



## Success Depends on Collaboration

*Cross-Sector Technical Brief on Maternal and Newborn Health and Nutrition in Humanitarian Settings*

IAWG Maternal and Newborn Health Sub-working Group | April 2022



Inter-Agency Working Group on  
**Reproductive Health in Crises**

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## ACRONYMS

ACF - Action Contre la Faim	MISP - Minimum Initial Service Package
ANC - Antenatal care	MMN - Multiple micronutrient supplementation
BMI - Body mass index	MNH - Maternal and newborn health
ENC - Essential newborn care	MNHiE - Maternal and newborn health in Emergencies
ENN - Emergency Nutrition Network	MUAC - Mid-upper arm circumference
HAZ - Height-for-age z-score	NiE - Nutrition in emergencies
HIV - Human Immunodeficiency Virus	PLW - Pregnant and lactating women
IAFM - Inter-agency Field Manual	PNC - Postnatal care
IAWG - Inter-agency Working Group on Reproductive Health in Crises	SDG - Sustainable Development Goals
IFA - Iron and folic acid	SRH - Sexual and reproductive health
IFE - Infant Feeding in Emergencies	UNFPA - United Nations Population Fund
IsDB - Islamic Development Bank	UNHCR - United Nations High Commissioner for Refugees
IYCF - Infant and Young Child Feeding	UNICEF - United Nations Children Fund
IYCF-E - Infant and Young Child Feeding in Emergencies	WAZ - Weight for age z-Score
LBW - Low birth weight	WHA - World Health Assembly
LMIC - Low and middle income country	WHO - World Health Organization
MAMI - Management of Small & Nutritionally At-risk Infants Under Six months & Their Mothers	WHZ - Weight for height z-Score
	WFP - World Food Programme

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## INTRODUCTION

Worldwide, 36% of newborn deaths, 54% of maternal deaths, and 34% of stillbirths are in countries identified by the World Bank as fragile or conflict-affected.<sup>1,2</sup> While there have been improvements in global maternal mortality and under-five mortality in the past decade, similar progress has not been made in reducing neonatal mortality. As a result, newborn deaths now make up 47% of under-five deaths.<sup>3</sup> In fragile and crisis-affected contexts, the risk of adverse health and nutrition outcomes for both mother and newborn are exacerbated.

The nutrition and wellbeing of the newborn is inextricably tied to the nutrition and wellbeing of the mother throughout her life course. The [2021 USAID Maternal Nutrition Factsheet](#) attributed 800,000 newborn deaths each year to maternal nutrition.<sup>4</sup> A significant correlation has been repeatedly demonstrated between maternal undernutrition markers (body mass index, mid-upper arm circumference) and low birth weight (LBW) newborns.<sup>5-8</sup> [The 2021 Lancet Series on Maternal and Child Undernutrition](#) highlighted these associations as well as the subsequent association between LBW and nutrition indicators in children under five years, which was maintained after controlling for socioeconomic status and maternal education.<sup>9</sup> Additional studies have confirmed that association - it is difficult for LBW babies to catch up in subsequent years.<sup>10</sup> Children who are stunted and/or wasted become short stature and/or undernourished adolescents, who subsequently become short stature and/or undernourished mothers. Fortunately, there is also evidence that interventions in pregnancy can improve newborn outcomes.<sup>11,12</sup>

Nutrition in emergencies programming has historically focused on children aged 6 months to five years. Unfortunately, the specific needs of pregnant and lactating women (PLW) and their newborns and young infants (0-6 months) are often overlooked. In humanitarian settings, separate coordination, implementation, and funding structures for nutrition and health encourage siloed programming, resulting in missed opportunities for collaboration, continuity of care, and improved outcomes. A mother is the newborn's best chance for survival. Ensuring optimal nutrition before, during, and after pregnancy offers a critical opportunity for positive health outcomes for both the mother and her newborn, and sets the course for better outcomes through infancy and childhood.

The [2019 WHO Essential Nutrition Actions: Mainstreaming Nutrition Through The Life Course](#), UNICEF's [2021 No Time To Waste](#), and [the Global Action Plan on Child Wasting](#) recognize the effects of undernutrition throughout the life course of an individual and on to the next generation.<sup>13-15</sup> Each document calls for coordinated efforts to integrate maternal and child nutrition services. Partnership between nutrition and health program teams in advocating and planning for newborn interventions in a humanitarian response can help close gaps in nutrition and health needs for the mother and newborn.

The humanitarian sector must strive for a system in which the mother-newborn dyad is strengthened and nourished through the collaboration of the health and nutrition sectors to deliver quality, accessible, continuity of care within and between services. This brief aims to progress this collaborative effort by achieving three objectives:

- **Provide an overview of MNH guidelines, resources, and tools in humanitarian contexts and how they can be helpful for nutrition program staff;**
- **Provide an overview of nutrition guidelines, resources, and tools in humanitarian contexts and advise how they can be useful for MNH program staff; and**
- **Highlight the need for collaboration and highlight examples of aligned outcomes, integrated service delivery, and referral opportunities between MNH and nutrition in humanitarian settings.**

The primary audience for this brief is nutrition program staff and health program staff involved in the support and implementation of humanitarian programming, particularly those related to mothers, newborns, and infants. The suggestions for collaboration are made in the context of supporting government leadership and existing systems and services wherever possible during humanitarian response. Humanitarian agencies should consult both the Health and Nutrition Clusters, relevant national and sub-national guidelines, and coordinate with national stakeholders to identify resources, local experiences, and practices of collaboration to inform activities. Below you will find information on key global targets for each sector, summaries of global guidance and tools, suggestions for enhanced coordination between MNH and nutrition actors and examples of successful integration that improved maternal health and nutrition indicators.



# SHARED COMMITMENTS, TARGETS AND OBJECTIVES

In 2012, the World Health Assembly endorsed the 2025 WHO Global Nutrition Targets, which included reducing rates of LBW, reducing rates anemia for women of reproductive age, and increasing rates of exclusive breastfeeding in the first six months of life.<sup>16</sup> These targets are consistent with targets in Sustainable Development Goals 2 and 3 - ending malnutrition and preventable newborn deaths - and are of key importance to both nutrition and health clusters.<sup>17,18</sup>

In reflecting on these targets and goals, both nutrition and health actors have created initiatives in recent years that focus on increasing attention on the newborn (Figure 1). These initiatives have many closely aligned objectives and yet there are still gaps in practical collaboration.

Figure 1: Global Initiatives with Shared Nutrition & MNH Objectives



Identifying the gaps in collaboration (detailed in specific sections below) and the need for accelerated progress, an inter-agency and intersectoral effort led by UNICEF, WHO, Save the Children, and UNHCR produced the [Roadmap to Accelerate Progress for Every Newborn in Humanitarian Settings](#) (the Roadmap) in 2020.<sup>19</sup> The Roadmap's goal is to eliminate preventable neonatal and maternal deaths in crisis settings and advance progress for the global targets aimed at reducing neonatal mortality, maternal mortality, and stillbirth. The Roadmap identifies nine key actions to ensure newborns survive and thrive. Several of these, recognizing the importance of the mother-newborn dyad, incorporate nutrition and health actions, including early and exclusive breastfeeding, care for small newborns, and expanding access to quality, evidence-based care for both mother and newborn. The Roadmap also calls for strengthening linkages across key humanitarian sectors such as nutrition and health, and for innovative approaches to service delivery to improve maternal and neonatal outcomes.

## Box 1: Aligned Nutrition & MNH SDG Targets<sup>17,18</sup>

**SDG 2.1:** End hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants

**SDG 2.2:** End all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women

**SDG 3.2:** End preventable deaths of newborns, all countries reduce neonatal mortality to at least 12/1000 live births

## Box 2: WHO Global Nutrition Targets 2025<sup>16</sup>

- **40% reduction in stunted children** under 5
- **50% reduction of anemia** in reproductive age women
- **30% reduction in low birth weight**
- Ensure **no increase** in childhood overweight
- **50% increase in rate of exclusive breastfeeding** for 6 months
- **Reduce** and maintain childhood wasting to **< 5%**

# MATERNAL AND NEWBORN HEALTH IN EMERGENCIES

In crisis-affected settings, pregnant women and newborns have increased health and nutritional needs when compared to the general population, and thus disruption of services can lead to an increased risk of complications and exacerbation of existing nutritional and health morbidities. As a result, women and children are fourteen times more likely than men to die during a humanitarian crisis.<sup>20</sup>

In order to address these needs, the SRH community came together at the 1994 International Conference on Population and Development to form several important initiatives including the [Inter-agency Working Group on Reproductive Health in Crises](#) (IAWG). Since then, IAWG has produced global tools and guidance for SRH coordinators, managers, and providers to use in acute or protracted crises. Listed below are some of the key IAWG-produced implementation tools that are used by the Global Health Cluster and partners to implement key SRH & MNH services at all levels of a response.

## Key MNHiE Statistics

- 47% of all under 5 mortality is neonatal mortality.<sup>3</sup>
- 33% of all neonatal deaths occur on the first day of life.<sup>47</sup>
- 75% of all neonatal deaths occur in the first week of life.<sup>47</sup>
- 37% of pregnant women in humanitarian settings have < 4 antenatal visits.<sup>29</sup>
- 32% of births in humanitarian settings lack skilled care.<sup>20</sup>
- 75% of newborns born outside of a health facility do not receive postnatal care visits within 48 hours.<sup>20</sup>
- 58% of all newborns are not put to the breast in the first hour.<sup>48</sup>

## Interagency Field Manual on Reproductive Health in Humanitarian Settings (IAFM)<sup>21</sup>

- Updated in 2018, the IAFM provides guidance and tools for assessment, planning, and implementation of SRH interventions in humanitarian contexts to be used by program managers, clinicians, and emergency responders when necessary.
- Technical areas covered in the IAFM include: MNH, adolescent sexual and reproductive health, contraception, comprehensive abortion care, gender-based violence, HIV, and other sexually transmitted infections.
- For each of these components, the IAFM includes guidance on priority interventions that should be delivered or established as part of the Minimum Initial Service Package (MISP) for SRH in Crisis Situations, as well as guidance for establishing sustainable comprehensive programming as soon as possible after the acute response.

## Minimum Initial Service Package (MISP)<sup>22</sup>

- Complementary to the IAFM, the MISP outlines the most essential and minimum set of SRH interventions that should be available at the outset of a humanitarian crisis. For MNH, the initial focus is care on the day of birth, with expansion, when possible (ideally within 3 to 6 months of the start of the response, if not sooner) to comprehensive programming including antenatal care (ANC), postnatal care (PNC), and opportunities for linkages with nutrition.
- The MISP is recognized by the humanitarian community as part of the essential health services necessary in all humanitarian settings and can be activated immediately without waiting for a detailed assessment.
- An essential piece of MISP implementation is appointing a sexual reproductive health (SRH) coordinator within the health cluster to oversee partner implementation and coordination, make referral linkages, and coordinate with other clusters. The SRH coordinator is a valuable resource to coordinate referrals for care or integrate care with nutrition leaders in an emergency.

## Newborn Health in Humanitarian Settings Field Guide<sup>20</sup>

- In 2018, IAWG published the [Newborn Health in Humanitarian Settings: Field Guide](#) as a companion to the IAFM to address what had been noted as an implementation and capacity gap among humanitarian actors.
- The Field Guide includes technical content for health staff at each level of care, as well as program implementation content for program staff from local to national levels.
- The Field Guide annexes contain tools and templates for essential newborn care (ENC) services, advanced care for small and sick newborns, newborn care supply kits, and referral support.

# NUTRITION IN EMERGENCIES

In 1999 [the Infant Feeding in Emergencies \(IFE\) Core Group](#) was formed as a global collaboration of agencies and individuals to address gaps in guidance and resources related to infant and young child feeding in emergencies, for nutrition program staff, providers, and advisors to use in acute and protracted humanitarian contexts. Coordinated by the [Emergency Nutrition Network](#) (ENN), the IFE Core Group produced the [Infant and Young Child Feeding in Emergencies \(IYCF-E\) Operational Guidance for Emergency Relief Staff and Programme Managers](#) in 2017 that has been endorsed by WHA with WHA Resolutions 63.23 and 71.9.<sup>23</sup> The Operational Guidance on IYCF-E is applicable across humanitarian and development settings. The IFE Core Group has also produced the [Operational Guidance on Breastfeeding Counselling in Emergencies](#) in 2021.<sup>24</sup> Listed below are some of the key implementation tools that are used by the Nutrition Cluster and nutrition actors at all levels of a response.

## Key NiE Statistics

- 18% of newborns are low birthweight (<2500g).<sup>49</sup>
- 20% under 6 months are underweight (WAZ<-2).<sup>49</sup>
- 21% under 6 months are wasted (WHZ<-2).<sup>49</sup>
- 18% under 6 months are stunted (HAZ<-2).<sup>49</sup>
- Only 44% of newborns are exclusively breastfed for 6 months.<sup>50</sup>
- 33% of women of reproductive age are anemic.<sup>51</sup>
- 42% of children under 5 years are anemic.<sup>51</sup>

## [Infant and Young Child Feeding in Emergencies \(IYCF-E\) Operational Guidance for Emergency Relief Staff and Programme Managers](#)<sup>23</sup>

- A brief guidance produced by the IFE Core Group to provide guidance to policymakers, programmers, and staff regarding feeding interventions for infants and young children under two years of age.
- Guidance includes breastfeeding support, feeding support for infants with HIV and during infectious disease outbreaks, minimizing risks of artificial feeding, and complementary feeding.
- It contains examples of multi-sector collaboration, including with reproductive and newborn health, and an extensive list of resources.

## [Operational Guidance on Breastfeeding Counselling in Emergencies](#)<sup>24</sup>

- In order to operationalize the [2018 WHO Counselling of Women to Improve Breastfeeding Guidelines](#) this collaborative guide produced by ENN and the IFE Core Group covers what, when, who, and how to provide breastfeeding counseling in emergency settings.<sup>25</sup>
- It identifies the time around birth as a critical time to intervene and makes practical suggestions to ensure adequate breastfeeding support capacity within maternity settings during emergencies. It also includes a helpful simple rapid assessment tool.

## [MAMI Care Pathway Package](#)<sup>26</sup>

- The MAMI Care Pathway Package was developed by the MAMI Global Network which is coordinated by ENN, co-chaired by ENN and the London School of Hygiene and Tropical Medicine (LSHTM).
- The MAMI Care Pathway Package is a resource material on how to identify, assess, and manage small and nutritionally at-risk infants under six months and their mothers.
- Small and nutritionally at-risk infants include infants who are LBW and/or who may be identified as wasted, stunted, and/or underweight (malnourished).
- It provides a framework and practical content to connect and strengthen existing systems and services that already manage and identify small and nutritionally at-risk infants under 6 months and their mothers, or that have opportunities to do so. It should be adapted to fit with different contexts, systems, and services.
- The MAMI Care Pathway approach uses an integrated pathway of care model. It is modelled on the Integrated Management of Childhood Illness (IMCI) to strengthen and complement its implementation.
- The MAMI Care Pathway Package is applicable across development and humanitarian, fragile and conflict-affected settings. It can be applied to both government and NGO-delivered and supported services.
- Key service components of MAMI care include screening, assessment, and support of infants under six months and their mothers; active action-based growth monitoring; and support to maternal mental wellbeing.

## SUGGESTIONS FOR BOTH NUTRITION ACTORS AND MNH ACTORS

Proposed below are some suggestions on how to connect, integrate, and develop opportunities to work together to support continuity of care in programming across nutrition and health in humanitarian settings. The following suggestions are from nutrition and MNH experts.

### For nutrition actors in a humanitarian response

- **When assessing the nutrition status of an infant or child, it is important to evaluate the mother's nutritional status and provide support.** Actions can include maternal nutrition assessment, providing nutrition support and/or referral to appropriate services as needed. For example, the MAMI Care Pathway Package includes maternal nutrition and health assessment and referral for support as a core component of mother-infant care.
- **When a mother brings in her child for a nutrition visit, offer her a referral for a reproductive health visit to discuss birth spacing options.** Providing information, counseling, and a range of contraceptive options is a key part of the MISP. A referral to SRH staff will empower the mother with access to family planning options.
- **When a mother brings in her child, if she is pregnant again, ask if she is receiving antenatal care, and if not, refer to SRH staff.** Collaboration across sectors is necessary to meet the shared objective of increasing antenatal care coverage with the goal of improved outcomes for mothers and babies. Although WHO recommends eight antenatal contacts as a global standard, a minimum of four visits are recommended in humanitarian settings.<sup>20</sup> Latest figures indicate less than two-thirds of pregnant women worldwide have at least four antenatal care visits.<sup>27,28</sup>
- **When seeing an infant under six months of age, ask the mother if she has received postnatal care, and if not, refer to SRH staff.** Postnatal visits are for maternal health as well as newborn health. At least four postnatal contacts are recommended, and even if the contact is beyond six weeks postpartum, this is another opportunity to evaluate the woman's health and reproductive needs.<sup>29</sup>
- **When assessing the nutrition status of an infant or child, it is important to consider the mother's mental health and provide support.** Several studies have linked maternal depression and distress with LBW and early cessation of breastfeeding.<sup>20,31</sup> Provide trauma-informed IYCF-E support and develop referral pathways for psychosocial support, mental health, and gender-based violence when encountered. The MAMI Care Pathway Package includes maternal mental health assessment, basic support for maternal mental wellbeing, and referral pathways for specialist support. Useful MHPSS guidance documents can also be found in the annex.
- **Give special attention to adolescent mothers** who have heightened nutrition and health needs and for whom family planning, antenatal support and postnatal care is especially important, in both the interests of the woman's wellbeing as well her newborn.<sup>32</sup>



Photo: Save the Children



# SUGGESTIONS FOR BOTH NUTRITION ACTORS AND MNH ACTORS

## For MNH actors in a humanitarian response

- **When providing ANC**
  - **Ensure a mother is receiving recommended micronutrient supplementation.** WHO recommendations on ANC for positive pregnancy experience (2016) recommend pregnant women take oral iron and folic acid (IFA) supplements on a daily basis.<sup>33</sup> In 2020, an update to these guidelines for antenatal nutrition recommended multiple micronutrient supplementation (MMS) only in the context of rigorous controlled trials or implementation research examining the impact of switching from IFA to MMA.<sup>34</sup> Due to high risks of micronutrient deficiencies in crisis-affected contexts, humanitarian nutrition programs often support use of MMS by all pregnant and lactating women, guided by a 2006 WHO, UNICEF, and WFP statement on preventing and controlling micronutrient deficiencies in populations affected by an emergency.<sup>35</sup> In all settings, it is critical to consider national guidelines and the context regarding supplementation.
  - **Assess a mother's nutritional status or refer her to someone who is qualified to do so.** Studies by nutrition experts demonstrated a MUAC cutoff of 23 cm in pregnancy as an indicator of the woman's malnutrition and subsequent neonatal LBW, which should prompt further assessment and support, including a referral for nutritional support with balanced energy and protein, and micronutrients as appropriate.<sup>6,26</sup> In addition, WHO ANC guidelines and the 2022 UNICEF maternal nutrition guidance and counseling briefs recommend nutritional counseling for all pregnant women, including those in humanitarian settings.<sup>36,37</sup>
- **When providing PNC**
  - **Assess how the infant is being fed, infant growth, and whether any challenges are present. Infants who are not breastfed nor exclusively breastfed are more vulnerable.** The MAMI Care Pathway Package includes a rapid and more detailed assessment for mother-infant pairs that includes feeding indicators that can be included at any contact point, such as vaccination appointments or attendance at a health center with further guidance on full assessment and nutrition and health actions to take as needed. [The Simple Rapid Assessment tool](#) from the Operational Guidance on Breastfeeding Counselling in Emergencies can be used for screening for infant feeding problems and inappropriate practices, with referral to nutrition and health colleagues if indicated.<sup>24</sup>
  - **Assess the mother's and infant's nutritional status.** Remember to assess the woman's nutritional status and refer her for nutritional support when indicated, for her own benefit as well as her infant's. Although there is no globally recognized cutoff for MUAC in lactating women, a recent publication by nutrition experts adopted the same cutoff of 23 cm that is used for pregnant women in humanitarian contexts.<sup>26</sup> Identify small and nutritionally at-risk infants and their mothers and refer for further assessment and support. The MAMI Rapid Screening Guide or the MAMI Assessment Guide in the MAMI Care Pathway Package are appropriate for humanitarian settings.<sup>25</sup>
  - **When providing PNC to a newborn that is small or low birth weight, provide referrals when appropriate to nutrition colleagues and recommendations for follow up to monitor growth surveillance.** Tools include [WHO's Survive and Thrive](#) and [WHO Standards for Improving the Quality of Care for Small and Sick Newborns in Health Facilities](#).<sup>37,38</sup>
  - **During infectious disease outbreaks, take steps to ensure that newborns are not unnecessarily separated from their mothers.** See the [Infant Feeding During Infectious Disease Outbreaks](#) from the IFE Core Group for guidance.<sup>39</sup> The READY Initiative's [Maternal and newborn health in humanitarian settings: Infectious disease outbreak operational guidance](#) also includes relevant and helpful information.
- **Cross-cutting suggestions**
  - **When assessing non-pregnant women and adolescents, for reproductive health visits, include nutritional assessments.** Women who are seeking care in humanitarian contexts are often at risk of malnutrition and subsequent poor health outcomes for themselves and their future children. Assessment and referral for nutritional support is an integral component of primary prevention and treatment. Program managers should seek out country-specific BMI and/or MUAC cutoffs for undernutrition in adults and adolescents.<sup>40</sup>
  - **Assess the mother's mental health and provide support.** Several studies have linked maternal depression and distress with LBW and early cessation of breastfeeding.<sup>41,28</sup> Provide trauma-informed IYCF-E support and develop referral pathways for psychosocial support, mental health, and gender-based violence when encountered. The MAMI Care Pathway Package includes maternal mental health assessment, basic support for maternal mental wellbeing, and referral pathways for specialist support. Useful MHPSS guidance documents can be found in the annex.



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# OPPORTUNITIES FOR COLLABORATION IN SERVICE DELIVERY SYSTEMS

## Integrated or Parallel Care – Collaborative Spaces

Recognizing that health and nutrition actors have specific mandates and services to provide in a response setting, there are areas for potential collaboration that support the life course approach to improving maternal and newborn health and nutrition outcomes. One opportunity would be utilizing or establishing collaborative spaces.

In SRH, a safe space is defined as a place of physical and emotional safety where women and girls can gather. These spaces vary in different communities from a women's group meeting under a tree to a building housing various resources and education. Guiding principles include that the space is client-centered, tailored to their needs, coordinated and multi-sectoral with a range of activities decided upon by the women.<sup>42</sup> Supportive spaces are defined by the global nutrition sector in a [2020 technical brief](#) as spaces for pregnant women, mothers, infants, and young children to access feeding support (incorporating baby friendly spaces and IYCF corners).<sup>43</sup>

Uniting these two concepts into a collaborative space to serve as a “one stop shop” for the mother-newborn dyad to access health and nutrition services would help to eliminate silos. In collaborative spaces, health and nutrition implementers could act in parallel or in a more integrated fashion, depending on context, skills, and funding. But the experience for the mother-newborn dyad would be same: to receive the necessary services in one location. Under one roof, mothers and newborns could receive postnatal care along with other caregivers receiving reproductive counseling, breastfeeding support, and nutrition counseling and support. Pregnant women could receive antenatal care, nutritional counseling and support, and education regarding safe and clean delivery, newborn care, danger sign counseling, and the benefits of early and exclusive breastfeeding. This is likely improve compliance, satisfaction, and quality of care. If health implementers are trained on basic undernutrition warning signs, and nutrition implementers are trained on basic health warning signs, there would be extra opportunities for morbidity to be recognized and addressed. Even without training, the likelihood of a completed referral is increased if the nutrition implementer simply needs to walk through a door to refer a client to a health actor.

A mother who has experienced the compounded trauma of displacement needs physically and emotionally supportive care in a safe setting. In addition to support from staff, collaborative spaces offer an opportunity for pregnant or new mothers to support each other and receive the support and advice of other mothers and women in the community.

## Examples of Integrated Care in Humanitarian Settings

A humanitarian response provides an opportunity for collaboration as multiple agencies with expertise across MNH and nutrition are often on the ground providing essential services. In reviewing MNH and nutrition interventions across the humanitarian-development nexus, however, there are few published examples of integrated care. The following are two examples from humanitarian contexts:

[Action Contre la Faim](#) (ACF) developed a Baby Friendly Spaces model in ten countries which integrates services for maternal mental health, parenting skills, breastfeeding support and infant and young child feeding, and early child development. A recent study of this program in three refugee camps in East Cameroon reported a significant and positive impact on maternal wellbeing, breastfeeding practices, and the mother-child relationship.<sup>44</sup>

In Rohingya refugee camps in Cox's Bazar, Bangladesh, the Global Nutrition Cluster Tech Alliance reported via webinar of integrating family planning services with mother-baby nutrition areas.<sup>45</sup> In this case, the reproductive health and IYCF teams recognized that they were treating the same postpartum women and an integrated counseling and referral system would be mutually beneficial. The women faced physical and cultural barriers to accessing reproductive health services, but as a result of integrated services they were able to access these services more readily by seeking out the more widely accepted IYCF services. Likewise, some women seeking reproductive health services were unaware of the available IYCF services.

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## CALL FOR COLLABORATION

Nutrition and health program teams will mutually benefit from working together to advocate and plan for maternal and newborn interventions in a humanitarian response. Evidence shows that a mother's nutrition, throughout her life course, affects her newborn's health, which can persist into childhood and from there the cycle continues. With rising numbers of people in need of humanitarian aid, including more than 26 million women and girls of reproductive age, global health and nutrition targets will only be reached by addressing the needs of mothers and newborns in crisis settings.<sup>46</sup> It will require a multi-sectoral effort and must incorporate preservation of the mother-newborn dyad in programming and implementation. Nutrition actors and MNH actors have a unique opportunity to collaborate in humanitarian settings:

- **From the outset, the MISP should be implemented, and an SRH coordinator should be appointed.**
- **The Health Cluster and Nutrition Cluster should map referral pathways and identify opportunities for collaboration across maternal and infant nutrition and health.**
- **Nutrition should be addressed throughout the life course, from birth to death, recognizing that pre-pregnancy and antenatal nutrition for the mother will affect the newborn from day one. Attention to maternal nutrition should continue in the postpartum period, for the mother's own health as well as the health of her child.**
- **Clear coordination and referral mechanisms should be established, and every attempt should be made to provide integrated health and nutrition services for mother and newborn.**

Ensuring collaboration exists in every humanitarian response will require preparedness planning and proper resourcing from both nutrition and health actors. In crisis settings, supporting the mother is the newborn's best chance for survival. Success depends upon collaboration.

*The IAWG Maternal and Newborn Health Sub-working group encourages any feedback or learnings from applying the examples and suggestions put forth in this brief. Please share with [bornintocrisis@gmail.com](mailto:bornintocrisis@gmail.com) or on Twitter @bornintocrisis.*

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## Annex

### Guidance Documents

- [Interagency Field Manual on Reproductive Health in Humanitarian Settings](#), including MISP
- [IYCF-E Infographic Series](#)
- [MAMI Care Pathway Package](#)
- [Operational Guidance on Breastfeeding Counselling in Emergencies](#)
- [Operational Guidance on Infant and Young Child Feeding in Emergencies \(IYCF-E\)](#)
- [MHPSS Emergency Toolkit](#)
- [Psychological First Aid Guide for Field Workers](#)
- [Baby Friendly Spaces Manual](#)

### Free Learning Platforms

- [ENN's Online Technical Forum, en-net](#)
- [IsDB Maternal and Newborn Health and Nutrition Course](#)
- [UNICEF IYCF learning platform](#)

## REFERENCES

1. WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Trends in Maternal Mortality 2000-2017. 2019; Available at: <https://www.who.int/reproductivehealth/publications/maternal-mortality-2000-2017/en/>. Accessed February 9, 2022.
2. The World Bank. Classification of Fragile and Conflict-Affected Situations. 2021; Available at: <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>. Accessed February 9, 2022.
3. United Nations Inter-agency Group for Child Mortality Estimation. Levels and Trends in Child Mortality Report 2021: Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. 2021; Available at: <https://childmortality.org/wp-content/uploads/2021/12/UNICEF-2021-Child-Mortality-Report.pdf>. Accessed February 9, 2022.
4. USAID. Maternal Nutrition Factsheet: Preventing Malnutrition in Women and Girls. 2021; Available at: <https://www.usaid.gov/global-health/resources/fact-sheets/maternal-nutrition>. Accessed January 4, 2022.
5. Kozuki N, Katz J, Lee ACC, Vogel JP, Silveira MF, Sania A, et al. Short maternal stature increases the risk of small-for-gestational-age and preterm births in low- and middle-income countries: individual participant data meta-analysis and population attributable fraction. *The Journal of nutrition* 2015 Nov;145(11):2542-2550.
6. Ververs M, Antierens A, Sackl A, Staderini N, Captier V. Which Anthropometric Indicators Identify a Pregnant Woman as Acutely Malnourished and Predict Adverse Birth Outcomes in the Humanitarian Context? *PLoS currents* 2013 Jun 7;5.
7. Ashorn P, Hallamaa L, Allen LH, Ashorn U, Chandrasiri U, Deitchler M, et al. Co-causation of reduced newborn size by maternal undernutrition, infections, and inflammation. *Maternal and child nutrition* 2018 Jul;14(3):e12585-n/a.
8. Padonou SGR, Aguemou B, Bognon GMA, Houessou NE, Damien G, Ayelo P, et al. Poor maternal anthropometric characteristics and newborns' birth weight and length: a cross-sectional study in Benin. *International health* 2019 Jan 1;11(1):71-77.
9. Rahman MS, Howlader T, Masud MS, Rahman ML. Association of low-birth weight with malnutrition in children under five years in Bangladesh: do mother's education, socio-economic status, and birth interval matter? *PloS one* 2016;11(6):e0157814.
10. Victora CG, Christian P, Vidaletti LP, Gatica-Domínguez G, Menon P, Black RE. Revisiting maternal and child undernutrition in low-income and middle-income countries: variable progress towards an unfinished agenda. *The Lancet (British edition)* 2021 Apr 10;397(10282):1388-1399.
11. Christian P, DrPH, Mullany LC, PhD, Hurley KM, PhD, Katz J, ScD, Black RE, MD. Nutrition and maternal, neonatal, and child health. *Seminars in perinatology* 2015;39(5):361-372.
12. Imdad A, Bhutta ZA. Maternal Nutrition and Birth Outcomes: Effect of Balanced Protein-Energy Supplementation. *Paediatric and perinatal epidemiology* 2012 Jul;26(s1):178-190.
13. UNICEF. No Time To Waste: Improving diets, services and practices for the prevention, early detection and treatment of wasting in early childhood. 2021; Available at: <https://www.unicef.org/documents/no-time-waste>.
14. World Health Organization. Essential Nutrition Actions: Mainstreaming Nutrition Through the Life-course. 2019; Available at: <https://www.who.int/publications/i/item/9789241515856>.
15. United Nations Children's Fund, UN Food and Agriculture Organization, United Nations High Commissioner for Refugees, World Food Programme, World Health Organization. Global Action Plan on Child Wasting: A framework for action to accelerate progress in preventing and managing child wasting and the achievement of the Sustainable Development Goals. 2021; Available at: <https://www.childwasting.org/>. Accessed February 23, 2022.
16. World Health Organization. WHO Global nutrition targets 2025: policy brief series. 2014; Available at: <https://www.who.int/publications/i/item/WHO-NMH-NHD-14.2>.
17. United Nations. Goal 2: Zero Hunger. 2021; Available at: <https://www.un.org/sustainabledevelopment/hunger/>.
18. United Nations. Goal 3 Ensure healthy lives and promote well-being for all at all ages. 2021; Available at: <https://sdgs.un.org/goals/goal3>.
19. Save The Children, UNHCR, WHO, UNICEF. Roadmap to Accelerate Progress for Every Newborn in Humanitarian Settings 2020 – 2024. 2020; Available at: <https://www.healthynewbornnetwork.org/resource/newbornroadmap/>.
20. Inter-agency Working Group on Reproductive Health In Crisis. Newborn Health in Humanitarian Settings Field Guide. 2018; Available at: <https://www.healthynewbornnetwork.org/resource/newborn-health-humanitarian-settings-field-guide/>. Accessed October 27, 2021.
21. Inter-agency Working Group on Reproductive Health in Crises. Inter-agency Field Manual on Reproductive Health In Humanitarian Settings 2018. 2018; Available at: <https://iawgfieldmanual.com/manual>.
22. Inter-agency Working Group on Reproductive Health in Crises. Minimal Initial Service Package (MISP) Resources. 2021; Available at: <https://iawg.net/resources/minimum-initial-service-package-misp-resources>. Accessed December 16, 2021.

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## REFERENCES

23. IFE Core Group. Infant and Young Child Feeding In Emergencies: Operational Guidance for Emergency Relief Staff and Programme Managers. 2017; Available at: [https://www.enonline.net/attachments/3127/Ops-G\\_English\\_04Mar2019\\_WEB.pdf](https://www.enonline.net/attachments/3127/Ops-G_English_04Mar2019_WEB.pdf). Accessed January 6, 2022.
24. Emergency Nutrition Network. Operational Guidance on Breastfeeding Counselling in Emergencies. 2021; Available at: <https://www.enonline.net/attachments/4088/Operational-Guidance-on-Breastfeeding-Counselling-in-Emergencies.pdf>. Accessed January 12, 2022.
25. World Health Organization. Guideline: counselling of women to improve breastfeeding practices. 2018; available at: <https://www.who.int/publications/i/item/9789241550468>
26. Emergency Nutrition Network. MAMI Care Pathway Package. 2021; Available at: <https://www.enonline.net/mamicarepathway>. Accessed December 6, 2021.
27. UNICEF, WHO. Ending preventable newborn deaths and stillbirths by 2030: Moving faster towards high-quality universal health coverage in 2020–2025. 2020; Available at: <https://www.unicef.org/reports/ending-preventable-newborn-deaths-stillbirths-quality-health-coverage-2020-2025>.
28. UNICEF. Programme Guidance on Maternal Nutrition: Prevention of malnutrition in women before and during pregnancy and while breastfeeding. 2022; Available at: <https://www.unicef.org/documents/programme-guidance-maternal-nutrition>. Accessed January 28, 2022.
29. World Health Organization. WHO recommendations on maternal and newborn care for a positive postnatal experience. 2022; Available at: <https://www.who.int/publications/i/item/9789240045989>. Accessed March 30, 2022.
30. USAID MOMENTUM Country and Global Leadership. The Silent Burden: A Landscape Analysis of Common Perinatal Mental Disorders in Low- and Middle-Income Countries. 2022; Available at: <https://usaidmomentum.org/resource/mmh-landscape-analysis/>. Accessed January 28, 2022.
31. Emerson JA, Tol W, Caulfield LE, Doocy S. Maternal Psychological Distress and Perceived Impact on Child Feeding Practices in South Kivu, DR Congo. *Food and nutrition bulletin* 2017 Sep;38(3):319-337.
32. Hargreaves D, Mates E, Menon P, Alderman H, Devakumar D, Fawzi W, et al. Strategies and interventions for healthy adolescent growth, nutrition, and development. *The Lancet (British edition)* 2022 Jan 8;399(10320):198-210.
33. World Health Organization. WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience. 2016; Available at: [http://www.who.int/reproductivehealth/publications/maternal\\_perinatal\\_health/anc-positive-pregnancy-experience/en/](http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/anc-positive-pregnancy-experience/en/). Accessed January 6, 2022.
34. World Health Organization. Nutritional interventions update: multiple micronutrient supplements during pregnancy. 2020; Available at: <https://www.who.int/publications/i/item/9789240007789>. Accessed December 12, 2021.
35. World Health Organization, World Food Programme, UNICEF. Preventing and controlling micronutrient deficiencies in populations affected by an emergency: Multiple vitamin and mineral supplements for pregnant and lactating women, and for children aged 6 to 59 months. 2007; Available at: [https://www.who.int/docs/default-source/nutritionlibrary/preventing-and-controlling-micronutrient-deficiencies-in-populations-affected-by-an-emergency.pdf?sfvrsn=e17f6dff\\_2](https://www.who.int/docs/default-source/nutritionlibrary/preventing-and-controlling-micronutrient-deficiencies-in-populations-affected-by-an-emergency.pdf?sfvrsn=e17f6dff_2). Accessed March 15, 2022.
36. UNICEF. Counselling to Improve Maternal Nutrition: Considerations for programming with quality, equity and scale. A Technical Brief. 2022; Available at: <https://www.unicef.org/media/114566/file/Maternal%20Nutrition%20Counselling%20Brief.pdf>. Accessed January 28, 2022.
37. World Health Organization, UNICEF. Survive and Thrive: Transforming Care for Every Small and Sick Newborn. 2018; Available at: <https://apps.who.int/iris/bitstream/handle/10665/276655/WHO-FWC-MCA-18.11-eng.pdf?ua=1>. Accessed March 17, 2022.
38. World Health Organization. Standards for improving the quality of care for small and sick newborns in health facilities. 2020; Available at: <https://www.who.int/publications/i/item/9789240010765>. Accessed March 17, 2022.
39. IFE Core Group, ENN, USAID. Infant Feeding During Infectious Disease Outbreaks. 2021; Available at: [https://www.enonline.net/attachments/4237/Infant-feeding-during-infectious-disease-outbreaks-a-guide-for-policy-makers-\(ENGLISH\).pdf](https://www.enonline.net/attachments/4237/Infant-feeding-during-infectious-disease-outbreaks-a-guide-for-policy-makers-(ENGLISH).pdf). Accessed February 11, 2022.
40. The U.S. Agency for International Development through the Food and Nutrition Technical Assistance III Project. Global MUAC Cutoffs for Adults: A Technical Consultation. 2018; Available at: [https://pdf.usaid.gov/pdf\\_docs/PA00T7K9.pdf](https://pdf.usaid.gov/pdf_docs/PA00T7K9.pdf). Accessed January 13, 2021.



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## REFERENCES

41. World Health Organization, UNFPA. Maternal mental health and child health and development in low and middle income countries. 2008; Available at: [https://apps.who.int/iris/bitstream/handle/10665/43975/9789241597142\\_eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/43975/9789241597142_eng.pdf). Accessed January 6, 2022.
42. United Nations Population Fund. Women & Girls Safe Spaces: A Guidance Note. 2015; Available at: <https://www.unfpa.org/resources/women-girls-safe-spaces-guidance-note-based-lessons-learned-syrian-crisis>. Accessed December 16, 2021.
43. Global Technical Assistance Mechanism for Nutrition, (GTAM). Supportive Spaces for Infant and Young Child Feeding in Emergencies. Technical Brief September 2020. 2020; Available at: <https://www.enonline.net/supportivespacesiycfetechnbrief2020>.
44. Dozio E, Le Roch K, Bizouerne C. Baby friendly spaces: an intervention for pregnant and lactating women and their infants in Cameroon. *Intervention (Amstelveen, Netherlands)* 2020 Jan 1;18(1):78-84.
45. Global Nutrition Cluster Technical Alliance. Capacity Strengthening Webinar Series: Integrated Family Planning Services with Mother-Baby Nutrition Areas in the Rohingya Camps in Cox's Bazar. 2019; Available at: <https://techrrt.org/resources/#webinars>. Accessed December 11, 2021.
46. Health Cluster. Sexual reproductive health and rights in emergencies. 2022; Available at: <https://www.who.int/health-cluster/about/work/other-collaborations/sexual-reproductive-health-rights/en/>. Accessed January 19, 2022.
47. World Health Organization. Newborns: improving survival and wellbeing. 2020; Available at: <https://www.who.int/news-room/fact-sheets/detail/newborns-reducing-mortality#:~:text=Causes,within%20the%20first%2024%20hours>. Accessed February 10, 2022.
48. World Health Organization. Early Initiation of Breastfeeding. 2019; Available at: [https://www.who.int/elena/titles/early\\_breastfeeding/en/](https://www.who.int/elena/titles/early_breastfeeding/en/). Accessed December 7, 2021.
49. James P, Wrottesley S, Lelijveld N, Brennan E, Fenn B, Menezes R, et al. Women's nutrition: A summary of evidence, policy and practice including adolescent and maternal life stages. 2022; Available at: <https://www.enonline.net/womensnutritionasummarytechnicalbriefingpaper>. Accessed January 27, 2022.
50. World Health Organization. Infant and Young Child Feeding. 2021; Available at: <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>. Accessed December 16, 2021.
51. World Health Organization. Anaemia. 2021; Available at: [https://www.who.int/health-topics/anaemia#tab=tab\\_1](https://www.who.int/health-topics/anaemia#tab=tab_1). Accessed December 13, 2021.
52. Gagliato M, Hijazi Z, Blaauw M. MHPSS Emergency Toolkit. 2019; Available at: [https://app.mhpss.net/images/2019\\_MHPSS\\_toolkit.pdf](https://app.mhpss.net/images/2019_MHPSS_toolkit.pdf). Accessed February 5, 2022.
53. World Health Organization, World Vision. Psychological First Aid: Guide for Field Workers. 2011; Available at: [http://apps.who.int/iris/bitstream/handle/10665/44615/9789241548205\\_eng.pdf?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/44615/9789241548205_eng.pdf?sequence=1). Accessed February 5, 2022.
54. ACF International. ACF-INTERNATIONAL MANUAL. Baby Friendly Spaces Holistic Approach for Pregnant, Lactating Women and their very young children in Emergency. 2014; Available at: [https://www.actionagainsthunger.org/sites/default/files/publications/ACF\\_Baby\\_Friendly\\_Spaces\\_Dec\\_2014.pdf](https://www.actionagainsthunger.org/sites/default/files/publications/ACF_Baby_Friendly_Spaces_Dec_2014.pdf). Accessed December 6, 2021.
55. Islamic Development Bank. Maternal and Newborn Health and Nutrition Course. 2022; Available at: <https://maternalandnewborn.course.tc/>. Accessed January 6, 2022.
56. UNICEF. AGORA: Welcome to UNICEF's Global Hub for Learning. 2022; Available at: <https://agora.unicef.org/>. Accessed December 16, 2021.
57. IFE Core Group. ICYF-E Infographic Series. 2021. Available at: <https://www.enonline.net/ifecoregroupinfographicseries>
58. Emergency Nutrition Network. En-net online technical forum. Available at: <https://www.en-net.org/>