



INTERNATIONAL
RESCUE
COMMITTEE

NOT ALL THAT BLEEDS IS EBOLA

How has the DRC Ebola outbreak impacted Sexual and Reproductive Health in North-Kivu?

ACKNOWLEDGEMENTS

This report was written by Gillian McKay & Benjamin Black (independent consultants) and Alice Janvrin (IRC). The report was reviewed by Suzanne Mbambu Kahamba, Erin Wheeler, Stacey Mearns, Kate Moger, Gina Bramucci, Kiryn Lanning, Kimja Vanderheyden (all IRC), and the UNICEF social sciences analysis cell. Guy Harling provided pro-bono data visualization support. Graphic design and copy editing was done by Alicia Adler (IRC).

The authors would like to thank the IRC field staff for their extensive logistical and organizational support that enabled so much work to be done in a very short time frame. We'd also like to thank the Ministry of Health of the DRC (specifically Dr. John Muzigue of the Provincial Office of Reproductive Health), and the EVD response workers for their support in conducting this assessment. Finally, and most importantly, our immense thanks go out to the women and men of the community, and the health workers of Goma, Butembo, Katwa, Kalunguta and Beni, who gave up their valuable time in responding to our questions and sharing their stories, ideas and challenges.

Citation

This document may be cited as: McKay G, Black B, Mbambu Kahamba S, Wheeler E, Mearns S, Janvrin A. Not All That Bleeds Is Ebola: How has the DRC Ebola outbreak impacted Sexual and Reproductive Health in North-Kivu? New York, USA: The International Rescue Committee 2019.

EXECUTIVE SUMMARY

Introduction: The 10th outbreak of Ebola Virus Disease (EVD) in the Democratic Republic of the Congo (DRC) started in August 2018 and has taken place in the conflict-affected provinces of North-Kivu and Ituri. There have been over 3300 cases and 2200 deaths in this outbreak, 56% of which have been among women and girls. Learning from the West African EVD outbreak tells us that such epidemics have a negative impact across the health system, and that sexual and reproductive health (SRH) services are generally disrupted leading to negative outcomes for women, men, girls and boys. To document the impacts of this outbreak on SRH services, the IRC undertook a programme assessment from October – December 2019, with the aim of developing concrete recommendations for improving SRH service provision and access during the current outbreak and for future outbreaks.

Methods: This assessment was conducted in Goma, Butembo, Katwa, Kalunguta and Beni health zones of North-Kivu, DRC. A total of 120 individuals were interviewed, 85 women and 35 men, either in focus groups, individual interviews or through targeted questions by email. The participants were selected purposively to ensure a mix of women, pregnant women and men from the community, health workers, EVD response workers, Tradi-practiciens and representatives from the Ministry of Health and Non-Governmental Organisations. A total of six routine health facilities were visited, of which three were assessed for their SRH preparedness, and one Ebola Treatment Centre (ETC) was visited. Routine SRH service indicators from the health information management system were mapped against EVD case counts in the four health zones where the qualitative data collection took place.

Findings: The EVD outbreak has had an impact on the provision of, and access to, SRH services in the affected health zones across all priority activities of the Minimum Initial Service Package (MISP) for Reproductive Health in Crises:

- 1). Coordination of the MISP: the setup of a separate Ebola coordination structure and the initial lack of coordination with the health cluster meant that SRH needs were not prioritized within the EVD response and SRH programs did not sufficiently adapt to the changing dynamics of the EVD outbreak and response.
- 2). Prevention of Sexual Violence and Care of Survivors: survivors may be more reluctant to come to the clinic for post-rape care for fear of being labeled a suspect case, as a result of bleeding, and transferred to an ETC.
- 3). Reduce transmission of HIV/sexually transmitted infections (STIs): HIV and STI services were less impacted by the EVD outbreak and response than other SRH services, possibly due to the implementation of the free health care initiative. The risk of EVD transmission from EVD survivors is a concern of some members of the community. There is uncertainty over how long EVD survivors can transmit the virus, this is reflected in confusing advice given by healthcare workers.

4). Prevent excess maternal and newborn morbidity and mortality: The EVD outbreak and response has created additional delays in the care women receive when experiencing pregnancy complications. This leads to adverse outcomes, especially in relation to spontaneous abortions and hemorrhage. The Ebola response architecture has resulted in a “five delay” model. This is related to overall confusion around how to apply the EVD case definition as “unexplained bleeding” and “spontaneous abortion” are both indications for immediate transfer to the ETC. Many obstetric complications are classified as meeting the EVD case definition, leading some women to be more reluctant to present to a public health facilities due to fear of being transferred to an ETC.

5). Prevention of unintended pregnancy: Many women and men agree that it is best to avoid pregnancy during the EVD outbreak and for women and girls to therefore continue seeking family planning services. However, contraception is not systematically offered to EVD survivors (beyond condoms) or providers at ETCs.

6). Plan for comprehensive SRH services: The EVD response has enabled some SRH services to improve, namely in relation to infection prevention and control at clinics. These improvements must be supported to continue following the outbreak.

7). Additional priority activity – Safe Abortion Care (SAC): There is limited knowledge among health workers (including Ebola response workers) of the legality of induced abortion. Safe abortion care services or referral is generally unavailable at ETCs and in most public health facilities.

Recommendations:

1. Sexual and reproductive health needs and services are to be embedded in the EVD response from the outset:

- 1.1 Activate the MISIP from the start of the outbreak response.
- 1.2 Mainstream SRH in EVD response and ensure EVD-sensitive SRH services across the health system.

2. Reduce delays at every stage of the patient journey, particularly for women experiencing obstetric complications, including complications from abortion:

- 2.1 Ensure appropriate triage process and application of the case definition for pregnant women experiencing complications that overlap with the EVD case definition.
- 2.2 Make EVD testing quick and easy, preferably on site, to reduce delays in the provision of obstetric care for pregnant women.
- 2.3 Ensure a universal level of infection prevention and control (IPC) for all procedures.
- 2.4 Ensure measures are in place to manage pregnancy complications in women who are either confirmed EVD cases, or who are awaiting their test results, making use of recent advances in EVD care to provide the safest options for women and their healthcare workers.

2.5 Provide consistent communication to encourage early health seeking. These messages should emphasize that early presentation improves clinical outcomes in both EVD and non-EVD conditions, and there should be appropriate policies to incentivize this (i.e. free health care for all health conditions)

3. Support individuals and communities to mitigate SRH risks posed during and after EVD epidemic:

- 3.1. Help women who choose to delay pregnancy by offering comprehensive contraceptive services and information to clients and providers at public health facilities and TC/ETCs.
- 3.2. Reduce unintended pregnancies and increase access to comprehensive abortion care at public health facilities and TC/ETCs for women and girls who choose it.
- 3.3. Prevent transmission and reduce morbidity from HIV and other STIs (including sexual EVD transmission) through the availability of uninterrupted HIV treatment, including at TC/ETCs, and increased provision and availability of condoms for EVD survivors and the general population.

4. Formulate SRH guidelines for the EVD context involving experts in all relevant fields. Guidance for the delivery of SRH services should include the TC/ETC, health facility and community levels in the context of an EVD outbreak. The most recent evidence and treatment modalities should be considered, and knowledge shared between responding organizations and disciplines.

SOMMAIRE EXÉCUTIF

Introduction : La 10ème épidémie de la Maladie à Virus Ebola (MVE) en République Démocratique du Congo a commencé en août 2018 et a eu lieu dans les provinces du Nord-Kivu et de l'Ituri touchées par un conflit depuis des années. Il y a eu plus de 3300 cas et 2200 décès dans cette épidémie, dont 57% parmi les femmes et les filles. Les leçons tirées de l'épidémie MVE en Afrique de l'Ouest nous apprennent que de telles épidémies ont des répercussions négatives sur l'ensemble du système sanitaire et que les services de santé sexuelle et reproductive (SSR) sont généralement perturbés, ce qui entraîne des conséquences négatives pour les femmes, les hommes, les filles et les garçons. Pour documenter les impacts de cette épidémie sur les services de SSR, l'IRC a entrepris une évaluation programmatique d'octobre à décembre 2019, dans le but d'élaborer des recommandations concrètes pour améliorer la prestation et l'accès aux services de SSR pour cette épidémie, et celles à venir.

Méthodes : Cette évaluation a eu lieu dans les zones de santé de Goma, Butembo, Katwa, Kalunguta et Beni au Nord-Kivu, RDC. Au total, 120 personnes ont été interviewées, 85 femmes et 35 hommes, soit dans le cadre de groupes de discussion, d'entretiens individuels ou de questions ciblées par email. Les participants ont été sélectionnés en fonction de l'objectif visé, afin d'assurer un mélange de femmes, de femmes enceintes et d'hommes de la communauté, d'agents de santé, d'agents d'intervention MVE, de Tradi-practiciens et de représentants du ministère de la Santé et d'organisations non gouvernementales. Au total, six structures sanitaires de routines ont été visitées dont trois ont fait l'objet d'une évaluation de leur état de préparation en matière de SSR, et un Centre de Traitement Ebola (CTE) a été visité. Les indicateurs des services routiniers de SSR pris du système national de l'information sanitaire (SNIS) ont été mis en correspondance avec le nombre de cas de MVE dans les quatre zones sanitaires où la collecte de données qualitatives a eu lieu.

Résultats : L'épidémie de la MVE a eu un impact sur l'offre et l'accès aux services de SSR dans les zones sanitaires touchées par la MVE à travers toutes les activités prioritaires du dispositif minimum d'urgence de soins de santé de la reproduction en situation de crise :

1. **Coordination :** la mise en place d'une structure de coordination séparée pour Ebola et le manque initial de coordination avec le Cluster Santé signifie que les besoins en terme de SSR n'ont pas été priorités dans la réponse Ebola et les programmes SSR n'ont pas suffisamment adaptés leur approches aux changements des dynamiques créé par l'épidémie et la réponse Ebola.
2. **Prévention de la violence sexuelle et soins aux survivantes :** les survivantes peuvent être réticentes de se rendre à la clinique pour des soins post-viol de peur d'être libellées cas suspecte Ebola en cas de saignements et d'être reférées au CTE.
3. **Réduire la transmission du VIH et des IST :** Les services liés au VIH et aux IST ont été moins touchés que les autres services de SSR, peut-être en raison de la mise en œuvre de la gratuité des soins de santé. Le risque de transmission de la MVE par les survivants de la MVE est une préoccupation de certains membres de la communauté et les directives sur la durée pendant laquelle les survivants de la MVE peuvent transmettre le virus sont confuses, ce qui est refléter par les conseils confus offerts par les prestataires.

4. Prévenir la morbidité et mortalité maternelle et néonatale : La flambée de la MVE et les mesures prises pour y faire face ont entraîné des retards supplémentaires dans la prise en charge des femmes présentant une complication sur grossesse, ce qui a entraîné des conséquences néfastes, en particulier en ce qui concerne les avortements spontanés et les hémorragies. L'architecture de la réponse Ebola résulte dans un modèle de « cinq retards ». Cela est lié à la confusion générale quant à la façon d'appliquer la définition de cas de la MVE, car les « saignements inexplicables » et les « avortements spontanés » sont des indications pour un transfert immédiat vers le CTE. La plupart des cas de complications obstétriques sont classifiés comme répondant à la définition des cas, ce qui entraîne certaines femmes à éviter de se présenter aux formations sanitaires, de peur d'être transférées à la CTE.

5. Prévention des grossesses non désirées : Les femmes et les hommes s'entendent pour dire qu'il est préférable d'éviter une grossesse pendant l'épidémie et les femmes et les filles continuent à chercher des services de PF pendant l'épidémie. Cependant, le service de contraception n'est pas systématiquement offert aux survivants de MVE (au-delà du préservatif) ou aux prestataires aux CTE.

6. Planifier des services complets de SSR : La réponse de la MVE a permis d'améliorer certains services de SSR, notamment en ce qui concerne la prévention et le contrôle des infections dans les cliniques. Ces améliorations doivent être soutenues pour se poursuivre au-delà de cette épidémie.

7. Activité prioritaire supplémentaire : Soins d'avortements sécurisés : Les connaissances liées à la légalité des soins d'avortements sécurisés restent limitées chez les prestataires de santé (y compris les travailleurs de la réponse MVE). Les services de soins d'avortements sécurisés ou les références à ces services ne sont généralement pas offerts dans les CTE ou la plupart des structures sanitaires publiques.

Recommandations : Quatre recommandations clés ont été formulées :

1. Les considérations relatives à la santé sexuelle et reproductive doivent être intégrées dès le début d'une réponse :

- 1.1. Activer le DMU dès le début de l'intervention.
- 1.2. Intégrer la SSR dans la réponse MVE et assurer des services de SSR sensibles à la MVE dans le système sanitaire.

2. Réduire les délais à chaque étape du parcours de la patiente, particulièrement pour les femmes ayant une complication obstétrique, y compris les complications d'avortement :

- 2.1 Assurer un processus de triage rapide et approprié et une application appropriée de la définition de cas pour les femmes enceintes qui ont une complication qui ressemble aux signes et symptômes de la MVE.
- 2.2 Rendre le test de dépistage de la MVE rapide et facile, de préférence sur le sites-mêmes, pour réduire les délais dans l'offre de soins obstétriques pour les femmes enceintes.
- 2.3 Assurer un niveau universel de PCI pour toutes les interventions
- 2.4 Assurer que les standards de l'OMS des soins obstétriques d'urgences sont disponibles et offerts dans les délais au sein des CT/CTE pour les femmes qui attendent le résultat, ou qui sont confirmées positives, du test Ebola.

2.5 Offrir une communication cohérente et consistante pour encourager une recherche de soins dans les temps. Ces messages devraient mettre l'accent sur l'importance de se présenter tôt aux structures sanitaires pour améliorer le résultat clinique aussi bien pour l'Ebola que pour les conditions non-Ebola ; assurer aussi une politique adéquat pour encourager cela (la gratuité des soins pour toutes conditions)

3. Aider les individus et les communautés à atténuer les risques de SSR posés pendant et après l'épidémie de MVE :

3.1. Aider les femmes qui choisissent de retarder leur grossesse en offrant des services compréhensifs de contraceptions avec l'information aux clients et prestataires dans les structures sanitaires étatiques et les CT/CTE.

3.2. Réduire le nombre de grossesses non désirées et accroître l'accès à des soins d'avortement sécurisés dans les structures sanitaires étatiques et les CT/CTE pour les femmes qui optent pour ce service.

3.3 Prévenir la transmission et réduire la morbidité due au VIH et aux autres IST (y compris la transmission sexuelle de la MVE) en évitant l'interruption du traitement du VIH, y compris dans les CT/CTE, et en augmentant l'offre et l'accès des préservatifs pour les survivants d'Ebola et la population en générale.

4. Formuler des guidelines SSR pour le contexte Ebola avec la participation d'experts de ces secteurs. Les orientations pour l'offre de services SSR devraient inclure les CT/CTE, les structures sanitaires et la communauté dans le contexte d'une épidémie Ebola. L'évidences et les modalités de traitements les plus récentes devraient être considérées, et les connaissances partagées entre organisations et secteurs.

ACRONYMS AND ABBREVIATIONS

ANC	Antenatal care
CASS	Cellule d'Analyse des Sciences Sociales (social sciences analysis cell)
DHIS	District Health Information System
DRC	Democratic Republic of the Congo
ETC	Ebola Treatment Centre
EBV	Ebola Virus Disease
FGD	Focus Group Discussion
FP	Family planning
HCW	Health Care Worker
IPC	Infection Prevention and Control
IRC	International Rescue Committee
KII	Key Informant Interview
MISP	Minimum Initial Service Package (of reproductive health in humanitarian settings)
MoH	Ministry of Health
MVA	Manual Vacuum Aspiration
NGO	Non-Governmental Organization
PAC	Post Abortion Care
PPE	Personal Protective Equipment
RDT	Rapid Diagnostic Test
RT-PCR	Reverse Transcription - Polymerase Chain Reaction
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
TC	Transit Centre
UN	United Nations
UNFPA	UN Population Fund
WHO	World Health Organization

GLOSSARY

Abortion	for the purpose of this report “abortion” is used to refer to spontaneous abortion and induced abortion (using safe or unsafe methods). Where the specific type of abortion is known it has been specified, however in most cases it was not possible to reasonably ascertain the cause.
Case Definition	the grouping of signs, symptoms and case history that makes an individual an EVD “suspect case.”
Confirmed Case	an individual who has a positive test for EVD.
EVD response (or Response)	refers to the architecture of the EVD-specific activities aiming to stop the transmission of EVD. The EVD response is made up of a complex coordination structure with distinct commissions that lead thematic activities (i.e. Surveillance, IPC, Case Management, Safe & Dignified Burials and many more).
EVD Survivor	an individual who had a confirmed case of EVD but who survived and has had two negative tests since.
Ebola Treatment Centre (ETC)	a health facility that specializes in the isolation and care of EVD patients.
HCW	a health care professional (doctor, nurse, midwife) who works in either routine or Ebola health care facilities.
MISP	a set of priority SRH activities that are most important in preventing morbidity and mortality, while protecting the right to life with dignity, particularly among women and girls, in humanitarian settings.
Non-Case	a person who does not meet the EVD case definition.
RECOS	“Relais Communautaires” or community health workers (CHWs): women and men from the community who create a link between the health facility and the community, sensitizing and referring men and women for services.
Routine healthcare facility	non-Ebola healthcare, at primary, secondary and tertiary levels. Can be public or private.
Suspect Case	an individual who meets the case definition but does not yet have either one positive test or two negative tests for EVD.
Threatened Abortion	bleeding in early pregnancy which did not result in expulsion of the pregnancy.
Transit Centre	a specialized health facility where “suspect” cases of EVD are isolated and tested. From the TC they will either be transferred to the ETC if confirmed, to the routine (non-Ebola) hospital if they need additional healthcare, or they will go home.
Tradi-Praticien:	traditional medicine practitioner, can work in either their own clinic, or as part of a private routine healthcare facility with modern health care workers.
Triage	the process whereby trained health care workers ask questions and screen people entering the health facility to identify those that meet the case definition. This tends to take place in a specially built space at the entrance to health facilities.
Triage Staff	health workers who work in the triage space outside of routine healthcare facilities. Can be either employed directly by the EVD response or by the health facility itself. Triage staff are trained, supported and usually supervised by the surveillance and IPC pillars of the Response.



TABLE OF CONTENTS

Acknowledgements	I
Executive Summary	II
Sommaire Exécutif	V
Acronymns	VIII
Glossary	IX
Table of Contents	XI
Introduction	1
Methods	3
Study Population	3
Approvals and Consent	4
Assessment Findings	7
Quantitative Results	7
Cross-cutting findings	11
Findings on the Impact of EVD on SRH	17
MISP Activity: Coordination	17
Prevention of Sexual Violence (and Care of Survivors)	17
Reduce Transmission of HIV & other STIs	18
Prevent excess maternal and newborn morbidity & mortality	18
Recommendations	31
1: Sexual and reproductive health considerations are to be embedded in the EVD response from the outset	31
2: Reduce delays at every stage of the patient journey	32
3: Support individuals and communities to mitigate SRH risks posed during and after EVD epidemic	35
4: Formulation of guidelines with expert involvement	36
Limitations	37
Conclusions	39



INTRODUCTION

The current outbreak of Ebola Virus Disease (EVD) continues to impact the populations of the North Kivu and Ituri provinces of the Democratic Republic of the Congo (DRC). It is taking place in a conflict-affected and unstable region of the world, exacerbating existing challenges with the delivery of basic health services, including Sexual and Reproductive Health (SRH).

The outbreak of EVD was declared by the Ministry of Health (MoH) on the 1st of August, 2018, and as of the time of writing of this report (December 10, 2019) there have been 3324 confirmed cases and 2209 deaths¹. These figures make this outbreak the second largest known outbreak of EVD, and the largest of the DRC's 10 recorded outbreaks of the virus. The social, political and economic complexities in the affected region have hampered EVD response efforts. North Kivu and Ituri provinces have suffered more than two decades of severe insecurity and violence, with more than 100 armed groups active in the region, contributing to frequent displacements of civilian populations, economic instability and outbreaks of infectious disease including measles, cholera and plague².

Women and girls are particularly affected by the instability in the region, where sexual and domestic violence is prevalent and normalized. Women and girls are also disproportionately affected by the impacts of the EVD outbreak due to their roles as caregivers of the sick, and due to the added burdens of maintaining the home free from illness³. Furthermore, pregnant and lactating women (and infants under 1 year of age) were excluded from the EVD ring-vaccination trial from August 2018 – June 2019, missing out on the protective effects of this new technology⁴.

Learning from West Africa's large, multi-country EVD outbreak of 2014-2016 tells us that there were significant impacts on SRH, particularly in the early stages of that outbreak, largely related to health facility closures⁵. In Sierra Leone alone, one study estimated there were an additional 3600 maternal deaths, neonatal deaths and stillbirths related to the decrease in health service utilization during the EVD outbreak⁶. Another study from Guinea found a decrease of 51% in Family Planning (FP) visits during the outbreak⁷.

The current DRC EVD outbreak response has learned from West Africa in several significant ways – with new biomedical technologies, a greater focus on engaging with the social sciences to learn from communities what they need from the response, and new approaches to care of cases including decentralized testing and improved burial practices. However, the lessons from West Africa, with regards to how to maintain access to and utilization of SRH services during an EVD outbreak, have been less systematically applied.

1. World Health Organization. EVD DRC External SitRep Dec 10, 2019.

2. Ilunga Kalenga, O., Moeti, M., Sparrow, A., Nguyen, V.K., Lucey, D. and Ghebreyesus, T.A., 2019. The ongoing Ebola Epidemic in the Democratic Republic of Congo, 2018–2019. *New England Journal of Medicine*.

3. For more evidence of the disproportionate impact of the EVD outbreak on women and girls, see IRC's report from March 2019 titled "Everything on her shoulders: rapid assessment on gender and violence against women and girls in the Ebola outbreak in Beni, DRC. March 15, 2019.

4. Rasmussen S, Jamieson D. Ebola vaccine for pregnant women: one step closer but still more to go. *Stat News*. June 13, 2019.

5. Figueroa, C.A., Linhart, C.L., Beckley, W. and Pardosi, J.F., 2018. Maternal mortality in Sierra Leone: from civil war to Ebola and the Sustainable Development Goals.

6. Sochas, L., Channon, A.A. and Nam, S., 2017. Counting indirect crisis-related deaths in the context of a low-resilience health system: the case of maternal and neonatal health during the EVD epidemic in Sierra Leone. *Health policy and planning*, 32(suppl_3), pp.iii32-iii39.

7. Camara, B.S., Delamou, A., Diro, E., Béavogui, A.H., El Ayadi, A.M., Sidibé, S., Grovogui, F.M., Takarinda, K.C., Bouedouno, P., Sandouno, S.D. and Okumura, J., 2017. Effect of the 2014/2015 EVD outbreak on reproductive health services in a rural district of Guinea: an ecological study. *Transactions of The Royal Society of Tropical Medicine and Hygiene*, 111(1), pp.22-29.

A cornerstone of ending an EVD epidemic is to break the chain of transmission. This relies, in part, on the early identification of anyone exhibiting signs suggestive of EVD. The EVD case definition used during an outbreak is broad and non-specific⁸ This reflects the vague nature of EVD's clinical presentation which is similar to other common ailments such as malaria, influenza or typhoid. The triage process aims to identify persons meeting the case definition, and once suspected of having EVD, to arrange for patient isolation and testing. Making these decisions at triage is a stressful and challenging process for both the patient and healthcare worker (HCW). Patient isolation can lead to limited and/or delayed access to non-EVD healthcare procedures.

The defining symptoms used for EVD are also closely aligned to common symptoms of pregnancy and other SRH conditions⁹. For a woman who needs urgent treatment, which may include invasive procedures, the triage process can become a gauntlet. The HCWs can become the obstacles and the Response perceived to be the enemy. Women, their families and HCWs must all make difficult decisions on when, for whom and how SRH care can be safely provided.

The interactions between SRH and EVD are not always obvious, but they can be pervasive and highly complex. These interactions can range from the increased stigma surrounding commonly occurring bleeding (menstruation, obstetric complications, FP side effects, etc.), to increased delays in the management of pregnancy complications due to the EVD response architecture, to women seeking to delay pregnancy during active outbreaks resulting in an increased demand for FP services, to concerns that women choose to self-manage abortions at home to avoid being sent away to ETCs, to the specific health needs of pregnant women admitted to the EVD Treatment Centers (ETCs). The current DRC EVD outbreak response has learned from West Africa in several significant ways – with new biomedical technologies, a greater focus on engaging with the social sciences to learn from communities what they need from the response, and new approaches to care of cases including decentralized testing and improved burial practices. However, the lessons from West Africa, with regards to how to maintain access to and utilization of SRH services during an EVD outbreak, have been less systematically applied.

⁸ Ministère de la Santé. Définitions de Cas de Maladie à Virus Ebola : à partir du mois de Mai 2018. Kinshasa, DRC; 2018.

⁹ Black BO. Obstetrics in the time of Ebola: challenges and dilemmas in providing lifesaving care during a deadly epidemic. *Bjog*. 2015;122(3):284-6.

BOX 1: PREGNANCY AND EVD - WHAT WE KNOW AND WHAT WE DON'T

Complications of pregnancy can be difficult to distinguish from the presenting symptoms of EVD; similarly EVD in pregnancy can present a similar way to common obstetric complications. When a pregnant woman survives EVD, the continuing pregnancy (fetus, placenta and amniotic fluid) may remain EVD-positive.

Prior to the West African epidemic, the mortality rate of pregnant women was estimated to be up to 90%^{10 11} and 100% among newborns¹². Evidence from the West African epidemic demonstrated that with access to supportive treatment, the survival rate among pregnant women was reportedly 46.8%, which was statistically no different from all women of reproductive age^{13 14}. From West Africa, there was one surviving newborn (born EVD-positive and given experimental treatments)¹⁵.

With the availability of vaccines, curative treatments and more intense optimized supportive care in the DRC, the EVD epidemic has changed the clinical journey of pregnant women and their fetuses. As knowledge of EVD increases and clinical management evolves, our learning of how to safely look after this patient group will continue to develop.

To inform future SRH programming (including the implementation of the Interagency Working Group on reproductive health in crises' Minimum Initial Service Package (MISP¹⁶) in EVD outbreaks, the International Rescue Committee (IRC) commissioned an assessment of the effects of EVD and the EVD Response on SRH needs and services in the affected region. This assessment took place in Goma, Butembo, Katwa, Kalunguta and Beni health zones of North-Kivu in October and November 2019.

Methods

This predominantly qualitative assessment took place for two weeks in October and November 2019, in the health zones of Goma, Butembo, Katwa, Kalunguta and Beni. The methodology consisted of Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), health facility assessments and a limited analysis of routinely collected quantitative data.

Study Population

The study population for this assessment was determined to be women and men of reproductive age, HCWs and stakeholders living/working in health zones where the IRC implements programming. Stakeholders who work in the SRH field in non-IRC areas of North-Kivu were also interviewed.

10 World Health Organization. Ebola hemorrhagic fever in Zaire, 1976. *Bull World Health Organ* 1978; 56: 271-293.

11 Mupapa K, Mukundu W, Bwaka MA, et al. Ebola hemorrhagic fever and pregnancy. *J Infect Dis* 1999; 179(Suppl 1): S11-S12.

12 Black B, Caluwaerts S, Achar J. Ebola viral disease and pregnancy. *Obstetric Medicine*. 2015;8(3):108-113.

13. Caluwaerts S, Van Herp M, Cuesta JG, Crestani R, Ronsse A, Lagrou D, et al. Pregnancy and Ebola: survival outcomes for pregnant women admitted to MSF Ebola treatment centres in the West Africa outbreak. [Meeting Abstract; not peer reviewed]. *F1000Res*. 2018;7:945. <https://doi.org/10.7490/f1000research.1115707.1>

14. Henwood P, Bebell L, Roshania R, Wolfman V, Mallow M, Kalyanpur A et al. Ebola Virus Disease and Pregnancy: A Retrospective Cohort Study of Patients Managed at 5 Ebola Treatment Units in West Africa. *Clinical Infectious Diseases*. 2017;65(2):292-299.

15. Dörnemann J, Burzio C, Ronsse A, Sprecher A, De Clerck H, Van Herp M et al. First Newborn Baby to Receive Experimental Therapies Survives Ebola Virus Disease. *Journal of Infectious Diseases*. 2017;;jiv493.

16. Inter-Agency Working Group on Reproductive Health in Crises. Interagency field manual on reproductive health in humanitarian settings 2018 [Available from: <https://iawg.wpengine.com/wp-content/uploads/2019/07/IAFM-English.pdf>].

Approvals and Consent

This assessment was approved by the reproductive health lead from the provincial Department of Health, and was locally approved by the health zones' central medical offices. Prior to conducting any interviews or focus groups, the assessment team explained the purpose of the study, explained that participation was entirely voluntary, and requested verbal consent. For young people under the age of 18, the verbal consent of a responsible caregiver was assured prior to starting any discussion.

Qualitative data collection

Focus group and interview topic guides were developed and structured around the MISP priority activities and key EVD response activities. The topic guides evolved as the assessment team adapted questions based on learning from accumulated experience collecting data. A participatory activity asking women to prioritize their concerns was also added. The health facility assessment was adapted from a standard IRC assessment tool with added EVD-sensitive questions. These tools are available on request.

The majority of the qualitative data collection took place over 10 days by a team made up of three women – two international and one national. A total of 17 Focus Group Discussions (FGD) (N=101) and 17 Key Informant Interviews (KII) took place (see below table for the summary of data collection activities). Some interviewees were contacted by email as it was not possible to engage in person or over the phone.

FGD and KII participants were selected purposively based on pre-defined criteria:

1. Women of reproductive age and men over 18, living in the catchment area of the targeted healthcare facility, willing to share their experiences with the assessment team;
2. Healthcare workers who offered SRH services within routine health facilities before and/or during the EVD outbreak and Tradi-practiciens who offer traditional health services in the outbreak area.
3. Ebola responders working in ETCs, TCs, Triage or Coordination.
4. Representatives of MoH or NGOs that provide SRH programming in the Ebola affected health zones.

The aim was to access as diverse a field of perspectives as possible across the areas of SRH service delivery and the EVD response. Adaptations to the initial assessment plan (i.e. inclusion of women staying at health facility associated maternity waiting homes and the inclusion of interviews in an additional primary healthcare facility) took place regularly through ongoing discussions amongst the assessment team based on reflexive analysis of emerging themes.

The routine health facilities where the majority of assessment activities took place were a combination of four IRC-supported health facilities and two that were not supported by IRC, ensuring a mix of primary and secondary levels of care. Assessment activities were also conducted at EVD specific structures (an ETC and an Ebola emergency operations centre), at a women's safe space, and at two Tradi-practicien clinics.

FGDs were held in either French, Kiswahili or local language (Ki-Nande) per the preference of the participants. KIIs were held either in French or English, again per the preference of the interviewee. Once permission was granted, most FGDs and KIIs were recorded on an encrypted recorder. At the end of the day, these recordings were rapidly transcribed into English or French. Quotes from transcripts have been edited for length and clarity.

Qualitative data analysis

The MISP for Reproductive Health designates six priority activities to reduce SRH morbidity and mortality during a humanitarian crisis. These served as the base framework for analysis for this research (using the framework method¹⁷).

MISP priority activities:

1. Identification of an agency to lead the implementation of the MISP
 2. Prevent and manage the consequences of sexual violence
 3. Reduce transmission, mortality and morbidity from HIV and other STIs
 4. Prevent excess maternal and newborn morbidity and mortality.
 5. Prevent unintended pregnancies
 6. Plan for comprehensive SRH integrated in primary healthcare services
- Other sexual and reproductive health priority: Safe abortion care should be made available to the full extent of the law.

Data was analysed by rereading transcripts, group mapping connections between emerging ideas and themes, reflecting on SRH in past outbreaks and other humanitarian crises, and through conversations with response staff external to the assessment. Key themes that emerged that transcend all MISP activities were thematically grouped and have been presented as cross-cutting issues. Health facility assessments were used largely to triangulate findings from qualitative interviews and focus group discussions.

Quantitative data collection & analysis

EVD case counts by health zone were downloaded from the open-source HDX platform¹⁸. SRH routinely collected quantitative data was accessed from the provincial department of health in Goma, taken from the District Health Information System (DHIS). Having received this quantitative data for 2018 and 2019, graphical representations were generated using R software to show the effect of the EVD case counts on utilization of public health services. Graphs were only produced for the four affected health zones where the majority of this assessment took place (Butembo, Katwa, Kalunguta and Beni).

The table describing the number of pregnant women and their EVD test result admitted to TC/ETCs was developed based on a database received directly from the EVD response epidemiological cell.

17. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC medical research methodology*. 2013;13(1):117.

18. OCHA Humanitarian Data Exchange. Ebola Cases and Deaths in the North-Kivu Ebola Outbreak in the Democratic Republic of the Congo (DRC) 2019 [Available from: <https://>

	No.	Date	Health Zone	Location	Participants	Participants		Total
						F	M	
FGDS						F	M	
	1	29.10.2019	Kalunguta	Primary health care facility	men from the community		5	5
	2	29.10.2019	Kalunguta	Primary health care facility	women from the community	9		9
	3	29.10.2019	Kalunguta	Primary health care facility	HCWS	2	1	3
	4	30.10.2019	Kalunguta	Secondary health care facility	men from the community		4	4
	5	30.10.2019	Kalunguta	Secondary health care facility	pregnant women	7		7
	6	30.10.2019	Kalunguta	Secondary health care facility	women from the community	10		10
	7	30.10.2019	Kalunguta	Secondary health care facility	HCWS		2	2
	8	31.10.2019	Katwa	Secondary health care facility	pregnant women	20		20
	9	31.10.2019	Katwa	Secondary health care facility	Triage staff	2	1	3
	10	01.11.2019	Kalunguta	Secondary health care facility	pregnant women	9		9
	11	01.11.2019	Kalunguta	Secondary health care facility	HCWs	1	2	3
	12	02.11.2019	Beni	Secondary health care facility	women from the community	13		13
	13	02.11.2019	Kanzuk-inzuli	Primary health care facility	HCWs	3	1	4
	14	02.11.2019	Beni	Ebola case management centre	case management HCWs	2	1	3
	15	04.11.2019	Beni	Tradi-Practicien clinic	Tradi-Practicis		3	3
	16	04.11.2019	Kalunguta	Primary health care facility	HCWs		3	3
	17	04.11.2019	Beni	office	case management HCWs		2	2
					Sub-totals	78	25	103
KII						F	M	
	1	30.10.2019	kalunguta	Secondary health care facility	Doctor		1	1
	2	31.10.2019	Butembo	Secondary health care facility	Pregnant woman sent to ETC as a suspect case	1		1
	3	31.10.2019	Butembo	Office	Ebola response IPC coordinator		1	1
	4	31.10.2019	Skype	Office	NGO gender coordinator	1		1
	5	31.10.2019	katwa		Doctor	1		1
	6	01.11.2019	kalunguta	Secondary health care facility	Doctor		1	1
	7	01.11.2019	Butembo	Office	NGO reproductive nurse	1		1
	8	02.11.2019	Beni	Ebola case management centre	Case management HCW		1	1
	9	04.11.2019	Beni	Tradi-Practicien clinic	Tradi-Practicien		1	1
	10	05.11.2019	Skype	Office	NGO reproductive Coordinator			1
	11	05.11.2019	Email	Office	NGO reproductive Coordinator	1	1	1
	12	06.11.2019	Goma	Office	MOH reproductive Coordinator		1	1
	13	06.11.2019	Goma	Office	UN Agency Coordinator		1	1
	14	10.11.2019	Skype	Office	NGO Ebola response HCW	1		1
	15	10.11.2019	Skype	Office	NGO & UN Agency Ebola Response HCW	1		1
	16	17.11.2019	Beni	Office	NGO reproductive manager		1	1
	17	05.12.2019	Skype	Office	NGO Ebola response coordinator		1	1
					Subtotal	7	10	17
					Total	85	35	120
health facility assessment	1	29.10.2019		Primary health care facility	IRC Supported			
	2	30.10.2019		Secondary health care facility	IRC Supported			
	3	31.10.2019		Secondary health care facility	Not IRC Supported			

Table 1: FGDs, KIIs & Facility Assessments

ASSESSMENT FINDINGS

Quantitative data collection & analysis

EVD case counts by health zone were downloaded from the open-source HDX platform. SRH routinely collected quantitative data was accessed from the provincial department of health in Goma, taken from the District Health Information System (DHIS). Having received this quantitative data for 2018 and 2019, graphical representations were generated using R software to show the effect of the EVD case counts on utilization of public health services. Graphs were only produced for the four affected health zones where the majority of this assessment took place (Butembo, Katwa, Kalunguta and Beni).

The table describing the number of pregnant women and their EVD test result admitted to TC/ETCs was developed based on a database received directly from the EVD response epidemiological cell.



Figure 1: SRH services and EVD case counts: Butembo & Katwa

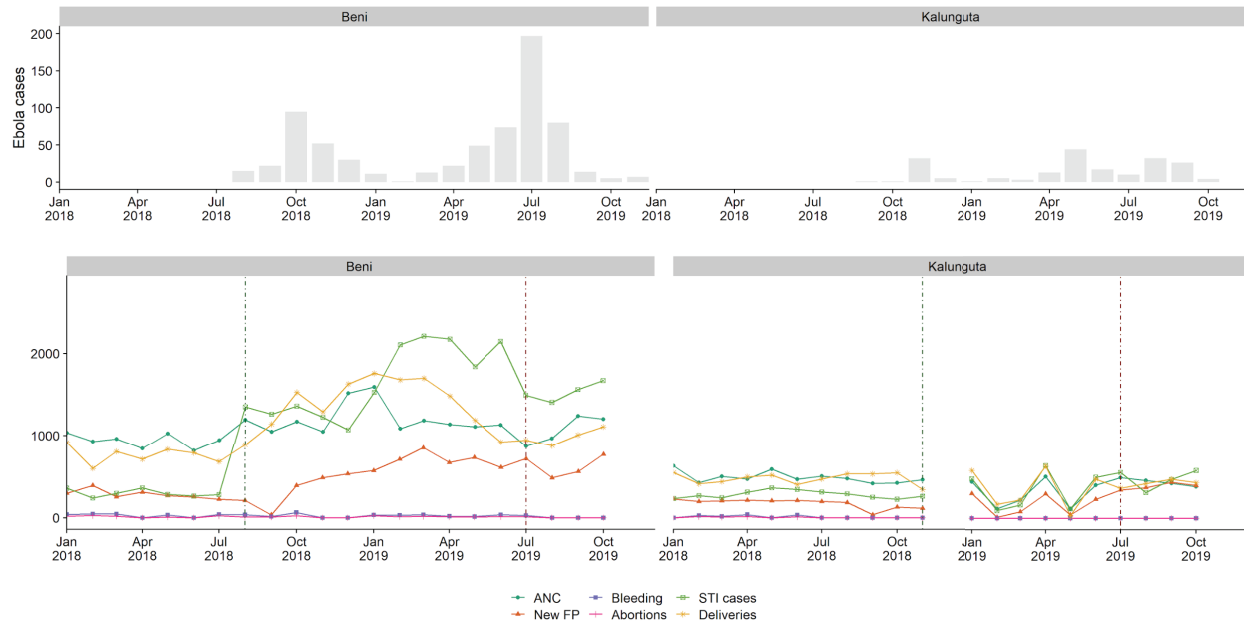


Figure 2: SRH services and EVD case counts: Beni & Kalunguta

These graphs describe key SRH indicators (from public facilities) mapped against the Ebola case counts. The EVD epidemic was announced on 1st August 2018, however SRH indicators remained fairly stable until the launch of the free health care initiative¹⁹ that started in Beni in August 2018, and in the other districts in November 2019 (shown as dotted lines in the graphs). Since the start of this initiative, SRH indicators have fluctuated as some services were included and then withdrawn, while others were always or never included.

Overall trends observed: recorded visits for deliveries, ANC and STIs increased at the onset of this initiative, however ANC and deliveries dropped at times of peak EVD cases in Beni, Butembo and Katwa. Visits for FP, vaginal bleeding and abortions (spontaneous and induced) remained constant, with a slight increase in new FP users in Beni and Kalunguta (the latter likely explained by the IRC FP project that started in Kalunguta in 2019).

19. In the graphs the start of the free health care initiative is marked with a green line, and with a red line when it ended.

TABLE 2: EVD SUSPECT & CONFIRMED CASES ADMITTED TO TC/ETCS

Total Cases (N=33583)		Percentage
Total cases admitted to TC/ETC	33583	
Confirmed EVD cases	2609	8%
Pregnant women	426	1%
Results: Pregnant Women (N=426)		
Confirmed	66	15%
Not a case	356	84%
Unknown or suspect case	4	1%
Results: Pregnant Women (N=426)		
Died	35	53%
Recovered	29	44%
Unknown	2	3%

A review of the EVD response TC/ETC database (from August 2018-October 2019) showed that the number of pregnant women represented 1% (426) of the total population presenting to TC/ETCs (33,583). Of these, 15% (66) were confirmed EVD cases, a higher percentage than the overall population at 8% (2,609). Of the confirmed pregnant women, 66 died of EVD, representing a 53% intra-TC/ETC mortality rate and higher than the 39% reported in the general population (from the same dataset).

The overall mortality for confirmed EVD cases in this outbreak has been recorded at 66%, as this includes EVD cases who die in the community. Per the WHO external situation report, 56% of EVD cases have been among women and girls²⁰.

20. World Health Organization. EVD DRC External SitRep Dec 10, 2019 2019.



CROSS-CUTTING FINDINGS



“My problems are mostly related to the insecurity”

While the EVD outbreak is a concern in some women’s lives, it was not the main concern for many of those who participated in a prioritization exercise. An interactive activity with a community women’s group in Beni found that when asked to free-list their concerns and then rank them, EVD was only the 4th most important issue in their daily lives. It was superseded by access to health care, household finances, and access to education. When EVD was discussed following this exercise, women described that access to care had become more difficult due to the EVD outbreak, as funds were scarce (this was also attributed to the ongoing conflict), insecurity around health facilities was more prevalent resulting in some clinics being closed, and costs of transport had increased.

Insecurity in the EVD-affected areas has increased due to the complex interactions of the EVD response, existing armed groups and high levels of distrust of the local population towards outside interventions²¹. Violent events directed at the EVD response have ranged from rocks being thrown at response vehicles, to burning of visible EVD architecture (TC/ETCs and triages), to the murder of response workers.

As security issues have fluctuated over time, there have been significant implications on the

ability of health services to deliver care to the population in need. “In November last year, a group of thugs from the village burnt \$11,000 worth of drugs and equipment. I fled through the window when I was told they were coming. For three days we reduced services to a minimum.” (KII HCW). Insecurity also impacted the informal healthcare system as one Tradi-praticien explained: “[People from the community] came to beat me and threatened me with death because they say I have started to work with the Response. They say I have sent people away to the ETC and so that means I have been corrupted by the Response.” Violent acts like this resulted in the closure of some health facilities, with subsequent negative outcomes for the population who are dependent on these facilities for their day to day health care. “At [a secondary health facility] the population threatened the health workers because they were sending suspect cases to the ETC. The population came to the health centre and beat the health workers. The health workers were afraid and ran away from the centre. It was during this time that a woman came to deliver her baby, but as the health workers were no longer there it was the woman who suffered the consequences” (FGD HCWs).

21. Vinck, P., Pham, P.N., Bindu, K.K., Bedford, J. and Nilles, E.J., 2019. Institutional trust and misinformation in the response to the 2018–19 Ebola outbreak in North-Kivu, DR Congo: a population-based survey. *The Lancet Infectious Diseases*, 19(5), pp.529-536.

BOX 2: OUTBREAK CASE DEFINITION FOR EVD SUSPECT CASES:

All persons living or dead, who currently has or presented with a high fever ($>38^{\circ}\text{C}$) with a sudden onset, and who has been in contact with:

- A suspect, probable or confirmed case of Ebola
- A dead or sick animal

OR: All persons presenting with a high fever with a sudden onset and at least three of the following symptoms:

- | | | |
|-----------------------------|------------------------|------------------|
| ▪ Intense fatigue | ▪ Headache | ▪ Vomiting |
| ▪ Difficulty swallowing | ▪ Diarrhea | ▪ Hiccups |
| ▪ Anorexia/Loss of appetite | ▪ Skin rash | ▪ Abdominal pain |
| ▪ Muscle or joint pain | ▪ Difficulty breathing | |

OR: all persons presenting with unexplained bleeding

OR: all persons with a sudden, unexplained death

OR: spontaneous abortion



“Any unexplained bleeding is Ebola.”

Discussions with all levels of HCWs, and with women and men from the community found that the case definition for EVD is reasonably well known (see box 2), although there were some variations in its application²². In nearly every Kil or FGD “unexplained bleeding” was mentioned, and this was often tied to pregnancy. Within the case definition there is reference to both “unexplained bleeding” and “spontaneous abortion”, either of which should be considered a possible EVD case.

“... she has her temperature taken at the triage.

We ask her what the problems are that bring her to the facility. We ask her if she has been involved in a funeral. If she is from a place where there have been confirmed cases. We ask about signs: what problems brought her to the hospital: fever, bleeding, abdominal pain, vomiting, muscle pain, weakness/fatigue. Fever with three signs we call an alert. For pregnant women, any unexplained bleeding is an alert” (FGD HCWs).

FGD participants acknowledged the overlap of pregnancy conditions with EVD symptoms and

22. In a study conducted by the social sciences analysis cell (CASS) between 28-88% of HCWs said they did not feel capable of identifying a suspect case. When they did identify a case, it was largely on the basis of symptoms, less so on risk of exposure. See the CASS presentation entitled “Analyses intégrées: connaissances, perceptions, comportements des personnels de santé et leurs dynamiques coudautes.”

the risk this posed to their healthcare access and liberty, “We need help in this time, because we have lots of pregnancies. In these times our normal pregnancy symptoms like bleeding and vomiting will get us sent to the ETC.” (FGD pregnant women). The fear of being sent to the TC/ETCs has made women and their communities reconsider how and when to engage with different health services. “There was a period in the early days of the outbreak when we’d do 6-10 deliveries, instead of the normal 25-30. [The women] would go instead to the private health facility to deliver, places where there was no surveillance and no triage” (FGD HCWs).

However, while the case definition can be applied to many common ailments, bleeding in women has acquired a special status. There is an association between EVD and spontaneous abortion, this has been interpreted as all abortions are EVD alerts by triage staff, which for some HCWs has been further translated into all vaginal bleeding (including in the non-pregnant). “Here in triage we have to ask a lot of questions, because women bleed a lot in life. She could abort [bleed] because of malaria, Ebola, heavy work at home, there are many causes. We don’t like to try and find out if it’s explained or not, that’s why we believe all cases are suspect.” (FGD HCWs). As there are so many potential causes of bleeding, HCWs are wary of taking initiative in case they make the wrong assessment and let an EVD-positive patient in who could transmit to staff and other patients in the facility. However some HCWs (who worked in Triage) explained that if women are able to give sufficient explanations for their bleeding in pregnancy, then they will not be sent to the ETC: “If she says that she had an accident or was beaten, then in that case there is an explanation for the bleed, so she can come

in.” Confusingly, several respondents reported that if the bleeding was explained by abortion the woman would not be a suspect as the bleeding was considered to be “explained”. However, this is contrary to the current case definition. “Any bleeding on pregnancy is a suspicious case, unless she has had an abortion, so that is why we ask about contacts [with EVD cases]” (FGD HCWs).

In the case of women who are not pregnant, the triage staff might attempt to understand the reason behind it, and will consider if there are other symptoms or a history of EVD contact when making a determination. “In all cases of vaginal bleeding we try to find out from the woman herself why she is bleeding. If she says that she is on a contraceptive method, then this could explain the bleeding. But if she won’t tell us anything then we have no choice but to send her to the ETC. This is why we have to find out about contact. It’s possible that she has bleeding due to the contraceptive method, but she’s also been to a funeral, so in this case it’s better that she goes to the ETC.” Other reasons for bleeding, including menarche (first occurrence of menstruation) or a normal period wouldn’t often be considered “unexplained” so wouldn’t necessitate a visit to the ETC unless there are other symptoms of EVD: “If it’s a problem with her period when she has vomiting or diarrhea then it’s automatic she goes to the ETC.” (FGD HCWs). Concerns about stigmatization during menstruation were also found in the IRC’s Gender report from 2019²³.

These varying applications of the case definition have caused tension between the priorities of women and the expectation of the Response. Rather than encouraging women with a defining feature of EVD (warranting further investigation) to attend the triage in cases of bleeding, it has made some more likely to stay at home.

23. “Women and girls are marginalized when they are menstruating. People say they are infected with EVD... Some husbands send their wives away because they are afraid of contamination.” - FGD, women 26-40 years old. The International Rescue Committee. Everything on her shoulders: rapid assessment on gender and violence against women and girls in the Ebola outbreak in Beni, DRC. March 15, 2019.



This risks that women will not receive needed healthcare, but also risks onwards EVD transmission if she is a confirmed case. “With Ebola all women were afraid of having spontaneous abortions because any vaginal bleeding is thought to be Ebola and you will be sent away to the ETC. So many women choose to stay at home instead of coming to the centre when they are bleeding... they go to the [private health centre] or to another health area to seek care” (FGD HCWs).



“They started badly, but it has improved”

A theme that emerged in all FGDs and KII was that the EVD response had improved over time, suggesting that the negative impact of the response on SRH access had reduced, since the start of the outbreak. “Many of the women were delivering at their homes when the outbreak first began, but this has changed and they are now coming back to the clinic. It’s the sensitization that has changed this behaviour” (FGD men).

These improvements were often attributed to a change in response staffing, moving away from using “outsiders”²⁴ to a perception that now most response staff are local and able to speak the local language²⁵. “Since the beginning they have started badly. They brought strangers into the area, from Kinshasa and other places, who only spoke Lingala. They should have taken people from this area to learn how to fight the virus. The people are frustrated but now that the local people are working for the response,

it’s better for the sensitization as they speak Swahili & Ki-Nande.” (KII Tradi-praticien).

The number of EVD survivors and people who went to the TC/ETC and returned to their community as non-EVD cases has increased over time. They have been used in the response more strategically in community engagement changing the perception of the EVD treatment centers being “places where people are left to die.”²⁶ “There was a woman who had an abortion, she was sent away to the ETC but as she was negative she went home after a few days. She received medication at the ETC, they cared for her and helped her. When she came home she didn’t face stigmatization, she was instead able to explain to the other members of the community what her experience was like. Everyone thought that she would die because that’s what happens when someone goes to the ETC, but she came out living so was able to bear witness” (FGD women)²⁷.

²⁴ Often considered anyone from outside a narrow geographic area, these can mean people from outside the country, outside the province or even from outside the town.

²⁵ This is contradicted in a recent CASS study from November 2019 that found that in some health zones only 26% of community respondents believed that the majority of response actors are local. CASS study entitled “Analyse de l’enquête sur les impacts socio-economiques d’Ebola: Butembo et Katwa.”

²⁶ French: “mourir”

²⁷ A CASS study from the health zone of Beni found that one of the biggest factors in willingness to seek treatment (in routine health services and in TC/ETCs) was knowing someone who is an EVD survivor or having heard of EVD survivors or people who were discharged from a TC/ETC as a non-case.

A key improvement in the care of all patients is the shift towards health facilities isolating patients on site, taking a blood sample that is then sent away for testing and the patient is cared for by HCWs (in Personal Protective Equipment (PPE)) who are well-known to the population while awaiting the results of the test. There were good examples of this approach: “We have the local testing process. The people know that they come to us and we will hold them here while waiting on the test and they are more comfortable. If they have malaria, they can come, we will isolate them (as they will likely meet the signs and symptoms of Ebola) and we will treat and test. If it’s positive they will go to the ETC, if it’s negative they will come into the health facility and stay here with us.” (FGD HCW).

These improvements were also seen in how the triage staff tried to identify EVD, as was described above in the section on “bleeding.”



“Back in the day there was the free health care”

Free healthcare was introduced in the epicenter health zones (Oicha, Beni and Mabalako) from August 2018 and in other affected health zones from November 2018 and lasted until July 2019. The free healthcare initiative varied in terms of what services it included, but generally included ambulatory consultations, internal medicine and sometimes (but not always) reproductive health.

The initiative was introduced for two main reasons: 1) to encourage people to seek care early before “EVD-like” symptoms developed so as to provide early treatment;

and 2) to encourage people to continue to seek healthcare during the outbreak, given many people’s fears of nosocomial infection during periods of epidemic. This initiative was largely successful in encouraging pregnant women to seek care: “There has been a drop in the number of deliveries here, but back in the day there was the free health care but this has stopped and so now women have stopped coming” (FGD HCWs). However, despite this initiative, some women still paid for care either in private health facilities or in health areas where the free initiative was not applied, to avoid the triages that were initially placed in public health facilities. “They will give up the Free Care that they could get at this [free] facility so as not to risk being sent away [to the ETC]” (FGD HCWs).

¹⁷ “Women and girls are marginalized when they are menstruating. People say they are infected with EVD... Some husbands send their wives away because they are afraid of contamination.” - FGD, women 26-40 years old. The International Rescue Committee. Everything on her shoulders: rapid assessment on gender and violence against women and girls in



FINDINGS ON THE IMPACT OF EVD ON SRH

Despite these admirable positive steps forward, the EVD outbreak and its response have had a major impact on all aspects of reproductive health care. Results in this section are presented according to the MISP priority activities.

Coordination of the MISP

The identification of a lead SRH organisation is critical in the early stages of any response. The ongoing EVD outbreak is unique in that it is taking place in an area where there was already (prior to the outbreak) an ongoing protracted conflict-generated crisis. Therefore, the health cluster was already operational, with responsibility for SRH coordination held by UNFPA. The EVD response coordination was set up as a separate, parallel system with very little coordination or collaboration with the cluster system for nearly the first year of the outbreak. SRH coordination and priority setting continued with a conflict-response focus under UNFPA and its integration within the EVD response did not have clear leadership. One individual from the Ministry of Health felt that he had been ignored when he brought issues related to how EVD was impacting on SRH to the health cluster. “I’ve not been involved in the response, I should be! I have an advocacy document [about the impact of EVD on SRH] I made and tried to share, but it didn’t take.”

UNFPA and its integration within the EVD response did not have clear leadership.

One individual from the Ministry of Health felt that he had been ignored when he brought issues related to how EVD was impacting on SRH to the health cluster. “I’ve not been involved in the response, I should be! I have an advocacy document [about the impact of EVD on SRH] I made and tried to share, but it didn’t take.”

Like the coordination system described above, many/most organizations, including the IRC, have an “EVD response” section separate from the regular and pre-existing (conflict) response section, with varying levels of interaction between them. UNFPA is similar, and their SRH coordination remains under the standard health cluster, not the EVD coordination. This means that when trying to raise the profile of SRH needs, it is challenging to amplify them above the much louder EVD needs. The lack of a strong SRH voice in the EVD emergency coordination means that NGOs who are active in the SRH space also feel that their advocacy is not heard. As one NGO SRH lead said: “We have the small voice of SRH, it’s hard to make your voice heard with all of the million millions of [Ebola] money.”

Prevent sexual violence and respond to the needs of survivors

North-Kivu has a history of pervasive sexual violence among the population, with women and girls especially affected²⁸. There has been an increasing trend of reports since 2016 with 8406 cases of gender-based violence reported in 2018 in North-Kivu (7.8% were reports of

28. Palm, S., Le Roux, E., Bezzolato, E., Deepan, P., Corboz, J. Lele, U., O’Sullivan, V & Jewkes, R. (2018) Rethinking Relationships: Moving from Violence to Equality. What works to prevent violence against women and girls in the DRC.

sexual violence). 2019 numbers were not yet available at time of publishing.

The protracted conflict, plethora of different armed groups, low-socioeconomic status of much of the population and a lack of the rule of law means that many women and girls experience sexual violence and exploitation as a daily part of life. The EVD outbreak in this setting has not improved the situation and there have been unintended gender consequences of the outbreak²⁹: “GBV increases social expectations that become emotional violence where the woman becomes responsible for everything in the household. Particularly if there is an infection, it is because the woman has not ensured cleanliness and this has created a feeling of trauma, fear and shame. When there is a death, it's the woman who is responsible because she has not fulfilled her [gender] role. And a lot of [gender] roles expose her: for example, fetching water and the risks related to rape [when outside the home to fetch water]” (KII NGO GBV lead).

In one secondary health care facility the HCWs mentioned that fewer women are coming in for treatment for post-rape care: “we are seeing less women at the clinic. It's possible they are just not presenting. They hide themselves after sexual violence because of fear of the outbreak.” The broad application of the case definition and overarching fear of being sent to a TC/ETC has further complicated decision making for survivors of sexual violence. Delayed presentation for post-rape care limits the use of emergency prophylaxis (e.g. for HIV) and emergency contraception. The affected population is compelled to choose between

emergency medical assistance and the perceived danger of bleeding resulting in isolation.



“We had a case of sexual violence that was impeded from coming here to the hospital. There was a case of two children who had been raped, and one was bleeding. The child had been at home 1 week at least while she was bleeding. The family got information that they should come into hospital...So the family came here to the hospital, the mother, father and two children, we looked them all over and talked to the parents and the children and they told us what happened. They told us that because of the situation of this time [EVD] they were afraid to come to the hospital because the child was bleeding and they did not have the courage to the hospital as she could be taken away to the ETC. It was more than 72 hours [after the rape] so we couldn't do much to help the child” (FGD HCWs).

29. Unintended gender consequences were also found in the West African outbreak as described in Onyango MA, Resnick K, Davis A, Shah RR. Gender-Based Violence Among Adolescent Girls and Young Women: A Neglected Consequence of the West African Ebola Outbreak. *Pregnant in the Time of Ebola*: Springer; 2019. p. 121-32.

Prevent transmission of and reduce morbidity and mortality from HIV and other STIs

According to one secondary hospital, HIV testing was available and unchanged by the EVD outbreak. The same was reported for STI services. When asked if HIV medication was available at TC/ETCs for patients requiring uninterrupted treatment, an EVD response NGO explained that this, alongside other treatment for chronic conditions, had not been considered

Most groups of people interviewed had different understandings surrounding how long the Ebola virus survives in semen and vaginal fluids: in one case, women were very specific and believed that it survived for 365 days in women and 500 days in men; other women believed that it survived in men for two years, and some men believed it was one year. This is reflective of the uncertainty within clinical and academic circles, and the varying advice and evidence available³⁰.

It was unclear whether the utilization of condoms has increased since the onset of the outbreak. Some members of the community claimed that there had been a reduction in the use of condoms (this may have been amplified by a stock-out of condoms for North-Kivu for many months), while others claimed “More people are using condoms now in this Ebola time, because people are afraid of EVD so they want to prevent.” However, as observed by one man, it is “hard to know what is happening between men and women because it is a private thing.”

In normal circumstances condoms are not often

used³¹, and may be culturally associated with promiscuity or “immoral” behavior³². Attitudes and decision making surrounding sexual relations also influenced access to condoms or the influence to negotiate their use³³. Gender norms dictate that women and adolescent girls are also typically not in a position to refuse sex or negotiate condom use with their male partners. In all EVD outbreaks, these factors can put women and girls at high risk of exposure to bodily fluids that transmit the disease. “Some youth are not allowed to get the condoms, they are told that they are only for the married people. This happens in the health centers. They [HCWs] think it will encourage promiscuity or sexuality” (Men FGD).

Where condom use had increased, it was primarily for the prevention of STIs and pregnancy and in some cases to contain EVD contamination. “They ask for more condoms these days. When people ask for lots of condoms it’s because they want to protect against pregnancy and STIs. Condoms can also protect against EVD. Men and women also mention using condoms to prevent Ebola” (FGD HCWs).

Sexual transmission of EVD was generally understood to come from EVD survivors, “we have to tell survivors to use condoms to prevent sexual transmission.” This was also understood to be relevant for male EVD survivors in stable relationships, “It is important for men survivors to wear condoms even with their wives” (FGD women). Interviewees raised concerns about EVD survivors: “We are a bit scared of those who have survived, because if they have sex with others they can infect them.”

30. Schindell B, Webb A, Kindrachuk J. Persistence and Sexual Transmission of Filoviruses. *Viruses*. 2018;10(12):683.

31. Decisions around condom use may be based on preference, power dynamics, cost and availability.

32. Mulumeoderhwa M. ‘It’s not good to eat a candy in a wrapper’: male students’ perspectives on condom use and concurrent sexual partnerships in the eastern Democratic Republic of Congo. *SAHARA-J: Journal of Social Aspects of HIV/AIDS*. 2018;15(1):89-102.

33. A CASS study in Beni found that while most people were aware of the risk of sexual transmission of EVD, women reported feeling unable to negotiate the use of condoms for protection.

Attitudes towards EVD survivors appeared mixed, which may, in part, be due to the inconsistent public health messaging: “They are happy to have survivors around because it means that people survive, but they are afraid to eat with them. As the [EVD] survivors can transmit the virus. There is possible contamination” (FGD women).

Men, who had not knowingly had EVD³⁴, expressed different views on condom use “these condoms could contain Ebola. So we shouldn’t use the condoms, because we will get Ebola,” perhaps misunderstanding the other benefits of condom use during the period of the EVD outbreak.

Vulnerable groups, especially those with higher risk sexual practices, women and girls and those engaging in transactional sex or at risk of commercial sexual exploitation are particularly vulnerable to the lack of clear communication surrounding the sexual transmission of Ebola: “two girls in the ETC who were positive, were found to have been infected by a male [EVD] survivor. They were working as sex workers and he was a client.” The additional vulnerability of people who engage in transactional sex or who are commercially sexually exploited was also identified in a study from the CASS that also found that sex workers had not been provided with sensitization as to their risk of getting EVD, nor had they been provided with condoms³⁵.



34. Although rare, asymptomatic carriage of EVD has been recorded in both men and women. Hence, a man who does not know he has had EVD can still have EVD positive semen. Schindell B, Webb A, Kindrachuk J. Persistence and Sexual Transmission of Filoviruses. *Viruses*. 2018;10(12):683.

35. CASS study: “Perception et utilisation des preservatifs parmi les gueris et leurs partenaires sexuels a Beni” October 2019.




Prevent excess maternal and newborn morbidity & mortality

Maternal mortality is often attributed to the “Three Delays Model,³⁶” whereby women experiencing obstetric complications are delayed in deciding to seek care, in travelling to the healthcare facility and in receiving the appropriate care once inside the facility. This assessment suggests that in an EVD context, each of these delays has been exacerbated. In addition, for women suspected of having EVD there are a further two delays to navigate, resulting in a “five-delays model”:

➤ **Delay 1: Decision making to attend health facility: “they will wait at home until they have to move here”**

Concerns around being isolated or sent to the TC/ETC has impacted decision making by women and their families regarding when and where to seek care. According to some men, the EVD outbreak has caused women and their families to delay coming to facilities: “They come late because they are afraid of the Ebola so that’s why they delay.” This was confirmed by HCWs stating, “Women have been coming later for care during delivery, with some complications that we have to manage.”

Decisions surrounding when and where to seek care are governed by the fear of triage, TC/ETCs, EVD and the Response. This is reportedly less centered on the HCWs, rather the facility itself “The fear is more about the health centre, it’s not about us as health workers. Some women even ask us to deliver their babies at home, as they trust us.” (FGD HCWs). Rumors of nosocomial spread of EVD have also challenged decision making around if or when to attend the health facility.



“There is a woman who delivered at the hospital, after she delivered they changed the bed and moved her into another bed. After she left the hospital, after 1 week she presented with Ebola. She had the signs and the sickness. After 2 weeks she died and she left her baby. The baby is still alive and the baby is with the family. When they moved the lady, they moved her onto a bed that was previously someone with Ebola and that’s how she got sick. It’s after this event that women became afraid to come and go and deliver in the hospital and they would prefer to go to the private health centre, the places where there was no triage. After that happened some women chose to stay home to deliver on account of this, or they’d stay home also when they had malaria and other sicknesses. We are afraid because if we have a fever even if it’s due to something normal like malaria or high BP then we can be sent to the ETC. The baby in this case was negative and the mother positive.” (FGD women)

36 Thaddeus S, Maine D. Too far to walk: maternal mortality in context. *Social science & medicine*. 1994;38(9):1091-110.

➤ **Delay 2: Getting to the facility: “It can take a long time to arrive”**

Delays getting from the home to the healthcare facilities were not reported to have changed significantly since before the outbreak. The EVD screening posts along the main roads may delay the journey to the facility. Community women explained that the cost of living had increased, including the cost of transport. They reported the moto-taxi drivers do not like taking pregnant women, and the cost of this transport had also increased.

“When pregnant moto-taxis don’t want to take us and it’s not comfortable because it could provoke abortion but we have no money so we have to take them. We are poor so we have to use this method of transport” (FGD women).

The journey to healthcare may be lengthened by seeking alternative or parallel health care to avoid the health facility, and in particular to circumnavigate the triage.

“The women prefer to have their babies outside of the health area, to somewhere they are not known, or they will go to the private facility. The women liked to go outside of the health area, to avoid places where there was IPC, or where they put people to do active case finding, so it makes sense to go somewhere where there have not been cases so that the women will not be sent away to the ETC” (FGD men).

Threats and attacks against HCWs resulted in the closure of a number of health facilities, resulting in increased delays in seeking appropriate care as women needed to travel further. “She was very afraid to give birth because when she came to the health clinic they had closed for 1 week [due to the health workers having to flee violence], so she had to travel to the [large hospital] to deliver...by the

time she got there after walking for a long time she delivered her baby within 1 hour.” (FGD women).

➤ **Delay 3: Receiving Care at the Facility: “If there is bleeding they will send the woman away”**

Many obstetric complications have comparable symptoms to EVD therefore the triage decision of pregnant women is challenging. How HCWs overcome this difficulty varies, some will apply the same rules as for any patient, “[triage] can't be different for pregnant women, it has to be the same as for the other sick people.” (Ebola response IPC worker), which will result in a high number of women being isolated for testing (and hence a further delay in receiving obstetric care).

Other HCWs have taken a less rigid approach, attempting to judge the woman's condition according to possible pregnancy “explanations” and risk factors for EVD (e.g. contact history, funeral attendance, etc.). This more in depth triage process will still delay care, but if deemed a “non-case” the delay will be less than she would have suffered with automatic isolation. This variation in practices is partly due to who is performing the triage, with more experienced HCWs relying on their clinical judgement. HCWs with maternity experience are better able to diagnose maternity complications, and are more likely to recommend local testing (if available) or transfer to a higher-level hospital.

No triage system is perfect. Striking the balance between appropriate isolation and appropriate treatment with a broad case definition and overlapping symptoms can create conflict within the team, especially in fast moving obstetric emergencies.



“We had a woman with a full term who came during the night, at 9pm bleeding and with contractions. We diagnosed placental abruption as soon as she arrived as she had the signs: no active fetal movements, uterine contractions, brown blood, uterine contracture but the Triage team blocked her in isolation. They did a local blood draw and she waited [for results] all night. They said the results would be ready at 11am [the next day], but at 2pm the next day there were still no results. Her blood pressure crashed (anemia) and we [the facility staff] believed that she needed surgery. In full PPE, we did a hysterectomy. The fetus was already dead, but she was saved. Her results came back in the evening and she was negative. The hospital team argued with the IPC team, they had given orders not to touch her. The mother would not have undergone a hysterectomy if there hadn't been the triage we would have only evacuated the uterus and leave it there. Women now say “at least at [secondary hospital], they look after their sick.” There has now been an increase the patient load as the women have confidence in us.” (KII hospital doctor).

➤ **Delay 4: Getting to the TC/ETC:
“Sometimes the ambulance can take time”**

If the pregnant woman is deemed a suspect case, she must be tested. Until the later part of the epidemic, this involved transfer to the TC/ETC which could take anywhere from 15 minutes to over an hour for the ambulance to arrive (which furthermore depends on road conditions, weather, availability of ambulances and other factors). In some facilities, it is now possible to take the blood sample and send this (rather than the patient) for testing (as described in the above example).

Early experiences of the response and rumors about TC/ETC may cause women to delay transferring to the TC/ETC, or refusing for their blood test to be taken. “In the early days of the epidemic, if a woman needed to go to the ETC because she had the signs, the military men

would come and force her to go. Now, there is more negotiation, the response staff will come and discuss and convince the woman to go. People are no longer forced to go to the ETC” (FGD pregnant women).

In some cases, the woman would rather risk the obstetric complication than face the TC/ETC: “A mother who had a dead baby inside, the baby was born and the baby was born macerated. After the baby was born the mother kept bleeding for quite a while. So we had to convince the mother to go to the ETC to be cared for. We spent a lot of time trying to convince the family to take the mother to the ETC and she accepted to go. But then when the mother saw that there were 3-4 people from the Response who were in the room to take her away, she changed her mind and refused to go. She said it's not good to go to [the ETC], she wanted to be tested at this place. But then

when the mother saw that there were 3-4 people from the Response who were in the room to take her away, she changed her mind and refused to go. She said it's not good to go to [the ETC], she wanted to be tested at this place. But then the team from the Response tried again to convince her, and she then decided she didn't want to be tested even. She then ran away from the hospital. She went to stay with her family in the city. We are not sure if the Response found her in [the city], but they had her contact details so it's likely that they found her there. But her result was negative. The baby's test was negative" (FGD HCW).

HCWs described in several interviews needing to counsel women to accept being tested or transferred. "She was afraid of the test, because it's taken down to [city] to the lab, and if it comes back positive they will send her to the ETC. She will lose her life in [the ETC]. People do not have confidence in the healing. she will only die. We as HCWs have to spend a lot of time trying to convince her" (FGD HCW).

> Delay 5: Receiving care at the TC/ETC: "The ETC is a health facility like many others"

As a result of the broad case definition, overlapping symptoms and previous delays, pregnant women experiencing complications often arrive in TC/ETCs requiring care. Of the 426 pregnant women being referred for testing, 15% had EVD. The remaining had a non-EVD cause for their symptoms (see table 2 above in quantitative results).



"I had a spontaneous abortion in this time period. They brought me to the ETC. I had a pregnancy of some months. The baby died in the uterus. When I was consulted they said they couldn't touch me so they sent me to the ETC. After 3 days at the ETC I expelled the fetus and the result was negative" (FGD pregnant women).

According to staff at one TC, when a woman with a pregnancy complication arrives at a TC, she gets tested, receives the results within six hours. If negative, a second test will be done for confirmation after 24-48 hours. Meanwhile, if she has a worsening obstetric complication, the team will do a more thorough epidemiological analysis: is she a contact? Is she a high-risk case? When did symptoms start? According to the answers they will decide whether to intervene on the pregnancy complication. They might refer the case to the maternity hospital before waiting on the confirmation of the second test, but this is done on a case by case basis.

The TC/ETCs have limited and variable capacity to offer obstetric care. When asked HCWs at TC/ETCs were unaware of specific guidelines for suspect pregnant women, or confirmed that none existed for their unit. One ETC had more capacity to treat pregnant women than other centers, due to facility design and access to specialist doctors. Discussions were had that this ETC could become an obstetric referral facility, however this could potentially add an additional layer of delays in a patient journey given further distances to travel. As of writing this assessment, this has not happened.

For many women, the wait for results is too long, “women will deliver in the normal room. This has happened a lot. There are a lot of cases of women who had their first test and it was negative and we were hoping to get her out before she went into labour but then she did and so the baby was born in the TC” (KII case management doctor).

Women in the TC/ETCs with obstetric complications can pose ethically challenging dilemmas related to if and how to provide comprehensive care. However, over time some centers developed strategies to provide emergency obstetric care, including surgical procedures. Cases were reported of procedures including caesarean section, hysterectomy, laparotomy and curettage. However, it is not yet known how many of these patients actually had EVD rather than being suspect cases only. Nor have the success rates of these interventions in relation to maternal or infant mortality been published yet or if there were significant differences between suspected and confirmed patient outcomes.

Deciding to take a “suspect” or “confirmed” patient for an invasive procedure is riddled with ethical and practical considerations. Negotiating these various factors can create further delays, particularly if there is a discrepancy of opinion in the team. TC/ETCs doctors described evaluating neurological, clinical, and biochemical criteria before taking a decision on whether a patient will be operated on. Each decision potentially being life-saving, while also being potentially very high-risk for the HCW. An ETC doctor described their learning curve, “but we said “let us try to do something”, if we can try to save a life, a mother, because we can evacuate her uterus. If we don’t do this, she’ll die of hemorrhagic shock. But no one can pretend to know how to control Ebola, but with the results of research and experience, we can say:



here is a woman who has had an incomplete abortion, she will experience bleeding and if we don’t empty her uterus we will lose her” ... At first it wasn’t easy, but now they understand that if you comply with the IPC measures, it doesn’t pose a threat.”

In the TC/ETCs, there were patients considered too unwell for surgery, either confirmed with a high EVD viral load or suspect but having arrived in particularly critical condition. In these situations, intervention was assumed to be either futile or too high-risk. “We had two cases of Ebola confirmed, pregnant in labour and need of caesarean, they later died, the babies too. The decision to proceed to do a caesarean on a confirmed case you need to evaluate the viral load. A very high viral load will not survive. You also have to assess clinical and biochemical criteria. In consultation with others (anesthetist, leadership, etc.). We do not operate if the person is very unstable from a clinical point of view.” (KII case management doctor).

Post-Abortion Care

Women were less afraid of attending routine facilities for deliveries compared to abortions. Some HCWs claimed there was a decrease in post abortion care, but no decrease in deliveries: “Post abortion care has decreased because of the fear of being sent to the ETC. We’re scared of death, not of deliveries” (FGD HCWs). The fear of attending with an abortion, and meeting the EVD case definition, has resulted in women avoiding the health facility: “There was a woman who had an abortion, she did auto-medication with indigenous medications (she didn’t come to the centre), she did it at home. She died” (FGD HCWs).

In one ETC, a [NGO] international representative stated there was no capacity to offer WHO-recommended methods of post abortion care (Manual Vacuum Aspiration (MVA), and another staff member commented that obsolete methods (curettage) used to be done within regular patient beds until a “maternity cube” was installed with a gynecological couch. Two NGOs specializing in SRH have already done trainings with TC/ETC staff on MVA so that this service can be offered.



“There was a lady who was bleeding because of an ordinary miscarriage. She arrived at the TC at 11pm. She reached late so she would be tested the next morning. But the result would take another 12 hours. She was having complications because it was an incomplete miscarriage and she developed a fever. But once there was fever, automatically people think it’s Ebola, but really it’s an infection. In the TC they only think about Ebola. No one realized that it could be something else. [NGO] was in the TC at that time, we called for a consult and the gynaecologist, he said we have to clean the uterus and do this now. They did this and she was ok. She had taken a long time to get to the TC by a number of different health centers. She got a manual vacuum aspiration. Her test was negative for Ebola” (KII case management doctor).

Prevention of unintended pregnancy

“Because of the stress of EVD, many women are having abortions spontaneously. Others are choosing to get FP at the clinic. They want to avoid the pregnancy” (FGD women).

Messaging during EVD outbreaks often include “social distancing,” with the intention of stopping transmission of EVD as well as other contact-transmissible diseases that could mimic EVD (i.e. flu, cholera etc.). This social distancing can also be taken to include sexual relations, and thus the need to prevent unintended pregnancy is often an afterthought by policymakers. However evidence from this outbreak, as well as from the West Africa outbreak demonstrate that sexual relations continue and women and girls become pregnant³⁷.

Sexual relations

Whether EVD affected sexual relations was

unclear. Women in two different focus groups explained that during this outbreak women are not afraid to have sexual relations. “Nothing has changed, sexual relations continue.” One women’s group mentioned that many young people continue to have sex and become pregnant unintentionally as they did before the outbreak “because they are not aware of the consequences.”

Desire to delay pregnancy

Several women discussed how they attempted to avoid getting pregnant through methods including natural family planning. “They have said that a pregnant woman cannot get the vaccine because it would cause an abortion. I was afraid of getting pregnant because if I was pregnant I could not get the vaccine to prevent Ebola. So I thought it best to prevent pregnancy, so I used natural family planning. I will stop this method once Ebola is over.” (FGD women). A woman attending an ante-natal care clinic had a similar story: “When the sickness of

37. McKay G. Pregnancy prevention in crisis: Lessons from Sierra Leone’s Ebola outbreak. Kigali, Rwanda. Presentation at the International Conference on Family Planning; 2018

Ebola came, I was scared. I tried all the ways to not get pregnant by staying abstinent. Because Ebola has the same signs as pregnancy. I was very scared... but I fell pregnant... I am still trying to not become of a victim of Ebola. This a big stress in the lives of women. We are afraid of becoming sick... There have been a lot of pregnant women who have died in this context of Ebola, so [my husband] agreed with me." Men echoed these sentiments "Ebola-time is a good time to plan your family. The women can take the methods now and have another baby after the outbreak." That women are striving to prevent pregnancy, in discussion with their partners, implies that there is an eagerness for FP. This also suggests that if acceptable modern methods were to be offered to women and girls they could be accepted.

In one IRC supported facility, the HCWs themselves were taking advantage of the available FP methods that had been offered as part of the IRC FP intervention: "We as health workers do not want to be pregnant right now! We are afraid of the sickness! We are afraid of abortion because we will be sent to the ETC. So we are both on FP!" However, FP, other than condoms for EVD survivors, were not systematically offered to either staff or patients in TC/ETCs per conversations with ETC staff from several organizations.



We tell them that if they have side effects [from FP] to come back to the clinic. When they go to the triage they will tell them that they want to see the doctor for the reason of contraception. At triage they will ask if the girl/woman has had contact with Ebola cases or fever. She will hide any bleeding because she knows it's related to the FP. If she arrives at my office and her triage form doesn't say anything about bleeding (though she has this complaint), I will keep her, I will not send her back to triage. For me, this is caused by the FP, it's a case of explained bleeding.

Accessing contraception

Some women who did choose to seek out FP services chose to avoid getting their FP at the health facility, as "the Ebola sickness makes everything about Ebola, if you go to the hospital to get free FP medications, people will think that you have Ebola, so it is better to go to the pharmacy and get it done privately". However, the method choices at the pharmacy may be inadequate for women's needs "at the pharmacy they only have pills and injections" (FGD women).

Side effects of contraception

HCWs had varying views on whether the side effects of FP (which often includes breakthrough bleeding) are sufficiently "unexplained" as to warrant considering the woman a possible suspect case. In one primary health center "there have been women who have had an increase in their periods due to FP. In this case it's not a suspect case, because it's clear why they have the increase in bleeding. We reassure them that this is normal and that it will normalize over time. But if she has other signs then maybe it's an alert." In a secondary facility, the doctor spoke about how he helps women with side effects of FP avoid being called as an alert, using his own clinical judgement:

Plan for Comprehensive SRH services, integrated into primary health care, as soon as possible.

This section of the MISP generally refers to the reconstruction phase within 3-6 months post-destabilizing event. In the case of an outbreak, this might refer to the stage where the outbreak is slowing down, and/or in the post-outbreak period, when trust in the health care system (that may have eroded) needs to be rebuilt. “The women will still come to the health care centre when they need maternal care, but the confidence and trust has been severely affected. Before the Ebola we had faith in the health workers, but then it went down...” (FGD women). As this outbreak has been ongoing at the time of writing for 17 months, the transition to comprehensive SRH services could already have taken place.

The facility assessments conducted in the three routine health facilities demonstrated that the provision of comprehensive SRH services still suffered from a number of gaps, indicating that the transition has not been completed (see table 2). The two facilities where IRC was implementing an FP programme had good stocks of FP consumables. These two facilities were also supported by other NGOs for IPC training, mentorship and supplies, and reported rare stock-outs of key IPC supplies that would impact on their ability to provide comprehensive SRH services. The faith-based facility was only supported by the EVD response for IPC, and reported frequent stock-outs of IPC supplies, which they attributed to their extremely high patient load.

FACILITY ASSESSMENTS			
MISP priority activities	Primary healthcare facility (IRC supported)	Secondary health care facility (IRC supported)	Secondary health care facility (faith based)
Prevent and manage the consequences of sexual violence	Not provided. Referrals made to the reference hospital.	Not provided. Referrals made to the reference hospital.	Some post-rape care services provided. No provision of emergency contraception or SAC.
Reduce transmission, mortality and morbidity from HIV and other STIs	HIV testing and care referred to hospital. STI syndromic treatment offered.	HIV testing and care provided. STI syndromic treatment offered.	HIV testing and care provided. STI syndromic treatment offered.
Prevent excess maternal and newborn morbidity and mortality	Provision of BEmONC. Capacity to provide PAC services using misoprostol & MVA.	Provision of comprehensive EmONC. Capacity to provide PAC services using misoprostol & MVA.	Provision of comprehensive EmONC. Capacity to provide of PAC services using misoprostol or manual vacuum aspiration. Unclear if offered in isolation.
Prevent unintended pregnancies	Provision of short- and long-term methods of contraception.	Provision of short- and long-term methods of contraception.	No provision of modern forms of contraception, only counselling on natural FP.
Safe abortion care should be made available to the full extent of the law.	Not provided. Referrals offered when SAC requested.	Provided.	Not provided.

Table 2: Facility assessments of comprehensive SRH services. Gaps in service provision may be due to poor baseline conditions pre-outbreak and may not be directly attributable to the outbreak.

It was not possible to observe SRH care provision at the TCs/ETCs, however discussions with clinical staff working in these facilities indicated that services and supplies were not available for the care of sexual violence or individuals with HIV or STIs. Services available for maternal and newborn care have been discussed in previous sections. Contraception other than the provision of condoms for EVD survivors were not systematically provided. Female ETC-HCWs could be referred to outside services to get FP should they wish to delay pregnancy while working in the ETC. Misoprostol was available in one ETC according to one interview, although it was unclear whether it was used for safe abortion or post-abortion care or both. There does not appear to be a universally followed protocol for the provision of SAC in TC/ETCs.

While this outbreak response has negatively impacted many aspects of SRH care, it has also strengthened the health system in some ways. HCWs spoke about how “in the past we worked without being aware of the risk, and now in the Ebola time what we do is more conscientious and aware of the risks of Ebola. But this will help us outside of the time of Ebola for other diseases.” This was echoed by the operating theatre doctor of a secondary facility: “Since the Ebola outbreak was declared we have new IPC procedures that have been introduced into the operating room, the maternity and the patient care spaces. We have to wear complete PPE to avoid contamination. The way we decontaminate equipment has really changed: now after equipment is used it’s contaminated so we have to clean that material with the 3-buckets system that we didn’t have before... If we could continue with this after the epidemic that would enable us to control infections.”

Other EVD-created structures and systems are intended to be maintained post-outbreak as well, including the triages, which one MoH

coordinator states will be repurposed into “a way of orienting people to the right service in the hospital. The sick person will arrive and the triage will be like the emergency room. We will keep people there as we wait for a right place in the hospital for them to come available. If they will have an infectious process we will keep them in the isolation and then we will decide where to send them to avoid contaminating other sick people.”

Experience from West Africa, however, do indicate that without extensive ongoing support with materials and mentorship, gains made (especially related to IPC) during the outbreak are not guaranteed to be maintained post-outbreak.

Other sexual and reproductive health priorities: Safe abortion care to the full extent of the law

The DRC ratified the Maputo protocol in 2018, making it possible for safe abortion care to be provided in some circumstances, including to preserve the physical and mental health of the woman³⁸. However, this change in law is not well understood among the general population, nor among health providers working in most of the public or private health facilities. One international NGO HCW inaccurately said “Abortion is illegal in Congo,” indicating that the change in law has not been well communicated. In one faith-based hospital, the lead doctor was adamant that “girls never come here to ask for an induced abortion, even if it’s after rape. If she came here to ask for an abortion we would send her to prison. Here we are clear that we cannot do this. If we were to learn that a doctor was doing this service he would be fired that very day. We won’t even refer for this service.”

This assessment explored abortion in the FGDs and KIs, but it was very difficult to get community members and HCWs to speak

38. Population Reference Bureau. Expanding access to safe abortion in the Democratic Republic of Congo Washington, DC2019 [Available from: <https://www.prb.org/expanding-access-to-safe-abortion-in-the-democratic-republic-of-congo/>].

about abortion provision, except in the few IRC-supported facilities where staff have been trained on post-abortion care and sensitized on safe abortion care. In those facilities the staff were more comfortable to discuss the cases of safe abortion care they had provided, and seemed proud that more women and girls were coming in to request such services. However, when asked if this change in numbers of women requesting these services was due to EVD or other reasons, the staff said that the increase in requests wasn't related to EVD but probably due to IRC's program that was helping to increase access to safe abortion care.

When abortions were spoken about in the discussions they were nearly always discussed in relation to what happens when a woman has a spontaneous abortion (though it is not often possible to distinguish spontaneous abortion from an induced abortion that happens outside of a health facility) and in trying to seek care during the time of EVD. The fear of having a loss of pregnancy at this time, and the consequences of being sent to a TC/ETC, is very concerning to many women, as this HCW told us: "Since the start of the epidemic all bleeding is a suspect. Even when it's an abortion, even if you induced your own abortion, it's a suspect. Even periods if they are heavy and painful then it's significant then it is a suspect."



"There was a woman who had a risk of a loss of pregnancy. So she came here to the clinic and we cared for her and gave her medicine. She then went home and the abortion happened. Instead of coming here for [post-abortion care], she went to a clinic in another area, and the investigators went to try and find her. The investigators started chasing her, coming here to the clinic to see the register to find that she had been here, and went to the other clinic to find the registers there. They kept trying to find her and she was in hiding. For more than 1 month they were chasing her. As other women saw that this woman was chased for 1 month due to an abortion they became very scared to come to the clinic" (FGD HCWs).

RECOMMENDATIONS

As the EVD epidemic in North-Kivu and Ituri provinces continues, urgent efforts must be made to take stock of successes and failings to the SRH needs of affected populations. Reflections and analysis from this epidemic should spearhead progress in forming a framework for this and future epidemics.

1 Sexual and reproductive health considerations are to be embedded in the EVD response from the outset

The upheaval of humanitarian emergencies negatively impacts all aspects of SRH. EVD outbreaks have a complex interaction with SRH conditions and services. Knowing this, the planning and implementation of any EVD response must include dedicated efforts to ensure comprehensive SRH services are available, or in contexts with a weak health systems, that the MISP is activated. The EVD response and SRH actors (namely the SRH coordinating agency) should work together to build a harmonized, trusting and safe relationship for the benefit of the affected population.

1.1. MISP at the start of the Response


Access to quality SRH services is essential and life-saving, including during an EVD epidemic. Especially in a context with a fragile healthcare system, the MISP should be activated at the onset of the response. A rapid assessment of what is already available and what additional

support will be needed should happen within 48 hours of the declaration of the outbreak, to align with MISP activation for other types of emergency (displacements, natural disasters etc.)³⁹. When the MISP has been activated, it is critical that the transition to comprehensive SRH services takes place as quickly as possible within the outbreak response, ideally within 3-6 months. In contexts where long-term, good-quality SRH services exist, such an assessment can also take place to identify any service gaps or deficiencies, to ensure that the EVD response strengthens, and does not detract from, existing services.

The lead SRH coordinating actor should have a seat at the table in the EVD response coordination, as well as in the routine healthcare coordination spaces. Ensuring the prioritization of SRH during outbreaks is challenging, given that the priority of the Response is focused around ending transmission of the disease. Therefore, the role of the SRH coordinator must be in ensuring that SRH needs assessments take place, that SRH access is considered and planned for in strategic decision making, in ensuring adequate gender disaggregation to understand how women and girls are differently affected, and in advocating for funding to reduce the negative impacts of the Response on SRH services and access both during and after the outbreak.

Ebola response actors should work with existing SRH actors from the onset and capitalize on their knowledge of the context and the SRH needs of the population.

39. Inter-Agency Working Group on Reproductive Health in Crises. Interagency field manual on reproductive health in humanitarian settings 2018 [Available from: <https://iaawg.wpengine.com/wp-content/uploads/2019/07/IAFM-English.pdf>].



The SRH lead should work together with the SRH sub-working group of the health cluster to increase the level of interaction between SRH actors and EVD responders, as described in the section below. In contexts where the SRH cluster has not been activated the SRH lead should work with the existing coordination structure, in whatever form it holds.

The communities and HCWs interviewed identified significant positive progress with regards to improved access to SRH over the course of the EVD response. Lapses in the early stages of the epidemic resulted in a loss of community trust and fear directed towards healthcare facilities, systems and workers. It has taken precious time to rebuild acceptance, during which many women have avoided or delayed seeking needed healthcare, suffering tragic consequences as a result.

1.2. Mainstreaming SRH in EVD response, and ensuring EVD-sensitive SRH services

The EVD response should consider how its activities may hamper access to SRH services. For instance, recognizing the risks posed to pregnant women when they have to be isolated, can lead to improved systems streamlining the process of providing initial life-saving care within isolation.

The difficulties faced by HCWs differentiating EVD symptoms from those of SRH complications requires both services to understand one another and how to provide care safely and with dignity. Emergencies in SRH are time-sensitive, with outcomes significantly worsening the longer a woman waits for treatment. It is imperative that health actors admitting women of reproductive age can manage, or make timely referral for, complications (that are most often related to

pregnancy). Without an integrated approach, the woman risks being bounced between health facilities further delaying her receipt of appropriate health care services.

EVD response actors should receive specific training in the SRH needs of their patients, and SRH actors should be trained in the fundamentals of surveillance, case management and IPC within an EVD context. These should begin from the onset of the response. Ensuring those working in routine healthcare have adequate training in recognizing symptoms of EVD and how to care for the patient with appropriate safety measures; and for EVD responders to understand the common SRH complications and how to manage these with appropriate safety measures. The EVD/SRH overlap requires a joint understanding of how to maintain safe SRH access and treatment in the context of an EVD outbreak. Working in silos is inefficient for the HCW, confusing for the affected population and leads to delays and poorer quality care.

2 Reduce delays at every stage of the patient journey

Communities and HCWs have complained that bleeding in pregnancy is considered EVD until proven otherwise, even if the bleeding is the only symptom the woman is presenting with. While it is fair to suspect a pregnant woman who has EVD will bleed; the vast majority of pregnant women who bleed will not have EVD. Supporting frontline HCWs to

apply the case definition in a holistic manner, allowing continued access to healthcare and keeping HCW and other patients safe from onwards transmission is therefore key.

The different priorities of the Response, routine healthcare services and the community need to be balanced against one another to achieve a rational and safe way to provide SRH care in an EVD context with as few delays as possible. In order to achieve the varying aims of these groups, the following is recommended:

2.1 Triage/Case Definition

The overlap of the symptoms of pregnancy complications and the case definition of EVD is a major clinical challenge. To reduce the risk of inappropriately sending pregnant women to the TC/ETC, where they may have further delays and thus high risks of morbidity and mortality, guidelines for a holistic approach to their care are needed. A healthcare worker with experience of caring for pregnant women should be involved in the triage interview to help identify complications of pregnancy which need urgent medical attention. This should be balanced against a history of potential contact with EVD and additional features of the EVD case definition.

Additional information needs to be considered, as it should be for any other person presenting to a healthcare triage:

- Has the person travelled from an area of recent EVD transmission?
- Is there a contact history with unwell or deceased persons?
- Does the clinical picture fit with EVD clinical course?

Triage should not stop with initial presentation as patients with early or latent EVD may not be

suspected. Hence, any patient admitted into a health facility should be monitored for evolution of symptoms consistent with EVD as a standard practice, with isolation and testing being reconsidered if any alarms are raised.


2.2 Make EVD testing quick and easy

Having access to timely EVD testing is essential if women are to be offered timely treatment for obstetric complications. EVD tests cannot replace a good quality triage assessment, but should be seen as an additional tool in the decision-making process. No single biochemical test is perfect, including the gold-standard Reverse Transcription - Polymerase Chain Reaction (RT-PCR) test, and there is a recognized risk of false negative results in the early stages of disease. It is for this reason a second test is often performed 24-48 hours after the first negative result. For women in urgent need of medical intervention these delays can be catastrophic.

There are several novel EVD testing modalities available which have thus far not been fully utilized in this epidemic. These include Rapid Diagnostic Tests (RDT) and the mobile GeneXpert⁴⁰. The RDTs are similar to those used for diagnosing malaria, making the concept familiar to communities and HCWs.

Concerns have been raised that RDTs could be misused (replacing, rather than supporting, triage) or give false reassurances (given the potential for a false negative result). However, with appropriate training and IPC protocols, they could provide an objective adjunct to the triage process. For example, in cases of women with bleeding who do not have additional signs or symptoms of EVD, a negative RDT could enable the HCWs to have the confidence to provide emergency care (in appropriate PPE). This could prevent cases of inappropriate

40. A brand of RT-PCR machine.



transfer to the TC/ETC. The overall aim is to ensure all women have ease of access to an Ebola test, whether via RDT or through additional, decentralized, laboratory capacity early in the response.

“In December 2018, there was a woman with an ectopic pregnancy at the TC. While waiting for the results, she went into shock and her case had to be transferred to the ETC before the results came back. We did a laparotomy, transfused 3 blood bags and we saved her. It was during an insecure time [during the election period] and the results came late – the case was negative” (KII case management doctor). This case exemplifies the danger posed for women when test results are delayed.

2.3 A universal level of IPC for all procedures

HCWs must be safe in their work. Holistic triage and the use of rapid EVD tests will minimize the risk of a patient with EVD passing through into a health facility, but will not remove it entirely. HCWs should be trained in maintaining a universal standard of IPC within their facilities, for maternity this should include IPC and PPE guidance for examinations, births and invasive/surgical procedures. Training should be provided for all workers who may come into contact with bodily fluids, such as cleaners, porters and sterilization services.

Providing the EVD vaccine to all HCWs, including those who are pregnant or breastfeeding, offers a further layer of protection. Consideration could be given to offering the vaccine to patients admitted into all healthcare facilities given the unfortunate but not-insignificant risk of nosocomial EVD exposure.

2.4 Managing pregnancy complications in TC/ETC

A pragmatic approach on what can be provided to EVD positive women, which is also safe for HCWs, is required. As the response’s ability to provide optimal supportive treatment, curative medications and accessible treatment units (e.g. “the ALIMA cube”)⁴¹ have developed, so has access to life-saving obstetric and gynecological procedures for women who are either confirmed EVD cases, or who are awaiting their test results.

As our knowledge and treatment of EVD advances and management of pregnant women increases, it is vital experiences, successes and failings are documented and openly shared among all actors to maximize progress.

2.5 Communication

Decision making is the first delay; the longer a woman or her community contemplates accessing healthcare, the worse the clinical outcome is likely to be. The same principle is true for a person with a suspected EVD infection. The successes of early treatment in both EVD and pregnancy complications are well documented. This has become a key message for the response in the latter part of the epidemic, however the focus has been on EVD rather than healthcare more generally.

Improvements in all aspects of the patient journey should be communicated and discussed with the community in languages that they understand⁴². There needs to be consistent messaging that early presentation improves clinical outcomes in both EVD and non-EVD conditions, and there should be

41. ALIMA. Cube: the biosecure emergency care unit [Available from: <https://www.alima-ngo.org/en/alima-cube>].

42. Translators without Borders. Missing the mark? People in eastern DRC need information on Ebola in a language they understand 2019 [Available from: <https://translatorswithout->

and there should be appropriate policies to incentivize this (i.e. free health care for all health conditions). Communication should be offered through an accessible and familiar media, using local languages and from trusted sources within the community.

3 Support individuals and communities to mitigate SRH risks posed during and after EVD epidemic

3.1. Help women who choose to delay pregnancy

Women and their communities repeatedly voiced their concerns of being pregnant during the epidemic and desire to delay conceiving during this time. The main cause for their concern appeared to be the perceived or actual risk of isolation or transfer to a TC/ETC if she were to have any pregnancy-related complications, including abortion. The response and routine healthcare should prioritize access to the full range of contraceptive methods for those who choose it. This should include health promotion campaigns informing communities of what and where contraception can be accessed. There is a window of opportunity provided by the EVD outbreak to enable women to start on a FP method that they can either continue post-EVD or that they can remove if they are ready to have another child at that time. Given the large disruptions to daily life that are not likely to end immediately at the end of the outbreak, this offers women and girls the opportunity to plan their futures with more certainty in an uncertain time.

The access to contraception should extend beyond routine health facilities. It should be incorporated into the standard package of

care afforded to women admitted to the TC/ETC and offered at discharge. Furthermore, all women working in the Response or in routine healthcare, should be offered contraception.

3.2. Reduce unintended pregnancies and increase access to safe abortion care

A major concern for women, their communities and HCWs was the management of abortion. Interviewees reported “Because of the stress of Ebola many women are having abortions” (FGD women). It was unclear if this increase was real or perceived, and whether this represented an increase in induced or spontaneous abortions or both.

The social disruption and economic impact of humanitarian emergencies can increase sexual violence, transactional sex and accelerate adolescent sexual debut⁴³. It is vital for women and their communities to know how, where and when to access emergency contraception and abortion care. Comprehensive abortion services should be available at routine health care facilities.

It is of special importance for TC/ETCs to have trained providers in abortion management given the likelihood of women experiencing bleeding in early pregnancy being transferred for testing, and the risk of spontaneous abortion with EVD infection. The teams should be trained on and familiar with the methods for safely completing abortions and managing complications, and appropriate instruments and medications should be available at all facilities. ETCs should have staff trained in counselling pregnant EVD survivors on whether or not to continue with a pregnancy. Safe abortion care should be available at the ETC (or referral to a facility with adequate IPC in place) for women who choose to end the pregnancy.

43. Maclin, B., Kelly, J., Kabanga, J. and VanRooyen, M., 2015. ‘They have embraced a different behaviour’: transactional sex and family dynamics in eastern Congo’s conflict. *Culture, health & sexuality*, 17(1), pp.119-131.

3.3 Prevent transmission and reduce morbidity from HIV and other STIs (including sexual EVD transmission).

Men and women with HIV should be able to continue their treatment, uninterrupted. Provisions should be in place to ensure access to anti-retroviral medications and maintenance of patient confidentiality for those living within the affected area. Whereas this was not highlighted as an issue for the current outbreak, there should be an awareness that with healthcare related insecurity, fear of triage and unpredictable supply chains, additional difficulties in accessing treatment could arise. This must include provisions for any period of isolation and EVD testing. TC/ETCs must consider which additional treatments they need to provide when caring for patients with chronic illnesses.

Stopping anti-retroviral therapy can increase risk of HIV transmission, opportunistic infections and resistance to future treatment.

Availability of condoms and health messaging on their use should be strengthened. While condoms should be made available to male and female EVD survivors, greater access should also be available through community networks so that any person in need of barrier protection can get it easily and free of charge. These condom provision campaigns should also aim to reach people who sell sex or those who are at risk of commercial sexual exploitation. These campaigns must continue throughout and after the epidemic.

4 Formulation of guidelines with expert involvement

The interactions of an EVD outbreak with the ongoing sexual and reproductive health needs of a population are complex.

However, navigating a way to ensure safe care is available throughout the emergency is not impossible, as demonstrated by those at the EVD response and healthcare frontline.

Evidence-based guidance for sexual and reproductive healthcare in an EVD epidemic is urgently needed. The management of EVD is an evolving specialty with changes in treatment, facility design and prophylaxis moving rapidly forward. The guidelines for SRH, including pregnancy care, must reflect this changing landscape. A reporting mechanism should be in place to collate data, knowledge and experience so that guidance can remain relevant and evidence-based

Guidance should consider all the ways in which SRH and Ebola interact. This would include clarifications on application of the case definition; effective triage and testing; use of supportive, curative and prophylactic treatments; advice and management of EVD survivors; and communication strategies.

Guidance must extend beyond the TC/ETC. The challenges of providing SRH in the community and at standard healthcare facilities within the context of an EVD epidemic must be carefully considered. The opinions of experts in all areas of SRH, EVD response and allied social, epidemiological and clinical sciences should be brought together to build a consensus on how to provide safe, accessible and acceptable SRH services within the outbreak context.

Given the specialist nature of SRH services within an EVD context, and the anxiety the subject raises for HCWs, support through training and mentorship should be made available early in the response (ideally alongside other generic trainings).

The lived experience of affected communities and frontline HCWs should be considered. The learning curve of those affected, and coping mechanisms developed, provide fertile grounds for future responses to build on. |

LIMITATIONS

Despite the efforts of the assessment team to make all participants feel comfortable, the FGDs and KIs often took place in a language that was not the mother tongue of the participants. Their words were then translated either once (French to English) or twice (Kiswahili/local language to French to English) and there could have been a significant loss of nuance during these translations.

The assessment team made it clear in each FGD and KI that they were not members of the EVD response, in hopes of reassuring all participants that they could be honest and forthcoming. However, as the assessment team included two women of Western origin it is possible that participants may have been concerned that the assessment team were linked to the EVD response.

There are concerns with data quality in the quantitative datasets, with a high number of missing data points (most notably in the DHIS dataset), alignment issues (i.e. a male listed as pregnant in the TC/ETC dataset), and adjustments over time (i.e. reallocating Butembo linked cases of EVD to other zones).

Selection bias in both the quantitative and qualitative datasets is a limitation. The DHIS data is only gathered from public health centers, leaving out people who choose to visit the wide array of private health centers. The qualitative work largely took place in health centers, meaning that those who accessed and feel comfortable in health centers were more likely to be interviewed, and furthermore a number of those health centers were being supported by the IRC FP programme, therefore people may have been more sensitized to SRH.



INTERNATIONAL
RESCUE
COMMITTEE

CONCLUSION

The impacts of the EVD outbreak and response on SRH are wide-ranging, but fall especially on women and girls. Misunderstanding and fear surrounding the mechanisms of the Response have resulted in increased delays in receiving treatment, particularly for abortion and pregnancy complications. To be able to meet the SRH needs of communities, each step of the patient journey must be analyzed to reduce delays that are magnified by the Response. Efforts to overcome real and perceived barriers to timely healthcare should be continually assessed and implemented.

Inconsistency and confusion surrounding the case definition has resulted in inappropriate isolation of (pregnant) women and reduced access to timely healthcare. The repercussions are far reaching. Stories of individuals being delayed in getting healthcare filtered back to the community resulting in fear, mistrust and resistance (even violence) towards the health workers and the EVD response. Resolving these delays would improve health outcomes for women as well as improve community acceptance of the Ebola response.

Positively, this assessment demonstrated that over time, and with experience, some health workers (particularly those with higher levels of training) have developed a more pragmatic, patient-centered approach to differentiating complications of pregnancy from symptoms of EVD, and have taken on an advocacy role to push for patients to be tested on site where possible. This change in approach at the frontline has begun the process of winning back the faith of their communities and breaking the self-perpetuating cycle of fear and avoidance. Today's Response community should capitalize on this increased experience and confidence to document lessons learnt and develop tools and guidelines so as to support future epidemic responses.

