K4D | Knowledge, evidence and learning for development

Maternal, newborn and child health in emergency settings

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Question

What evidence is available from maternal, newborn and child health (MNCH) programming in emergency settings, including protracted conflicts and humanitarian emergencies?

Contents

1. Summary

More than 500 women and girls die in emergency settings every day due to complications arising from pregnancy and childbirth (UNFPA, 2018, p. 3). In 2017, an estimated 535 million children (nearly one in four of the world's children) lived in countries affected by emergencies (UNICEF, 2017). This report provides examples of organisations working in maternal, newborn and child health (MNCH) in emergency settings and some key technical resources.

Organisations working in maternal, newborn and child health (MNCH) in humanitarian emergencies largely implement the Minimum Initial Service Package (MISP) developed by the Inter-Agency Working Group on Reproductive Health in Crises (IAWG). Programmes focus on providing a range of basic health services at the onset of an emergency and then expand on these, adding more comprehensive services. Common tools and approaches in the onset phase include:

- Mobilising surge emergency healthcare staff to provide services;
- Establishing temporary health outposts close to crisis affected communities and designing referral systems for women and newborns in need of more comprehensive care;
- Providing mobile services;
- Ensuring health workers have the necessary supplies (equipment, drugs etc) by deploying emergency health care kits;
- Raising awareness amongst the affected population of how to access services.

Once humanitarian operations are up and running and/or a humanitarian emergency moves into the ongoing or protracted phase, common tools and approaches include rebuilding health facilities and systems, and training national and local health care workers (WHO, 2018, p. 17). Evidence of past training includes: training mobile health workers to provide elements of basic emergency obstetric care, blood transfusions and antenatal care in eastern Burma; and, training community health workers in Afghanistan to strengthen the link between the community and formal health services (Casey, 2015).

Organisations implementing MNCH programming largely focus on evidence-based interventions recommended by the World Health Organization (WHO). These include childhood immunisation, skilled birth attendants and emergency obstetric care. Proven interventions are scaled-up. For example mother and baby tents to support women to practice breastfeeding (Casey, 2015).

This review focuses on MNCH in emergency settings as defined in the following ways:

- Maternal: the health of women during pregnancy, childbirth and the postpartum period (Chi et al., 2015, p. 2);
- Newborn: the first 28 days after birth (UNICEF & Save the Children, 2018, p. 24);
- Child: up to 5 years of age as included in the World Health Organization's continuum of care for maternal, newborn and child health (WHO, 2018, p. 10).
- Humanitarian emergencies: rapid, slow or onset situations caused by conflict, war, natural disasters or epidemic outbreaks (WHO, 2018, p. 17), resulting in a critical threat to the health, safety, security or well-being of a community or large number of people and requiring external assistance (IAWG, 2010).

- MNCH programming may involve working with refugees and internally displaced persons (IDPs) living in camps, settlements or urban areas and establishing primary health care posts, and/or working within existing damaged health systems or host country health systems.

This review identified a number of organisations with MNCH programming, including implementing, advisory and advocacy organisations. Evidence of MNCH programming in the onset and protracted phases of a humanitarian emergency is easily identifiable, including service provision and common implementation challenges. A number of organisations work with a standardised model of services including the three levels of the healthcare system (community, health centre and hospital) and the types of services that should be available at these levels. Less easily identifiable were examples of programming for transitioning from the emergency to post-emergency phase and rebuilding health systems. A large number of the organisations reviewed for this report emphasised the importance of highly trained staff, particularly skilled birth attendants to improve maternal and newborn outcomes. However, only two organisations, Management Sciences for Health and International Medical Corps, had well-defined midwife training programmes.

2. Maternal, Newborn and Child Health (MNCH) in humanitarian settings

Humanitarian crises disrupt and sometimes destroy existing health care services and systems (WHO, 2018, p, 17; UNICEF & Save the Children, 2018, p. 20). Pregnant women, newborns and children are extremely vulnerable in these situations. For example, Save the Children estimate that two-thirds of children living in countries affected by conflict are not immunised: this exposes them to the risks of preventable childhood diseases[1]. The United Nations Population Fund (UNFPA) estimates 136 million people will be affected by humanitarian emergencies in 2018 and 5 million of these people will be pregnant women and girls (UNFPA, 2018, p. 6). Older women, and women and girls with disabilities and HIV are at heightened risk during emergencies and require special measures (Zeid et al., 2015, p. 56).

In humanitarian emergencies, unsafe deliveries increase as skilled birth attendants and emergency obstetric care often become unavailable[2]. 15% of pregnant women and girls in a humanitarian crises will experience an obstetric complication, often resulting in maternal death or preventable long-term health consequences (Zeid et al., 2015, p. 56).

Emergency settings expose women to greater risk of unintended pregnancies and can increase unsafe abortion practices, including self-induced abortion, which further jeopardise women's health (CARE 2016; Chi et. al., 2015, p. 2). Women, girls and children are also exposed to population displacement, trauma, malnutrition, disease and increases in gender-based violence as social protection systems and norms break down[3] (Chi et al., 2015, p. 2). The risks associated

[1] (https://www.savethechildren.org.uk/what-we-do/health/vaccines-immunisation

[2] (https://www.unfpa.org/emergencies).

[3] Although outside the scope of this study, increasing attention is being paid to gender-based violence in humanitarian emergencies. Combatting GBV is also part of the respectful maternal care concept (see for

with childbearing are compounded for girls who are exposed to forced or transactional sex (Zeid et al., 2015, p. 56). Humanitarian crises also negatively affect early pregnancy loss, birth defects, low birth weight and pre-term births (Chi et. al., 2015, p. 2).

Access to respectful, good quality MNCH during humanitarian crisis is critical for improving outcomes for pregnant women and children (UNICEF & Save the Children, 2018, p. 24). Currently:

- 60% of preventable maternal deaths and 53% of preventable under 5s deaths take place in humanitarian settings of conflict, displacement and natural disasters (CARE, 2016; Zeid et al., 2015, p. 56);
- Under 5 mortality is becoming increasing geographically concentrated in fragile contexts and demographically concentrated in the newborn period (Save the Children, 2014, p. 16).

Challenges in delivering MNCH programming in humanitarian settings

Progress has been made in terms of funding for, awareness of, and capacity to deliver MNCH programmes, but significant gaps still exist (Foster et al., 2017, p. 20). Maternal and newborn care is often missing from emergency responses (WHO, 2018, p. 17). Effective implementation requires funding, coordination, skilled providers, supplies, equipment, and support (Women's Refugee Commission, 2016, p. 5).

Funding

In order to improve outcomes in MNCH increases in donor funding are needed. In humanitarian emergencies, national governments often cannot finance, manage or provide health services (Zeid et al., 2015, p. 59). International Medical Corps argue that in complex emergencies, resources for children are often among the first items to be cut[4]. Donors need to increase long-term, predictable aid for health to fragile states through funding mechanisms that are flexible and able to respond to different and changing contexts (Save the Children, 2014, p.9). This includes investing in and maintaining health infrastructure (Save the Children, 2014, p. 9). Reliable and timely funding is also needed to support the tailored intervention packages recommended for humanitarian settings (Zeid et al. 2015, p.59).

Overcoming barriers to beneficiaries accessing services

Financial: The cost of accessing healthcare can be prohibitive for some women (Save the Children, 2014). For example, there is evidence that Syrian women refugees in Jordan and Lebanon cannot access antenatal and postnatal care due to the high costs of healthcare (Save the Children, 2014, p. 45). Healthcare vouchers issued to pregnant women have been suggested as one solution (Save the Children, 2014, p. 45).

Awareness: This includes both a lack of awareness of available services and awareness amongst beneficiaries about why they should access services (Casey et al., 2015, p. 9-10). In

example, https://www.mhtf.org/topics/respectful-maternity-care/). Disrespect and abuse has been widely documented during facility-based deliveries globally (https://www.mhtf.org/topics/respectful-maternity-care/).

[4] https://internationalmedicalcorps.org/program/womens-childrens-health/child-health/

the aftermath of the 2015 earthquake in Nepal more than 1,000 health facilities were damaged or destroyed (Save the Children & UNICEF, 2018, p. 89). In order to raise awareness amongst pregnant women and families with newborns about which facilities were functioning and why they should access services, Save the Children and its local partners developed pictorial posters, radio jingles and engaged female health volunteers to hold discussions in the community (Save the Children & UNICEF, 2018, p. 89).

Gender inequality and social norms can stop women from seeking help for themselves and their families (UNICEF & Save the Children, 2018, p. 20; Zeid et al., 2015, p. 56)[5]. For example, Afghan women cannot be seen by a male health worker (Newbrander, Ickx, Feroz & Stanekzai, 2014).

Highly trained health workers

An adequate number of trained and resourced frontline health workers are needed to provide services (Save the Children, 2014, p. 9). Available local health staff may need up-to-date competency based training in order to be able to deliver the full range of MNCH services (Casey et al., 2015, p. 10). For example, many newborn deaths are preventable with appropriate, good quality care (UNICEF & Save the Children, 2018, p.34). Consequently, health providers competent in emergency neonatal care are particularly critical because referral to hospital may not always be feasible (UNICEF & Save the Children, 2018, p. 36).

Where limited numbers of staff are available, task-shifting has been suggested as a potential solution (Chi et al., 2015, p. 6). This involves re-distributing tasks among staff whereby appropriate specific tasks are moved from highly qualified health workers to less qualified health workers. For example, in Sierra Leone nurses and midwives were trained to undertake basic surgery, freeing up surgeons (Chi et al., 2015, p. 6)

Commodity security and supply chain management

Poor commodity security and supply chain management obstructs good quality service delivery (Casey et al., 2015, p. 10). Without medicines and supplies health workers cannot provide effective services and providers have reported a paucity of drugs as a primary barrier to providing adequate care (Foster et al., 2017, p. 21-22; Casey, 2015, p. 10).

Data, evaluation and reporting

Rigorous programme evaluation, routine data collection and results sharing allows proven evidence-based strategies to be adapted and scaled up (Casey, 2015, p. 5-6). High quality programme evaluation has been limited to date (Casey, 2015). In 2017, WHO developed new programme reporting standards that include a checklist listing the key reporting items related to the development, implementation and monitoring and evaluation processes of programmes (2017, p. 2). The aim is to highlight lessons learnt from the field and facilitate replication and scale-up of successful programmes (2017, p. 2).

[5] Gender inequality and social norms can also contribute to practices such as early and forced marriage, resulting in early pregnancies that threaten girls' lives (Zeid et al., 2015, p. 56).

The Humanitarian Development Nexus

Rebuilding health systems post-crisis

This review found limited evidence of programming for rebuilding health services post-crisis. The **Basic Package of Health Services model** has been implemented in a number of post-crisis settings including Bosnia and Herzegovina, Cambodia, Rwanda and Uganda (Newbrander, Ickx, Feroz & Stanekzai, 2014, p. s7). The model involves using a package of essential health services to tackle the most urgent health problems while rebuilding the health system (Newbrander et al., 2014, p. s7).

Management Sciences for Health (MSH) was part of the USAID-funded project to develop and support the design and implementation of a basic package of health services in Afghanistan from 2002 onwards. Maternal and newborn health, and child health were two components of this package (Newbrander et al., p. s8). The basic services for these two components were: antenatal, delivery and postpartum care, family planning and care of the newborn, expanded child immunisation programme and integrated management of childhood illness (Newbrander et al. p. s9). Each service was linked to each type of health care facility and the corresponding types and number of staff needed, equipment and necessary drugs (Newbrander et al., 2014, p. s8).

Challenges in rebuilding the Afghan health system included: huge gaps in critical services, inequitable distribution of services, lack of staff capacity at the leadership level and 80% of service delivery provided by NGOs (Newbrander et al., 2014, p. s8). The implementation strategy for the basic package focused on community health posts served by community health workers: this increased access to basic services (Newbrander et al., 2014, s. 10). Expanded access to skilled birth attendants was achieved by training community midwives and health workers (Newbrander et al., 2014, p. s10). An essential package of hospital services was added in 2005, with the district hospital acting as the first-referral level hospital for primary care facilities (Newbrander et al., 2014, pp. s10-11).

Emergency preparedness and health system strengthening

Integrating MNCH into emergency preparedness and disaster risk reduction before a humanitarian crisis occurs supports a rapid and effective response and can potentially reduce negative impacts (UNICEF & Save the Children, 2018, p. 22; Chi et al., 2015, p. 5). Preparedness efforts can help to bring about timely and appropriate sexual and reproductive health interventions during crises (Women's Refugee Commission, 2016, p. 5). If services are available before a crisis, they are more likely to be available after a crisis, for example, HIV care and treatment were available before and after the 2015 earthquake in Nepal (Women's Refugee Commission, 2016, p. 6).

In order to improve MNCH in crisis settings, local health systems need to be better equipped to deal with emergencies (Chi et al., 2015, p. 6). The Ebola crisis demonstrated that countries without comprehensive primary healthcare cannot cope with outbreaks of infectious diseases (Save the Children Fund, 2016, p. 34). Strengthening a country's health system before, during, and after crisis ensures that it will be resilient and responsive in an emergency (Meng, 2017). The WHO identifies six building blocks of health strengthening: service delivery, health workforce, information, medical products, vaccines, and technologies, financing, and, leadership and governance (Newbrander et al., 2014).

At the international level organisations working in MNCH care in humanitarian settings have been advocating for the inclusion of MNCH in preparedness efforts at the community level and all levels of national health systems (Women's Refugee Commission, 2016, p. 7-8). This advocacy is supported by global strategies including *Every Woman, Every Child,* (the UN's Global Strategy for Women's, Children's and Adolescents' Health (2016-2030)), which argues preparedness is essential to building health-system resilience[6].

Promoting community-based preparedness is also important as learning shows that communities should be more involved in an emergency response (Women's Refugee Commission, 2016, p. 5). Targeting the most vulnerable, which includes mothers, ensures that mothers are not limited in their ability to protect and provide for their children and that local needs are met when a crisis hits (Save the Children, 2014, p. 9).

Linking development and humanitarian spheres

Funding of preparedness and recovery requires stronger alignment between development and humanitarian financial flows (Zeid et al., 2015, p. 59). Humanitarian action should also lay the foundations for long-term development, including strengthening or rebuilding healthcare systems that can deliver essential services (Save the Children Fund, 2016, p. 5). Attention should be paid to programming for ensuring services continue once an emergency is over and refugees and IDPs begin to return home (Casey, 2015; ARC, 2016, p. 19). Suggestions include training refugees or IDP health workers who will return home with their communities (Casey, 2015).

Global strategies to end preventable MNCH deaths, including the WHO's *Every Newborn Action Plan,* argue that particular attention should be paid to preparedness for and rapid response to emergencies, as the majority of preventable deaths take place in crisis or post-crisis settings (WHO, 2014, p. 29). *Every Woman, Every Child* argues that the sustainable development goals will not be achieved without specific attention to humanitarian crises and fragile settings (Save the Children Fund, 2016, p5).

Increasing access to MNCH services may be the single most important way to improve maternal and newborn survival and health as it could prevent three out of four newborn deaths (UNICEF & Save the Children, 2018, p. 24). One of the most critical interventions is access to skilled birth attendants in a health facility that is equipped with the drugs and medical supplies needed to manage complications (UNICEF & Save the Children, 2018, p. 44). Approximately, one-third of women globally do not receive skilled care at birth and three-quarters of all babies born outside a health facility do not receive an early postnatal visit (UNICEF & Save the Children, 2018, p. 24).

3. The Inter-Agency Working Group on Reproductive Health in Crises (IAWG)

The Inter-Agency Working Group on Reproductive Health in Crises was formed in 1995 to expand and strengthen access to quality sexual and reproductive services, including MNCH care for persons affected by conflict and natural disaster (CARE 2016). IAWG's key tools, used by a

[6] http://www.everywomaneverychild.org/wp-content/uploads/2017/10/EWEC_GSUpdate_Brochure_EN_2017_web.pdf

range of implementing organisations, are the Minimum Initial Service Package (MISP) and the *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings.*

The Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings is primarily a tool for reproductive health officers and reproductive health programme managers in humanitarian settings (IAWG, 2010, p. 3). It outlines the MISP; facilities decision-making in planning, implementation and monitoring and evaluating interventions; guides programme managers and service providers in introducing or strengthening evidence-based interventions; and, helps to foster coordination among partners (IAWG, 2010, p.2). Coordination is extremely important as often more than one agency is responding to an emergency and a lead reproductive health organisation should be identified (IAWG, 2010, p. 7). The manual does not contain detailed clinical guidance, but technical guidance is drawn from WHO guidelines and manuals (IAWG, 2010, p. 3).

Moving from onset to ongoing stages of an emergency*:* The MISP is a set of reproductive health interventions that should be implemented at the onset of a humanitarian crisis (Foster et al., 2017, pp. 18). As the situation stabilises agencies should more towards implementing comprehensive reproductive care (IAWG, 2010, p. 9).

Planning for comprehensive services should begin at the onset of an emergency and services should be initiated once MISP indicators are reached (IAWG, 2010, p. 46). Activities include: ordering equipment and supplies; collecting existing background data; identifying suitable sites for comprehensive service delivery; and, assessing staff capacity and planning for staff training (p. 46).

MISP priority activities for maternal and newborn care focus on birth, delivery and immediate post-partum care (IAWG, 2010, p.47). Antenatal and postnatal care are comprehensive services (IAWG, 2010, p. 47). The Field Manual outlines the activities that should be part of these services, for example, antenatal care including 4 visits, screening for HIV and nutrition information with the possibility of food supplements for malnourished women (IAWG, 2010, pp. 130-132).

A needs assessment including population characteristics (e.g. number of women of child-bearing age, beliefs about pregnancy and birth), health services and health staff characteristics (e.g. number, location and type of hospital, number, type and skills level of health staff etc) is recommended to help programme managers plan comprehensive services (IAWG, 2010, pp. 126-127). Effective implementation of services will also depend on understanding the national and policy MNCH context and reducing barriers to utilisation of services (IAWG, 2010, pp. 127-128).

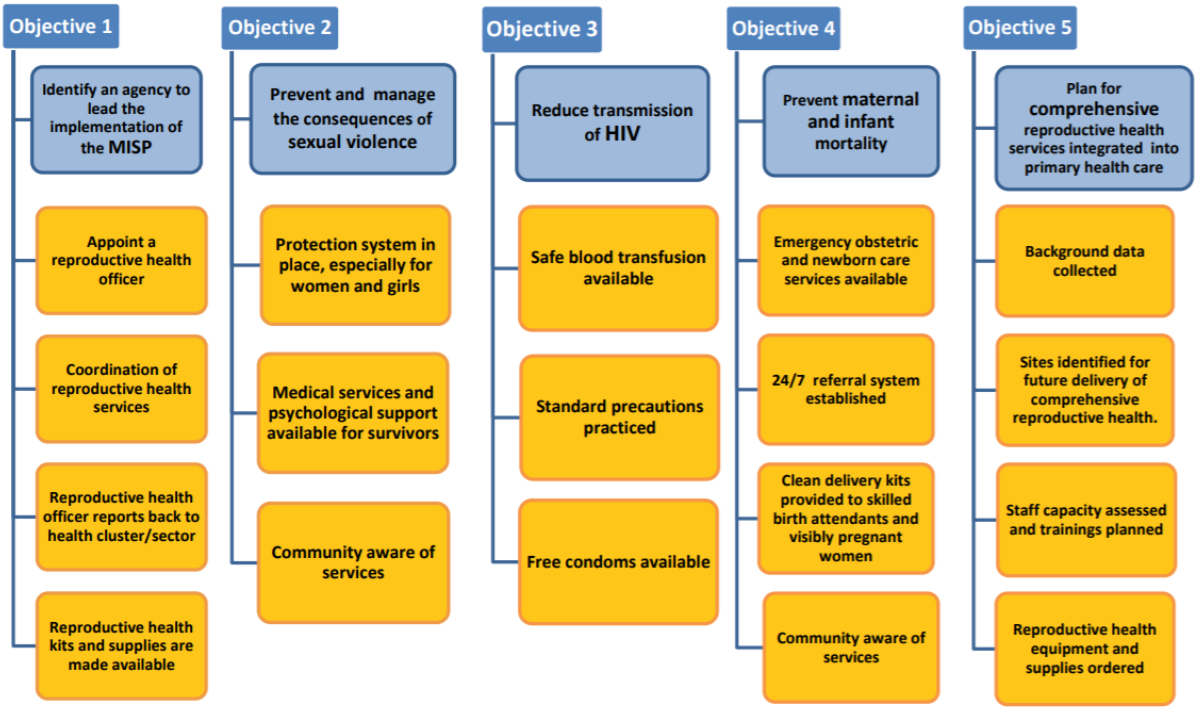
The 2018 Revised Inter-Agency Field Manual (forthcoming), following requests from users, has stronger guidance on transitioning from the MISP to comprehensive service delivery, including case studies and programmatic examples (Foster et al., 2017, p. 20). The 2018 Manual also includes greater emphasis on the quality of care for mothers and newborns on the days of

birth; expanded content on emergency obstetric and newborn care, essential newborn care, and care for small and sick newborns (Foster et al., 2017, pp. 21-22)[7].

The Minimum Initial Service Package

The MISP outlines priority activities for preventing morbidity and mortality (IAWG, 2010, p. 21). The 2010 version of the MISP had 5 objectives, with priority activities outlined under each objective:

Figure 1: The MISP's five objectives and priority activities



Source: https://www.unfpa.org/sites/default/files/resource-pdf/MISP_Objectives.pdf

Priority maternal and infant activities include: basic emergency obstetric and newborn care services available at all health centres (e.g. parental antibiotics, assisted vaginal delivery and maternal and newborn resuscitation) and comprehensive emergency obstetric and newborn care services available at hospitals (e.g. caesareans and blood transfusions) (IAWG, 2010, p. 41). Services should be available 24/7 with skilled and resourced staff (IAWG, 2010, p. 41).

The MISP contains guidance for common implementation challenges. For example:

- Clean birth kits distributed to visibly pregnant women and traditional birth attendants to promote clean deliveries in the community if health care facilities with skilled birth attendants are not available or women cannot access them (IAWG, 2010, p. 42).

[7] The 2018 revised manual also includes an expanded focus on gender based violence and a new chapter on logistics and supply chains, including recommendations for transition from emergency to ongoing supply chains (Foster et al., 2017, pp.21-22).

- Establishing a referral facility close to the affected community, if host-country hospitals are not viable for referrals (IAWG, 2010, p. 42). An effective referrals system includes means of communication between primary health care staff and the referral centre and means of transport for referrals (IAWG, 2010, p. 42-3).

A MISP assessment should be undertaken within the first three months after the onset of an emergency to monitor and evaluate implementation (IAWG, 2010).

The 2018 Revised MISP includes preventing unintended pregnancy as a standalone objective (priority activities centre on availability of contraceptives, information and counselling and community awareness); and the provision of safe abortion care, to the full extent of the law, as a standalone other priority activity (Foster et al., 2017, p. 20). Unsafe abortion is a leading cause of maternal death worldwide and is likely to increase in humanitarian settings (Foster et al., 2017, p. 20). Pregnancy options counselling and the provision of or referral for safe abortion have been incorporated into clinical care for survivors of sexual violence (Foster et al., 2017, p. 20).

Inter-Agency Reproductive Health Kits: Specifically designed pre-packaged kits contain the essential drugs, equipment and supplies necessary to implement the MISP. See UNFPA sub-section in section 4 below for more information.

The MISP Readiness Assessment tool assesses a country's readiness to respond to sexual and reproductive health needs in an emergency and acts as the basis for developing practical action plans. It is designed to be used by national sexual and reproductive health stakeholders (e.g. the Ministry of Health, National Disaster Management Agency and NGOs) (WRC, 2016).

4. Evidence of MNCH programming

American Refugee Committee (ARC)

The American Refugee Committee (ARC) supports both refugees and IDPs in camps and community settings. It responds to emergencies and also provides ongoing support in protracted settings. For example, ARC have worked in Rwanda since 1994, first supporting refugees from the DRC, and since 2015 refugees from Burundi. The organisation's MNCH programming approaches include:

Training refugee and national healthcare workers

Afghan refugees are one of the most underserved groups in Pakistan in terms of healthcare. In 2016, ARC enrolled 120 Afghan students on a medical training program in Islamabad, Pakistan. This programme includes formal training for medical assistants, birth attendants, pathologists, radiologists and other disciplines. After they have completed their training, they will return and work in their communities (ARC, 2016, p. 13).

In South Sudan, ARC work alongside South Sudan's County Health Departments, training their employees so that eventually local staff will be able to continue their work independently of ARC (ARC, 2016, p. 20).

Delivering primary maternal, newborn and health care services

ARC provide basic primary health facilities in 3 refugee camps in Rwanda. These include healthcare staff, a child immunisation programme and a 24 hour referral system to district

hospitals. As a result of this work more children are reaching their fifth birthday in these camps than ever before (ARC, 2016, p. 14).

In Sudan[8], ARC trained midwives provide pre and post-natal consultations. ARC supply pregnant women with vitamins, soap, and medications, safeguarding them against harmful infections and malnutrition before and after birth. ARC operate 17 primary health clinics in South and East Darfur, Sudan.

Strengthening health systems

In Pakistan[9], ARC have built labour and delivery rooms, furnished maternity wards with equipment and furniture, provided primary health services and community education. By strengthening primary healthcare systems, ARC's goal is to help to equip Pakistan with a responsive, functioning, and sustainable health system.

Help refugees with the transition to returning home

In 2016, ARC began supporting Somali refugees returning home to Somalia by focusing on MNCH in the communities refugees are returning home to (ARC, 2016, p. 19).

Innovative tools

mHealth is a mobile phone based data collection and dissemination health tool used in South Sudan. Instead of health workers hand-delivering reports, often covering long distances over difficult terrain, data is submitted via mobile phone. This provides instant feedback to health facilities and can notify health officials of an epidemic (ARC, 2016, p. 20).

Child malnutrition

ARC is the major humanitarian organisation in East Darfur, Sudan. It also works in South Dafur. To combat a high child mortality rate and increasing levels of child malnutrition, ARC implements feeding programmes, educational campaigns, cooking demonstrations, treatment and prevention, and emergency care to the most critical of cases (ARC, 2016, p. 23).

Practical tools for healthcare workers

In Uganda midwives travel from the nearby Ariwa Health Centre to Bidi Bidi refugee settlement, home to approximately 27,000 mainly South Sudanese refugees, to deliver babies. The most challenging time for midwives is at night, so ARC provided midwives with kits including gumboots, a solar lantern and head lamp, extra scrubs and a reflective vest[10].

In South Sudan, ARC work in 26 health facilities, including managing 2 hospitals which suffer from electricity blackouts due to fuel shortages. In order to allow staff to continue working at

[8] http://staging.arcrelief.org/our-work/sudan/

[9] http://staging.arcrelief.org/our-work/pakistan/

[10] http://staging.arcrelief.org/day-22-outfitting-midwives/

night, ARC provided headlamps for staff at the 4 remotest sites that have the most challenges with electricity[11].

CARE

CARE is a steering committee member of the IAWG. Implementing the MISP is its key approach to addressing women's sexual and reproductive health needs in the acute phases of emergencies (CARE, 2016).

Advocacy work

- Played a leading role in advocating for the prioritisation of family planning as a core pillar of the MISP;
- Inputted into *Every Woman, Every Child*, the UN Global Strategy for Women's, Children's and Adolescent's Health;
- Founding member of Reproductive Health in Emergencies Consortium (RHEC), which promotes reproductive health among persons affected by armed conflict;
- Member on the Reproductive Health Supplies Coalition (RHSC), which ensures access to reproductive health supplies. Along with partners, CARE successfully advocated for the WHO to include misoprostol on the Essential Medicines List for treating post-partum haemorrhage (CARE, 2016).

Supporting Access to Family Planning and Post Abortion Care (SAFPAC)

Launched in 2011, SAFPAC is CARE's flagship sexual and reproductive health in emergencies project (CARE, 2015). CARE works with local government health facilities to improve women's access to contraception and post-abortion care (CARE, 2015). Programme activities include delivering competency-based family planning and post-abortion care training to health providers; ensuring a continuous supply of contraceptive methods; and community mobilisation activities to raise awareness of family planning and help women access services (CARE, 2015). The project has been implemented in Chad, the DRC, Pakistan, Mali and Djibouti (Care, 2015).

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Nepal: An estimated 126,000 pregnant women were affected by the 2015 earthquake. CARE distributed home birthing kits to enable safer births; distributed birthing kits for birth attendants including medical supplies necessary to handle complications; and, constructed birthing tents, ensuring pregnant women had clean, safe spaces to give birth in (CARE, 2016).

South Sudan[12]: CARE ran mobile clinics and trained female outreach workers to provide basic maternal health care and referrals for women in need of specialised care. The organisation developed alternative methods of service delivery including midwives travelling on bikes and motorbikes to reach pregnant women, porter-carried stretch transportation for referral and radios and mobile phones for clinicians to communicate with mobile teams (CARE, 2016). In Unity

[11] http://staging.arcrelief.org/let-there-be-light/

[12] http://www.careinternational.org.uk/emergencies/south-sudan#tab-0-1

state, CARE teams travelled on foot to vaccinate children against polio and measles, and deliver life-saving drugs and nutrition supplies.

International Medical Corps

International Medical Corps (IMC) provides direct MNCH care in emergency settings and deliver training to humanitarian workers, community healthcare workers and community volunteers (IMC, 2016a, p.6). In order to build resilience and preparedness for future emergencies, once emergency conditions have eased, IMC works with community leaders and national ministries of health, hiring and training local staff to ensure knowledge remains in-country (IMC, 2016a, p. 8).

Direct MNCH care

IMC's work is guided by the MISP. It deploys surge emergency health staff and works with national and local health authorities and workers to provide and support maternal and newborn services including: antenatal care, provision of clean delivery kits, skilled birth attendants, emergency and comprehensive obstetric care and post-natal care (IMC, 2016a). Child health programming includes immunisations, growth monitoring, early childhood development interventions and community-based case management of common childhood illnesses (IMC, 2016a). For example, IMC is currently operating in more than 45 health facilities in Darfur, Sudan supporting antenatal care, deliveries by skilled birth attendants and postnatal care.

Training

IMC delivers training for humanitarian workers, national and local community health workers in emergency or fragile settings, and local community members as community health volunteers:

- *Sierra Leone*: in 2016, they trained maternal and child health aides on infection prevention and control measures when handling newborns and followed this with similar training for village-level traditional healers (IMC, 2016a, p. 6);
- *Sudan:* in 2016, IMC staff trained over 1000 health facility staff and community health providers on topics including basic emergency obstetric and neonatal care, management of common medical problems, disease surveillance, emergency response and community mobilisation, supply management, data management and service organisation[13].

Midwifery training

One of the major reasons for high maternal and newborn mortality rates, both in emergency and non-emergency settings, is the lack of an appropriate and skilled healthcare workforce (2016b, p. 2). IMC is working in 2 ways to provide midwifery training in emergency-affected countries (2016b, p. 2):

Midwife and frontline health worker training: Once a crisis abates, IMC works with national health systems at every level providing pre-service and in-service training (IMC, 2016b, p. 2).

IMC has worked in strengthening **pre-service training for midwives**, nurses and other health professionals since 2002, in areas including Libya and South Sudan (IMC, 2016b, p. 3). In

[13] https://internationalmedicalcorps.org/country/sudan/

Afghanistan, IMC has run a community midwifery programme since 2002 and trained over 2,000 midwives (IMC, 2016b, p. 3, p. 7). Four approaches are used to strengthen and expand quality pre-service training:

- *Curriculum strengthening*: IMC evaluate, update and strengthen existing curricula to include performance standards and best practice; and, work with ministries of health to pilot, evaluate and integrate new components into national curricula, health plans and training programmes (IMC, 2016b, p. 3). IMC has developed and introduced curriculum modules on the MISP and clinical management of rape (these are not traditionally part of midwifery education) and is currently developing a module on psychosocial support (IMC, 2016b, p. 2).
- *Competency-based learning*: theoretical training is combined with skills labs and supervised practicums in clinical settings.
- *Infrastructure*: IMC builds, equips and upgrades classrooms, skills labs and housing facilities.
- *Capacity building for faculty members*: IMC recruits skilled international midwifery tutors to mentor national tutors.

IMC delivers **in-service training** on a range of MNCH topics. For example in the Democratic Republic of Congo (DRC) and Liberia it has delivered competency based training on basic emergency obstetric and newborn care (IMC, 2016b, p. 3).

Managing midwifery schools: IMC manages 1 school in Afghanistan and 3 in South Sudan. Its aim is that the schools will attain international standards for midwifery education as set by the International Confederation of Midwives (2016b, p. 4). IMC collaborates with a range of partners including ministries of health, local hospitals and facilities, national midwifery associations, UNFPA, WHO and other health I/NGOs (IMC, 2016b, p. 4). Teaching faculty must have 2 years practical experience and relevant licenses and registrations (IMC, 2016b, p.4).

South Sudan: The country's health system has been severely damaged by civil war and there is a serious shortage of all categories of key health professionals, including midwives (IMC, 2016b, p. 5). South Sudan has one of the highest maternal mortality rates in the world and 25% of newborns die before their 5th birthday of common and often preventable diseases (2016b, p. 5). IMC aims to reduce maternal, newborn and child mortality by managing 3 midwifery schools to increase the number of skilled birth attendants (IMC, 2016b, p. 6).

The 3 schools offer 4 different level of qualifications including a diploma in midwifery and a 1 year training programme for practising but unregistered community midwives (IMC, 2016b, p. 6). Training programmes are packaged according to the local context and capacities, classroom learning is supplemented with demonstrations and practice sessions in a simulation lab (2016b, p. 5). Residential facilities to accommodate trainees from further afield offer safe and appropriate living spaces (2016b, p. 6). All 3 schools are linked to their local teaching hospital so they can gain clinical experience (2016b, p. 7).

Afghanistan: In 2014, in partnership with the Ministry of Public Health, IMC began training female midwives and nurses from Nuristan Province as part of a project to enhance health systems in transition. Due to security concerns pre-service training is taking place in Jalalabad, Nangarhar Province with practical training taking place in provincial hospitals (IMC, 2016b, p. 7). A health workforce needs assessment was conducted before the start of the training programme in order

to develop a deployment plan for graduating students (IMC, 2016b, p. 7). IMC plans to hand over the midwifery and nursing school to Nuristan Ministry of Public Health once the training programme has ended (IMC, 2016b, p.7). The training programme is being implemented in partnership with the Afghan Midwifery Nursing Education and Accreditation Board and the Afghan Midwives Association in Kabul (2016b, p. 7).

Child Health

IMC works at the community level delivering immunisations, nutrition services, and consultations and community-based case management of common childhood diseases[14]. Children arriving at refugee camps are vaccinated against common childhood diseases.

Outpatient and inpatient nutrition programmes treat malnourished children under 5, pregnant women and breastfeeding mothers. This includes supplementary feeding programmes providing children and women with food rations. In Yemen[15], IMC currently treats severe, acute and moderate malnutrition cases through community-level health facilities and mobile clinics. Food insecure households that include acutely malnourished children are given monthly vouchers as part of IMC's food assistance programme in Yemen. The aim is to improve household food consumption and dietary diversity.

Management Sciences for Health (MSH)

MSH is a US advisory organisation working in fragile, humanitarian and post-crisis settings to strengthen and rebuild health systems. It aims to help countries transition from humanitarian crisis to post-crisis recovery (MSH, 2018, p. 4). MSH's work strengthening health systems to improve MNCH care in humanitarian settings focuses on:

Improving Quality of Care

MSH supports governments to design evidence-based policies, norms and guidelines; use mentoring and training approaches to introduce positive practices and improve staff capabilities; and, work with actors at all levels to support re-designing health services (MSH, 2018, p.2).

As described above, MSH applied the basic package of services model to support the rebuilding of Afghanistan's health system. Between 2004 and 2011, this programme:

- increased the number of attended births by over 4000% (Newbrander et al., 2014);
- decreased maternal mortality from 1,600 per 100,000 live births to 400 per 100,000 live births (Meng, 2017).

Strengthening management and governance so healthcare staff can rapidly respond to emergencies

Effective health service need effective leadership and management (MSH, 2018, p. 2). Healthcare staff need the resources, training and tools to do their jobs (Meng, 2017). MSH works with managers to improve service quality, use data in decision-making and correctly implement

[14] https://internationalmedicalcorps.org/program/womens-childrens-health/

[15] https://internationalmedicalcorps.org/country/yemen/

MNCH interventions (MSH, 2018, p. 20. For example, MSH providing training in Jordan for organisations responding to the Syrian crisis, focused on supply chain management (Meng, 2017). This training for logisticians and programme managers improved the delivery of medicines to displaced people in Syria and Turkey (Meng, 2017).

Scaling up

Evidence-based interventions can revitalise post-conflict populations if applied at scale (Meng, 2017). For example in the Democratic Republic of Congo, MSH built health facilities and community care sites and promoted breastfeeding (MSH, 2017, p. 11). This work expanded access to MNCH services: the percentage of women attending 4 antenatal care visits increased from 56% to 95% and saved the lives of approximately 178,000 children and 14,000 newborns (MSH, 2017, p. 11).

Save the Children

Save the Children is an IAWG steering group member and newborn and maternal health is a key focus of its work, both in its emergency and development programming. Save the Children argue that proven interventions, including skilled birth attendance, ensuring babies are warm at birth and establishing breastfeeding at birth, have the potential to reduce newborn death if scaled up[16].

The Saving Newborn Lives programme was established in 2000 and works with both global partners and in 7 partner countries (including Malawi, Nepal and Nigeria) to raise awareness, conduct research and support efforts to institutionalise equitable and highly effective coverage of high-impact newborn services and practices at the national scale[17]. The goal of the programme is to reduce newborn mortality and improve newborn health by scaling-up high impact interventions. It also helps to design, develop and implement national strategies and policies to improve the quality and availability of newborn care[18].

The Healthy Newborn Network

The organisation established and maintains the Healthy Newborn Network, an online community addressing critical knowledge gaps. Partner organisations share resources, data, experiences and lessons through the network. It also provides a platform for stakeholders to discuss and engage in working group activities on newborn and maternal health. The Network brings together resources, data, experiences and lessons on a range of related topics including maternal and newborn healthcare in emergencies[19].

Save the Children US

The Emergency Health and Nutrition programme focuses on basic lifesaving maternal, newborn and child healthcare, communicable disease prevention and control, the MISP,

[16] https://www.savethechildren.org/us/what-we-do/global-programs/health/newborn-health

[17] https://www.savethechildren.org/us/what-we-do/global-programs/health/newborn-health

[18] https://www.healthynewbornnetwork.org/partner/save-the-children/

[19] The network can be accessed here: https://www.healthynewbornnetwork.org/

including adolescent sexual and reproductive health, family planning, detection and treatment of acute malnutrition and breast feeding promotion[20]. The organisation collaborates with national health authorities and engages with national and sub-national coordination mechanisms. In cases where local infrastructure and capacity are significantly diminished, Save the Children provides direct services as an interim measure until the transition of these services to local authorities is possible[21].

Save the Children UK

The Emergency Health Unit includes the necessary medical supplies, logistics experts and skilled healthcare personnel ready to be dispatched anywhere in the world to respond to an emergency:

- *South Sudan***:** Save the Children healthcare staff are working at Nimule Hospital, one of the country's leading maternal healthcare facilities, supporting a population of approximately 270,000 people.
- *Partnership with GSK in DRC**:*** working with global pharmaceutical company, GSK to renovate health clinics, train health workers and improve medical supplies. Over 5 years the aim is to reach 70,000 children with healthcare[22].

State of the World's Mother 2014[23]

Each year Save the Children produces the State of the World's Mothers report. The 2014 edition focused on mothers and newborns in humanitarian crises. The report included a number of MNCH programming recommendations:

- *Mother and baby centres to encourage breastfeeding**:*** Breastfeeding is important for infant health and survival and maternal health immediately following birth (Save the Children, 2014, p.15). Humanitarian emergencies hamper breastfeeding due to lack of private facilities and support (Save the Children, 2014, p. 15). Mother and baby centres offer women quiet, private, comfortable places to feed their babies, access counselling, access re-lactation consultations to help mothers re-establish breastfeeding and participate in support groups dispelling myths about breastfeeding (Save the Children, 2014, p. 15).
- *Maternal and child nutrition interventions**:*** These include emergency food transfers, vitamin A and Zinc supplements and promoting exclusive breastfeeding (Save the Children, 2014, p. 18). Maternal malnutrition is a major factor in birth complications and low birth weight and impacts breastfeeding (Save the Children, 2014, p.17). Anaemia is significant cause of maternal mortality (Save the Children, 2014, p. 17). Malnutrition is the underlying cause in 45% of child deaths per year (Save the Children, 2014, p. 17).

[20] https://www.savethechildren.org/us/what-we-do/global-programs/health/health-and-nutrition-emergencies

[21] https://www.savethechildren.org/us/what-we-do/global-programs/health/health-and-nutrition-emergencies

[22] https://www.savethechildren.org.uk/what-we-do/health

[23] https://www.savethechildren.org/content/dam/usa/reports/advocacy/sowm/sowm-2014.pdf

- *Psychosocial support:* Women and children's mental health can be profoundly impacted by humanitarian emergencies (Save the Children, 2014, p.19). Humanitarian groups have pioneered approaches for supporting children that include traditional healing rituals (Save the Children, 2015, p. 19).

UNICEF

UNICEF's work in humanitarian emergencies focuses on priority interventions targeted at the most common causes of under 5 mortality including[24]:

- vaccinating children against measles and working to re-establish national vaccination programmes (including inputs such as cold chain equipment, operational support, training and social mobilisation);
- establishing preventative and curative health services targeted to priority under 5 illness (pneumonia, diarrhoea, malaria, malnutrition and newborn causes) through clinic based and outreach services, mobile clinics, community health worker programmes such as integrated community case management and home-based care;
- health education for prevention, home-based care and care seeking for priority maternal, newborn and childhood illness[25].

Services are operationalised through partnerships with governments and implementing partners; capacity building training; and the provision of essential drugs, emergency health kits and essential supplies; and surge staff.

Interventions are guided by UNICEF's ***Core Commitments for Children in Emergencies (CCCs).*** The CCCs outline a number of sector-specific commitments that form part of a collective programmatic response for children affected by a humanitarian crisis and support inter-agency coordination (UNICEF, 2010, p. 2). Nutrition (the nutritional status of girls, boys and women is protected from the effects of humanitarian crisis) and health (prevent excess mortality among girls, boys and women) are two of the CCCs (UNICEF, 2010). For child and women nutrition benchmarks include:

- all emergency areas have an adequate number of skilled infant and young child feeding counsellors and /or functioning support groups;
- effective management of acute malnutrition (measured by a recovery rate of more than 75%) reaching the majority of the target population (more than 50% in rural areas, more than 70% in urban areas and more than 90% in camps);
- micronutrient needs of affected population are met from fortified foods, supplements or multiple-micronutrient preparations (UNICEF, 2010, p. 20).

Each of the CCCs has programme actions for each phase: preparedness, emergency response and early recovery (UNICEF, 2010).

[24] https://www.unicef.org/health/index_emergencies.html

[25] https://www.unicef.org/health/index_emergencies.html

United Nations Population Fund (UNFPA)

UNFPA is the UN's reproductive health agency. In 2017, it reached 10.8 million people in humanitarian situations with sexual and reproductive health services, including MNCH (UNFPA, 2018, p. 10). Its key MNCH activities include: providing emergency obstetric care, 24/7 referral systems, static and mobile clinics, safe spaces for women and girls, deployment of midwives and psychosocial support (UNFPA, 2018, p. 8). UNFPA also leads the gender-based violence (GBV) area of responsibility, which is part of the Global Protection Cluster.

Preparedness

UNFPA trains healthcare workers, building their capacities so they can respond quickly (UNFPA, 2018, p. 14). In 2017, they trained health workers in over 50 countries in areas including: the MISP, Emergency Obstetric and Newborn care, GBV case management, clinical management of rape and psychosocial support as well as training youth facilitators, peers and volunteers in sexual and reproductive health and GBV (UNFPA, 2018, p. 11). They also provide essential reproductive health supplies, strengthen maternity spaces, and facilitate local partnerships to enhance health systems (UNFPA, 2018, p. 14).

Response

At the onset of a crisis, UNFPA coordinates MISP activities and provides logistical support for partners including delivering emergency MNCH kits and other health commodities and supplies (UNFPA, 2018, p. 14). In 2017, in addition to UNFPA country offices and implementing partners, 13 regional and global partners received kits[26] (UNFPA, 2018, p. 15).

Emergency Reproductive Health Kits are standardised, pre-packed, designed for worldwide use and ready for immediate dispatch (UNFPA, 2018, p. 14). UNFPA kits include:

- *Dignity kits*: basic hygiene supplies;
- *Personal clean delivery kits*: designed for and distributed to visibly pregnant women. It contains a bar of soap, a razor blade to cut the umbilical cord and a string to tie it, plastic gloves and sheeting;
- *Comprehensive emergency obstetric care kit*: this is the largest kit. Weighing more than a ton, it includes all equipment and medical supplies required to set up a maternity surgery unit including supplies for caesareans (UNFPA, 2018, p.14)
- *Rape management kits*.

Responses are tailored to the circumstances of each crisis: for example, ad hoc delivery rooms set-up in damaged buildings, mobile health clinics or dispatching midwives on motorcycles[27]. (UNFPA, 2018, p. 11). Surge sexual and reproductive health specialists provide instant support on the ground (UNFPA, 2018, p. 14). This includes midwives trained in humanitarian response

[26] UNFPA partners who received kits in 2017 were: CARE International, International Medical Corps, International Rescue Committee, International Planned Parenthood Federation, Pan American Health Organization, Sustainable Healthcare International, United Nations Development Programme, United Nations Educational, Scientific and Cultural Organization, United Nations High Commissioner for Refugees, and the World Health Organization

[27] https://www.unfpa.org/emergencies

(Tze, 2017). UNFPA also establishes and supports safe spaces for women and girls, where they can meet and access services, including GBV services and psychosocial support (Tze, 2017)

Case Study: Support for Rohingya refugees, Cox's Bazar District, Bangladesh. UNFPA activities include:

- midwives working with existing health personnel;
- distributing clean delivery kits containing the supplies necessary for health personnel to safely deliver babies and provide post-natal care;
- safe spaces for Rohingya women and girls provide referrals for health services and psychosocial support and counselling, and GBV case management for survivors (Tze, 2017). They are also spaces where women and girls can breastfeed (Tze, 2017).

Women's Refugee Commission (WRC)

The Women's Refugee Commission (WRC) is a research and advocacy organisation that aims to strengthen resilience and drive change in humanitarian practice. They do not have field operations.

Research into sexual and reproductive health programming

This includes tracking how emergency response agencies and donors are funding and carrying out sexual and reproductive health activities and conducting field assessments to identify gaps in programmes and champion good practice. Examples include:

- Assessment of reproductive health services for Syrian refugees in Zaatri Camp and Irbid City in Jordan in conjunction with UNFPA (Krause et al., 2015)
- Documenting the implementation of the Non-pneumatic Anti-shock Garment developed by Pathfinder International as a tool to combat post-partum haemorrhage (WRC, 2011). WRC recommended the garment's use and it is now part of the optional MISP kit list.

Preparedness training

The organisation has developed training tools for humanitarian workers, planners and communities:

- A MISP distance learning module for humanitarian workers to help with implementation;
- A training tool for community preparedness, developed in conjunction with UNFPA Philippines. The *Facilitator's Kit: Community Preparedness for Reproductive Health and Gender* is a framework for a 3 day training to build community capacity to prepare for and respond to an emergency (WRC, 2015). It was developed through eight training events conducted across six natural disaster and conflict-affected settings in the Philippines. The revised curriculum has been piloted in two more settings in the Philippines.
- Support MISP training, before a crisis, for national-level teams and health providers. Training takes place in partnership with the Sexual and Reproductive Health Programme

in Crisis and Post-Crisis Situations in East, Southeast Asia and the Pacific (SPRINT) Initiative[28].

Advocating for Preparedness

WRC has advocated for the integration of sexual and reproductive health into emergency preparedness and planning since 2010. In conjunction with WHO it established a reproductive health working group within UNISDR Thematic Platform for Emergency and Disaster Risk Management for Health (WRC, 2016, p. 10). This group aims to mainstream sexual and reproductive health, including MNCH, into national preparedness plans (WRC, 2016, p. 11).

World Health Organization

The World Health Organization (WHO) is a steering committee member of the IAWG. In addition to developing clinical and technical guidelines related to maternal, newborn and child health, the WHO also undertakes relevant research (for example, into interventions including kangaroo mother care) and works to define priorities for MNCH research in humanitarian settings (WHO, 2018, p. 65). A selection of the WHO's technical guidelines are outlined in section 5 of this report.

The **Every Newborn Action Plan (2014)** aims to end preventable newborn deaths and stillbirths. It outlines a series of evidence based interventions to achieve these goals including skilled attendance at birth, emergency obstetric and newborn care and essential newborn care (e.g. support for breastfeeding) (WHO, 2014, p. 15-16). The most effective packages of care for ending preventable newborn deaths and stillbirths are those that are delivered during labour, around birth and the first week of life (WHO, 2014, p. 15).

To achieve its goals, investments is needed in every aspect of the health system, including leadership, workforce, infrastructure, commodities and supplies, service delivery, and information systems (WHO, 2014, p. 29). Newborn care should be incorporated into countries' emergency planning (WHO, 2018, p. 10 & p. 17).

The Action Plan recommends a number of maternal and newborn health strategies to implement in humanitarian settings, including setting up temporary health outposts or facilities as close as possible to crisis affected communities; mobile health units; community health workers equipped to undertake house visits; and, training health workers to recognise danger signs, treat life-threatening conditions, and transfer women and newborns to referral facilities or hospital when possible (WHO, 2018, p. 69). Challenges in humanitarian settings include programme implementation and securing financing through domestic and development partners (WHO, 2018). Efforts to strengthen implementation in humanitarian settings promoted the revision of the ***Newborn Care in Humanitarian Settings: Field Guide*** (WHO, 2018, p. 4)[29].

Training activities

[28] https://www.womensrefugeecommission.org/srh-2016/disaster-risk-reduction

[29] This guidance is discussed in Section 5: Technical guides

Working with partner organisations, WHO delivers training on a range of interventions. For example, in September 2017, the WHO and its H6 partners[30] organised a regional workshop on kangaroo mother care for teams from the Middle East and North Africa (WHO, 2018, p. 33). Kangaroo mother care is a proven intervention for combatting deaths due to prematurity, the leading cause of newborn death in the Middle East and North Africa (WHO, 2018, p. 33). Competency-based training for health workers covered clinical skills for managing preterm and low-birth-weight babies; ensuring that standards are met for quality of care; and country teams developing implementation plans (WHO, 2018, p. 33).

5. Selection of MNCH Technical Resources

Newborn Health in Humanitarian Settings Field Guide

This Field Guide is a companion to the *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*. It is a programming tool designed with the goal of reducing newborn mortality and morbidity in emergency settings (UNICEF & Save the Children, 2018, p. 13). It focuses on the field implementation of the most critical newborn health services, prioritising life-saving activities that can be introduced relatively quickly, without specialist training in advanced newborn care (UNICEF & Save the Children, 2018, p. 13-14). Interventions at the different levels of care (home, primary care facility and hospital) during the pregnancy and antenatal period, labour and birth, the immediate postnatal period (1st hour after birth) and the first week after birth (UNICEF & Save the Children, 2018). It provides guidance regarding the initiation of newborn health services during the acute phase of a humanitarian crisis as well as the enhancement and expansion of these services over time.

The guide addresses the three main causes of newborn death globally: pre-term complications, severe infection, and intra-partum complications. It outlines interventions for managing all three causes at different care levels as well as doses of common drugs for newborns, tools to support referrals and contents of the Newborn Care Supply Kits by level of care. Throughout the guide it emphasises that care should be tailored to local contexts (UNICEF & Save the Children, 2010).

Interagency list of priority medical devices for essential interventions for reproductive, maternal, newborn and child health

Developed by the WHO in partnership with the UNFPA and UNICEF (WHO, 2016, p. 6), the list is designed for use by practitioners to determine which devices are necessary for different interventions at different levels of care. For example, delivery in a district hospital or postnatal care in the community. There are 3 levels of care: community, health centre and referral (e.g. hospital). It also includes guidance for essential commodities for laboratories and blood banks; safe surgery; and key programmes and technical information for infection prevention and control in health care facilities. The guide outlines essential interventions at each stage of the continuum of care and lists the relevant evidence-based guidelines published by WHO that support each intervention and specific procedures.

[30] The H6 partnership (formerly H4+) harnesses the collective strengths of the UNFPA, UNICEF, UN Women, WHO, UNAIDS, and the World Bank Group to advance the Every Woman Every Child (EWEC) Global Strategy and support country leadership and action for women's, children's and adolescents' health (https://www.unfpa.org/h6).

HIV and infant feeding in emergencies: operational guidance

The guidance is aimed at practitioners, policy makers, and planners with the aim of prioritising HIV-free survival of children by balancing HIV prevention with protection from other risk factors for child mortality (WHO, 2018b, p. 1). Interventions should prioritise the health and nutrition needs of mothers living with HIV and their children (WHO, 2018b, p. 1). They should also provide or re-establish supplies of antiretroviral drugs to avoid disruption of treatment (WHO, 2018b, p. 1). The guidance argues that breastfeeding is one of the essential foundations of child health, development and survival (WHO, 2018b, p. 3). Consequently, the aim of the emergency response should be to create and sustain an environment that encourages and supports breastfeeding for children up to age 2 and beyond (WHO, 2018b, p. 1). Infants who are not breastfeeding need early identification and targeted support to minimise risks and maximise their health and nutrition (WHO, 2018b, p. 1).

Manual for the health care of children in humanitarian emergencies

The manual was designed as a reference manual for first-level health workers providing care to children under 5 years of age, it can also be used as a basis for training health care workers (WHO, 2008). It focuses on the acute and chronic phases on an emergency where no inpatient hospital facilities are available (WHO, 2008). The manual addresses the major causes of child mortality and morbidity, including diarrhoeal diseases, acute respiratory tract infections, and malnutrition and micronutrient deficiencies (WHO, 2008, p. 1). Steps include: including the community in the delivery of preventative health messaging; if possible, establishing a referral centre for severely ill children; and, establishing a disease surveillance system so that outbreaks can be detected early, especially for measles, dysentery, cholera and meningitis (WHO, 2008, p. 2).

This manual recommends that during a chronic emergency agencies should begin planning for the transition to a sustainable health care system (WHO, 2008, p. 2). This should include routine childhood immunisations, care of persons with tuberculosis, care of HIV-infected persons and provision of mental health and psychosocial support (WHO, 2008, p.2).

NEST 360

Developed by the Institute for Global Health, Texas, NEST 360 is a package of 16 ‘Newborn Essential Solutions and Technologies’ (NEST) designed specifically for use in low-resource settings. These include a syringe pump to treat infections, and a phototherapy light and meter to treat jaundice. The aim is to reduce newborn death through the deployment of technologies that are as effective as those used in high-resource settings but that are a fraction of the cost. The 16 devices are being developed and tested in Malawi in partnership with the University of Malawi’s Polytechnic Engineering School to ensure they are rugged, high-quality and affordable. Clinical studies and tests of the equipment are currently ongoing. Following the successful completion of clinical tests, the NEST 360 team hope to scale-up use to other sub-Saharan countries.

6. Abbreviations

ARC, American Refugee Committee

DRC, Democratic Republic of Congo

GBV, Gender-based violence

IAWG, Inter-Agency Working Group on Reproductive Health in Crises

IDP(s), internally displaced person(s)

IMC, International Medical Corps

MISP, Minimum Initial Service Package

MNCH, maternal, newborn and child health

MSH, Management Sciences for Health

SAFPAC, Supporting Access to Family Planning and Post Abortion Care

WHO, World Health Organization

WRC, Women's Refugee Commission

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Key websites

- American Refugee Committee, http://arcrelief.org/health/
- Healthy Newborn Network, healthynewbornnetwork.org

- International Medical Corps, https://internationalmedicalcorps.org/program/womens-childrens-health/
- Inter-Agency Working Group on Reproductive Health in Crises, http://iawg.net/
- Management Sciences for Health, https://www.msh.org/
- https://www.unicef.org/health/index_emergencies.html
- Women's Refugee Commission, https://www.womensrefugeecommission.org/
- World Health Organization, http://www.who.int/maternal-health/en/

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About this report

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