Interagency Task Team HIV in Humanitarian Emergencies

PMTCT IN HUMANITARIAN SETTINGS

Part I: Lessons Learned and Recommendations

Prepared by Heidi Becher, May 2015

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Acronyms

ANC	Antenatal care
AMPATH	Academic Model Providing Access to Healthcare
ANJFAS	Association Nationale des Jeunes Femmes Actives pour la Solidarité
ART	Antiretroviral treatment
ARV	Antiretroviral (drug)
AZT	Zidovudine
CAR	Central African Republic
CDC	U.S. Centers for Disease Control and Prevention
CHW	Community health worker
DRC	Democratic Republic of Congo
ECHO	European Commission Humanitarian Office
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EMTCT	Elimination of mother-to-child transmission
FBO	Faith-based organization
GHESKIO	Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human immunodeficiency virus
HTC	HIV testing and counselling
IASC	Inter-Agency Standing Committee
IATT	Inter-Agency Task Team
ICAP	International Center for AIDS Care and Treatment Programs
IDP	Internally displaced person
IMC	International Medical Corps
IOM	International Organization of Migration
IRC	International Rescue Committee
MERLIN	Medical Emergency Relief International (merged in 2013 with Save the Children)
MISP	Minimum initial service package
MNCH	Maternal, newborn and child health
MOH	Ministry of Health
MSF	Médecins sans Frontières
NGO	Nongovernmental organization
NNRTI	Non-nucleoside reverse transcriptase inhibitor
PEPFAR	US President's Emergency Plan for AIDS Relief
PMTCT	Prevention of mother-to-child transmission
WHO	World Health Organization
WFP	World Food Programme
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

EXECUTIVE SUMMARY

Background

Humanitarian emergencies in countries with a high HIV disease burden can cause considerable PMTCT antiretroviral (ARV) treatment interruption. The risk of drug resistance emerging is increased, efficacy of treatment compromised and the effective scale-up of lifelong antiretroviral treatment (ART) for pregnant and breastfeeding women living with HIV impeded. Strategies to ensure the uninterrupted supply of ARVs for PMTCT during crises are therefore needed. This paper highlights lessons learned from PMTCT implementation in emergencies based on reported literature and key informant interviews and recommendations made.

The review focuses on delivering ART for PMTCT.

Methods

A systematic literature review was performed for the 10 year period 2003-2013 in PubMed and Popline using the key search terms: HIV, PMTCT, ART, family planning, HIV prevention, reproductive health and the broad spectrum of humanitarian contexts. Existing guidelines and grey literature on PMTCT programming in humanitarian action were also reviewed. Over 50 key informant interviews were held with United Nations' (UN) and nongovernmental organization (NGO) representatives with experience developing policies and implementing PMTCT programmes in humanitarian settings.

Lessons learned

Preparedness and contingency planning play an important role in mitigating the impact of crisis on service disruption

Disruption of access to PMTCT/ART services can occur during emergency and integration of risk analysis; preparedness and contingency planning into PMTCT programming is critical. Key considerations for preparedness include:

- Patient held extra supply of ARVs before an anticipated emergency period combined with patient education; pre-positioning of ARV buffer stocks;
- Patient passports used as portable records;
- Established patient tracing, including through communication networks;
- Multi-skilled staff available, including task shifting to prepare for potential staff reduction during a crisis; and
- Decentralised services to help maintain access during emergencies.

Provision of PMTCT services in humanitarian settings is feasible when certain conditions are met:

Having an ARV supply.

- Solutions used in different contexts include: pre-positioning of buffer stocks; development/ humanitarian actors supporting government drug transport; redistributing drugs in cases of local shortage;
  - Emergency procurement by key HIV donors; and having HIV emergency kits;
  - Established HIV development actors in country play an important role in assuring continued access to PMTCT services by rapidly reprogramming their activities during emergencies;

- During complex emergencies when a national government's response capacity is severely limited, humanitarian/development actors can provide implementation support ensuring rapid access to essential PMTCT services;
- Leadership to ensure inclusion of PMTCT in a humanitarian response is essential. Governments and humanitarian health actors are often unaware of the life-saving nature of uninterrupted treatment and
- Funding, often unavailable during acute crisis, is necessary for inclusion of PMTCT. Solutions identified include: integrating emergency preparedness in HIV development grants, re-programming of on-going HIV grants, using HIV donor emergency (procurement) funds, and including selected PMTCT actions in humanitarian funding proposals.

Context determines priority setting in a PMTCT response

The absolute minimum PMTCT response in any setting is a continued ARV supply for women who have been on treatment before the crisis and preventive treatment for HIV-exposed infants. Where feasible, it may be establishing expanded PMTCT services including HIV testing and counselling and initiation of ART from the outset of an emergency. Other contexts may need, temporary priority setting for minimum response actions.

Adapt service delivery for continuous access to ARVs for PMTCT at the outset of emergencies

Without access to functional PMTCT facilities service delivery must be adapted to the context. Strategies include: setting up PMTCT/ART services in alternative (temporary) health facilities or mobile clinics; and/or community-based mobile outreach teams or patient networks dispensing ARVs. Patient information campaigns are integral to each strategy.

Adapt service delivery according to context for minimum and expanded PMTCT services, including ART initiation for PMTCT

Access to minimum and expanded[1] PMTCT services including HIV testing and counselling and ART initiation for PMTCT is feasible when ARV supply and trained staff are available. Successful strategies include using staff and supply systems from pre-crisis PMTCT services to increase facility capacity or redirect activities to new service delivery points.

Humanitarian/development actors play an important role in helping to establish access to comprehensive PMTCT services when a weak PMTCT programme and weak healthcare system existed before the crisis. Successful strategies include: simplification of treatment protocols, task shifting and integrated contingency planning.

Monitoring of patient cohorts during acute emergencies requires simplified systems including innovative and community level systems

Lack of access to health facilities and displacement can make routine data collection difficult and its interpretation misleading. While missed appointments suggest treatment interruption patients may have accessed ARVs elsewhere. Patient tracking can be challenging. Solutions include: where patient records and contact information are available telephone tracing if network coverage is good; using patient identification (ID) numbers in settings with a strong national monitoring system. Cross border movements cannot be captured using these methods.

1 Minimum includes continuation of ART for PMTCT for those on treatment, provision of ARVs, cotrimoxazole prophylaxis for HIV-exposed infants and provision of paediatric care in adult HIV programmes; expanded includes minimum plus HIV testing in ANC, labour & delivery, postnatal; initiation of PMTCT ART; addition of PCR testing where possible; follow-up of HIV-exposed infants, early infant diagnosis, final diagnosis & referral to care & treatment for HIV positive children.

Conclusion

Continuing and initiating ARVs for PMTCT in humanitarian settings while challenging is feasible. Incorporating preparedness and contingency planning into PMTCT/HIV programming is key. Ensuring PMTCT is included in the humanitarian response requires the commitment of national governments, donor agencies, international humanitarian and HIV actors and includes: the provision of ARVs, essential commodities, funding and guidance.

Main recommendations

- Incorporate preparedness and contingency planning into PMTCT/ART programming and include PMTCT/ART in general national disaster preparedness plans.
- Pre-position buffer stocks, re-distribute supplies in areas with greater need, provide support for transport and emergency procurement to ensure drug and commodities supply in humanitarian settings. In acute emergencies when no buffer stocks are in place, consider including PMTCT/ART starter kits in global/regional emergency supplies for uninterrupted ARV access.
- In generalised HIV epidemics provide leadership and support to ensure PMTCT/ART is included in the emergency response from the outset. Advocate for the inclusion of PMTCT strategies highlighting its life-saving nature and the critical need to prevent treatment interruption. Put HIV and PMTCT on heath cluster/coordination meeting agendas and integrate PMTCT and ART systematically into humanitarian assessments.
- Make rapid funding available for a PMTCT/ART response in humanitarian emergencies by: integrating emergency preparedness into HIV development grants, facilitating reprogramming of on-going HIV grants, including PMTCT actions in humanitarian funding proposals and creating emergency funding envelopes within HIV development grants.
- Organize a rapid response in humanitarian settings: mobilise HIV development actors to redirect activities, get humanitarian actors involved in PMTCT implementation, apply context adapted, alternative modes of service delivery using simplified treatment protocols, task shifting, contingency planning and support to compensate for system weaknesses.
- Adapt monitoring systems by introducing patient passports as portable patient records. In acute emergencies when routine monitoring systems cannot be used temporarily use a simplified paper-based facility record and develop a group of key indicators for humanitarian settings. This should be implemented as part of an approach that addresses other medical issues beyond HIV to help eliminate identification of HIV status and related stigma.

SECTION 1

INTRODUCTION

1.1 Background

Over the past decade, considerable progress has been made in increasing access to antiretroviral treatment (ART) and in the prevention of mother-to-child transmission (PMTCT) of HIV.

A Global Plan to eliminate new child HIV infections by 2015, and to keep their mothers alive was launched at the United Nations General Assembly High Level Meeting on AIDS in 2011.[1] Reducing the number of new HIV infections among children under the age of 15 years by 90% and HIV related maternal deaths by 50% from 2009 levels are the high level goals to be achieved by 2015.

Accelerated scale-up has resulted in increased maternal ART coverage for PMTCT reaching 68% in 2013 among the 21 African countries of the 22 Global Plan priority countries.[2] The number of women living with HIV who gave birth (1.3 million) remains unchanged from 2009 in the 21 countries. However, the numbers of children newly infected fell from 350,000 in 2009 to 199,000 in 2013. The rate of mother-to-child transmission also fell in 2013. 16% of children born to women living with HIV became infected compared to 25.8% in 2009.[2] However, progress has not been uniform across countries.[3] Much has been achieved, yet much remains to be done to reach the global targets for the elimination of mother-to-child transmission (EMTCT).

Humanitarian emergencies in countries with a high HIV infection burden present additional challenges. Women living with HIV and their infants may lose access to treatment during an emergency. Scale-up of PMTCT programmes may be severely disrupted if service delivery is not effectively planned for before and during an emergency. While no precise figures are available, the number of women and children in need and affected by emergencies is likely to be considerable. Humanitarian emergencies need special consideration to assure service continuity, but often are not included in PMTCT plans and resource allocation.

The international HIV and humanitarian communities agree that HIV prevention, care and treatment can and should continue in emergencies including, the continuation and scale-up of PMTCT services.[4] International guidelines including the Inter-Agency Standing Committee (IASC) *Guidelines on Addressing HIV in Humanitarian Settings*[5] and others[3,4] have been modified to include continuation of services. Nevertheless, considerable gaps remain to address HIV adequately in humanitarian crisis contexts.[6]

Humanitarian settings contexts comprise various scenarios. They include predictable or unpredictable natural disasters, armed conflict or civil disturbance that may result in complex emergencies affecting a large geographical area or remain localised and can be recurrent in chronically fragile and post-conflict settings. The contexts discussed in this work will vary according to the crisis. However, they all pose a critical threat to the health, safety and security of a large group of people. Often they lead to displacement of populations severely affecting health services delivery.

2 The Global Plan has identified 22 countries with the highest estimated numbers of pregnant women living with HIV, 21 of them are in sub-Saharan Africa. The 22 countries account for 85% of all pregnant women living with HIV.

3 Clinical Guidelines for antiretroviral therapy management for displaced populations Southern Africa Southern African Clinicians Society & UNHCR, 2007.

4 The SPHERE Project. Humanitarian Charter and minimum standards in humanitarian response, UK, Practical Action Publishing, 2011.

The IASC guidelines' recommendations ensure a minimum initial response and an expanded response in emergencies. In practice, application of these guidelines has been difficult.

Prevention of mother to child transmission programmes follow a cascade and continuum of services. They comprise a number of components including but not limited to antenatal care access, maternal HIV testing and counselling (HTC), initiation ART and monitoring of treatment outcome, care at labour and delivery, infant ART and cotrimoxazole preventive treatment, early infant diagnosis (EID) of HIV and initiation of ART and monitoring of treatment outcome for HIV-positive infants.

During the acute phase of an emergency response, this means prioritising some of the cascade elements and working closely with reproductive health/maternal and child health actors to integrate PMTCT services.

Barriers to implementing HIV treatment programmes in humanitarian contexts are equally valid for PMTCT and include: competing health priorities, feasibility, effectiveness, medical safety, and sustainability.[7,8,9] Additional barriers cited include insufficient, flexible and readily accessible funding for HIV in emergencies.[10,11] There is evidence of good outcomes from antiretroviral-based interventions in humanitarian settings, notably when simplified treatment protocols, improved collaboration and contingency planning are incorporated.[12,13,14,15,16] PMTCT uptake and coverage showed good results in the conflict-affected region of northern Uganda and was feasible in other conflict settings.[17,18]

Analysis of case studies of HIV treatment from Mozambique and Central African Republic (CAR) show a lack of preparedness and contingency planning in PMTCT/ART programmes in risk-prone contexts can lead to extensive treatment interruptions during emergencies.[19,20,21,22] Treatment interruptions risk jeopardizing the effectiveness of PMTCT and may result in long-term ART failure due to antiretroviral drug resistance.[23,24] Effective prevention measures are critical. There is an added urgency: ART coverage is increasing and more pregnant women living with HIV will initiate lifelong treatment following the World Health Organization (WHO) 2013 consolidated ARV recommendations (Option B+).[5,25]

5 WHO recommended PMTCT protocol: 1 fixed dose drug combination pill/day during pregnancy and breastfeeding period (option B), where feasible to be extended to lifelong treatment (option B+). The WHO 2013 consolidated ARV guidelines recommend countries currently implementing Option A based on the 2010 guidelines transition with appropriate planning to Option B or B+ and B+ in high prevalence settings.

TABLE 1: OPTIONS FOR ART FOR PMTCT, 2013 WHO CONSOLIDATED ARV GUIDELINES

<table>
<tr><th>NATIONAL PMTCT PROGRAMME OPTION</th><th colspan="2">PREGNANT AND BREASTFEEDING WOMEN WITH HIV</th><th colspan="2">HIV–EXPOSED INFANT</th></tr>
<tr><td rowspan="2">Use lifelong ART for all pregnant and breastfeeding women (“Option B+”)</td><td colspan="2">Regardless of WHO clinical stage or CD4 cell count</td><td>Breastfeeding</td><td>Replacement feeding</td></tr>
<tr><td colspan="2">Initiate ART and maintain on treatment after delivery and cessation of breastfeeding</td><td rowspan="3">6 weeks of infant prophylaxis with once-daily NVP</td><td rowspan="3">4–6 weeks of infant prophylaxis with once-daily NVP

(or twice-daily AZT)</td></tr>
<tr><td rowspan="2">Use lifelong ART only for pregnant and breastfeeding women eligible for treatment (“Option B”)</td><td>Eligible for treatment</td><td>Not eligible for treatment</td></tr>
<tr><td>Initiate ART and maintain after delivery and cessation of breastfeeding</td><td>Initiate ART and stop after delivery and cessation of breastfeeding</td></tr>
</table>

(WHO, Consolidated guidelines on the use of antitreoviral drugs for treating and preventiong HIV infection. A public health approach, 2013)

The burden of HIV in many of the risk-prone, emergency-affected or fragile settings and the identified barriers to addressing HIV and PMTCT in emergencies highlight the need to develop: 1) context-adapted programmes and 2) recommendations to address existing barriers to ensure the continuation and scale-up of essential PMTCT interventions.

1.2 Purpose and objectives

UNICEF, UNHCR and Save the Children on behalf of the Inter-Agency Task Team (IATT) on Addressing HIV in Humanitarian Emergencies commissioned this research to provide a resource to help improve implementation of PMTCT services in risk-prone, emergency-affected and fragile settings. Existing promising practices and innovative approaches have not been compiled into one document to guide the programming of agencies and organizations in humanitarian action. The **objectives** of this work are to:

1. Synthesize lessons learned (both successes and challenges) and develop recommendations from PMTCT programmes implemented in humanitarian settings, and
2. Based on lessons learned develop a guide on how to implement PMTCT programmes in humanitarian settings.

The target audience for this work are: health care providers working at the programming level or implementing health care programmes in humanitarian settings; and programme managers, policy makers and donors interested in better understanding the challenges and strategies to make PMTCT programmes more resilient to crises and facilitate uninterrupted access to PMTCT.

This work focuses on PMTCT health service delivery. The objective is to avoid and/or mitigate disruption of services in risk-prone, emergency-affected and fragile settings. The social and economic barriers preventing women from accessing PMTCT services and adhering to care and treatment in these settings and strategies to overcome these barriers are not addressed. This will be part of future research.

6 CD4 count ≤500 cells/mm3 or clinical stage 3 or 4 disease at the time of ART initiation or in accordance with national guidelines.

7 Patients who develop clinical or laboratory criteria indicating failure during pregnancy or the breastfeeding period should be assessed for second-line therapy.

8 Patients who develop clinical or laboratory criteria indicating failure during pregnancy or the breastfeeding period should be assessed for second-line therapy. In the case of breastfeeding stop ART one week after breastfeeding ends. In the case of replacement feeding stop ART after delivery.

SECTION 2

METHODS

Methods comprised a literature review and key informant interviews.

2.1 Literature review

A systematic literature search was undertaken in PubMed and Popline databases for the period 2003 – 2013 combining key search terms HIV, PMTCT, ART, family planning, HIV prevention, reproductive health and the wide range of humanitarian contexts. Relevant references from retrieved articles were included, relevant agency websites were searched and key informants were invited to share unpublished documents from their organizations.

Documents reviewed included: peer-reviewed and non-peer-reviewed articles, published and unpublished case studies, lessons learned reports, agency reports, international guidelines and guidelines shared by nongovernmental (NGO) organizations, fact sheets, policy and advocacy documents covering aspects of PMTCT in diverse humanitarian settings.

A total of 76 **peer-reviewed articles** were screened. Of these, 28 that addressed HIV treatment or ART for PMTCT strategies in humanitarian settings were selected. We decided to limit the focus of the review to delivery of ART for PMTCT (prong 3 and prong 4) because of the critical importance of preventing treatment interruption in PMTCT and ART programmes in humanitarian contexts. Articles addressing primary HIV prevention among women of reproductive age (prong 1) and prevention of unwanted pregnancies among women living with HIV (prong 2) were excluded.

From the 28, only two articles addressing PMTCT in humanitarian settings were identified. One described uptake in a conflict setting and the other uptake and outcomes in a protracted refugee situation. A further 21 articles described ART experience and outcomes in various humanitarian contexts. In eight of these, PMTCT was mentioned as an integral component of the HIV programme under study or in the discussion. Another five articles discussed and advocated for access to HIV treatment or adapted programming in humanitarian settings.

From a total of 116 **non peer-reviewed articles and grey literature** screened, 68 were selected, 39 of which addressed ART or PMTCT implementation in humanitarian settings. 18 contained some form of guidance and 11 covered policy, strategy or advocacy for ART or PMTCT in humanitarian settings. *For an overview on the search strategy see annex 6.1.*

2.2 Key informant interviews

Two interviewers conducted a total of 58 semi-structured telephone interviews. Key informants represented humanitarian, NGO and governmental agencies, UN organizations, organizations of people living with HIV and donor agencies with experience developing policies and implementing PMTCT programmes in humanitarian contexts. *For the list of key informants see annex 6.2.*

Interview guides covered experience with PMTCT in emergencies, applied strategies, challenges and barriers to implementation, lessons learned in the different phases of humanitarian action (preparedness, early response, expanded response and scaling-up), guidance needed and research gaps. Notes were taken and interviews were audio-recorded if agreed. *For the interview guide see annex 6.3.*

2.3 Analysis

The literature and interviews were analysed for: 1) successful/ innovative examples in diverse humanitarian action contexts and phases of the humanitarian response; 2) challenges and barriers; and 3) available policy and guidance for PMTCT in humanitarian settings. Findings were triangulated from different sources of information for validation. Lessons learned from the analysis were synthesised, recommendations made and an implementation guide developed.

2.4 Limitations

The review has two main limitations:

1. Limited availability of published documents on PMTCT in humanitarian settings

The literature search produced only two peer-reviewed articles on PMTCT in humanitarian settings. This may reflect a lack of interest in PMTCT in the humanitarian response. It also suggests the need for further research on PMTCT in humanitarian settings. Publications on ART in humanitarian settings however, included successful practices and lessons learned which are equally applicable to ART for PMTCT interventions. Additionally PMTCT information came from published and unpublished lessons learned, case studies, internal agency evaluations and notably from the key informant interviews.

2. Limited quantitative data

A further limitation is the scarcity of quantitative data to provide more robust evidence on preparedness outcomes and the effectiveness of the emergency response.

Most documents contained only qualitative information, for example, description of strategies, successes and challenges. With very few exceptions no information or only incomplete information on timeliness and coverage of the response was provided making evaluation difficult. Attempts to get more precise information through key informants were not successful. Reasons included: not being reachable, data had not been analysed or detailed information about a response to an on-going crisis was not available.

The scarcity of quantitative data may reflect the challenges of PMTCT programme monitoring and patient tracking because of displacement and/or disruption of services during emergencies. It also highlights the need for more in-depth evaluations of the outcomes of an emergency response and descriptions of the overall scope of the problem.

SECTION 3

FINDINGS – ANALYSIS OF LESSONS LEARNED

Important lessons can be learned from this review: how to design PMTCT programmes to make them more resilient to crisis situations, how humanitarian actors can mitigate the negative impact of displacement and/or disruption of health services during an acute crisis, and how PMTCT can be implemented in protracted humanitarian crises, fragile contexts or post-conflict settings.

Lessons learned refer to PMTCT/ART programmes in countries that experienced humanitarian emergencies primarily in the past five years including conflict and post-conflict settings. Detailed information came from:

- **Haiti:** 2010 earthquake
- **Mozambique:** 2013 floods in Gaza province
- **Kenya:** 2008 post-electoral violence and preparedness for 2013 elections
- **Côte d'Ivoire:** 2010/2011 post-electoral violence
- **Central African Republic** (CAR): up to December 2012 chronic fragile context with recurrent localised violence, and 2013/2014 complex emergency (after March 2013 coup d'état and December 2013 counter rebellion with large-scale sectarian violence)
- **South Sudan**: until end 2013 chronic fragile context with recurrent localised violence; 2012 refugee camps for Sudanese refugees; from December 2013/2014 complex emergency/ conflict between government forces and rebel movement
- **Uganda**: 2013/2014 refugee influxes from DRC and South Sudan
- **Ethiopia:** since 2008 protracted refugee situation in Pugniudo refugee camp for South Sudanese refugees; 2013/2014 refugee influx from South Sudan

For more detailed findings from the analysis of these examples please see the table in Annex 6.3.

3.1 Preparedness and contingency planning mitigate the impact of crisis on PMTCT programmes

3.1.1 Disruption and treatment interruptions

Disruption of access to PMTCT/ART services due to emergencies happens in diverse contexts including in stable countries. Examples include: during predictable natural disasters as in the 2013 floods in Gaza province in Mozambique,[26,27] and unpredictable natural disasters as in the 2010 Haiti earthquake.[28,29]

Disruption also happens in complex emergencies as in CAR 2013/2014[30,31,32] and in shorter-term conflicts/political unrest like during the 2008 post-electoral violence in Kenya[33,34,35,36] or the 2010/2011 post-electoral violence in Côte d'Ivoire.[37,38,39] It can happen locally in chronically fragile contexts as in South Kivu, Democratic Republic of Congo (DRC).[40]

Treatment interruptions risk antiretroviral drug resistance developing, compromising the efficacy of ART for the individual as well as for PMTCT services overall.[41,42] Prevention is critical. Without contingency planning, the analysis showed population displacement and service disruption lead to considerable ART/PMTCT interruptions in conflict situations. Examples include CAR in 2013/2014 and during natural disasters as in Mozambique.

In the CAR emergency, the exact figures were difficult to determine because of reporting problems and population displacement.[43,44,45] The UNAIDS country office, however, reported that the number of patients on ART dropped from 15,591

in November 2013 to 7,747 during the acute crisis in December 2013, increasing to 10,273 in January 2014 and to 14,780 in February 2014.[46] See table 2 below.

TABLE 2: NUMBER OF PATIENTS REPORTED ACTIVE ON ART IN CENTRAL AFRICA REPUBLIC END 2013, BEGINNING 2014

Month	NOV 2013	DEC 2013	JAN 2014	FEB 2014
Patients on ART	15 591*	7 447	10 273	14 780

*Baseline reported by the Ministry of Health (MOH) to the Global Fund to Fight AIDS, Tuberculosis and Malaria in December 2013

No data on potential treatment interruption of women on ART for PMTCT were reported. With only half of the PMTCT sites functioning in April 2014, the numbers are thought to be similar. In Mozambique, despite the risk of seasonal flooding and high HIV prevalence (25.1%) in Gaza province, the 2013 national flood preparedness plans did not include HIV. In Chokwe district, based on the number of people living with HIV enrolled in care before the floods and numbers receiving ARVs during and after the floods, it is estimated over 50 per cent experienced treatment interruptions.

3.1.2 Risk analysis and contingency planning

A risk analysis, involving all relevant stakeholders including health authorities, will help effectively plan a timely response to humanitarian crises. Programmes can be designed to minimise the risk of disruption of services, including the identification of and planning for alternative methods of service delivery and supply mechanisms.

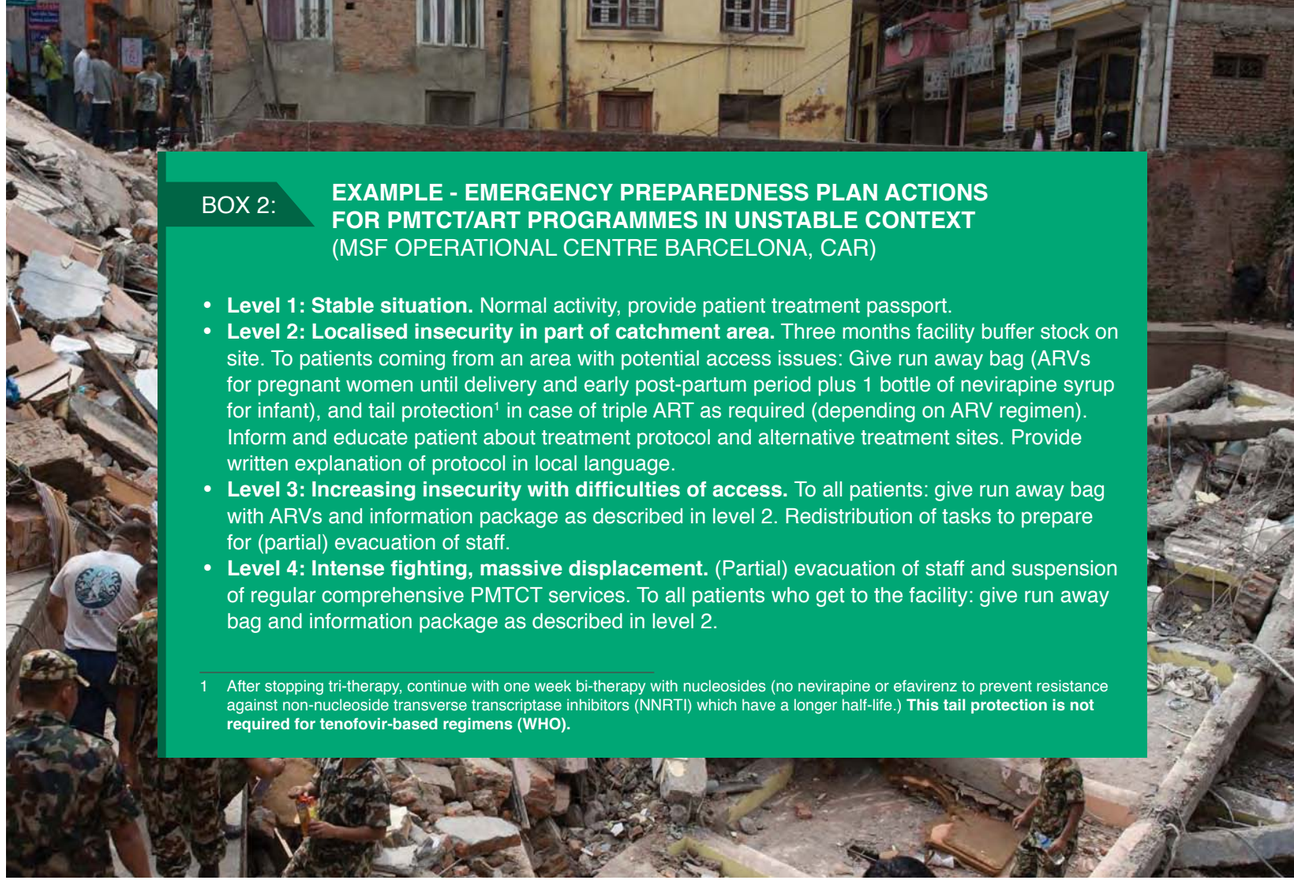
MSF developed contingency plans based on local risk analyses of their projects with PMTCT/ART components in a variety of unstable settings at risk of regular eruption of violence. Similarly, situation analyses during the pre-election period 2010 in Côte d'Ivoire and 2013 in Kenya identified the risk of post-electoral violence prompting the development of national contingency plans for the mitigation of potential disruption of access to PMTCT/ART services. *See boxes 1 and 2.*

Effects of slow onset disasters as in the 2011 drought in the Horn of Africa may not be felt immediately requiring a different approach from rapid onset disasters. Developing thresholds is necessary to trigger a response.

BOX 1:

EXAMPLE - RISK ANALYSIS FOR NATIONAL CONTINGENCY PLAN
(2013 KENYA ELECTIONS)

The 2008 post-electoral violence in Kenya led to massive displacement and security problems in accessing PMTCT/ART. This level of post-electoral violence was unprecedented. In 2013, prior to the elections, the government and its development partners concluded a similar level of violence could not be excluded. A national contingency plan for the health sector was developed. The PMTCT and ART response focused on pre-identified areas at high risk of post-electoral violence and included: the pre-positioning of ARV buffer stocks in regional hubs, supplying additional ARVs to patients prior to the elections, telling patients what to do in case of disrupted access to health services, planning alternative service delivery mechanisms e.g. through mobile outreach teams and recommendations for adapting patient monitoring and coordination.



BOX 2:

EXAMPLE - EMERGENCY PREPAREDNESS PLAN ACTIONS FOR PMTCT/ART PROGRAMMES IN UNSTABLE CONTEXT
(MSF OPERATIONAL CENTRE BARCELONA, CAR)

- **Level 1: Stable situation.** Normal activity, provide patient treatment passport.
- **Level 2: Localised insecurity in part of catchment area.** Three months facility buffer stock on site. To patients coming from an area with potential access issues: Give run away bag (ARVs for pregnant women until delivery and early post-partum period plus 1 bottle of nevirapine syrup for infant), and tail protection[1] in case of triple ART as required (depending on ARV regimen). Inform and educate patient about treatment protocol and alternative treatment sites. Provide written explanation of protocol in local language.
- **Level 3: Increasing insecurity with difficulties of access.** To all patients: give run away bag with ARVs and information package as described in level 2. Redistribution of tasks to prepare for (partial) evacuation of staff.
- **Level 4: Intense fighting, massive displacement.** (Partial) evacuation of staff and suspension of regular comprehensive PMTCT services. To all patients who get to the facility: give run away bag and information package as described in level 2.

1 After stopping tri-therapy, continue with one week bi-therapy with nucleosides (no nevirapine or efavirenz to prevent resistance against non-nucleoside transverse transcriptase inhibitors (NNRTI) which have a longer half-life.) **This tail protection is not required for tenofovir-based regimens (WHO).**

3.1.3 Monitoring risk and revising contingency plans

Risk analysis is an on-going process. After the initial exercise during programme planning monitoring risk at regular intervals is needed to determine: how to adjust the programme; when to activate which level of the contingency plan; and whether the plan needs adapting. It is important to establish a reliable mechanism to ensure on-going monitoring and reporting happen, for example, appointing one person to be responsible. Otherwise, a previously developed contingency plan may be overlooked after a long time without an emergency.[9] This may include local information sources, consulting meteorological departments and regional early warning systems e.g. for floods. Plans also need to be revised when the context changes.

9 MSF Operational Centre Barcelona HIV advisor

3.1.4 Preparedness measures help prevent treatment interruption

Different emergency preparedness measures have proved useful:

1. Providing patient-held extra supplies of ARVs has been consistently mentioned as a key preparedness measure in many conflict settings.[49,50] This includes post-electoral violence,[51,52] predictable flooding,[53] and in contexts at risk for recurring natural disasters.[54] Patients were usually provided with two to three months additional ARVs to cover access difficulties during an anticipated emergency period. Sometimes pregnant women living with HIV received special pre-packed medication bundles for PMTCT containing the necessary ARVs for the remaining months of pregnancy, the delivery, postpartum and for the HIV-exposed

infant.[10,11,55] Several publications recommend providing a tail protection[12] medication to reduce the risk of maternal antiretroviral drug resistance.[56,57,58,59] However tail protection is not required for tenofovir-based regimens (e.g. those with Option B+),[13] as per 2013 WHO Consolidated ARV Guidelines recommended first-line treatment.

Existing guidelines should be adapted accordingly.

2. The critical role of continued **patient education** about the importance of adherence to ART and ART for PMTCT was stressed. Examples from Kenya 2007/2008,[61,62,63,64] Mozambique[65] and Yemen[66] showed well-informed patients made significant efforts to prevent treatment interruption. Despite constraints, they accessed their treatment sites or alternatives. Providing additional counselling prior to the anticipated emergency together with a supply of extra patient held ARVs has proved useful. This is an opportunity to stress the importance of adherence even in times of crisis, share health workers' contact numbers and names and locations of alternative ART sites. Mentor mothers (m2m) undertaking patient preparation prior to the 2013 Kenya elections illustrates the effectiveness of peer counsellors.[67] *See box 3.*

10 MSF Operational Centre Barcelona in CAR 2013 and PEPFAR partners in Côte d'Ivoire 2010/2011
11 CDC. Implementing partners had applied this strategy in Côte d'Ivoire
12 Tail protection: If a patient is on a non-nucleoside reverse transcriptase inhibitor (NNRTI) regimen, (containing nevirapine or efavirenz) and treatment is stopped, they should continue bi-therapy with nucleosides for a week after stopping nevirapine or efavirenz to prevent possible NNRTI resistance.
13 WHO

BOX 3:

EXAMPLE – PMTCT EMERGENCY PREPAREDNESS EDUCATION BY MENTOR MOTHERS (2013 KENYA ELECTIONS)

Prior to the 2013 elections, m2m Kenya and UNICEF worked together to develop a plan to support clients during the election period in the event of service disruption. Contingency plans in line with the government of Kenya were designed to provide support in March/April 2013 at 30 sites in the country where the m2m model is implemented.

PMTCT mentor mothers, after training by m2m, with UNICEF support provided specific patient education to pregnant women and mothers living with HIV. Mentor mothers called clients with appointments during the election period, educated clients to collect the three months of extra ARVs, promoted adherence to treatment, sensitised clients to potential service disruptions, informed them of alternative services centres, ensured all clients had the mentor mother team leader's phone contact and served as peace ambassadors. This action played an essential role in accelerating patient preparation prior to the elections in anticipated hot spots.

3. **Pre-positioning buffer stocks** for ARVs and other commodities or an increase in quantities needed are recommended to prepare for a potential disruption of the normal drug supply system.[68,69,70] Before a predictable emergency, for example, during a flooding season or before anticipated post-electoral violence the normal pull supply system based on consumption may have to be temporarily shifted to a push system. This means pre-positioning larger quantities of drugs and commodities at facilities and regional hubs in areas that may be cut off from the normal supply.[71,72] National procurement and supply systems need to be prepared for health facilities to have larger quantities in stock and provide extra drugs to patients. Procuring larger amounts of commodities well in advance of a predictable risk period, for example, a flooding season, may be possible without increasing annual drug budgets.[14]

   As a back-up for settings where this is impossible to organise with the national supply system, buffer stocks procured by implementing NGOs have worked as an alternative.

14 UNICEF

BOX 4:

EXAMPLE – CONTINGENCY PLAN INDICATORS, WHEN TO SUPPLY THREE-MONTH ARVs AND COMMODITIES BUFFER STOCK TO HEALTH FACILITIES IN UNSTABLE CONTEXT (MSF OPERATIONAL CENTRE BARCELONA, CAR)

- Rumours of insecurity;
- Political demonstrations;
- Strong military presence, troops movements, increased number of military;
- Curfew or restricted movement;
- Increase in bandits/guerrilla activity; and/or
- Security incidents on one or more main transport axes of the facility's catchment area with temporary difficulties of access to the health facility.

4. **Patient passports** with the current prescribed treatment and essential medical history have been recommended to ease ART dispensing when patients access alternative treatment sites during emergencies.[73,73,75,76,77] When possible, they should also contain a unique national patient identification (ID) number to help patient tracking for monitoring purposes at national level.[78,79] Providing patient passports is not a replacement for patient education since patients may leave their passports behind when they have to flee.

5. **Patient tracing including through communication networks and/ or other health facilities** for patient tracking and information on accessing ARVs in case of crisis were considered important. Practical suggestions included: providing staff telephone numbers to patients, putting the clinic and health worker telephone numbers in the patient passport and establishing a list of alternative ARV providing facilities for patients.[80,81,82,83,84,85,86,87]

6. Including **multi-skilled staff** in the programme design (and not relying on one ARV prescriber for each site) is recommended to make programmes better prepared if the number of health workers is reduced during a crisis.[88,89] A lack of qualified health workers will require **shifting tasks** from health professionals to other cadres, including community health workers (CHWs), expert patients or mentor mothers.

7. **Decentralization** of services is recommended, as it can help maintain access during an emergency. The more service delivery points, the more likely a patient will be able to reach one of them, even in the case of displacement and unrest.[90,91,92,93] In some HIV treatment projects in stable contexts, innovative community-based models of decentralization have been developed. For example expert patients dispensing ARVs as in the MSF community ART groups in Mozambique.[15,94,95] Such strategies may also be useful for areas at risk of disrupted ARV access.

KEY ELEMENTS FOR PREPAREDNESS

- Patient held extra supply of ARVs
- Patient education
- Pre-position ARV buffer stocks
- Patient passports
- Communication networks
- Multi-skilled staff (including task shifting)
- Decentralization

3.2 Inclusion of PMTCT in humanitarian settings

Inclusion of PMTCT in humanitarian settings is challenging, but feasible.

3.2.1 Leadership for inclusion of PMTCT

Leadership is needed to ensure PMTCT/ART is included in a well-coordinated emergency response involving all relevant actors and sectors.

Without leadership, essential PMTCT/ART interventions will not be included in the health sector response, even in high HIV prevalence settings, as evidenced in the 2013 Gaza floods in Mozambique and the CAR March 2013 coup d'état crisis. In acute emergencies, governments and humanitarian health actors have overwhelming competing priorities. Often, the importance and life-saving nature of uninterrupted treatment is not recognised.

15 These community ARV groups usually consist of about six stable patients on ART from the same area who jointly organise their monthly ARV supply. They meet monthly, provide mutual adherence support and check for major health problems of group members before sending on a rotating base one member to collect ARVs for the whole group in the health facility. The patient who collects the drugs will also profit from the clinic visit for the regular six-monthly check-up consultation.

By taking a leadership role and advocating for the inclusion of PMTCT/ART in the emergency response, humanitarian and development actors can facilitate a stronger, well-coordinated response nationally and internationally.

As described below, (see Box 5) this was the case in 2008 in Kenya with Academic Model Providing Access to Healthcare (AMPATH) and MSF taking a leadership role. Another example is MSF's initiative during the 2013 floods in Mozambique, which included ARV dispensing in an MSF-supported health facility and ARV donation to the MOH-run temporary health centre in the flood-affected population's accommodations site. MSF also advocated with MOH and other humanitarian actors to include ARV dispensing in their health sector response.[16] MSF's long-term presence with a vertical HIV project elsewhere in the country facilitated the rapid inclusion of ARV dispensing in the emergency response.

3.2.2 Established HIV actors and implementation

The presence of international HIV development partners in country prior to the crisis is an opportunity. Analysis shows that response to disruption of access to HIV treatment/ PMTCT is particularly timely and effective when established HIV development actors support the implementation of the immediate response. Examples include: In 2008, the cases of AMPATH, a major PEPFAR implementing partner present in the west of Kenya and MSF in Kibera, Nairobi; in 2010, GHESKIO, a PEPFAR implementing partner in Haiti; and MSF during the 2013 floods response in Gaza province, Mozambique.[96,97,98,99,100,101,102,103] Retrospective studies of the 2008 AMPATH and MSF cohorts in Kenya and the 2010 PEPFAR cohorts in Haiti suggest the rapid, context-adapted response successfully mitigated the negative impact of the crisis on PMTCT/ART services.[104,105,106] (See Box 5).

16 MSF Operational Centre Geneva, Mozambique

BOX 5:

EXAMPLE – TIMELY AND EFFECTIVE RESPONSE OF INTERNATIONAL HIV TREATMENT ACTORS (2007/2008 KENYA POST-ELECTORAL VIOLENCE)

During the 2007/2008 Kenya post-electoral violence, AMPATH and MSF, two major HIV treatment organizations present in Kenya prior to the crisis responded immediately to the emergency by adapting their service delivery combined with an information campaign. With good security management, staff transport, and in the case of AMPATH mobile outreach services to internally displaced person (IDP) camps and home dispensing in communities, they sustained service delivery throughout the period of unrest. Access sites for ARVs were provided by telephone and physical tracing included use of support group members or hired CHWs toll free hotlines, TV and radio messages, newspaper adverts and leaflets. Both organizations were well-established in Kenya and used logistics and funding from their permanent projects in the response.

3.2.3 Humanitarian actors and implementation in complex emergencies

Complex emergencies in settings with pre-existing weak healthcare systems can result in an especially severe disruption of HIV services. CAR and South Sudan are current examples. The national government's response capacity is severely limited; health facilities destroyed; supply systems severely hampered and health care workers and other government employees personally affected by the conflict further impairing the already dysfunctional services.[107,108,109] Reliance on a government's ability to respond is unrealistic, given all the competing priorities that

arise, resulting in delays in ensuring continuity of treatment in the early response, as happened in CAR.[17] Organized with the support of UNICEF's local NGO partners, active case finding of patients needing ARVs in the urban IDP camps in Bangui took approximately six weeks from the onset of violence in early December 2013. Further delay was reported in organizing ARV dispensing in the camps where the MOH had also been trying to identify those in need among the IDP camp residents. By mid-March 2014, only 13 out of 63 camps had succeeded in establishing ARV access points. Access to pre-existing PMTCT/ART sites also remained severely limited because of insecurity.[18,110] In regions outside the capital, re-establishing access to ARVs took many months from when the crisis began in December 2012. Some services had not been restored by April 2014, including half of the PMTCT facilities.[111,112,113]

In these circumstances, humanitarian actors need to transition from providing technical support to direct implementation support until the government is functional.

3.2.4 No funding – no PMTCT in emergencies

Non-disruption of PMTCT/ART services in emergencies occurs when HIV development actors already on the ground with funded projects are allowed to react quickly by reprogramming their activities.[114,115,116,117,118,119] *See section 3.2.1 and 3.2.2 above.*

In the absence of HIV actors with on-going programmes, funding constraints often preclude the inclusion of PMTCT services. The short emergency fund cycles, emergency funding proposal ceilings and the unavailability of HIV funding for an acute crisis response lead to de-prioritisation of PMTCT.[19]

Possible solutions to address the issue of funding include:

- The inclusion of national contingency plans, preparedness measures in development funding proposals to PEPFAR and the GFATM.
- PEPFAR's emergency procurement fund, covering acute country supply shortages during emergencies was a very effective mechanism in the Haiti earthquake response. *See also Section 3.2.5 below.*
- Reprogramming of on-going HIV/PMTCT funding in-country is another option. The GFATM and PEPFAR consider this a possibility. For the GFATM, reprogramming is possible at any time when requested by the principal recipient or country coordinating mechanism. The HIV community can advocate for it. The Global Fund Operations Policy Manual includes humanitarian emergencies as a reason for reprogramming.[120] If needed, the GFATM can provide partner assistance to implement the reprogramming. In addition, the GFATM has created a Humanitarian Emergency Fund for certain emergency situations to prevent treatment interruptions that cannot be funded through regular activities, reprogramming or through another funding source. Guidelines on the use of these funds are being developed. Funding for the three diseases (AIDS, tuberculosis and malaria) is limited to 30 million USD for three years (2014-2016).[121]
- The European Community Humanitarian Office (ECHO) considers funding PMTCT programming under certain conditions, taking into account availability of other financing sources.[122]
- Humanitarian and development medical NGOs with available funding can integrate PMTCT/ART actions into their emergency response.

With more agencies and organizations ready to include PMTCT actions in emergencies, it is important for more donors to offer rapidly accessible funding with realistic funding cycles to implement PMTCT actions in humanitarian settings. Donors often do not perceive HIV as a priority, so there is a need to advocate with donors for the inclusion of HIV.

17 UNICEF, CAR
18 UNICEF, CAR
19 UNHCR, IMC, Save the Children

3.2.5 Uninterrupted supply of antiretrovirals (ARVs)

A regular supply of ARVs and other commodities is a precondition for the inclusion of PMTCT in an emergency response. However, challenges have been reported. Stock-outs can happen when the national supply chain is disrupted due to the conflict, as was the case in 2013 in CAR and 2010/2011 in Côte d'Ivoire.[123,124] Drug stores may be looted during armed conflict. Drug stocks can also be destroyed during a natural disaster, as observed during the 2013 floods in Gaza province, Mozambique and during the 2010 Haiti earthquake.[125,126] Population displacement can lead to drug shortages in health facilities with fewer patients before the emergency, as was the case in CAR.[20] New ARV dispensing health facilities set up in camps for internally displaced persons (IDP), refugee camps or in chronically fragile settings need planning for and delivery of drug supplies.

Solutions to alleviate ARV supply issues during an emergency include:

- In predictable emergencies, pre-positioning buffer stocks in health facilities or regional medical stores prior to the emergency can help prevent stock-outs. *(See section 3.1.4)*
- NGOs and UN agencies can transport government drugs when a national supply system has been disrupted.[127,128] For efficiency, delivery of ARVs should be combined with other supplies.
- NGO/agency procured buffer stocks can be a useful back-up: when the national supply system is disrupted; if there is a sudden increase in patients because of displacement;[21] for the rapid inclusion of ARV dispensing in a new emergency project; and to make donations to a government health facility as in 2013 during the floods in Mozambique.[129]
- Redistributing drugs in case of localised shortage was successfully implemented during the post-electoral violence period in Côte d'Ivoire.[130,131]
- When PMTCT services existed before the crisis and services are only temporarily disrupted, ARVs can often be accessed rapidly through the national supply system as in the 2013 floods in Mozambique[22] and in the urban IDP camps in Bangui, CAR in 2014.[23]
- When national supplies cannot be accessed due to limited national funding, commodities may be procured through implementing international partners as in Yida refugee camp, South Sudan.[24]
- When national drug stocks have been destroyed or are not accessible, HIV donors can be approached to help with emergency procurement and shipment. In 2010 in Haiti, PEPFAR was able to ship a large consignment of ARVs within one week after the earthquake to replace national ARV stocks.[132] In Côte d'Ivoire, the GFATM was able to organize a rapid international shipment of paediatric ARVs when there was a national shortage during the period of post-electoral violence.[25]
- MSF Operational Centre Amsterdam recently developed an HIV/TB emergency package, which

20 MSF Operational Centre Paris, CAR
21 MSF Operational Centre Paris, CAR
22 MSF Operational Centre Geneva, Mozambique
23 UNICEF, CAR
24 UNHCR, South Sudan
25 UNICEF, Regional Office Western and Central Africa

is stored in their headquarters' logistics centre ready to be shipped together with other first response emergency supplies. The package contains ARVs for adults and children and simplified guidelines for HIV testing, treatment and PMTCT during the early response of an emergency. It is intended to ensure continuation of ART/PMTCT treatment from week one of an emergency. The package is not designed for a longer-term expanded HIV/TB response. This requires a separate drug order if the national system cannot meet the demand. There are two versions of the package to facilitate adherence to either a zidovudine-based or a tenofovir-based national HIV treatment protocol. Provisions have also been made for pregnant women (Option B protocol), exposed infants and paediatric ARVs.[26] This initiative could be copied and integrated into existing basic health/reproductive health kits for large-scale unpredictable emergencies or for predictable emergencies when no buffer stocks have been ordered prior to the crisis.

3.3 Context requires priority setting in PMTCT response

The context determines how, when and which components of PMTCT services are offered in humanitarian settings.

This includes:

- The type and magnitude of the crisis;
- Its impact on the population and the disruption of health services;
- The strength of the national health system and pre-existing PMTCT programmes;
- The presence or absence of a contingency plan;
- The response capacity of the MOH;
- The capacity and commitment of HIV development actors and humanitarian actors present or arriving in the country; and
- Available financial and human resources.

26 MSF Operational Centre Amsterdam, HIV advisor

Access to expanded PMTCT[27] services from the start of an emergency may be feasible. In situations with many competing priorities including an absence of established HIV development actors in country and security constraints minimum response actions may be a temporary solution.

The absolute **minimum PMTCT response** and priority in any setting is to assure a continued ARV supply for pregnant and breastfeeding women known to be HIV positive and on ARVs, access to safe and clean deliveries, infant feeding counselling and perinatal prophylaxis for HIV-exposed infants. It should be combined ideally with a link to existing care and support services, access to contraceptives and prevention and treatment of malnutrition.[133]

As soon as possible and where feasible, access to **expanded PMTCT services** should be re-established or set up if not available before the crisis.

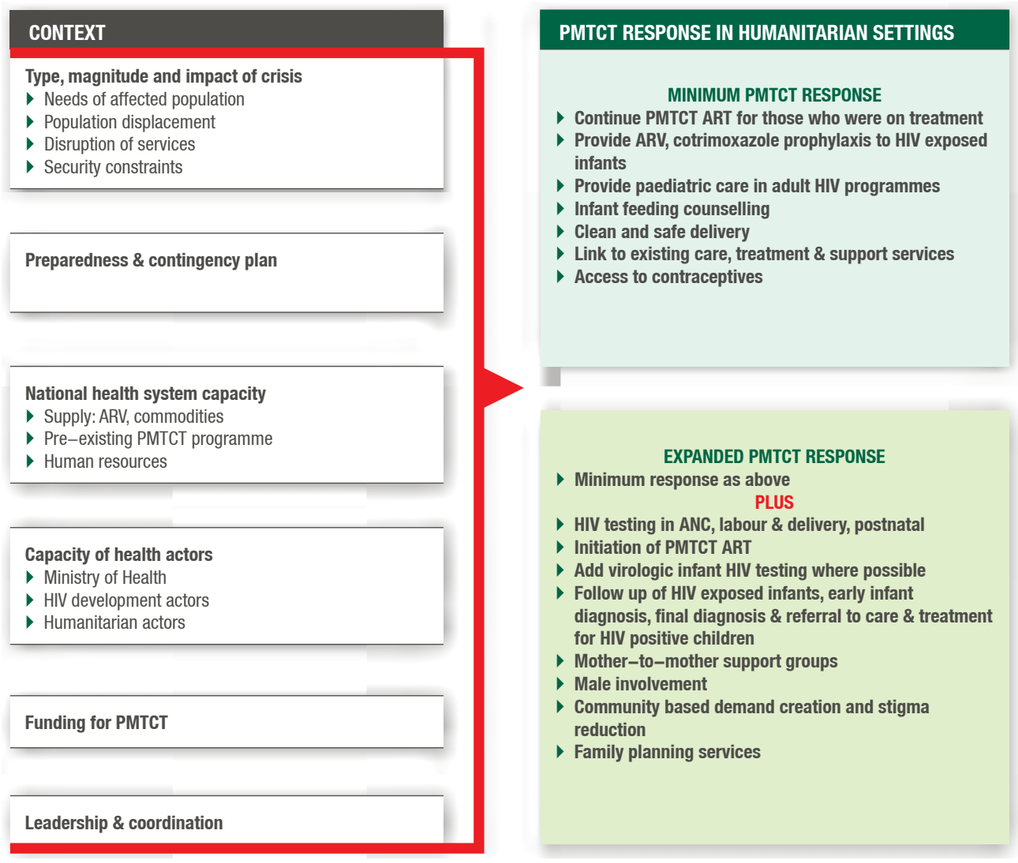
This comprises the minimum PMTCT response and some or all of the following actions with the most important being ART initiation: the addition of HTC in antenatal care (ANC), labour and delivery and postnatal care, initiating ART for PMTCT in newly-diagnosed, HIV positive pregnant and breastfeeding women and ensuring regular follow-up of HIV-exposed infants, including early infant diagnosis, final diagnosis and treatment for HIV-infected children.

This should be combined with actions to support adherence and retention including mother-to-mother support groups, male involvement and community-based activities for demand creation and stigma reduction as well as comprehensive family planning services.[134]

Ensuring rapid access to HTC and initiation of ART for pregnant and breastfeeding women in humanitarian settings is important in all generalised HIV epidemics and is particularly urgent where HIV prevalence is high among the affected population. *See Figure 1 for an overview of context factors and Table 1 for the 2013 WHO recommended options for ART for PMTCT.*

27 Main actions: HTC at ANC and labour & delivery and enrolling new women on PMTCT.

FIGURE 1: CONTEXT FACTORS AND PRIORITY SETTING FOR PMTCT SERVICE DELIVERY IN HUMANITARIAN SETTINGS



Providing access to HTC and initiation of ART for PMTCT from the start of an emergency is feasible, as was the case in South Sudan for refugees that were arriving in Uganda in 2013/2014. Pregnant women arriving at the transit centre at the border were escorted to ANC at MOH facilities where opt-out HTC is routinely offered. Uganda has a well-established PMTCT and HIV treatment programme to which refugees have access.[28]

In some acute emergencies involving large population displacement, pregnant women may not have immediate access to ANC. ANC is not considered an immediate life-saving action and is not included in the minimum initial service package for reproductive health in humanitarian settings.[135] Provided ARVs for PMTCT are available, maternity staff are oriented on how to provide them and if women in labour are willing to undergo HIV testing, labour and delivery may be used as an entry point for HTC in the first phase of the emergency response. This will not be possible in all situations and is context-specific. This is to say that a minimum package does not mean you cannot offer more, if the situations allows.

A delay from the outset of an emergency to the start of HTC and enrolment of newly diagnosed women in PMTCT programmes is common even when access to ARV is provided from the outset, as seen during the 2008 post-electoral violence in Kenya.

The delay in (re)-starting expanded PMTCT services can be very short lived when security is not an issue, as observed in the 2013 Mozambique flooding or the 2010 Haiti earthquake; or when security constraints are well managed, as during the 2008 post-electoral violence in Kenya; or when the national PMTCT/HIV treatment programme is well-established, the drug supply assured, access to maternal, newborn and child health (MNCH), services can be quickly resumed and established HIV actors are present in country to support implementation.[136,137,138,139,140]

28 UNHCR, Uganda

The length of the delay varies depending on the nature of the emergency, security challenges, the working of pre-existing PMTCT sites and the readiness of humanitarian actors to integrate PMTCT into their emergency basic healthcare package. In CAR in 2014, for example, the delay was shorter in the capital Bangui, while half of the PMTCT services in many other regions remained disrupted for many months.[141]

When no reasonably well-functioning pre-existing HIV/PMTCT programme and supply systems are in place, it takes longer to establish an expanded PMTCT response and PMTCT services may have to be set up. This is the case in South Sudan, where the International Rescue Committee (IRC), UNHCR's implementing partner in Yiba refugee camp has been struggling with supplies after integrating PMTCT in their refugee camp healthcare package several months after the influx started.[29] In such settings, humanitarian actors have to make considerable higher investments.[30]

3.4 Uninterrupted access to ARVs at outset of emergency

3.4.1 Adapted service delivery ensures uninterrupted access to ARVs

As noted previously, ensuring uninterrupted access to ARVs is critical from the outset of an emergency. This is true for the minimum response or expanded PMTCT services. Our findings show ARV dispensing can be adapted according to the context:

(Re)-open PMTCT/ARV dispensing services as soon as possible

In many cases, it is possible to keep services open throughout an emergency period or reopen them rapidly allowing uninterrupted access.

- When health facilities have been partially damaged, any existing consultation rooms can be used.[142,143]

29 UNHCR, South Sudan
30 MSF HIV advisors, Operational Centre Amsterdam, Operational Centre Barcelona, Operational Centre Paris

- When insecurity makes access to the health facility difficult, careful security management can help to keep health services running as illustrated by AMPATH and MSF during the 2008 post-electoral violence in Kenya. Key factors included: on-going monitoring of the security situation, good communication with staff, organizing staff transport and even in high HIV.[144,145]
- When PMTCT services have broken down due to conflict or natural disasters humanitarian NGOs can help to restart them.[31,146]

Integrated ARV dispensing in camp health facilities

- Integrating ARV dispensing in temporary primary health care clinics in refugee or IDP camp health facilities is a viable solution as in Bangui, CAR (2014), Côte d'Ivoire (2011) and Mozambique (2013). Clinics were run by MOH staff, humanitarian NGOs or in collaboration.[147,148] When NGOs run health facilities experienced ARV prescribers/distributors may be found among the camp population.[32]

Referral/self-referral to pre-existing accessible ARV health services

- Referring refugees or IDPs to existing host country or regional health facilities is a feasible option when services, capacity distance and security are not problematic. A pre-condition for refugees is that the national policy on PMTCT/ART includes refugees. Examples include: South Sudanese refugees at Ugandan reception centres in 2014,[33] Central African refugees who fled to Chad in 2014[34] and Ivorian refugees who sought refuge in Liberia in 2011.

31 MSF Operational Centre Amsterdam. In June 2013 MSF supported restarting services Bossangoa, CAR.
32 UNICEF, CAR. MOH was able to identify ARV prescribers in a limited in the urban IDP camps in Bangui, CAR.
33 UNHCR, Uganda
34 UNICEF, Chad

- Self-referral to other ARV dispensing clinics has been encouraged and/or practiced during the 2008 Kenya post-electoral crisis and in 2013/2014 during the conflict in CAR.[149,150,35]

Mobile outreach teams for ARV dispensing in IDP camps

- Sending mobile teams of health workers from antiretroviral facilities to dispense ARVs in IDP camp health facilities was a successful strategy in 2008 in Kenya (AMPATH and others)[36] and by the MOH in one of the IDP camps in Bangui, CAR in 2014.[37,151,152]

Home dispensing by CHWs or health workers dispensing at pre-arranged meeting points

- Home dispensing or dispensing at pre-arranged meeting points for individual patients or for groups of patients have been successfully used when insecurity made access difficult. ARVs can also be dispensed in combination with other medications. This also works well in an urban environment with a small number of patients.[153,154,155,156,157] Pre-conditions include: well-established communication networks of patients and health facilities, good security management of service providers and commitment to organize outreach services.

Dispensing ARVs through other people living with HIV

- Dispensing ARVs through other people living with HIV is another option when access to the ARV clinic is possible. For example, in Kenya in 2008, a number of people living with HIV took ARVs to others in their community.[158] Because of issues around disclosure this requires sensitivity and confidentiality. As described above, expert patients as in the MSF community ART groups can play an important role (see Section 3.1.4 -7.).[159]

35 MSF Operational Centre Paris, MSF Operational Centre Barcelona CAR
36 Kenya Catholic Mission Board
37 UNICEF, CAR

BOX 6: EXAMPLE – HOME DISPENSING – PRE-ARRANGED MEETING POINTS (2011 UNREST IN SANA'A, YEMEN)

Due to the 2011 unrest in Sana'a, Yemen, regular activities in the only MSF-supported ARV clinic had to be suspended because of fighting around the hospital. Prior to the outbreak of violence, all patients had received a card with the contact telephone number of the local ARV clinic nurse. During the three-month period of unrest, patients who needed refills for their ARVs would call the ARV clinic nurse by telephone, who then delivered the drugs individually at pre-arranged meeting points in the city that were considered safe. Thus, an interrupted ARV supply was provided to all 363 patients on ARVs.

Integration of different services can improve the overall PMTCT response. In addition to integrating PMTCT services with MNCH services, linkages with nutrition and food security interventions are relevant in humanitarian settings, thereby improving nutritional status and adherence to ART for PMTCT.[160]

Challenges identified to assuring uninterrupted access to ARVs in humanitarian settings included:

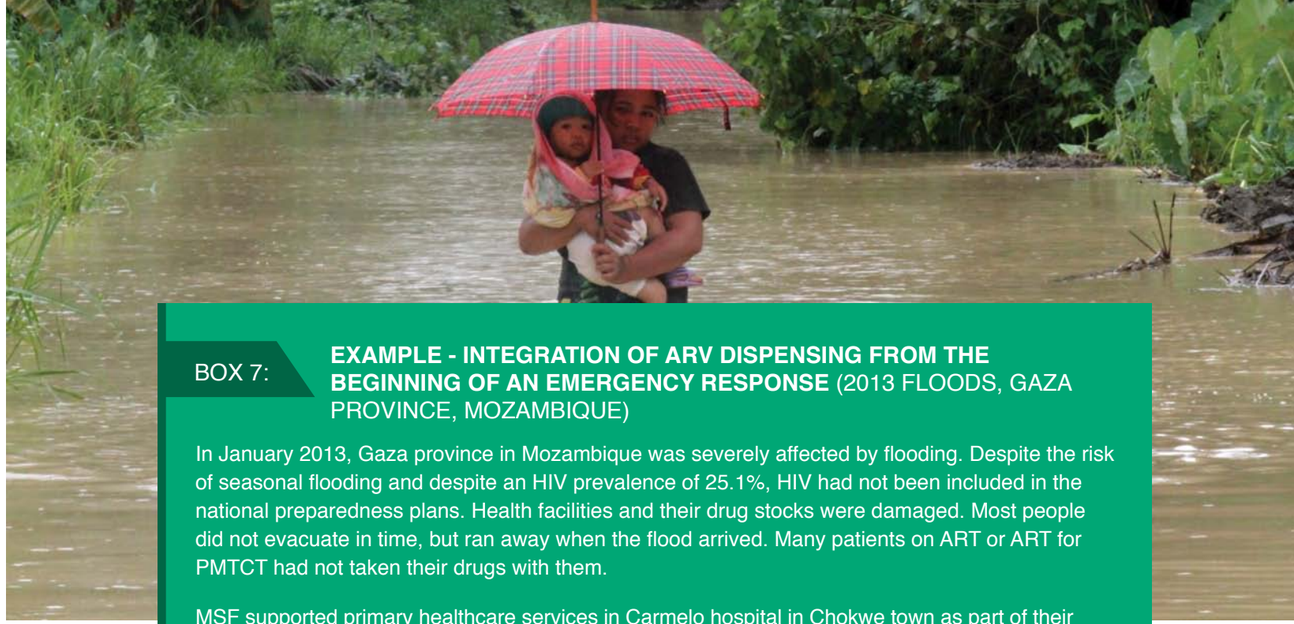
- **Competing priorities** in large-scale emergencies can lead to neglect and long delays in organizing uninterrupted access to ARVs.
- **Supply problems** were reported in several instances. *See Section 3.2.5 for solutions.*
- **Staffing** ARV dispensing sites in IDP camps with experienced MOH ARV prescribers was a challenge in Bangui, CAR in 2014 and this was identified as a significant reason for the delayed response and insufficient coverage.[38] When patients only need refills and no consultation, lay drug dispensers, trained on the spot can perform this task.
- **Patients not knowing their ARV regimen and lack of access to patient history have** been described as challenging in several settings where ARV dispensing has been set up.[161,162,163,164] Systems to help patients identify their drugs by the labels on the containers or by colour of the pills may have to be developed combined with issuing new patient passports incorporating ARV regimens.[39,40,165,166]
- **Fear of HIV-related stigma** can lead to avoidance of dedicated HIV clinics/ARV dispensing sites for ARV refills or lead to delayed health-seeking behaviour after displacement. HIV consultations and ARV dispensing should be integrated into general health care.[41,167,168,169]
- **Repatriation or resettlement of refugees/ IDPs/migrants in areas with poor PMTCT/ ART service coverage** can lead to interruption in ARV supply. This happened in Eastern DRC with refugees returning from Uganda;[42] in some areas of Chad with migrants returning/fleeing from CAR,[43] and in 2000 for IDPs in Northern Uganda, returning to their home areas after the conflict.[170] Providing patients with extra supplies of ARVs has helped potential problems of access to treatment sites.
- **The mobility of the displaced population** was identified as a further challenge,[44] and therefore patient treatment education that includes managing ART for PMTCT during travel or unforeseen displacement and patient-held extra supplies of ARVs is needed.

38 UNICEF, CAR
39 MSF Operational Centre Geneva, Mozambique
40 ICAP, South Sudan

41 Ivorian Network of people living with HIV informant
42 UNHCR, Uganda
43 UNICEF, Chad
44 UNHCR, Ethiopia, South Sudan

3.4.2 Informing patients where to access ARVs

Patients who are on ART for PMTCT or their own health and have lost access to their health facilities during emergencies need to know where to get refills for their medication. Useful ways of informing patients include:



BOX 7: EXAMPLE - INTEGRATION OF ARV DISPENSING FROM THE BEGINNING OF AN EMERGENCY RESPONSE (2013 FLOODS, GAZA PROVINCE, MOZAMBIQUE)

In January 2013, Gaza province in Mozambique was severely affected by flooding. Despite the risk of seasonal flooding and despite an HIV prevalence of 25.1%, HIV had not been included in the national preparedness plans. Health facilities and their drug stocks were damaged. Most people did not evacuate in time, but ran away when the flood arrived. Many patients on ART or ART for PMTCT had not taken their drugs with them.

MSF supported primary healthcare services in Carmelo hospital in Chokwe town as part of their emergency response. Many patients came to request ARV refills or nevirapine for their babies. Refill for ARVs was integrated from day one of the response, initially with drugs from the hospital stocks followed by ARVs from MSF's HIV project buffer stock in Maputo, the capital. MSF also donated ARVs from their buffer stock to the temporary MOH health facility of the major accommodation site for the flood affected of Chokwe town until the MOH was able to supply them.

- In refugee camp settings, information can be **included in basic information** about available health services provided **at the registration point for new arrivals.** CHWs, for example, Red Cross volunteers often do this.[45]
- **Patient networks** have been used in various settings to informally let others know where to access ARVs, for example, in camp situations.[46]
- Individual **telephone tracing and/or physical tracing** by health workers: successful strategies include using CHWs attached to health facilities, existing networks of people living with HIV, support groups, local NGOs and other pre-existing networks. Mobile phone tracing in Haiti, Kenya and in a smaller cohort in Bossangoa, CAR[47] reported good outcomes.[171,172] Individual phone tracing can be very time-consuming, less efficient for large patient cohorts and not effective when mobile phone network coverage is poor.[48] Using CHWs for active case finding was successfully used in 2008 by AMPATH in Kenya, and in urban IDP camps in Bangui, CAR in 2014.[173,174] The experience of UNICEF's partner during the 2013 floods in Mozambique showed the difficulty of quickly mobilising CHWs and patient support group members when they are personally affected by the crisis. In this case, mass media and mobile clinics may be more effective in disseminating information.[175]
- Broadcasting of **radio or TV messages** proved useful in 2008 in Kenya to reach large numbers of people living with HIV.[176,177] TV and radio messages were used to reach the urban displaced in Bangui in 2014.[178]
- Free **hotlines** in Kenya in 2008 enabled patients to find out where to access ARVs.[179,180,181]
- **Using multiple methods** (mass media, hotlines, newspaper adverts, phone tracing and physical tracing) worked for AMPATH and MSF in 2008 in Kenya, however there was no analysis to know which information channel had the biggest impact. An MSF evaluation of hotline use showed less impact than anticipated. A possible explanation is that the hotline was only free for one of the mobile phone networks.[182]

45 UNHCR Uganda & Ethiopia, UNICEF Chad
46 UNHCR Uganda & Ethiopia
47 MSF Operational Centre Amsterdam, CAR
48 MSF Operational Centre Barcelona, Ndele CAR

TABLE 2: ANALYSIS OF STRATEGIES USED TO ASSURE ACCESS TO ARV AT OUTSET OF EMERGENCIES

	STRATEGIES	CHALLENGES	LESSONS LEARNED

Organising access to ARV	▸ (Re)–open pre–existing PMTCT/ ARV providing services
	▸ Integrated ARV dispensing in IDP/ refugee camp health facilities
	▸ Referral to/dispensing in pre–existing accessible health facilities providing ARVs
	▸ Mobile outreach teams for ARV dispensing in IDP camps on specific days
	▸ Home dispensing by CHWs or health workers
	▸ Integration of different services can improve overall PMTCT response including linkages with nutrition and food security interventions
		▸ Competing priorities
		▸ Supply
		  ▸ Facility ARVs destroyed
		  ▸ MOH supply chain disrupted
		  ▸ Increased patient volume due to displacement
		▸ Patients did not know their ARV regimens
		▸ Stigma as a barrier to access dedicated HIV services
		▸ Lack of staff trained in ARV
			▸ Organizing access for continuous ARV supply is feasible. Set up is context dependent.
			▸ Drugs should be stored in safe place.
			▸ Emergency supply mechanisms are needed as back up.
			▸ Patients need more education about their ARV regimen.
			▸ HIV development actors and emergency actors can play an important role in effective mitigation by: rapidly re–opening services, mobile outreach teams to IDP sites, information campaign where to access ARVs, transporting ARVs, donating ARVs, stepping in for MOH with service delivery

Informing patients where to access ARVs	▸ Include message in general information package at camp registration ▸ Informally through peer networks ▸ Targeted information campaign in IDP camps/communities with or without active case finding ▸ Radio/TV messages ▸ Toll free hotlines ▸ Adverts in newspapers ▸ Mobile phone tracing ▸ Physical tracing	▸ MSF hotline in Kenya was underused, but was only toll free for one network ▸ Using support groups and CHW networks from emergency–affected populations for tracing was difficult to organize at outset when group members/CHWs were personally affected.	▸ **Combined strategies yield best results.** ▸ Including ARV access information at camp registration is simple and effective. ▸ Using informal networks of people living with HIV works well as a complementary method. ▸ Mass media can be a very efficient means of communication. ▸ Community–based information campaigns work well. ▸ Phone tracing works well for small cohorts in areas with high mobile phone coverage. ▸ Physical tracing is slow and difficult to set up. ▸ Hotlines have less impact when not free for all.

BOX 8: **EXAMPLE – INFORMING PATIENTS ABOUT ACCESS TO ARVS** (CAR 2014 COMPLEX EMERGENCY)[183]

In January 2014, in CAR, UNICEF engaged the local NGO ANJFAS, who organized an information campaign and active case finding of patients in need of ARVs including women on ART for PMTCT and HIV-exposed infants in several IDP camps in Bangui for referral to ARV sites. This was combined with general basic information about HIV, and information about access to ANC and HTC and services for survivors of sexual violence. Prior to starting the public information campaign, camp leaders and humanitarian medical NGOs were sensitised about the importance of continuous access to ARVs. As a result, the potential for future ARV consultations was created. After an initial training, the 39 female health promoters, the majority of whom were women living with HIV and members of mother-to-mother support groups, organized public and house-to-house sensitisation sessions, distributed leaflets containing information about HIV prevention, where to access ARVs and tried to identify women and others in need of ARVs. Patients in need of ARVs were referred to ARV dispensing facilities in the camp, if available, or to a pre-existing facility close by. Between January and February 2014, two radio broadcasts provided information about available services. The information approach was successful: in five camps over a two month period, over 3800 patients on ARV were identified and referred. Approximately, 2100 women were referred to ANC and tested and approximately 600 women were enrolled in PMTCT.

Challenges described included: 1) reliable access to ARVs was not well-established in the targeted camps once the campaign started in the camps; and 2) insecurity acted as a barrier for access to functional ARV clinics outside the camps.

3.4.3 Demand creation during acute crisis

Demand creation for PMTCT services during the acute phase of a crisis can be more challenging than in stabilised contexts. During the 2013 Mozambique Gaza floods response, uptake of ANC was low during the acute phase of the emergency. Women came to the health facility for deliveries or when they had an acute health problem during pregnancy[184] or in an effort to obtain ARVs for themselves and their babies.[185]

Key informants from UNICEF and UNHCR also noted that women do not prioritize their own health during an acute crisis. Women were depicted as preoccupied by other priorities such as food, water, shelter, and child health or too traumatised by the events to give importance to healthcare. Acknowledging these conflicting priorities will help address them more effectively.

3.4.4 Weak health systems

Establishing access for minimum or expanded PMTCT services in a severely affected health system or with a chronically weak pre-existing PMTCT programme and health system can be particularly challenging. This is often the case in chronically fragile contexts or in countries recovering from long-term armed conflict. PMTCT and ART coverage is usually low. HIV programmes often receive less international funding and technical support. Humanitarian actors are key to providing implementation support and resources to ensure the setup, staffing and uninterrupted drug supply. The absence of this support is often perceived as a barrier to integrating PMTCT into the health sector response of humanitarian NGOs.[49]

Challenges for PMTCT implementation in these settings include: supply, availability and capacity

49 IMC, Save the Children

BOX 9:

EXAMPLE – PMTCT/ART SERVICES SET UP FOR REFUGEES
(UGANDA 2013/2014)

In Uganda during 2013/2014, all pregnant women at the border transit centre arriving from South Sudan were escorted to ANC in nearby MOH health centres where HTC and initiation of ART for PMTCT are integrated.

In permanent refugee settlements in Uganda, PMTCT/ART is integrated in camp health centres run by UNHCR implementing partner NGOs, but are accredited as ARV sites by MOH. This accreditation enables these health centres to receive MOH staff and to receive commodities through the national order and supply management system. These health centres also serve the surrounding host population.

of human resources for health, laboratory support, chronic or recurrent instability leading to problems of access, competing priorities, funding for implementing partners, and concerns about sustainability.[50]

Despite the challenges, experience shows that integrating PMTCT in these settings is feasible.[51] Simplification such as the test and treat PMTCT protocol (Option B+), task shifting and integrated contingency planning are key. Simplification (as in Option B+) increases the feasibility of integration of PMTCT services when there are many competing priorities. Task shifting addresses human resource challenges and contingency planning addresses potential disruption of access and weaknesses in the national supply chain mechanism.[52] Accessing grants from the GFATM as sub-recipients has resolved the financing of NGO PMTCT implementation support.[53] Handover to MOH or long-term development partners can sustain PMTCT/HIV treatment programme support initiated by humanitarian NGOs.[186,187]

3.5 Monitoring patient cohorts during acute emergencies and systems simplification

Monitoring of PMTCT/ART patient cohorts can be challenging in emergencies when access to pre-existing services is disrupted and the population is displaced.

New ARV dispensing sites set up during the acute phase of an emergency need to find rapid solutions for data collection. Using temporary, simplified paper-based data recording systems, combined with patient passports is recommended when routine cohort monitoring systems cannot be used.[188,189,190,191]

Routinely collected data in pre-existing PMTCT/ART sites may become difficult to interpret as a result of disrupted access and displacement. High numbers of missed appointments and loss to follow-up can suggest considerable treatment interruption. However, some patients may have accessed ARVs elsewhere.[192,193,194,195,196] Patient tracking can be extremely difficult during emergencies. A clearer picture of the impact of the emergency on treatment adherence and retention in care can often only be established once the situation has stabilised. Phone tracing can help when mobile phone network coverage is good.[54] Patient tracking through the national monitoring system based on patient ID numbers works in settings with strong systems.[72,73] Cross border movements have been impossible to capture.[74]

50 MERLIN, South Sudan; MSF HIV advisors Operational Centre Amsterdam, Operational Centre Barcelona, Operational Centre Paris
51 Ibid.
52 HIV advisors, MSF Operational Centre Amsterdam, Operational Centre Barcelona, Operational Centre Paris, Coordinator MSF Reproductive Health Working Group
53 MERLIN, South Sudan, Save the Children
54 MSF HIV advisors, MSF Operational Centre Amsterdam & MSF Operational Centre Barcelona

BOX 10:

EXAMPLE - PMTCT INTEGRATION IN ROUTINE HEALTH PROGRAMMES IN UNSTABLE CONTEXT
(CENTRAL AFRICAN REPUBLIC)[200,201]

MSF has been managing integrated HIV treatment programmes with PMTCT components in seven projects outside of the capital Bangui since mid/end 2000.

After approval by the MOH in 2013, they introduced Option B or B+ with a tenofovir- based one pill a day regimen in some of their projects. This has dramatically simplified PMTCT drug management. Human resource challenges were overcome by hiring additional qualified national and international staff and by task shifting/sharing to lower-level qualified staff and lay CHWs. Laboratory monitoring is done at district hospitals. MSF transports PCR samples for early infant diagnosis to the reference laboratory in the capital since the national transport system is not reliable. Some of the projects work exclusively with MSF ARV drugs. Others have been using government ARVs, but keep an MSF buffer stock at capital and facility- level since the national supply system is unreliable. MSF also frequently uses their own means of transport for government drugs to prevent stock-outs.

Project site-specific contingency plans were developed once programme managers together with project health staff initiated ART/PMTCT components. Actions implemented depended on the level of security in the area. The contingency plan of the MSF Operational Centre Barcelona PMTCT projects specific preparedness measures during periods of increased risk of disrupted access include the provision of “run-away bags” with all ARVs needed until the expected date of delivery and nevirapine syrup for the exposed infant and one week tail protection medication (as needed) in case of unforeseen treatment interruption. A written explanation of the protocol in local language is included.

In MSF Operational Centre Barcelona projects between September and December 2013, when the context became unstable 683 patients were receiving ART. 594 (86%) patients received emergency bags and by February 2014, 313 (52%) of these patients had returned to care. Mobile phone tracing was difficult due to low mobile phone coverage in rural areas. MSF assumes that a high percentage of patients crossed the border to Chad. No PMTCT specific analysis was performed.

SECTION 4

CONCLUSION

Despite progress noted to date, much remains to be done to effectively integrate PMTCT/ART into an emergency response and emergency preparedness into PMTCT/ART programming. Experience from humanitarian and HIV development actors shows that PMTCT implementation in acute emergencies, protracted crises and fragile contexts while challenging, is feasible.

PMTCT is slowly gaining attention – but greater efforts are needed.

Despite the dearth of publications on PMTCT in humanitarian settings, this analysis of lessons learned shows that PMTCT and ART are slowly gaining more attention compared to just five years ago. Having no immediate apparent life-saving impact ART and PMTCT in emergencies were not considered a priority at the time. They were also not perceived as compatible with a short-term emergency response because of the chronic nature of HIV disease.

With increasing ART/PMTCT coverage and the increasing numbers of people living with HIV on lifelong ART for their own health or PMTCT in countries affected by humanitarian crises, there is a realisation among humanitarian actors that hundreds or thousands of patients cannot be left without access to ART.[202] At the same time, HIV development actors realise that predictable and unpredictable humanitarian crises jeopardise the continuity of PMTCT/ART and their programme achievements. Improved collaboration among humanitarian actors, development actors and donors is needed to ensure women living with HIV and their families affected by emergencies or living in fragile or post-conflict settings have continued access to PMTCT/ART services.

Continuing and initiating PMTCT in humanitarian settings is feasible, but challenging.

Uninterrupted access to treatment is critical to ensure efficacy of treatment and prevent antiretroviral drug resistance. Emergency preparedness and contingency planning can mitigate the impact of crisis on service delivery and help prevent individual treatment interruption. This requires emergency preparedness and contingency planning to be incorporated into PMTCT/HIV programming and HIV included in national disaster preparedness plans.

Inclusion of PMTCT in humanitarian settings requires leadership and advocacy from the international humanitarian and HIV communities and commitment of national governments and donors to ensure the availability of ARVs, essential commodities, funding and guidance.

HIV actors present prior to the crisis can play an important role in maintaining access to PMTCT services by re-directing their activities. To avoid delays in complex emergencies with substantial service and system disruption humanitarian actors can support implementation until the situation stabilises.

Access to expanded PMTCT services from the outset of an emergency is feasible. Temporary priority setting to ensure a minimum response (uninterrupted ARV access for those on treatment before the crisis) may be necessary until conditions allow for the integration of some or all of the components of expanded PMTCT services.

When access to functional PMTCT facilities is not possible service delivery needs to be adapted to the context. PMTCT/ART services can be set

up in alternative (temporary) health facilities. Alternative delivery mechanisms may include community-based ARV dispensing through mobile outreach teams or through patient networks. An information campaign about where to access ARVs/PMTCT services is integral to the process.

Establishing access to minimum and expanded PMTCT services in a context with a weak pre-existing PMTCT programme and weak health system requires humanitarian or HIV development actors to provide strong implementation support. Simplification of treatment protocols (such as the test and treat approach using a fixed-dose combination of one pill once a day), task shifting to health workers from lower cadres and CHWs, and integrated contingency planning for humanitarian situations are key.

Integration with other services can improve the overall PMTCT response and include linkages with nutrition and food security interventions.

Monitoring of patient cohorts is challenging during acute emergencies when access to services is hampered and/or the population is displaced. Data collection systems may have to be temporarily adapted to a simplified facility record combined with a portable patient record/patient passport.

Areas for future research and work that emerge from this research include:

- How to estimate the magnitude of women in need of access to PMTCT in humanitarian crisis contexts
- Costing for HIV actions in emergencies including for PMTCT
- Study of social and economic barriers to access MNCH and PMTCT services and to retention in care in humanitarian settings and development of specific recommendations to address them
- Study of the impact of emergency-induced treatment interruptions on PMTCT effectiveness and antiretroviral resistance
- Evaluation of the effectiveness of preparedness, contingency planning and emergency response for PMTCT
- Evaluation of the applicability and effectiveness of community-based ARV distribution models for PMTCT in humanitarian contexts

The recommendations in the section below will help to ensure access to PMTCT/ART in humanitarian settings. It is important to note that patient education is critical. Involving women living with HIV during planning and implementation is a best practice and critical for sustainable results.

SECTION 5

RECOMMENDATIONS

- **Integrate preparedness and contingency planning into PMTCT/ART programming and include PMTCT/ART in general national disaster preparedness plans.**
  - Based on risk analysis, develop contingency plans for predictable emergencies that include preparedness actions and pre-defined ways how to shift to service delivery and supply mechanisms adapted to an emergency situation. Involve all relevant stakeholders (MOH, donors like GFATM or PEPFAR, HIV development partners, humanitarian actors, networks of people living with HIV, national NGOs involved in HIV) in national and provincial/district planning to assure a coordinated response.
  - Design and prepare programmes to reduce the risk of disruption by strengthening supply systems, pre-positioning supplies in areas of risk prior to predictable emergencies, dispensing extra supply of ARVs to patients, providing treatment education and information about alternative ARV sites, providing patient passports as portable records, setting up communication networks for patient tracking and referral, assuring multi-skilled staff/task shifting at facility level and decentralizing services.
  - Orient health care workers, community health workers in emergency preparedness and response.

- **Ensure drug and commodities supply in humanitarian settings.**
  - Use pre-positioned buffer stocks.
  - In case of localised shortage of supplies during crisis, redistribute available supplies among regions/facilities.
  - In case of disruption of the national order and supply chain mechanisms, engage humanitarian and HIV development actors to help facilitate the transport of commodities.
  - When national drug stocks have been destroyed or are not accessible, approach HIV donors/actors to rapidly support and organize emergency procurement and shipment.
  - When national HIV funding is insufficient to introduce PMTCT, include ARVs and commodities in project proposals of implementing partners.
  - Include PMTCT/ART starter kits in global/regional emergency supply mechanisms to enable immediate continued ARV access in acute emergencies when no buffer stocks are in place until regular supply mechanisms have been restored. Kits should contain WHO recommended ARVs for pregnant and breastfeeding women and HIV-exposed infants under PMTCT, ARVs for adults and children on ART.

- **Provide leadership and support coordination to ensure that PMTCT/ART is included in emergency response from the start in generalised HIV epidemics.**
  - Advocate with MOH, donors, HIV development actors and humanitarian actors for inclusion of PMTCT actions highlighting the life-saving nature of ART and PMTCT, the critical need to prevent treatment interruptions, importance of restoring/establishing access to expanded PMTCT services and the feasibility of implementation. At global level, exploit synergies between IATT on PMTCT, IATT on Addressing HIV in Humanitarian Emergencies and Interagency Working Group (IAWG) on Reproductive Health in Crisis for this purpose.
  - Leverage UNOCHA's and cluster lead agencies' roles in humanitarian emergency response coordination to assure PMTCT/ART inclusion. Put PMTCT together with other HIV priorities on the agenda of heath cluster/coordination meetings. Depending upon the nature of the epidemic in the affected population, consider creating an HIV sub-cluster and appointing an HIV focal person to lead coordination of the HIV response and provide technical support as required.
  - Integrate PMTCT/ART systematically in humanitarian assessments.

- **Make rapid funding available for PMTCT/ART response in humanitarian emergencies.**
  - Integrate emergency preparedness (health systems strengthening, contingency planning) in HIV development grants.
  - Facilitate re-programming of on-going HIV grants to finance emergency response activities.
  - Include PMTCT actions in humanitarian funding proposals to bridge the gap until longer-term development funding can be accessed for protracted crisis, chronic fragile settings, or recovery.
  - HIV development donors to consider creating HIV emergency funding mechanisms for rapid response in crisis similar to the on-going initiative of GFATM.

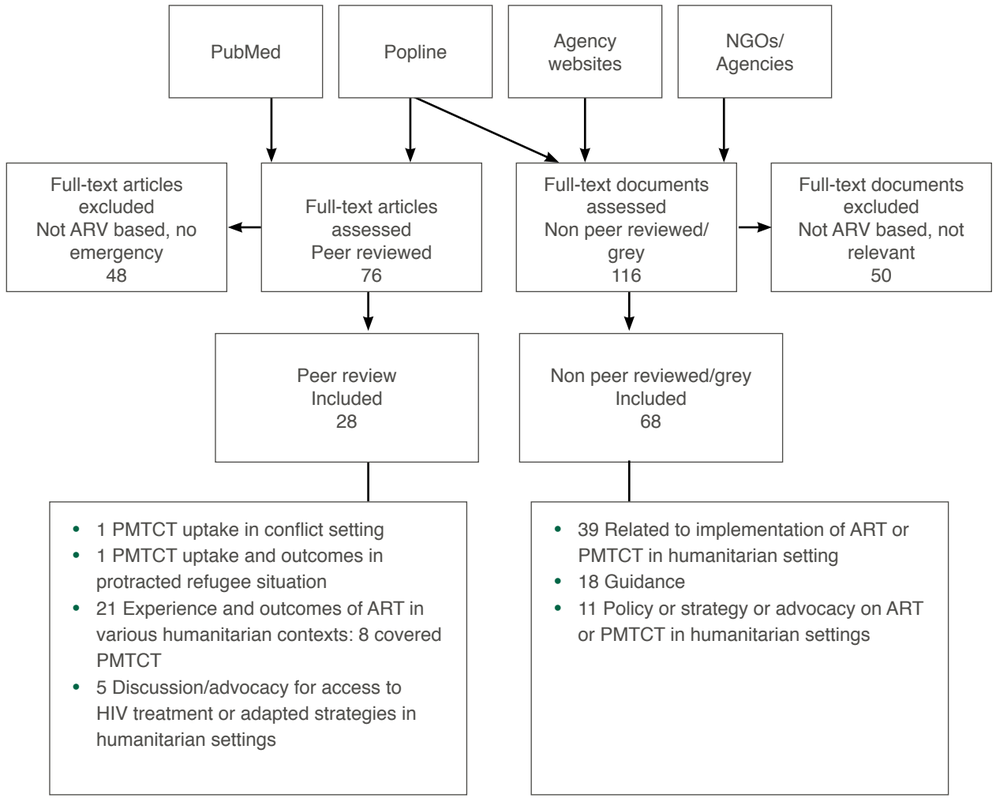
- **Organize and adapt service delivery for rapid response in humanitarian settings.**
  - Ensure that PMTCT is integrated into MNCH and sexual and reproductive health programmes in generalised HIV epidemics.
  - Mobilise HIV development actors to redirect activities to respond to emergency.
  - Get humanitarian actors involved in PMTCT implementation in complex emergencies.
  - Determine need for priority setting. Prioritise and assure access to ARVs for those who have already been on ART for PMTCT from the outset of emergency response.
  - Use pre-existing PMTCT facilities when functional and accessible.
  - Identify and set up context-adapted alternative modes of service delivery as needed. For example, integration in temporary health facilities, mobile outreach teams/clinics, community-based dispensing and conduct information campaign about where to access ARVs/PMTCT.
  - In humanitarian settings with weak health systems, integrate PMTCT using simplified treatment protocols (e.g. test and treat for all pregnant and breastfeeding women), point-of-care laboratory technologies, task shifting, contingency planning and strong implementation support to compensate for systems weaknesses.

- **Adapt monitoring system for patient cohorts in humanitarian settings.**
  - Design and introduce national patient passport with unique patient ID number.
  - Use regular cohort monitoring system when situation allows.
  - Design and disseminate simplified paper-based temporary data collection form for acute emergencies.
  - Develop a group of key indicators for humanitarian settings.

SECTION 6

ANNEXES

6.1 Literature search strategy



6.2 Key informants

ORGANIZATION	NAME
CDC	Michelle Adler
CDC	Kevin Clarke
ECHO, Nairobi & former MSF Medical Coordinator Kenya	Ian van Engelgem
ECHO, Dakar	Jorge Castilla
EGPAF, Country Support Team Manager & Sr. Country Officer for Uganda, Washington D.C.	Makaria Reynolds
EGPAF, DRC desk	Yabi Marcos
FAO	Angela Kimani
Global Fund to fight AIDS, Tuberculosis and Malaria, Geneva	Mark Saalfeld
Hôpitaux Service de Santé des Armées, CAR, Infectious Disease Specialist	Dr. Eudes Gbanga Ngai
IATT PMTCT, Monitoring and Evaluation Specialist	Rosalind Carter
IATT PMTCT, HIV/AIDS Specialist, Knowledge Management	Jessica Rodrigues
ICAP, PMTCT –Associate Program Director	Fatima Tsouris
ICAP, Clinical Officer, Adult Care and Treatment	Tanya Ellman
IMC, Health Advisor, previously with MERLIN and MSF	Kweku Ackom
Independent Consultant, UNHCR, UNICEF, previously with MSF	Heinz Henghuber
Independent Consultant, for GFATM, UNHCR, DFID, WHO	Nigel Pearson
IOM, Migration Health Programme Coordinator	Barbara Rijks
M2M, Kenya	Milker Simba
formerly Merlin Health Advisor, now Save the Children	Tewodros Gebremichael
MSF France, HIV Advisor & Coordinator MSF International AIDS Working Group	Suna Balkan
MSF Operational Centre Amsterdam, HIV advisor	Esther C. Casas
MSF Operational Centre France, Medical Coordinator, CAR	Caroline Colinet
MSF Southern African Medical Unit	Tom Ellmann
MSF Operational Centre Barcelona, HIV advisor	Cecilia Ferreyra
MSF International Reproductive Health Working Group, Coordinator	Catrin Schulte-Hillen
MSF Operational Centre Geneva, Mozambique, Medical Coordinator	Lucas Molfino
MSF Operational Centre Barcelona & Geneva Kenya, former Head of Mission	Elena Velilla
RIP+ , Organisation of people living with HIV, Côte d'Ivoire	Agnes Koaussi
Save the Children, Senior Humanitarian HIV Advisor, United Kingdom	Alice Fay
Save the Children, Regional Health Advisor, West & Central Africa	Fatou Mbow
Save the Children, Emergency Response Team	Pip Millard

ORGANIZATION	NAME
UNAIDS, Strategic Interventions Advisor, South Sudan	Mumtaz Ali
UNFPA, Reproductive Health in Emergencies, Switzerland	Wilma Doedens
UNHCR, Senior Regional Reproductive Health and HIV Coordinator, Central Africa and Great Lakes	Nadine Cornier
UNHCR, Senior HIV & Reproductive Health officer, Regional Office East and Horn of Africa	Sathyanarayanan Doraiswamy
UNHCR , HIV Monitoring and Evaluation, Ethiopia	Bethel Getachew
UNHCR, Public Health Officer, Ethiopia	Maina Allen Gidraf
UNHCR, HIV Specialist, Switzerland	Gabriel Munene
UNHCR, HIV/AIDS Coordinator, Uganda	Julius Kasozi
UNHCR , Public Health Officer, South Sudan	Muwonge Nasur Lubega
UNHCR, Deputy Director, Division of Programme Support and Management, Geneva	Paul Spiegel
UNICEF, HIV Specialist, Nairobi	Linda Beyer
UNICEF, HIV/AIDS Specialist, Regional Office, West and Central Africa	Amandine Bollinger
UNICEF, Paediatric HIV Specialist	Dick Chamla
UNICEF, Senior Advisor, Maternal Child Health New York	Rene Ekpini
UNICEF, Regional Advisor, West and Central Africa	Claudes Kamenga
UNICEF, Specialist HIV/AIDS in Emergencies, New York	Sarah Karmin
UNICEF, HIV/AIDS Specialist CAR	Cecile Ndoli
UNICEF, Chad, HIV Specialist	Therese Nduwama & colleagues
UNICEF, Representative, Swaziland	Rachel Odede
UNICEF, Dakar, HIV/AIDS Specialist , Western & Central Africa	Macoura Oulare
UNICEF, formerly with UNHCR	Gloria Puertas
UNICEF, HIV/AIDS Specialist, Kenya	Nande Putta
WFP, Nutrition & HIV/AIDS, Rome	Joanmanuel Claros
WFP, Nutrition & HIV/AIDS, Rome	Sara Bernadini
WHO, PMTCT Technical Lead/ Dept HIV/AIDS, Geneva	Nathan Shaffer
Women's Refugee Commission, Reproductive Health Program Director, New York	Sandra Krause

6.3 Interview Guide

Introduction: The key focus of the interview is to understand how PMTCT is currently being delivered in humanitarian settings, to document challenges on the ground and to look at strategies or innovative approaches used to overcome these challenges.

- **Do you consent to be interviewed?**

- **Can you tell me about your background and experience in relation to PMTCT and emergency contexts?** *Adapt questions relevant to area of responsibility of interviewee (implementer, policy, donor at local, regional or global level)*

- **In case of specific experience, can you describe the programme and how it was implemented?** *Partners or operational/organization of service delivery/supply/human resources/government engagement/integrated with MNCH or stand-alone/case finding/tracing/ community engagement/ assessment/coordination/work with contingency plans?*

- **How did it go? What worked well? What were the constraints or challenges**? *Coordination/ government policy/supply/specific contexts/assessments/barriers to access/ government capacity/ health system weaknesses*

- **What did agencies do to address challenges?** *Innovative ideas?*

- **How much is/was preparedness planning included in contexts where there are regular crises?**

- **Role of government?** *How much is government capacity a limitation? What is needed if government capacity is a limitation?*

- **Role of community?**

- **How effective was coordination between agencies?**

- **Funding?** *What funding is available? Constraints in accessing fund? Constraints in funding mechanisms?*

- **What needs to be done to at global level to support PMTCT delivery in humanitarian contexts?**

- **Are there examples or case studies, research or other relevant documents that can be shared?**

- **Tools or resources found useful?** *How useful are existing PMTCT / HIV in emergencies?*

- **What is needed in terms of guidance or tools to help implementers?**

- **Gaps for research?**

- **Any areas we haven't covered or points you would like to emphasise?**

6.4 Analysis of selected country case studies

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED
Haiti	**Natural disaster** 2010 Earthquake	▸ Patients held two weeks of extra drugs ▸ Clinic held ARV buffer stocks ▸ Re–established ARV dispensing after one week ▸ Mobile phone, CHW tracing ▸ Emergency ARV shipment by PEPFAR one week after quake	Massive damage of infrastructure: ▸ Central Medical store ▸ Health facilities ▸ Problems of access	**Quick recovery** of HIV/ PMTCT services after initial decline and good retention in care due to: ▸ Very good response of development HIV partners present in country, HIV donors. ▸ Phone tracing worked well. ▸ Extra ARVs for patients and clinic buffer stocks and emergency ARV shipment. ▸ Prior adherence counselling contributed to good retention.

Mozambique	**Natural disaster**
	2013 Floods
	Gaza province
		▸ Major ARV facility re–established ARV dispensing within days with MSF support and patients self–reported.
		▸ Temporary health facilities for flood affected integrated ARV dispensing, followed by PMTCT.
		▸ Initial ARV supply by MSF from NGO buffer stocks until MOH supply organised (two–three weeks after onset).
		▸ IEC and HTC through mobile units and HIV activists, radio spots (UNICEF).
		▸ Tracing by CHWs, mother support group members (NGO, UNICEF).
			▸ Damage of health facilities, drug stocks, patient records.
			▸ ARVs not included in first emergency response of MOH, NGOs, UN.
			▸ Competing priorities at outset.
			▸ Difficult HIV coordination at outset.
			▸ ARV supply, i.e. for second line, paediatric ARVs on site.
			▸ Patients not aware of their ARV regimen.
			▸ Difficult to organize CHWs, PMTCT mothers who were affected by disaster.
			▸ Low demand for ANC/HTC
			▸ Data for patient tracking
				▸ HIV not included in disaster preparedness plan led to:
				  ▸ Destroyed ARV drug stock
				  ▸ Delay in ARV/PMTCT response
				  ▸ Treatment interruptions
				  ▸ Coordination difficulties.
				▸ Presence of ARV experienced emergency NGO supported rapid response until MOH, UN, other NGOs were ready to join.
				▸ Prior adherence counselling contributed to high demand for ARV dispensing.
				▸ Patients need better education on the ARV regimen they are taking.

Kenya	**Short–term conflict**
	2007/2008
	Post–electoral violence
		▸ Facility–based preparedness plans in MSF supported facilities only
		▸ Major HIV implementing partners (AMPATH, MSF) kept services running with adaptations:
		  ▸ Security management
		  ▸ Outreach teams to IDP camps
		▸ Peer educators, radio/TV spots and phone hotline to inform patients where to access ARVs.
		▸ Tracing by peer educators.
		▸ In second phase ANC/HTC was established in IDP camps.
		▸ Patient passports were provided as portable records.
			▸ Violence led to displacement, problems of access to health facilities for patients and staff and ARV/PMTCT treatment interruption
			▸ HIV was not part of national emergency plans
			▸ Databases were not adapted for patient tracking.
			▸ Fear of stigma led to rejection of dedicated ARV dispensing sites in IDP camps.
			▸ MSF Hotline was only toll free in one phone network. Only small percentage of calls requested information on access to ARVs.
				▸ Absence of national HIV preparedness plan led to massive treatment interruption.
				▸ Well organised HIV implementing partners were able to minimise treatment interruptions in their cohorts with good response ensuring ARV access and preparedness at facility level.
				  ▸ Mass media information, mobile phone tracing and offering services at IDP sites were successful methods to ensure continued ARV access for PMTCT/ART.
				  ▸ Prior adherence counselling contributed to patients' effort to get ARVs where they had access.
				▸ Simplified paper–based data collection and patient passports are more suitable than electronic databases for emergency situations.
				▸ Organize ARV dispensing integrated into general health care to avoid stigmatising.
				▸ Patient tracking is challenging during crisis, but retention in care/ treatment interruption can be analysed post –crisis.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED
Kenya	**National contingency plan** 2013 elections	▸ UNICEF/M2M–trained mentor mothers for patient adherence education prior to elections. ▸ National authorisation to dispense three months extra supply of ARV to patients ▸ Facilities: buffer stocks, plans for staffing, communication and outreach services. ▸ Regional hubs with contingency stocks.	▸ No major unrest with disruption of HIV services occurred.	▸ Experience of 2008 post electoral violence has led joint effort of government, HIV development and emergency actors to integrate HIV in 2013 election preparedness. ▸ With collaborative efforts of MOH, HIV development partners and humanitarian actors a comprehensive contingency plan was developed and preparedness implemented ▸ Mentor mothers successfully accelerated patient education among PMTCT women in high risk areas

Côte d'Ivoire	**Short–term conflict/unrest** 2010/2011 Post–electoral violence	▸ National contingency plan prior to election (joint effort of PEPFAR, UN, Global Fund, MOH) with:
		  ▸ Authorisation to dispense two–three months ARV
		  ▸ Buffer stocks at districts
		  ▸ HTC and focus on ARV–based PMTCT in peaceful areas receiving IDPs
		  ▸ Faith–based organization (FBO) to sustain services in areas of unrest.
		▸ Pregnant mothers received ARV bundles for pregnancy, delivery/ infant (Option A protocol)
		▸ UNICEF/other: emergency preparedness trainings for local NGOs, health workers.
			▸ Disruption of health services and insecurity led to treatment interruptions in part of affected areas.
			▸ Supply chain: temporary ARV stock–outs at facility level.
			▸ Patients not aware of ARV regimen.
			▸ Patient tracking very difficult.
			▸ Medical emergency NGOs like MSF were not ready to include ARV dispensing in their response.
			▸ Dedicated ARV dispensing sites in IDP camps were rejected due to fear of stigma.
			▸ FBO could not sustain service delivery in insecure areas, because they were targets of violence. International NGOs had to be requested to step in.
				▸ National contingency plan helped to mitigate disrupted access to ARV/ PMTCT to some extent.
				▸ HIV development partners support played an important role in mitigation:
				▸ ARV emergency shipment
				▸ Re–distributing ARV stocks
				▸ Information dissemination
				▸ Re–establishing access in insecure/IDP sites
				▸ Mobilising community networks for information dissemination and ARV home dispensing.
				▸ Emergency NGOs must be convinced to integrate minimum PMTCT/ART package to enhance response for continued access to PMTCT/ART.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED
Côte d'Ivoire continued		▸ Local NGOs/CHWs, community surveillance committees used for information dissemination on access to ARV, tracing, HTC mobilisation. ▸ Established ARV dispensing, PMTCT, mobile HTC in IDP sites. ▸ CHWs dispensed ARVs at patients' homes in insecure areas with difficult access. ▸ ARV prescribers physically traced patients on ARV from their cohort in one IDP camp close to the facility ▸ Redistribution of supplies among districts to overcome local ARV shortages. ▸ International NGOs helped to transport drugs. ▸ Emergency shipment of paediatric ARV by Global Fund to overcome national shortage of paediatrics ARVs. ▸ Cross border coordination: UNHCR and partners organized continued access to ARV and PMTCT for Ivorian refugees in Liberia.		▸ Organize ARV dispensing integrated into general health care to avoid stigma ▸ Home dispensing of ARVs can be an alternative in specific situations with difficult access. ▸ Introduce patient passports and inform patients about their ARV regimen. ▸ Effective patient tracking during crisis can be very difficult.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED

Central African Republic	**Fragile unstable / post conflict settings**
	Prior to 2013 coup d'état
		▸ MSF integrated comprehensive PMTCT/ART in several regular projects in provinces, some with government supply some with MSF procured ARVs.
		▸ Preparedness plans in MSF–supported health facilities:
		  ▸ Dispensed higher number of ARVs and tail protection and pre–packed PMTCT bundles (for pregnancy, delivery, and exposed infant) when alert level raised.
		  ▸ Patient education.
		  ▸ Patient passports.
		  ▸ Facility buffer stocks.
		  ▸ MSF national buffer stocks or using exclusively NGO procured supplies.
		  ▸ Delegation of tasks to local staff in case of evacuation suspension of programme.
		  ▸ MSF transport of drugs and blood samples.
		▸ Recruitment of qualified staff.
		▸ Task shifting.
		▸ Simplification of PMTCT protocols => introduced option B (test and treat) as pilot in selected sites.
			▸ Projects in areas with risk of access problems due to violence.
			▸ Weak national health system/PMTCT programme.
			▸ Weak national supply chain.
			▸ Low number of qualified staff.
			▸ Activation of contingency plan was forgotten in one project after long period of stability.
				▸ It is feasible to introduce PMTCT in unstable settings.
				▸ Contingency plans for patient, facility and NGO level are important to prevent PMTCT treatment interruptions.
				▸ Risk for disruption must be monitored constantly and contingency plan activated accordingly.
				▸ Weak health systems need stronger partner support and back up.
				▸ Simplification of protocols and task shifting combined with contingency planning were key to success.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED
Central African Republic	**Acute conflict/ complex emergency** 2013 /2014	▸ Preparedness plans only in MSF–supported health facilities (see above). **Post March 2013 coup d'état** ▸ UN and NGOs supported transport of ARVs, and other essential commodities, where feasible ▸ Re–established access to PMTCT/ART with NGO support (MSF) in emergency project Bossangoa. Mobile phone tracing was successful. ▸ UNHCR carried out situational analysis and workshop for national action plan to re–establish access to ARVs in non–NGO supported sites. ▸ Feasibility assessment for PMTCT support in on–going primary and secondary health projects of two districts outside the capital for ECHO funded (Save the Children). **Post December 2013 crisis** ▸ Active case finding / information dissemination where to access ARVs, ANC for PMTCT in urban IDP camps in Bangui (local NGOs supported by UNICEF). ▸ Identification of health workers trained in ARV/PMTCT in IDP camps (MOH). ▸ Set up of ARV dispensing sites in IDP camps, integrated and specific clinics (MOH, NGOs?). ▸ Outside the capital, functional ARV sites supported by MSF dispensed ARVs also to IDPs who had moved to the catchment area. ▸ Stepwise inclusion of PMTCT enrolment once ANC was set up in IDP camps.	▸ Insecurity hampered access to health facilities. ▸ Patients and health workers fled to bush or to urban IDP camps in capital. ▸ No national HIV contingency plan. ▸ Massive treatment interruptions. ▸ Weak pre–existing health system and PMTCT programme. ▸ Breakdown of national health system, disrupted PMTCT/ART services in large parts of the country. ▸ National response capacity severely affected. ▸ National supply chain broken down. ▸ Reporting system broken down. ▸ Patient tracking impossible. ▸ No patient passports. ▸ Competing priorities with massive humanitarian needs. ▸ Coordination problems ▸ Delay in coordinated HIV response. ▸ Insufficient coverage of ARV dispensing in urban IDP camps.	▸ Absence of national HIV contingency plan and delayed integration of PMTCT/ART into humanitarian response can to massive treatment interruption. ▸ Weak health systems and absence of stronger HIV development actor support made national PMTCT/ART programme more vulnerable to massive disruption. ▸ Involvement of international humanitarian actors is needed for implementation when crisis severely affects national health system. ▸ MSF–supported PMTCT/ART facilities in provinces with own buffer stocks were better prepared for supply problems.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED

South Sudan	**Fragile/ unstable – post conflict setting** 2005 – end 2013	▸ MERLIN and MSF integrated successfully comprehensive PMTCT/ ART in their regular programmes.
		  ▸ Task shifting.
		  ▸ Mentor mothers
		  ▸ Contingency plans in MSF supported facilities.
		  ▸ MSF procures own ARVs, supplies in one project not on the government list of PMTCT/ART sites.
			▸ Very weak health system
			  ▸ Small number of qualified human resource people.
			  ▸ Weak supply system.
			  ▸ Low coverage of PMTCT/ART services.
			▸ Inter–communal clashes led to repeated short–term disruption of services.
			▸ MSF staff complaints about high workload in ANC caused by PMTCT integration for little outcome because prevalence in project area not very high.
				▸ It is feasible to introduce PMTCT in unstable settings with weak health systems.
				▸ Weak health systems need stronger partner support and back up.
				▸ NGOs can use government supply.
				▸ NGO funding can increase access to PMTCT/ART.
				▸ Health workers need to be convinced of importance of PMTCT to overcome resistance to integration of service package.

South Sudan	**Acute conflict/ complex emergency** 2013/2014	▸ Health cluster asked NGOs to integrate case finding and ARV dispensing in early emergency response in IDP camps using government ARVs.
		▸ MSF OCA strategy: screened of new arrivals at IDP camp whether on ARVs.
		▸ Four months after outset, ARV dispensing was installed in an IDP camp and the capital ARV clinic with MSF, IMC, WHO support.
		▸ National patient passports were introduced with partner support during crisis response (ICAP).
			▸ Disruption of services and problems of access due to insecurity in affected areas.
			▸ Massive displacement.
			▸ No national contingency plan.
			▸ Very weak health system
			  ▸ Very low number of qualified staff.
			  ▸ Weak supply management system.
			▸ Suspicion of massive treatment interruptions.
			▸ Competing priorities at outset with enormous humanitarian needs.
			▸ Access to rapid NGO funding for integration of PMTCT/ART.
				▸ Absence of national HIV contingency plan and delayed integration of PMTCT/ART into humanitarian response led to treatment interruption.
				▸ Weak health systems and absence of stronger HIV development actor support made national PMTCT/ART programme more vulnerable to disruption.

South Sudan	**Protracted refugee situation**	▸ UNHCR/IRC integrated PMTCT in Yida refugee camp health services for Sudanese refugees. ▸ Use of NGO funds for procurement because refugee camp health facility not supplied by government.	▸ Very weak government health system compounded by acute conflict created/added to difficult collaboration with MOH. ▸ Underfunded national HIV programme. ▸ Supply problems. ▸ Little HIV awareness => poor coverage of PMTCT. ▸ High mobility/spontaneous repatriation created/ added to lost to follow up.	▸ Weak health systems need strong partner support and NGO funding. ▸ Spontaneous repatriation makes patient tracking impossible.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED

Uganda	**Refugee influx** 2013/2014 from South Sudan 2013 from Democratic Republic of Congo	▸ UNHCR achieved national policy that grants free access to ARV/PMTCT for refugees.
		▸ **At reception in transit centres:**
		  ▸ Pregnant women are escorted to ANC, where they have access to PMTCT.
		  ▸ Red Cross volunteers /CHWs include Information on where to access ARVs in general orientation about health services.
		▸ **In permanent settlements:**
		  ▸ PMTCT integrated into camp health facilities creates high PMTCT coverage.
		  ▸ Camp health facilities are run by NGOs but accredited and supplied by MOH.
		▸ **Voluntary repatriation:**
		  ▸ Patients on PMTCT/ART receive three months ARV supply
		  ▸ UNHCR tries to refer to ARV–providing clinic in country of return.
			▸ Competing priorities during massive influxes.
			▸ National supply chain management problems.
			▸ Continuous access to ARV after repatriation not always ensured.
				▸ Refugee access to PMTCT is easy to organise:
				  ▸ where refugees accepted in national HIV programme;
				  ▸ in country with well–developed HIV programme; and
				  ▸ in country with strong development HIV partner support.
				▸ Accrediting refugee camp health facilities in national system facilitates commodity supply and staff allocation.
				▸ Continuous ARV access remains difficult in case of repatriation to country with low PMTCT/ART services coverage.

Ethiopia	**Refugee influx – camp** 2013/2014 from South Sudan, Gambella region	▸ UNHCR policy can facilitate access to continuous PMTCT/ART by referral to MOH. ▸ HTC integrated in emergency health care by MSF only four months after outset, not yet by ARRA (Ethiopian refugee agency).	▸ Competing priorities: four months after outset only one of the implementing NGOs (MSF) started HTC with own funding. ▸ No quickly accessible funding for PMTCT. Long delays to access PEPFAR funding.	▸ Easily accessible HIV funding is needed for emergency health actors. ▸ Humanitarian actors need UNHCR support to facilitate ARV dispensing from outset until pre–requirement for new PMTCT enrolment are met.

COUNTRY	SCENARIO	STRATEGIES	CHALLENGES	LESSONS LEARNED
Ethiopia	**Protracted refugee camp** Long–term refugees from South Sudan – Pugniudo	▸ UNHCR achieved national policy that grants free access to ARV/PMTCT for refugees. ▸ PEPFAR funding ▸ PMTCT fully integrated in camp health services run by implementing partner with good coverage. ▸ PMTCT demand creation integrated community–based family planning run by CHWs. ▸ Material incentives contribute to PMTCT adherence (Food support, delivery package).	▸ Spontaneous cross border movements create/add to lost to follow–up.	▸ PMTCT in protracted refugee setting can be easily set up with good outcomes when refugees are covered by national HIV programme and funding for PMTCT is accessible. ▸ Patients should be advised to request higher numbers of ARVs before planned cross border movements. ▸ Dispensing of extra supply of ARVs to patients as contingency for unforeseen cross border movement could reduce risk of treatment interruption.
Ethiopia	**Urban refugees – open setting** Refugees from Eritrea	▸ Refugees who live with host community are informed that they have access to government health facilities. PMTCT is integrated in ANC.	▸ Difficult to organize targeted demand creation.	▸ Difficult to attain good coverage in open refugee setting.

6.5 References

(Footnotes)

1 CD4 count ≤500 cells/mm3 or clinical stage 3 or 4 disease at the time of ART initiation or in accordance with national guidelines.

2 Patients who develop clinical or laboratory criteria indicating failure during pregnancy or the breastfeeding period should be assessed for second-line therapy.

3 Patients who develop clinical or laboratory criteria indicating failure during pregnancy or the breastfeeding period should be assessed for second-line therapy. In the case of breastfeeding stop ART one week after breastfeeding ends. In the case of replacement feeding stop ART after delivery.

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