCDs. Individuals living with an NCD require not only medical care but also assistance in other areas, such as their livelihood.

OPERATIONALIZING THE NCD RESPONSE

Before the NCD response can be operationalized (i.e. before a crisis occurs), agencies need to be prepared to manage NCDs in humanitarian situations. However, this document does not cover preparedness plans. For the ICRC, the task of managing NCDs is incorporated into its existing health services (FA, PHEC, PHC, HSP, HCD, MHPSS and PRP).

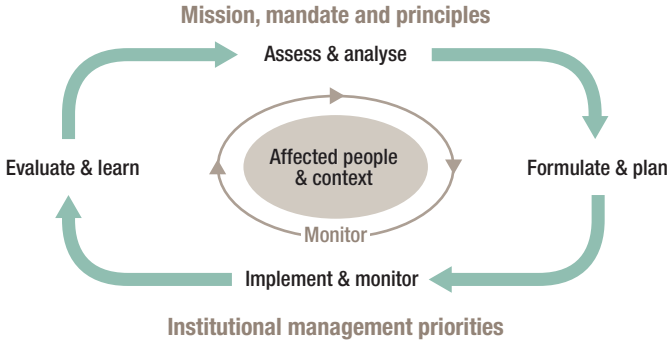

Figure 3. Results-based management (RBM) cycle

The ICRC's RBM cycle is divided into four stages: 1. assess and analyse; 2. formulate and plan; 3. implement and monitor; and 4. review/evaluate and learn. This cycle implies having a clear understanding of the context in which we work (assess and analyse); defining the objectives that will address the needs identified through our assessment (formulate and plan); carrying out the actions required to achieve our objectives and keeping track of progress (implement and monitor); and assessing if our objectives are likely to be achieved/have been achieved, taking note of the reasons why or why not (review/evaluate and learn). The cycle should be completed by reporting and sharing results, including with those both internally and externally involved.

The task of operationalizing the response for NCD management should follow the RBM approach so as to make it more effective and demonstrate how it can assist and protect people affected by armed conflict and other situations of violence.

A. ASSESS AND ANALYSE[21]

Information on NCDs should be integrated into general needs assessments and address the following points:[22]

- demographic information on the affected group (e.g. age, gender, socioeconomic situation; and status of the targeted group, such as refugees, internally displaced people and host communities)
- the NCD burden in the affected group (i.e. type of NCDs and respective prevalence)
- related lifestyle issues such as recent changes in lifestyle or nutrition, or new unhealthy habits
- usual health system infrastructure and patient pathways for the delivery of NCD services (mapping)
- actors involved in NCD care (local and international)
- access to health services and/or local coping mechanisms, such as access to standard treatment for hypertension if health services are not available or reachable (factors include availability; affordability; acceptability; quality; distance; security for patients, families and health teams; barriers; and legal framework)[23]

21 During the first phase of the RBM cycle, we seek to understand the humanitarian situation of the beneficiary groups and relevant stakeholders at the delegation level as well as the needs of specific target groups on the ground. The first step in any intervention is to carry out a situation analysis. The situation analysis ultimately provides an overview of the physical and human geography of a particular context; its political, economic and administrative organization; and certain historical elements.

22 "Non-communicable diseases in humanitarian settings" (see note 3 above).

23 World Health Organization, "Availability, affordability, acceptability, quality. Infographic", WHO, Geneva, 2016: https://www.who.int/gender-equity-rights/knowledge/aaaq-infographic/en/, accessed 1 November 2019.

- available services for NCD patients (if still functioning), e.g. qualified NCD staff, usual NCD medicines, and NCD diagnostic and monitoring tools and equipment
- existing national NCD guidelines and essential drug list
- the procurement of NCD drugs
- options for managing NCD patients' acute conditions and other complications
- the health information system and whether NCDs are included (at country and patient level)
- local/traditional methods of treating NCDs and/or if local healers are generally present.

Information can be gathered through the following mechanisms:

1. Existing data sources, such as:

- updated health assessments/surveys (e.g. WHO NCD country profiles, IATF country level assessments, STEP surveys)
- MoH or equivalent actor in charge (e.g. health information management systems, policies and protocols)
- interagency information portals.

2. Assessments:

- Assessments should include interviews with key informants (MoH, other health providers, patients, including those often "unrecognized" people in need, traditional healers, caregivers and weapon bearers; they must be aware of the burden of NCDs and understand the importance of health service delivery for those in need), while at the same time enquiring about their local coping strategies and unregulated pharmaceutical markets.
- Ministries of health should be encouraged to ensure NCDs are included in existing general and health-specific assessment tools.
- Some examples of assessment tools: Multi-Cluster Initial Rapid Assessment (MIRA), Health Resources Availability Monitoring System (HeRAMS), and those of the HU and WHO.

B. FORMULATE (YOUR OBJECTIVES) AND PLAN (YOUR ACTIVITIES)[24]

Planning the response includes identifying intervention gaps in NCD management, the most urgent needs and the available resources (human and financial, internal and external). Then, given the specific context, you must decide which interventions/services regarding NCD management are to be prioritized and implemented on the ground. As an example of SO formulation for NCDs, please refer to the health wiki.

NCD interventions should be planned and implemented in such a way as to complement and strengthen the health system's service delivery at the different levels and should be closely coordinated with all actors (e.g. international NGOs) to ensure proper management. For an example, please refer to the implementation checklist prepared for Syria. It was designed to improve access to proper diagnosis, treatment and follow-up for vulnerable patients affected by common NCDs – and patients with insulin-dependent diabetes in particular – in the catchment areas of ICRC-supported centres.

B.1 PRIORITY NCDs IN HUMANITARIAN SETTINGS

NCDs is a broad term covering many diseases, and any medical programme addressing them needs to select the diseases for which medication and care will be provided. For this guidance document, the following conditions are considered priority NCDs:

- cardiovascular diseases (including heart failure of any aetiology and coronary heart disease)
- high blood pressure
- asthma, chronic obstructive pulmonary diseases
- diabetes mellitus
- epilepsy
- psychiatric diseases (psychosis, depression and anxiety).

24 The formulate and plan phase defines the desired future situation and establishes the objectives, strategies and activities that are needed to achieve it, taking into account local capacities, the ICRC's mandate and capacities, and any constraints and risks. During this phase, operational strategies, objectives, and resource and action plans are developed to address the different issues raised during the situation and problem analyses. This phase is completed by identifying the desired results that the ICRC hopes each delegation will achieve for or through targeted groups.

These diseases were chosen based on need and feasibility of care in field operations. They are prevalent around the world and commonly encountered by humanitarian organizations. They also reflect the WHO's priority NCDs. However, in a specific humanitarian setting, a certain degree of flexibility is needed when selecting the NCDs to be addressed. Priority conditions should be further defined based on the needs of the affected population, the context, the existing response and the ICRC's capacity.

Long-term complications of NCDs, such as disability, stroke or amputation as a result of diabetes should also be considered. Other chronic conditions relevant to humanitarian settings or highly prevalent in certain regions of the world could be added where appropriate, including pre-existing mental health conditions (e.g. schizophrenia and depression within the ICRC's MHPSS projects). Acute mental illness resulting from the stresses of a humanitarian crisis should be managed in accordance with existing emergency relief protocols for mental health, such as the ICRC's basic psychiatric care package.

B.2 PRIORITIZING THE DELIVERY OF CARE

In humanitarian settings, prioritizing NCD services/interventions might be required depending on the availability of resources (e.g. human and financial) and the local situation. NCDs encompass a spectrum of presentations, from risk factors to disease (which can be asymptomatic or symptomatic) to complications. In a humanitarian response, it may not be possible to treat the full spectrum of the condition, and the individual components of disease presentation can be prioritized depending on the stage of intervention, the duration of intervention and the response capacity, in accordance with the ICRC's public health approach.

Some services/interventions might need to be temporarily deprioritized in the initial phase of the response and integrated later on when the response enters a more stable phase. Others might not be relevant or feasible at the health facility where care is provided. For example, it is rarely possible to provide cancer chemotherapy or dialysis for end-stage renal disease.[25] These patients should be referred to second- and third-level hospitals wherever possible.

25 P. Spiegel, A. Khalifa and F.J. Mateen, "Cancer in Refugees in Jordan and Syria between 2009 and 2012: Challenges and the Way Forward in Humanitarian Emergencies", *The Lancet Oncology*, 15(7), June 2014, pp. 290–7.

Some of the supportive/palliative components of care remain important at every stage of the response.[26]

1. Stabilization, management and referral

Life-threatening and symptomatic presentations should be given top priority, and care should be provided early in the response. In some situations, this will involve stabilization and referral, where the capacity for providing direct care does not exist. Examples include patients with diabetic ketoacidosis, an acute asthma attack or cardiac chest pain. Please refer to MSF and PCI guidelines on the extent of interventions that are possible at the level of prehospital emergency care, PHC and secondary care. Where referral is not possible (i.e. road blocks or unsafe checkpoints), patients must be managed through a palliative care approach.

2. Continuum of care

Continuum of care for previously diagnosed patients is a priority given the risk of complications and acute exacerbations. NCDs include a wide range of diseases and clinical presentations that all require continuous care, but some individuals with NCDs are more prone to critical acute exacerbations and need to be prioritized to reduce morbidity and mortality. For example, an individual with type 1 diabetes is at great risk of serious complications and even death if deprived of insulin for just a few days, whereas patients with stable isolated hypertension may tolerate a short-term interruption in medication without immediate consequences.

Therefore, in an emergency, consider prioritizing patients considered to be at higher risk of complications – those who are symptomatic and those for whom medication interruption is likely to have significant consequences.[27] For example, NCD patients returning to Syria can be offered a bundled treatment to cover a few months, thereby facilitating the transition. Information on health facilities for cross-border referrals may also be provided. Coordinating with other organizations on the ground is essential to optimize resource sharing. Furthermore, those who have had recent disease instability and those with multiple co-morbidities should be prioritized.

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26 World Health Organization. *Integrating palliative care and symptom relief into primary health care: a WHO guide for planners, implementers and managers*, WHO, Geneva, 2018: https://apps.who.int/iris/handle/10665/274559, accessed 1 November 2019.

27 Médecins Sans Frontières. *Non Communicable Diseases - Programmatic and Clinical Guidelines*, MSF, Geneva, March 2018, http://hdl.handle.net/10144/619084.

Patients in humanitarian settings often face a higher risk because of factors such as stress, loss of family, and loss of livelihood and home. It is therefore critical to not only monitor any changes in the pathways along the continuum of care such as supply disruptions, gaps or shortages that may require support and attention from time to time, but also to pay close attention to each individual case and the patient's circumstances, which may also require action. For example, a patient with a first-time hypertensive crisis, once stabilized, should be referred to a secondary facility for an assessment of the disease and any organ damage and to receive a treatment plan. Safety nets may be required to support compliance and good treatment management. Moreover, mental health and psychosocial needs often arise or worsen and need to be included in any multidisciplinary response.

3. Complications

The complications of NCDs often require more sophisticated care – such as management of renal failure, advanced diabetic foot disease or stroke. The management of such pathologies may not be readily available, accessible or possible in an emergency setting, and referral systems should be established.

4. New diagnosis

In general, patients may be diagnosed with an NCD because they present with symptoms, because the clinician elects to investigate them due to clinical suspicion or because they are at risk (checking blood pressure in diabetic patients and pregnant women, for example). In humanitarian settings, diagnosing new patients is not usually a priority, although symptomatic patients should always be investigated. Proactively seeking patients and implementing systematic screening are not within the scope of our programmes, although they could be considered under limited circumstances where the capacity to manage newly diagnosed patients is assured, the system has the capacity to absorb new patients, and there is evidence that the planned screening is cost-effective.

Clear diagnostic criteria should be available and adhere to international or national guidelines (such as PEN). For example, hypertension should only be diagnosed after several measurements, and cardiovascular risk charts should be used to risk-stratify patients.

B.3 ORGANIZING CARE

NCD care is usually a part of all health programmes. Primary health care is often the entry point and the place where most patients will continue to be managed. Given the chronic nature of NCD care and the prevalence of comorbidities, the consultation time per patient is usually longer, and this should be factored in when determining how to organize care (e.g. specific rooms or places for consultation and patient education). If follow-up is possible at the same place, consultation times (potentially with dedicated days and/or appointments) should be established with dedicated clinical staff. The decision to set up dedicated NCD clinic hours or, alternatively, to incorporate NCD follow-up care into the routine Outpatient Department (OPD) system will depend largely on the caseload and the clinic's capacity. This means, in order to properly follow up on patients, creating an appointment system including tracing (see the next paragraph). Different risk profiles exist among patients with NCDs. The interval of follow-up will change as a function of disease stability, complexity and the risk of complications. Patients with an uncontrolled NCD or recovering from an acute condition may require weekly visits, whereas those with a stable and controlled disease may only require visits once every three or six months.

Achieving patient follow-up can be particularly challenging in humanitarian situations, and access constraints should be regularly assessed so as to adapt the system where necessary. In clinics receiving unscheduled visits, most of the patients come early in the morning in order to be seen the same day. This causes congestion with little consultation time available to solve their problems. The use of an appointment follow-up system makes it easier to plan the work and can be implemented flexibly in different settings using simple tools (e.g. a paper appointment book for the health facility and cards for patients where the time and day of the appointment are written down or drawn). Furthermore, several timeslots per day should be set aside to allow for unscheduled patients and emergencies. Two other possibilities would be to take advantage of the widespread use of phones to set up an appointment-and-reminder system by SMS, or to have an electronic medical record for NCD patient consultations, where the health provider is able to access patients' health information online and from the comfort of the consultation room. To improve access for "invisible" patients or those with reduced mobility, close collaboration with the health committee and community health workers could link the health system to the community or patient.

In some emergency settings, health services are delivered through mobile clinics and outreach programmes, which can also take on NCD care. What's more, if resources allow, home visits could be provided to specific vulnerable groups that are unable to access services, such as the elderly or those with disabilities.

For transparency and accountability reasons, it is also important to make clear to all patients that the fragility of the context may affect follow-up. They should understand very clearly the need to commit to self-care and treatment. Also, health teams should be reminded that any changes in the treatment plans initially shared with the patients should be communicated to the patients as quickly and effectively as possible.

Task shifting and sharing – as done in HIV programmes where stable patients are followed up by nurses – should be considered to ensure resources are used rationally and in keeping with priorities.[28,29] For example, doctors might manage treatment initiation, while nurses handle routine treatment continuation. In addition, the burden on health facilities can be reduced by empowering patients and facilitating peer group support.

Task-sharing is also important for patient education, which can be provided by a variety of team members, including health promotion staff. Topics such as disease literacy, treatment adherence, medication side effects and healthy lifestyles should be discussed. Patient education should be provided at each visit during every phase of the response. When resources are limited and in the early phase of the response, health-care providers can deliver standardized messages covering the basics of NCD management during medical visits. Later in the response, the topics covered can be expanded according to the patient's specific needs, and they can be taught by other people. For instance, community activities and NCD support groups are good venues for delivering educational messages, which can be done in conjunction with the community.

28 J.K. Edwards *et al.* "HIV with non-communicable diseases in primary care in Kibera, Nairobi, Kenya: characteristics and outcomes 2010-2013", *Trans R Soc Trop Med Hyg.* 109:7, July 2015, pp. 440–6.

29 "Three Steps" (see note 7 above).

When feasible and available, patient-held clinical records should be used to promote clinical continuum and systematic care, especially in mobile populations. In addition, small booklets with pictograms and simplified explanations of treatments and recommendations for the next appointment could be used. The choice of where clinical records will be held (at the clinic or patient-held) is an important one that should be made after analysing how confidential the information is. This is because in some contexts patients might be required to show all their belongings – including these records – at checkpoints or during security raids. It may also make sense to discuss with patients how the disclosure of their records could affect their lives in view of their current situation.

B.4 COORDINATION AND PARTNERSHIP

The response to NCDs should be in line with the national health system and integrated into existing NCD services and programmes when possible. This approach will encourage local participation and facilitate the future handover of the activities to national staff. Not all stakeholders will provide the whole range of interventions and health services.

Coordination with international and local organizations involved in NCD care should be ensured. The decision on whether or not to set up a specific working group on NCDs under the health cluster/sector coordination mechanisms can be made during the assessment or prioritization process.

In addition, other local resources such as HIV and TB programmes, community groups, women's groups, elders and patient associations can be useful partners in assisting with the management of NCDs during crises; they can also be a link to post-crisis care. In some settings, health committees play an important role in the coordination of NCD management for their catchment population. The National Society has resources such as patient education programmes and support networks. One of the ICRC's strategic organizational objectives is to increase and improve partnerships in conjunction with other entities. Since nearly all National Red Cross and Red Crescent Societies work in and for communities through a support network, ICRC staff are encouraged to (i) verify if the National Society already plays a role in the domestic NCD response, possibly supported by or using IFRC guidelines, (ii) include the National Society in the ICRC's planned NCD needs assessments, and, depending on the assessment results, (iii) consider whether it makes more sense to support and grow existing NCD activities undertaken by the National Society than to initiate NCD programmes of their own.

Although security forces and weapon bearers are generally not natural partners when it comes to providing health care, a transparent dialogue with them could improve access and remove barriers for both the health-care teams and patients. In such cases, internal coordination with protection or management colleagues will be required to inform these potential partners of the situation and, where relevant, negotiate terms under which health services can be provided safely and without interruption.

B.5 RESOURCES

HUMAN RESOURCES

Staffing requirements for managing NCDs include nurses, general medical practitioners, health promotion staff, community health workers and specialist doctors. When resources allow, physiotherapists and MHPSS staff may be added to the team. NCD focal points should be appointed. A dedicated, full-time ICRC health delegate is a pre-requisite for the overall day-to-day management of the NCD programme. A medical doctor must make weekly visits to the health centre and be available for consultation at other times. In coordination with the MoH, nurses with the necessary skills must be available to follow up with patients. As part of the Learning and Development Pathways within the Health Unit, the one-week short course on chronic diseases offered by the Centre d'Enseignement et de Recherche en Action Humanitaire (CERAH) is an asset for ICRC mobile health staff directly engaged in NCD programmes. Online courses such as the e-learning courses offered by the University of Copenhagen (Non-Communicable Diseases in Humanitarian Settings) and MSF are among the resources available to upskill staff. Standardized training materials and context-appropriate guidelines should be made available to enhance staff knowledge and skills for NCD management. Regular evaluation of staff performance should be set up. If existing human resources (ICRC and other health facility staff) do not have the necessary skills or experience for NCD management, they may need to be supported by additional experienced staff or capacity building. This should be considered during the needs assessment and planning.

In addition, educating NCD patients is of utmost importance since NCDs are life-long illnesses that require ongoing treatment. Here, the emphasis must be placed on patients owning their illness, which will empower them to effectively and efficiently manage it and maintain or even improve their health.[30] This is particularly important in emergency settings where treatment disruptions and interruptions are common. This may lead to non-proprietary drugs being replaced by brand names or the other way around, or changes in health facilities and staff, leaving patients to rely on their own knowledge base to ensure compliance.

A patient passport or patient-held card can contain valuable information about the patient's condition and how to manage it, but it should only be considered secondary to the patient's knowledge and understanding.

SUPPLIES

NCD patients should have uninterrupted access to affordable medical supplies (i.e. essential medicines, laboratory tests and medical devices such as glucose meters). There are a few considerations to keep in mind regarding supplies, including the existing medical supply chain (in order to combat the use of black-market and substandard and falsified (SF) products).

Medicine and medical devices: Whenever possible, the type of medicine and medical devices should be based on the national essential drug list (if an updated one exists). Otherwise, the WHO model list for essential medicines and the 2010 WHO PEN list for devices can be used.[31] (For all resources, see the section annexes at the end of this document.) It is very important to provide quality-assured drugs. The use of non-proprietary drugs is usually less expensive. Patients and health professionals may be used to pricier, branded medicines. Training and supervision in rational drug prescription and targeted patient education on the safety and efficacy of non-proprietary medicines should be conducted to address this issue. In high-risk settings, consider whether strategically placing medication stocks at health facilities can help

30 "Survival Kit: The Five-Minute Education Kit" (see note 20 above).

31 World Health Organization, *Package of Essential Noncommunicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings*, WHO, Geneva, 2010: http://www.who.int/nmh/publications/essential_ncd_interventions_lr_settings.pdf, accessed 12 May 2017.

prevent treatment interruption if the usual supply is disrupted.[32] Runaway packs could also be provided.

Emergency health kits: The 2017 version of the Interagency Emergency Health Kit (IEHK) includes some medicines for patients presenting with acute exacerbations of NCDs. A dedicated WHO NCD kit for managing acute and stable NCDs is also available.

Laboratory tests: In addition to medicines, both diagnostic tests and equipment are needed. The choice of equipment, just like the choice of medicines, will be based on the local situation (including the staff's ability to interpret results). Laboratory tests are also needed to select medicines and monitor adverse events. It may be possible to use existing laboratories, if they have reliable supply and quality-control mechanisms, but a number of relevant point-of-care tests exist and should be considered.

Key supply considerations

- A list of supplies based on the prioritized interventions.
- A system for procuring and storing supplies.
- A cold chain capacity for insulin. This aspect can be coordinated with other humanitarian agencies that provide services requiring a cold chain, such as immunization.
- A buffer stock in the event the supply chain is disrupted, the services have to be quickly moved for security reasons, or there is a massive increase in the demand for NCD care.
- A method for regularly (e.g. monthly) and systematically replenishing inventories.
- Where no national system is in place, the use of the Imprest System should be encouraged.
- Buying locally versus internationally, particularly in view of national preference.[33]
- Importing and licensing requirements.

32 This should be taken into consideration in the contingency plan or the health-facility security assessment and coordinated with the colleagues involved in that process.

33 This requires a functioning national system, which is not a given everywhere. Greece, for example, does not have a non-proprietary product system; only costly brands from international manufacturers are used. The non-proprietary drugs provided through the IDA Foundation are licensed for use only outside of the European Union due to EU market regulations. Greece is therefore excluded.

- Quality assurance.
- Maintenance options.
- Supply of renewables and spare parts.
- Ability to hand over.
- Language used in product information (must be understandable by end users).

B.6 HEALTH MANAGEMENT INFORMATION SYSTEM

The health information system for NCDs provides data for the RBM of chronic conditions. Data collection for chronic diseases should include more parameters than just the aggregate consultation numbers and diagnoses that are typically collected in humanitarian crisis situations. The availability of information on cohort size, patient outcomes and comorbidities would improve the monitoring process. Individualized data collection is recommended. Furthermore, a strategy allowing patients to have access to their key medical information independently of their mobility should be developed. An example of this is the concept of a patient-held record (e.g. a health passport). Patient-held records can include context-specific patient education messages.

Data protection systems should be in place for any data tool that is used, and a careful security assessment and context analysis should be conducted to determine whether physical registers can be used and, if so, how they can be circulated and stored.

The required information and the systems needed to collect it are shown in Table 5. The systems should be properly linked to avoid duplication of data collection. Patient data should feed into facility data, which in turn should feed into programmatic and operational data and the overall monitoring and evaluation system. Examples of monitoring frameworks are referenced at the end of this document.

C. IMPLEMENT AND MONITOR[34]

The following tables list key questions to consider in planning a response and setting up an NCD programme. Apart from these factors, effective security and accessibility analyses are imperative: by reducing risk exposure and mitigating risks during response implementation, they can save lives.

Table 1. Checklist for implementation

Sector of activity	Priorities in acute emergencies	Priorities in protracted settings
Coordination and partnership	• Integrating and coordinating NCD services with the local health system and other actors on the ground.	• Providing support to the local health system so it can maintain and enhance its NCD services (if any). • Integrating and coordinating new NCD services with the local health system and other entities on the ground. • Regular communications between partners and with the beneficiaries.

34 This phase includes (a) the implementation of resource and action plans (or projects) designed to achieve expected specific objectives and, ultimately, general objectives, and (b) monitoring for results (MfR), which tracks the extent to which we are achieving the expected results.

Sector of activity	Priorities in acute emergencies	Priorities in protracted settings
Service delivery	• Clinical management tools that are adapted to the context and in line with the national guidelines covering implementation of the services. • Triage system to identify the conditions that need immediate care. • Treating (stabilizing) acute conditions. • Clear referral criteria and pathways for further evaluation and management of patients who cannot be managed at the PHC level and need to be referred to the secondary and tertiary levels. • Follow-up care strategies adapted to the local situation and patient needs, including continuum of care. • Palliative care and pain control for those who cannot be transferred or are suffering from a terminal disease.	• Stratifying patients based on their risk of complications or exacerbations. • Access to care under the following services: health promotion, diagnosis, treatment, disease management, monitoring of complications, rehabilitation and palliative care. • Follow-up strategies adapted to the situation and to the patients' risks and needs. • Collaborating with other health services to optimize the management of patients who require the intervention of different health providers. • Providing clinical management tools to guide the implementation of the services; and ensuring that they are adapted to the local situation and in line with the national guidelines. • Access to therapeutic patient education and preventive measures (e.g. detecting cardiovascular risk factors or promoting a healthy lifestyle). • Community engagement in health-promotion activities. • Considering a preparedness plan to ensure continuum of care in unstable settings.

Sector of activity	Priorities in acute emergencies	Priorities in protracted settings
Human resources	• Existing effective health committee and clear "making the invisible visible" strategies. • Training health-care workers in NCD care. • Clearly identifying tasks to be shared/shifted between staff members.	• Training health-care workers on NCD management (i.e. core NCD training along with locally adapted implementation). • Creating a dedicated NCD team including, at the minimum, an administrator, a doctor and a nurse. • Teaching standardized NCD management to local staff. • Including health providers and mediators from the community in the NCD team. • Auditing staff performance.
Supplies	• Identifying a list of essential medicines, diagnostic tools and medical devices for the emergency and chronic care of NCD patients. • Establishing an emergency supply system for medicines, renewable materials and laboratory and medical equipment; and purchasing essential medicines based on the WHO/national list of essential medicines. • Setting up a stock replenishment system and emergency buffer stock. • Establishing a cold chain. • Patient access to medicines, laboratory facilities and medical equipment. • Regular needs assessments of medicines, renewable materials and laboratory and medical equipment. • Establishing basic laboratory capacity.	• Identifying a list of essential medicines, diagnostic tools and medical devices based on the prioritized intervention and NCD. • Supporting the existing supply chain system for medicines, renewable materials and laboratory and medical equipment, or establishing a reliable new one. • Access to medicines, laboratory facilities and medical equipment for prioritized NCDs. • Maintaining buffer stocks. • Maintaining and if necessary expanding the cold chain system. • Regular needs assessment for medicines, renewable materials and laboratory and medical equipment. • Establishing extended laboratory capacity.
Health information services (HIS)	• Creating a data collection system to manage patients (clinical records), the clinic and the programme.	• Maintaining and expanding health information systems, and integrating with national HMIS where feasible/possible.

Sector of activity	Priorities in acute emergencies	Priorities in protracted settings
Financial resources	• Regular needs assessment to advocate for more funds when needed.	• Ensuring cost-effective interventions by targeting resources to interventions that are more likely to benefit patients with a high risk of complications and are sustainable after the ICRC withdraws or the health intervention ends. • Performing regular needs assessments to advocate for more funds when needed.

D. EVALUATE AND LEARN[35]

Monitoring is a continuous process that allows staff to identify shortcomings and gaps in the delivery of planned interventions. It also serves to improve accountability to beneficiaries and other stakeholders by showing results.

For NCD interventions, monitoring should cover, at the very least, comorbidities, prevalence of NCDs, risk factors and treatment adherence. Adherence counselling in a clinic could include information about possible treatment facilities on the road, e.g. Red Cross/Red Crescent health posts.

Evaluations should be performed periodically (every 18–24 months) to assess the quality, the outcomes and the impact of the response delivered. The timing of the evaluation is important, since it has to be planned and budgeted in the PfR.

See the list of NCD indicators for the monitoring and evaluation framework currently under development.

35 Review, evaluate and learn: No matter how good your assessment and analysis have been or how well-thought-through your objectives were, there will always be room for learning and improving. The regular monitoring dates embedded in the planning and monitoring tool, as well as the annual PfR exercise, are an opportunity to take stock of wider questions such as: Are we doing the right things? Are we doing things the right way? Did the assumptions we made at the outset hold true? Multiyear objectives also provide a useful way to ensure we do not end the RBM cycle at implementation but bring learning into our ongoing engagement in order to optimize results.

E. RESOURCE MOBILIZATION

Funds for NCD care in emergency settings should be included in the budget of any health programmes and should at least cover prioritized NCD services/interventions. When resources are particularly limited, the programme should concentrate efforts on acute and life-threatening conditions and targeted interventions to address the risk of complications if care is interrupted. In circumstances where NCD care was not included in the health programme budget but the need is pronounced and the operating environments are conducive, it may be possible to tap into global partnerships and HQ-managed relationships for financial support.

F. EXIT STRATEGY AND HANDOVER

As continuum of care is critical for adequate NCD treatment, the exit strategy should be taken into account from the start of the operation. The handover to local authorities and/or relevant health actors must be well-planned and started prior to withdrawal.

Incorporating the response intervention into the existing health system facilities should help in this regard, especially if the intervention is implemented through local facilities.

In the absence of functioning local facilities, a reliable health partner should be identified and supported. Vertical programming should never be considered.

Given the fact that NCD management in emergencies is a quite recent field of intervention, it can be beneficial to document and share lessons learned.

ADVOCACY AND RESEARCH

More efforts are required to augment the capacity to address the needs of the growing number of people worldwide affected by both NCDs and emergencies. Greater financial resources are direly needed to ensure that NCD care is incorporated into essential primary care in emergency situations, as is already the case in stable settings.

To foster increased funding, more evidence on cost-effective interventions and best practices is needed. The sharing of experience on NCD management in emergencies and creative solutions for service delivery in unstable situations are also necessary. Currently, there is a lack of research on how to address NCDs effectively in emergencies, such as models of care, the thermostability of insulin, and financing.[36,37] Most interventions are based on evidence from low- and middle-income countries in stable conditions. Research conducted in crisis situations would make it possible to select the most efficient interventions in the future.

The provision and use of affordable NCD treatments, an essential component of NCD care, also requires strong advocacy efforts. Affordable non-proprietary medicines for hypertension and Type 2 diabetes exist and are available at a low cost, but insulin and asthma treatments remain costly. Wherever such treatments are not readily available for all in need, advocacy efforts to make them available will be important.

Link-ups with other sectors, such as food/economic security, nutrition, shelter and site planning, would help in promoting preventive behaviour through healthier lifestyles. The provision of healthy food is a particularly relevant example; beneficiary populations are often dependent on food distributions, and so control over their diet lies with humanitarian agencies. Also, smoke-free areas and sites for physical activity can be set up in detention facilities or when planning camps.

36 "Challenges associated with providing diabetes care" (see note 15 above).

37 A. Ager *et al.* "Strengthening the evidence base for health programming in humanitarian crises", *Science*, 345(6202), 12 September 2014, pp. 1290–2.

ETHICAL ISSUES

Access to health care for people suffering from an NCD is a basic human right, and humanitarian actors must fulfil their duty of care toward people affected by a conflict. An ethical approach – by not making false promises about the ability to provide health care – and a commitment to medical confidentiality are also crucial, as transparency can be a security safeguard for all.

EQUITY IN CARE

When providing crisis-affected groups with access to health services, the health services should be incorporated into the host community and national systems. This is essential to ensure equal access to health care, reduce stigma and discrimination and foster peaceful co-existence. In Lebanon, for example, the ICRC supports Lebanese health-care facilities where Lebanese people, Syrian people and migrants benefit from treatment. Strengthening existing health services will ensure sustainability and enhance the overall capacity of the health system to provide adequate levels of service to all people.

SCREENING FOR NCDs

Individual NCD screening raises systemic, economic and ethical considerations. As such, the following criteria should be carefully considered before screening:

- Will patients be able to benefit from quality treatment and related follow-up? (Do not screen if you cannot treat.)
- Is the health system able to absorb new patients?
- Is there sufficient disease-specific evidence that justifies the screening in terms of its impact and cost-benefit?

The targeted screening of risk factors or other chronic conditions in patients with known NCDs could be clinically relevant and should be done whenever possible. However, it will have an impact on the individual and the health system, and the cost-effectiveness of the intervention should be taken into

account.[38] It should also be noted that screening poses the challenge of false positive results, unnecessary patient discomfort and raising false expectations.

Definitions

- **Screening:** This means "the examination of asymptomatic people in order to classify them as likely or unlikely to have a disease".[39] The primary purpose of screening tests is the early detection of disease in apparently healthy individuals. This is particularly important when it comes to diseases for which early-stage treatments are more likely to prevent death, disability or long-term complications.
- **High-risk approach:** This refers to examining an individual or group suspected, or at risk, of having a given condition. It is a targeted approach to identifying medical conditions in select patients who may already have symptoms.
- **Triage:** Screening is not another term for triage. Triage is the process in which a group of patients is sorted in accordance with their need for care. This process, which takes place, for example, in hospital emergency rooms, is governed by the kind of illness or injury, the severity of the problem, and the available facilities.

Screening and case finding carry different ethical obligations. If a clinician initiates screening in asymptomatic individuals, there needs to be conclusive evidence that the procedure can positively affect the natural history of the disorder. Moreover, the risks of screening must be carefully considered, since the patient did not ask the health professional for assistance. In this situation, there is no guarantee of benefit of the tests undertaken. This situation is somewhat different from case finding, where the patient has presented with a particular problem or has asked for some level of assistance.

These different approaches are also referred to as active (provider-initiated) and passive (patient-initiated, or by discovery of symptomatic disease). The ICRC does not specifically screen patients. However, NCDs can be diagnosed through the routine management of ICRC patients. For example, during the antenatal visit, the blood pressure is taken to rule out signs of hypertension as a precursor to eclampsia.

38 World Health Organization, *Screening for Type 2 Diabetes*, WHO, Geneva, 2003.

39 Informal Inter-Agency Group on NCDs in Humanitarian Settings, *Operational guidelines, Noncommunicable diseases in humanitarian settings, Draft for field testing*, Geneva, December 2017.

ACCOUNTABILITY TO AFFECTED PEOPLE (AAP)

NCD management should be integrated into the existing health-care system. This is because of the progression of NCD patients, from having a risk factor to needing treatment and experiencing complications that may result in premature death. Therefore, AAP lies in empowering and supporting the existing health-care system to handle NCDs, ensuring the continuity of service even after ICRC interventions end.

To be accountable, all components of NCD management must function properly. This includes empowering patients and their families, training medical staff, rational drug prescription and the use of validated drug guidelines, availability and accessibility of medicines and diagnostic devices, links between different levels of care, liaising with the community and facilitating appropriate lifestyle habits.[40] In places where health committees are involved and reach out to patients and their families, supportive supervision must be provided.

PUBLIC HEALTH APPROACH

In emergency situations, when resources are often limited, support should be allocated to the most efficient and urgent interventions at the primary care level, as this will address the most prevalent diseases. Referral pathways to secondary level care should be set up. For cases requiring more complex and often higher-level health-care interventions (e.g. cancer or renal failure), the possibility of providing care depends on the availability of resources, including the right level of health facilities and the sustainability of the proposed interventions. In general, the ICRC does not get involved unless all other areas of urgent and essential health care are covered and other entities are ruled out. If so, the ICRC can consider providing temporary support, in agreement with the ministry of health, but only as a last resort. Means of providing supportive palliative care should be actively considered.

40 ICRC, *Accountability to affected people*, ICRC, Geneva 2018: https://reliefweb.int/sites/reliefweb.int/files/resources/E_shop_4380_002_Accountability_affected_people_web_FEB.pdf, accessed 1 November 2019.

DATA PROTECTION

Groups affected by humanitarian crises are particularly vulnerable. Protecting them, which includes data confidentiality, is a high priority. Service providers often collect highly sensitive data, including patient identifying information. Medical data are sensitive and must be protected against unauthorized disclosure or use. This requires safe storage and transmission, and other measures in line with data protection principles.[41] Data need to be safeguarded every step of the way, i.e. when being collected, transferred (within a humanitarian organization, between humanitarian organizations and between humanitarian organizations and other third parties) and used. It is important to ensure that any party with access to data is bound by contractual data protection clauses.[42]

When data are handled by the ICRC in conflicts and other situations of violence, the first line of data protection is the organization's privileges and immunities, which enable it to process personal data exclusively in keeping with its Rules on Personal Data Protection, under the supervision of the ICRC Data Protection Office, and with an effective remedy provided to individuals by the ICRC Data Protection Commission. In its interactions with processors, sub-processors, and third parties, all necessary measures need to be taken to ensure that data handled by the ICRC remain covered by the organization's privileges and immunities as much as possible. It is essential to ensure that people maintain control over their own data, are informed of their rights, and give consent to their data being used.

41 B. Barber and M. Scholes, "Reflections on the Development of Medical Informatics", *Acta Inform Med.*, 22(1), February 2014, pp. 18–24.

42 Data protection standards, such as the EU's General Data Protection Regulation (GDPR) and Data Protection Directive (1995/46/EC), and the draft recommendation on the protection of health-related data, prepared by the Council of Europe's consultative committee on data protection (2016), should be considered benchmarks for data confidentiality. For more on humanitarian data protection, please see: C. Kuner and M. Marelli (eds), *Handbook on Data Protection in Humanitarian Action*, ICRC and Brussels Privacy Hub, Geneva, 2017: https://shop.icrc.org/handbook-on-data-protection-in-humanitarian-action.html, accessed 1 November 2019.

OTHER TABLES

Table 2. Diagnostic tests and renewables

DDGTURINM10	URINE TEST, pH/den/prot/gluc/cet/bld/nit/lc/bili/urob,1 strip
XLABGLMTOM1	SWAB, alcohol, for skin prep. (glucometer B. Braun Omnitest 5)
XLABGLMTOMS	TEST STRIPS (glucometer B. Braun Omnitest 5)
XLABGLMTTOM2	SAFETY LANCET, st., s.u. (glucometer B. Braun Omnitest 5)
MLASLANC1D	LANCET, sterile, disposable
XLABAYSIHBA1C1	DAILY CHECK CARTRIDGE (analyzer hba1c)
XLABAYSIHBA1C2	MONTHLY CHECK CARTRIDGE (analyzer hba1c)
XLABAYSIHBA1C3	TEST CARTRIDGE (analyzer hba1c)
XLABAYSICS	ANALYZER Na/K, daily cleaning solution
XLABAYSIHBA1C	ANALYZER HBA1C, hemoglobin concentration analyzer
XLABAYSIPE	ANALYZER Na/K, potassium electrode
XLABAYSIPP	ANALYZER Na/K, printer paper
XLABAYSIQC	ANALYZER Na/K, quality control kit
XLABAYSIRE	ANALYZER Na/K, reference electrode
XLABAYSIRP	ANALYZER Na/K, reagent pack
XLABAYSISE	ANALYZER Na/K, sodium electrode
XLABAYSISP	ANALYZER Na/K, blood, serum, urine
XLABAYSIUD	ANALYZER Na/K, urine diluent

Table 3. NCD medicines

DORAACSA07T	ACETYLSALICYLIC ACID, 75mg, tab.
DORAPSYC25T03	AMITRIPTYLINE, 25mg, tab.
DORAAML05T	AMLODIPINE BESILATE, 5mg, tab.
DORABECL2S	BECLOMETASONE, 0.05mg/puff, 200 puffs, inhaler
DORAPSYC02T04	BIPERIDEN HYDROCHLORIDE, 2mg, breakable tab.
DORABISO5T	BISOPROLOL FUMARATE, 5mg, tab.
DORAPSYC20T05	CARBAMAZEPINE, 200mg, tab.
DORACLOP75T	CLOPIDOGREL, 75mg, tab.
DORAPSYC5T09	DIAZEPAM Base, 5mg, tab.
DORADIGO2T	DIGOXIN, 0.25mg, tab.
DORAENAL2T	ENALAPRIL, 20mg, tab.
DORAENAL05T	ENALAPRIL, 5mg, tab.
DORAPSYC20T10	FLUOXETINE hydrochloride, 20mg base, caps.
DORAFURO4T	FUROSEMIDE, 40mg, tab.
DORAGLIB5T	GLIBENCLAMIDE, 5mg, tab.
DORAGLIC80T	GLICLAZIDE, 80mg, tab.
DINJINSHG1V	GLUCAGON, 1mg/ml, powder & solvent, vial
DINJDEXT5A5	DEXTROSE HYPER, 50%, 50ml, amp.
DORAGLYT5T	GLYCERYL TRINITRATE, 0.5mg, sublingual tab.
DORAPSYC05T11	HALOPERIDOL, 5mg, tab.
DINJPSYC05A101	HALOPERIDOL, 5mg/ml, amp. (if psychiatric services available)
DINJINSH37V1	INSULIN, PREMIXED COMBINATION 30/70, 100ui/ml, 10ml, vial
DORAHYDA25T	HYDRALAZINE, 25mg, tab.
DORAHYDO5T	HYDROCHLOROTHIAZIDE, 50mg, tab.
DINJINSH10VI	INSULIN, INTERMEDIATE ACTION, 100IU/ml, human, 10ml, vial
DINJINSH10VR	INSULIN, RAPID, 100IU/ml, human, 10ml, vial
DORAISOS5T	ISOSORBIDE DINITRATE 5mg, tab.
DORASART5T	LOSARTAN, 50mg, tab.
DORAMETF5T	METFORMIN HYDROCHLORIDE, 500mg, tab.

DORAMETY2T	METHYLDOPA, 250mg, tab.
DORAMETP1T	METOPROLOL, 100mg, tab.
DORAPRED5T	PREDNISOLONE, 5mg, tab.
DORAPSYC01T01	RISPERIDONE, 1mg, tab.
DEXTSALB2U2	SALBUTAMOL SULPHATE nebulizer solution 2mg/ml, 2.5ml unidose
DORASALB2S	SALBUTAMOL, 0.1mg/puff, 200 puffs, inhaler
DORASIMV1T	SIMVASTATIN, 10mg, tab.
DORASPIR2T	SPIRONOLACTONE, 25mg, tab.
DORAPSYC20T20	VALPROATE SODIUM, 200mg, tab.
DORAPSYC50T21	VALPROATE SODIUM, 500mg, prolonged released tab.
DORAVERA4T	VERAPAMIL HYDROCHLORIDE 40mg, tab.

Table 4. Equipment

XLABGLMTOM	GLUCOMETER, BRAUN OMNITEST 5
XMEQTHER2M	THERMOMETER, medical, electronic, thermometer
XMEQSTETS	STETHOSCOPE, one cup
XMEQSPHYRIA	SPHYGMOMANOMETER, two-tubes, manual, incl. cuff 27–35cm
XMEQSPHYRIB	SPHYGMOMANOMETER, Babyphon w/3cuffs 5 /7/10cm
XMEQMEABBAB1	MEASURING MAT, baby, horizontal, 99cm/5mm
XMEQMEASBIC	MEASURING BOARD, for babies, 1–100cm
XMEQMEASH02	MEASURING BOARD, height meter 20–207cm for adults
XMEQSCALAD	SCALE, for adults (bathroom type), mechanical, 0–150kg, /1kg
XMEQSCALBYM	SCALE, BABY, suspended, 0–25kg, mechanical, x50g
XMEQSCALBYP	SCALE, BABY, suspended, 0–25kg x 100g, incl. 4 trousers (set)
XMEQPEFLAC60	PEAK FLOW METER, adult-children, universal range 60–800L/mn
XMEQNEBUSP	SPACER, inhal. chamber for puff inhaler + paediatric mask
XLABAYSIBA443	BIOCHEMISTRY ANALYZER, Spotchem EZ SP-4430
XLABAYSIHBA1C	ANALYZER HBA1C, hemoglobin concentration analyzer

Table 5. Clinical management tools[43]

Risk prediction charts
Referral flow charts (to be developed and contextualized)
Flow chart for triage of severely ill patients (to be developed and contextualized)
Clinical guidelines
Clinical records (patient held records)

Table 6. Data collection systems

Information level	Type of system	Information
Patient	Patient file	Data to inform clinical care and patient follow-up, and individualized data points.
	Patient-held record	Specific clinical information that is useful for patients to retain, particularly to facilitate follow-up where there is no file or when patients have moved.
Clinic	Register held at the facility or electronic database	Data to improve how day-to-day clinic activities are managed, call and recall system, and for improved service quality.
Programme (HMIS)	Electronic database	Data for programme analysis and surveillance, and to improve programmatic planning, resource management (medicines, human resources, etc.) and advocacy.

43 The various tools are available at the end of this document under "Key documents and reference materials".

KEY DOCUMENTS AND REFERENCE MATERIALS

PROGRAMMATIC GUIDANCE

- World Health Organization, *Package of Essential Noncommunicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings*, WHO, Geneva, 2010: http://www.who.int/nmh/publications/essential_ncd_interventions_lr_settings.pdf. All web addresses accessed October 2019.
- World Health Organization, *Mental Health Gap Action Programme (mhGAP)*, WHO, Geneva, 2019: http://www.who.int/mental_health/mhgap/en/.
- United Nations High Commissioner for Refugees, *UNHCR's Principles and Guidance for Referral Health Care for Refugees and Other Persons of Concern*, UNHCR, Geneva, 2009: http://www.unhcr.org/4b4c4fca9.pdf.
- ICRC, *Accountability to Affected People Institutional Framework*, ICRC, Geneva, 2018: https://reliefweb.int/sites/reliefweb.int/files/resources/E_shop_4380_002_Accountability_affected_people_web_FEB.pdf, accessed 1 November 2019.
- C. Kuner and M. Marelli (eds), *Handbook on Data Protection in Humanitarian Action*, ICRC and Brussels Privacy Hub, Geneva, 2017: https://shop.icrc.org/handbook-on-data-protection-in-humanitarian-action.html.
- ICRC, *The responsibilities of health-care personnel working in armed conflicts and other emergencies*, ICRC, Geneva, 2012: http://healthcareindanger.org/wp-content/uploads/2015/09/icrc-002-4104-the-responsibilities-health-care-personnel.pdf, accessed 1 November 2019.
- ICRC, *Protecting Health Care: Key recommendations*, ICRC, Geneva, 2016: http://healthcareindanger.org/resource-centre/, accessed 1 November 2019.
- ICRC, *Ensuring the preparedness and security of health-care facilities in armed conflict and other emergencies*, ICRC, Geneva, 2015: http://healthcareindanger.org/wp-content/uploads/2015/09/icrc-002-4239-ensuring-preparedness-security-health-care-facilities.pdf, accessed 1 November 2019.

GLOBAL/COUNTRY-LEVEL RESOURCES

- World Health Organization, *Global Health Observatory*, WHO, Geneva, 2019: https://www.who.int/gho/en/.
- Interagency Task Force on Financing for Development (IATF), *Monitoring development finance*, IATF, 2019: https://developmentfinance.un.org/.
- Institute for Health Metrics and Evaluation (IHME), *Measuring what matters*, IHME, Seattle, 2019: http://www.healthdata.org/.
- International Diabetes Federation (IDF), *Diabetes Atlas*, IDF, Brussels, 2015: https://www.idf.org/e-library/epidemiology-research/diabetes-atlas/13-diabetes-atlas-seventh-edition.html.
- Inter-Agency Standing Committee (IASC), *The Multi Cluster/Sector Initial Rapid Assessment (MIRA) Manual*, IASC, Geneva, 2015: https://interagencystandingcommittee.org/iasc-transformative-agenda/documents-public/multi-clustersector-initial-rapid-assessment-mira-manual.
- World Health Organization, *Noncommunicable diseases - Country profiles 2018*, WHO, Geneva, 2018: https://www.who.int/nmh/publications/ncd-profiles-2018/en/.
- World Health Organization, *Health Resources Availability Monitoring System (HeRAMS)*, WHO, Geneva: https://www.who.int/hac/herams/en/.
- World Health Organization, *STEPwise approach to noncommunicable disease risk factor surveillance (STEPS)*, WHO, Geneva, 2014: www.who.int/chp/steps/en/.
- World Health Organization, *Noncommunicable Disease Document Repository*, WHO, Geneva, 2019: https://extranet.who.int/ncdccs/documents/db.

ESSENTIAL MEDICINES AND SUPPLIES

- World Health Organization, *Essential Medicines and Health Products*, WHO, Geneva, 2019: http://www.who.int/medicines/publications/essentialmedicines/en/.
- World Health Organization, *Interagency Emergency Health Kit 2017*, WHO, Geneva, 2017: http://www.who.int/emergencies/kits/iehk/en/.

RISK PROFILES

- World Health Organization, *World Health Organization cardiovascular disease risk charts: revised models to estimate risk in 21 global regions*, *The Lancet Global Health*, 7(10), 2 September 2019, pp. 1332–1345: https://doi.org/10.1016/S2214-109X(19)30318-3.
- European Association of Preventive Cardiology, *European Guidelines on CVD Prevention in Clinical Practice*, Eur J Prev Cardiol, 23(11), July 2016: https://www.escardio.org/static_file/Escardio/Subspecialty/EACPR/Documents/score-charts.pdf.

CLINICAL MANAGEMENT

ICRC resources can be found in the ICRC's health wiki.

External resources

- National guidelines vary from country to country.
- Global initiative for asthma (GINA), *Pocket Guide for Asthma Management and Prevention*, GINA, Fontana (USA), 2019: https://ginasthma.org/wp-content/uploads/2019/04/GINA-2019-main-Pocket-Guide-wms.pdf.
- International Diabetes Federation (IDF), *Pocketbook for management of diabetes in childhood and adolescence in under-resourced countries*, IDF, Brussels, 2017: https://www.idf.org/e-library/guidelines/89-pocketbook-for-management-of-diabetes-in-childhood-and-adolescence-in-under-resourced-countries-2nd-edition.html.
- Médecins Sans Frontières (MSF), *Non-communicable diseases – programmatic and clinical guidelines: MSF OCA NCD guidelines version 4*, London, 2018: https://fieldresearch.msf.org/bitstream/handle/10144/619201/MSF%20OCA%20NCD%20Guidelines%20v4%202018.pdf?sequence=1&isAllowed=y.
- Primary Care International (PCI), *Noncommunicable Diseases Field Guides* (Asthma, secondary prevention of CVD, COPD, Hypertension, severe Hypertension, Type 2 Diabetes), PCI, Oxford, 2018. Field guides available upon request at mail@pci-360.com.
- World Health Organization, *Definition and diagnosis of diabetes mellitus and intermediate hyperglycaemia. Report of a WHO/IDF consultation*, WHO, Geneva, 2006: http://www.who.int/diabetes/publications/diagnosis_diabetes2006/en/.

- World Health Organization, "2003 World Health Organization/ International Society of Hypertension statement on management of hypertension", *Journal of Hypertension*, Vol. 21, 2003, pp. 1983–1992: http://www.who.int/cardiovascular_diseases/guidelines/hypertension_guidelines.pdf.
- World Health Organization, "Cardiovascular diseases – Key facts", WHO, Geneva, 17 May 2017: http://www.who.int/mediacentre/factsheets/fs317/en/.
- World Health Organization, *mhGAP Humanitarian Intervention Guide (mhGAP-HIG) – Clinical Management of Mental, Neurological and Substance Use Conditions in Humanitarian Emergencies*, WHO, Geneva, 2015: https://www.who.int/mental_health/publications/mhgap_hig/en/.
- World Health Organization, *Palliative care: symptom management and end-of-life care*, WHO, Geneva, 2004: http://www.who.int/hiv/pub/imai/primary_palliative/en/.
- World Health Organization, *Integrating palliative care and symptom relief into primary health care*, WHO, Geneva, 2018: https://apps.who.int/iris/bitstream/handle/10665/274559/9789241514477-eng.pdf?ua=1.

TRAININGS

- University of Copenhagen, Coursera online course, *Non-Communicable Diseases in Humanitarian Settings*, University of Copenhagen: https://www.coursera.org/learn/non-communicable-diseases-in-humanitarian-settings.
- Centre d'enseignement et de recherche en action humanitaire (CERAH), Certificate of Advanced Studies – Health, *Thematic Short Course: Chronic Diseases and the Humanitarian Response*, CERAH, Geneva: https://www.cerahgeneve.ch/education/courses-health/chronic-diseases.
- Médecins Sans Frontières, *Non-Communicable Diseases (NCD) eLearning course*, MSF Manson Unit, London.

The ICRC helps people around the world affected by armed conflict and other violence, doing everything it can to protect their lives and dignity and to relieve their suffering, often with its Red Cross and Red Crescent partners. The organization also seeks to prevent hardship by promoting and strengthening humanitarian law and championing universal humanitarian principles.

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