Decentralised models of care in
Médecins Sans Frontières (MSF)
OCBA missions: Case study evaluation for
Kalehe project, Democratic Republic of Congo

Vienna
Evaluation
Unit

MEDECINS SANS FRONTIERES

# Now we feel at peace, we have medicines and they are free

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# About the Authors

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**The Vienna Evaluation Unit**

The Vienna Evaluation unit started its work in 2005, aiming to contribute to learning and accountability in MSF through good quality evaluations. The unit manages different types of evaluations, learning exercises and anthropological studies and organises training workshops for evaluators. More information as well as electronic version of evaluation and anthropology reports are available at: http://evaluation.msf.org.

# Abstract

**Introduction**

This case study examines decentralised models of care (DMC) implemented since November 2015 in the MSF OCBA Kalehe project in Democratic Republic of Congo, in response to limited access to healthcare primarily caused by geographic barriers.

**Methods** of data collection included a document review, site visits, and interviews and focus group discussions with MSF staff, communities, and other stakeholders. Medical data was analysed retrospectively.

**Findings/conclusions**

DMC activities (malaria points, outreach activities for sexual and reproductive healthcare and simplified ambulatory treatment of acute malnutrition) were a relevant response given the difficult access to health facilities, high malaria incidence, poor maternal health indicators, and reported malnutrition. However, strategies lacked appropriate adaptations over time that would have allowed to increase effectiveness and geographic coverage.

Observed changes included: improved access to healthcare for the people living around the DMC sites; high number of patients treated at operated malaria points; improved ANC coverage; changes in the perception of illness and health seeking behaviour in the target population; decrease in emergency room mortality in Tushunguti after 2015; decrease in inpatient malaria case fatality rate in Tushunguti health centre and Numbi hospital after the introduction of malaria point strategy; and a decrease in referrals for severe malaria to secondary healthcare during the pilot phase of the malaria points (though other factors may also have contributed to some of these changes).

Main weaknesses included: poor geographic coverage of DMC activities; temporary operation of malaria points; poor effectiveness of the referral system; limited malaria prevention activities at project level. Challenges included: difficult access; low level education of community health workers; budget and human resources limitations.



**KEYWORDS: access to healthcare, decentralised models of care, community case management, community health workers, community strategy, community participation, health seeking behaviour**

# Abbreviations

| | |
|---|---|
| ANC | Antenatal care |
| ANC1 | 1st antenatal care consultation |
| ARI | Acute respiratory tract infection |
| ATFC | Ambulatory therapeutic feeding centre |
| BCZS | Bureau de Zone de Santé - Health Zone Office |
| CHW | Community health worker |
| CMR | Crude mortality rate |
| CNRD | Conseil national pour le renouveau et la démocratie - National Council for Renewal and Democracy |
| DMC | Decentralised models of care |
| DRC | Democratic Republic of Congo |
| DTP | Diphtheria, tetanus, polio |
| FGD | Focus group discussion |
| HA | Health area |
| HC | Health centre |
| HMIS | Health management information system |
| HPCW | Health promotion community worker |
| ICU | Intensive care unit |
| IDP | Internally displaced people |
| IPD | Inpatient department |
| ITFC | Inpatient therapeutic feeding centre |
| MoH | Ministry of Health |
| MSF | Médecins sans Frontières |
| MUAC | Mid upper arm circumference |
| NGO | non-governmental organisation |
| OCA | Operational Centre Amsterdam |
| OCBA | Operational Centre Barcelona Athens |
| OCHA | UN Office for the Coordination of Humanitarian Affairs |
| OPD | Outpatient department |
| PECADOM | Prise en charge à domicile – home based treatment |
| PICU | Paediatric intensive care unit |
| PHC | Primary healthcare |
| PNC | Postnatal care |
| PROMAV | *Programme maternel avancé* - advanced maternal programme: decentralised sexual and reproductive healthcare programme activity |
| PRONA | *Programme nutritional avancé* – advanced nutritional programme: decentralised ambulatory therapeutic feeding programme with simplified protocol |
| RDT | Rapid diagnostic test |
| RHC | Referral health centre |
| RUTF | Ready to use therapeutic food |
| SRH | Sexual and reproductive health |
| TBA | Traditional birth attendant |
| UNICEF | United Nations Children Fund |
| UNHCR | United Nations High Commissioner for Refugees |
| WHO | World Health Organization |

# Table of contents

# 1 Executive summary

**Purpose and objectives**

This report examines the case study of decentralised models of care (DMC) implemented in MSF OCBA's Kalehe project in Democratic Republic of Congo (DRC). It is part of a wider evaluation on DMC commissioned to draw lessons learnt from three MSF projects (Kabo, Central African Republic and Malakal, South Sudan) and improve current and future interventions. Specific objectives included evaluating the effect of changes in access to healthcare, effects of DMC on higher levels of care, community participation/involvement, community perception of DMC activities, and specific aspects of the DMC strategy. Evaluation criteria covered relevance, appropriateness and effectiveness.

**Evaluated project:** At the time of the evaluation, the MSF Kalehe project had three components: community healthcare at selected sites in the periphery of supported health facilities, primary healthcare in Tushunguti health centre (HC) and Ramba HC, and support to Kusisa referral health centre (see maps in Annex 6.2). The latter provides primary and secondary healthcare. The total target population is 58,197.

The current community health strategy consists of 1) **malaria points** (since the end of 2015) managed by malaria community health workers (CHWs), that were temporarily opened during the year, depending on priorities identified by the project. At the time of the evaluation there were six malaria points distributed over five health areas (HA); 2) **PROMAV** (*Programme maternel avancé* - advanced maternal programme) – decentralised sexual and reproductive healthcare (SRH) outreach activities provided by qualified midwives in two communities in Tushunguti HA (since 2017); 3) **PRONA** (*Programme nutritional avancé* – advanced nutritional programme) – a decentralised ambulatory therapeutic feeding programme with a simplified protocol (since 2016) currently implemented in Chitebeka, Ramba HA; 4) a network of 48 health promotion community workers (HPCW) who carry out health promotion activities, community-based mortality surveillance, malnutrition screening of children aged under five years, referrals to higher level care and defaulter tracing.

**Methods:** After an initial document review and primary interviews with key MSF informants in Barcelona and DRC, an evaluation protocol was developed. Further data was collected during a field visit between 27/10/2019 and 2/11/2019, where evaluators carried out a document review, site visits and observation, semi-structured interviews, focus group discussions (FGD) with key MSF informants, Ministry of Health (MoH) and other health actors, CHWs, direct beneficiaries and community members. Routinely collected medical data was analysed retrospectively.

**Main findings and conclusions**

**Relevance**

There is no doubt about the relevance of decentralising care at the community level in this part of DRC, given the extremely difficult geographic accessibility of health facilities in this mountainous isolated area. **Malaria points** are particularly relevant considering the high number of severe malaria cases and malaria related mortality in 2015/2016 in an area where transmission occurs year-round. **PROMAV** was also relevant, considering the insufficient coverage of antenatal care (ANC) and institutional deliveries, as well as the high number of late arrivals with maternal complications at health facilities observed by MSF. **PRONA** in Chitebeka was relevant because the number of registered patients in this area with malnutrition had increased.

**Appropriateness**
While malaria points, PROMAV and PRONA were relevant in response to the needs identified by MSF, the strategies lacked appropriate adaptations over time that would have allowed for increasing effectiveness and geographic coverage.

**Malaria points**
While it was appropriate to initially focus on malaria as a rapid response to the malaria peak and high mortality, apart from adding MUAC screening the strategy did not evolve further into a comprehensive community case management model that would also cover other preventive or curative components. Opening and closing malaria points based on identified hot spots of incidence and mortality was appropriate as an initial "emergency" approach but proved inappropriate in the long term, since needs remained high in this area with year-round transmission, and no major malaria prevention activities were added. In most cases, closing malaria points was therefore not pertinent; instead, a higher number would have been needed for better coverage. Malaria prevention activities remained limited to health education on the use of mosquito nets, targeted mosquito net distribution, and prophylactic malaria treatment for pregnant women.

**PROMAV** is a good comprehensive package of decentralised sexual and reproductive healthcare (SRH) but given the staff-intensive approach and the difficult accessibility, it could only be implemented in two sites. In addition, the criteria for referral from PROMAV to the maternity waiting home where pregnant women can wait for their delivery close to a health facility are insufficient. Because of the difficult accessibility of health facilities and the unpredictability of certain childbirth complications, distance from health facilities should be added to the criteria list.

Opening a **PRONA** site in Chitebeka was appropriate to improve access to malnutrition care, given the increase in cases in the area. However, an important advantage in the strategy protocol– the immediate community-based distribution of Plumpy'nut® (peanut-based paste for the treatment of severe acute malnutrition) to eligible children by HPCW – was abandoned after suspicion of theft of Plumpy'nut®.

One major weakness of the DMC programme is the referral system from the community to higher-level care. Referral criteria lack differentiation between levels of urgency and the responsibility of transport of the very sick is left with the community and their volunteer engagement without MSF participation.

The new DMC strategy planned to be implemented as of 2020 represents a major strategic shift in the approach to DMC and aims to improve access and coverage to community-based care for the main killer diseases using a network of 100 mobile curative CHWs. This is an important improvement.

Given the challenging context at the start of the malaria point strategy, an important effort was made to involve the community, even if the programme was exclusively designed by MSF. The degree of community participation varied over the time according to staff capacities and priorities. MSF is considered a "boss" rather than a partner. With the implementation of the new 2020 DMC strategy there is an opportunity to give community engagement a more prominent place.

Since the start of the DMC implementation, new areas, communities, and health needs were identified. However, MSF OCBA's response was organised timely and appropriately in some cases but delayed or not implemented with sufficient geographic coverage in others due to limited capacity and lengthy operational planning processes.

**Effectiveness**
Main observed changes that could be at least partially an effect of the DMC strategies applied in Kalehe are: 1) improved access to healthcare for the people living around the DMC sites; 2) the high

number of patients treated at malaria points in the direct catchment area (even though overall coverage remained low due to the limited number of malaria points and temporary time of operation); 3) improved ANC1 coverage in Tushunguti HA thanks to PROMAV; 4) changes in the perception of illness and health seeking behaviour in the community; 5) a decrease in emergency room mortality in Tushunguti after 2015, and a decrease in inpatient malaria case fatality rate (CFR) in Tushunguti HC and Numbi hospital after the introduction of malaria point strategy; 5) a decrease in referrals for patients with severe malaria to secondary healthcare facilities during the pilot phase of the malaria points, matching anecdotal reports of important changes in the number of severe malaria cases and malaria related deaths.

Communities highly appreciate the improved access to healthcare and are satisfied with the quality of care provided by CHWs and staff in referral health facilities. Main areas for improvement perceived by communities include the exclusion of adults for free care in MSF-supported health facilities, the closure of malaria points and absence of transport to referral hospitals from Ramba HC.

**Main strengths in implementation**: 1) overall fair CHW selection process; 2) overall good training and supervision of CHWs; 3) effective task shifting for management of simple malaria; 4) reliable supply system; 5) effective health promotion activities and community surveillance; 6) comprehensive SRH package in PROMAV.

**Main weaknesses:** 1) poor geographic coverage of DMC activities; 2) limited time of operation of malaria points, 3) poor effectiveness of the referral system; 4) no routine monitoring of effectiveness of the referral system; 5) insufficient electronic data collection for routine monitoring of malaria points; 6) limited malaria prevention activities at the project level.

**Main challenges**: 1) difficult geographic access; 2) low education level of CHWs; 3) limited human and financial resources. Given the low education level of CHWs, good initial training including practical training at a health facility and regular supportive supervision are key to ensure quality of care. As the number of CHWs will increase considerably with the new strategy, it will be important to set up an effective follow-up and evaluation system to assess learning progress and skills. Monthly refresher courses are highly recommended for the new DMC CHWs, as is the increase in number of staff and the clear division of tasks between clinical staff and health educators within the future supervision team.

**Enabling factors for success**: 1) a motivated MSF team willing to reach isolated places by foot; 2) strong leadership from an experienced MSF nurse during the start-up phase of the malaria point strategy; 3) determination of the country coordination and project staff to roll out the malaria point strategy, backed up by the MSF/OCBA operational cell and technical advisors in Barcelona; 4) good understanding of the local context; 5) good negotiation skills with armed actors; 6) high level of acceptance of MSF in the area.

**Main recommendations -** *For more detailed recommendation see chapter 5.*

**For MSF Kalehe project – MSF OCBA DRC mission**

⇒ Implement new 2020 DMC strategy, monitor and adapt package based on needs and feasibility including e.g. systematic preventive treatments for pregnant women or postnatal home visitsby CHWs/traditional birth attendants

⇒ Strengthen CHW training and supervision

⇒ Increase admission criteria and capacity of maternity waiting homes

⇒ Strengthen health promotion activities and community engagement in the programme

⇒ Improve data collection and monitoring system of existing DMC strategies

⇒ Strengthen malaria prevention activities by implementing recommendations from vector control studies and OCBA's water, sanitation and hygiene advisor

⇒ Explore the feasibility to reintegrate immediate community based Plumpy'nut® distribution by HPCW for children with PRONA criteria to enable early access to therapeutic feeding

⇒ Make sure potential future MSF exit and handover are planned in a timely manner

**For MSF OCBA headquarters**

⇒ Finalise the community engagement strategy and the DMC toolkit, including training material for CHWs, and disseminate to the field. Create a mobile DMC implementation officer position to provide technical support for projects and the country coordination team

⇒ Develop a framework for improved monitoring of DMC activities at project, coordination and cell level

# 2 Introduction

## 2.1 Evaluation purpose and objectives

In response to the barriers that vulnerable people face when trying to access healthcare (resulting from conflict, violence, displacement and/or distance) and in line with its current strategic plan[1], Médecins sans Frontières (MSF) Operational Centre Barcelona Athens (OCBA) has developed decentralised models of care (DMC) in a variety of countries and projects. MSF OCBA understands DMC as the implementation of care outside health facilities and delivered closer to patients in the community, in order to make curative and preventive medical activities more accessible.

The design of the DMC strategy generally contains two types of interventions, adapted to the context of each specific situation: 1) community-based interventions implemented by community health workers (CHW) and/or trained traditional birth attendants (TBA) inside the community; 2) decentralised interventions implemented in the community, but originated in fixed facilities and carried out by MSF staff with higher skill-sets.

With the purpose to improve and inform current and future DMC interventions, MSF OCBA commissioned an evaluation composed of three case studies – Kabo in Central African Republic, Kalehe in Democratic Republic of Congo (DRC), and Malakal in South Sudan – where projects with DMC components have already been implemented. The current report is the case study for the project in the Kalehe territory of DRC (hereinafter: Kalehe project) and is focused only on the community health care (DMC components).

The objectives of the evaluation are to determine:

- The effect of the community strategy in terms of access to healthcare
- The consequences of the strategy on the workload of staff providing higher levels of care
- The participation of the community in the planning (co-design) and implementation of DMC activities
- Specific aspects of DMC interventions (design, implementation and set-up)
- Enabling and constraining factors during the implementation

Relevance, appropriateness, and effectiveness have been chosen as evaluation criteria. The list of evaluation questions can be found in the Terms of References (Annex 6.1).

## 2.2 Country context

The largest country in sub-Saharan Africa, DRC has nearly 80 million inhabitants, of which fewer than 40% live in urban areas. It is one of the poorest countries in the world with a human development index of 176 out of 189.[2] The east of DRC is still recovering from the Congo Wars, which claimed an estimated six million lives from the mid-1990s to the early 2000s. The humanitarian situation remains precarious: by 2019 an estimated 12.8 million people were in need of humanitarian assistance and protection[3], as a result of prevailing socio-economic challenges and continued conflict between communities, non-state armed groups and Congolese security forces.

Many Congolese people have little access to even the most basic services including healthcare. In addition to barriers to healthcare in some areas due to armed conflict, the health system lacks staff

[1] MSF OCBA, Strategic plan 2014-2017 and MSF OCBA; Extension of the strategic plan 2014-2017 (2 years)
[2] UNDP, Human development report 2018; http://hdr.undp.org/en/2018-update
[3] OCHA, About OCHA DRC; https://www.unocha.org/democratic-republic-congo-drc/about-ocha-drc

and medicine. People have to pay for the most basic health services, which many cannot afford because of high levels of poverty.[4] Although some national health indicators such as child and maternal mortality rates have improved over time[5], malaria remains the main killer disease responsible for 35% of all deaths in DRC.[6] Outbreaks of infectious diseases are commonplace; in 2019 a measles outbreak killed more than 5,000 people in DRC.[7]

Over the past decade, DRC's easterly province South Kivu (see first map in Annex 6.2) has experienced several armed conflicts and is currently one of the most-affected provinces in terms of forced displacement and population movements. Thousands of internally displaced people (IDP) fleeing violent clashes in North Kivu have found refuge in Kalehe territory in South Kivu. The majority of IDPs in the area are Hutus from Masisi in North Kivu, whose presence has sometimes exacerbated ethnic tensions in Kalehe. Additionally, insecurity within Kalehe territory has forced the population in some villages to flee to safer areas in Kalehe over the past years. Many of the displaced live in woods or are sheltered in host communities.[8]

Although the general security situation has improved significantly, there are still some pockets of resistance or conflict. In early 2019, the *Conseil national pour le renouveau et la démocratie* (CNRD), a dissident wing of the *Forces démocratiques de libération du Rwanda* rebellion and their dependents migrated in large numbers to the Kalehe highlands.[9] At the end of 2019, the Congolese Army launched a military offensive against the CNRD in Kalehe territory that led to the displacement of about 3,000 people.

Access to healthcare in the area is generally hindered by poor infrastructure, financial barriers and conflict which often restricts movement and access to people in need. The extreme isolation of villages in this mountainous area and the very poor network of paths or roads (many villages can only be reached by foot; few are accessible by motorbike) is another barrier for people seeking healthcare. Due to its geographic isolation and instability, the current project area in Bunyakiri health zone received very little support from the Health Zone Office – *Bureau de Zone de Santé* prior to MSF's presence. This has resulted in chronic problems of drug supply and insufficient numbers of human resources. Malaria is the main cause of morbidity and mortality in the area, with positivity rates of rapid diagnostic tests (RDT) above 60%. Maternal health and malnutrition were identified as further concerns.[10] For years MSF has been the only medical humanitarian actor present in the area.

## 2.3 Project overview

The general objective of the Kalehe project is to reduce morbidity and mortality in the population in Bunyakiri health zone and the Minova highlands in DRC's South Kivu province, by providing free quality healthcare to the estimated target population of 58,197 people[11]. The DMC component of the project has the specific objectives to improve access to care for malaria, pregnancy

[4] MSF, DRC; https://www.msf.org/democratic-republic-congo-drc
[5] See data from: UNICEF, Country Profile Democratic Republic of Congo; https://data.unicef.org/country/cod/#; WHO. Trends in Maternal Mortality: 2000- 2017; Ministère du Plan et Suivi de la Mise en oeuvre de la Révolution de la Modernité (MPSMRM), Ministère de la Santé Publique (MSP) et ICF International. Enquête Démographique et de Santé en République Démocratique du Congo 2013-2014.2014.
[6] UNICEF et al. Enquête Par Grappes à Indicateurs Multiples 2010. 2014.
[7] UN News, Measles claims more than twice as many lives than Ebola in DR Congo. https://news.un.org/en/story/2019/11/1052321
[8] MSF, DRC; https://www.msf.org/democratic-republic-congo-drc
[9] Kivu Security Tracker ; Movements of Rwandan rebels in South Kivu raise fears; https://blog.kivusecurity.org/movements-of-rwandan-rebels-in-south-kivu-raise-fears/
[10] MSF OCBA, MSF Annual plan 2019.
[11] MSF OCBA, Cartography_PS_2019

complications and malnutrition, and to increase early diagnosis to reduce severity and complications.

The target area of the Kalehe project changed over time depending on the needs. Some components of the project date back to 2013, while DMC components were added in 2015/16, following a peak of incidence in malaria in the Ziralo *groupement*[12] (hereafter Ziralo area) that led to high rates of mortality. In 2015/2016, MSF transformed Numbi HC, in the highlands of Minova health zone, into a hospital. It served as referral hospital for the MSF Kalehe project until the end of 2018 and was handed over to the MoH after MSF completed the construction of Kusisa referral health centre (RHC) in the Ziralo area.

As of January 2019, it covered the health areas (HA) Tushunguti, Kusisa, Mianda, Matutira in the Ziralo area[13], as well as Ramba HA in Mubugu *groupement* (see maps in Annex 6.2). The project budget for 2019 is 2.5 million euros. At the time of the evaluation (October 2019) the project had the following components:

**1. Community healthcare (DMC components)**

- Six malaria points managed by malaria CHWs on incentives, one in each of the four HAs in Ziralo area and two in Ramba HA. Malaria points are opened and closed depending on priority needs identified by MSF teams. Each point is staffed by a trained malaria CHW and a trained backup CHW, who carry out rapid diagnostic tests (RDT) for malaria, provide treatment for uncomplicated malaria for patients of all age groups, screen for malnutrition among children aged under five, and refer complicated cases and all patients with a negative RDT.
- Biweekly or monthly decentralised sexual and reproductive healthcare intervention called PROMAV[14] in two communities in Tushunguti HA (Katanga and Katale). In practice, PROMAV is primarily an antenatal care (ANC) outreach activity. Pregnant women with signs of risks are referred to the maternity waiting home in Kusisa referral health centre (RHC) for delivery. Services are provided by qualified midwives.[15]
- A biweekly decentralised ambulatory therapeutic feeding programme with a simplified protocol called PRONA[16] in Chitebeka community in Ramba HA, implemented by qualified staff. Contrary to an ambulatory therapeutic feeding centre (ATFC), admission criteria are limited to the mid upper arm circumference (MUAC) < 120 mm and/or oedema. The MUAC cut-off for inclusion in PRONA is higher than the cut-off for severe acute malnutrition (< 115 mm). This is done to ensure early treatment of children at risk of decompensating rapidly and who live far away from a fixed ATFC.[17]
- A network of 48 health promotion community workers (HPCW), known as *relais communautaire*s in the Congolese health system. Besides health promotion, HPCWs on incentives carry out home visits for community-based mortality surveillance, conduct MUAC screening of children aged under five, refer the sick to health facilities and carry out defaulter tracing.

**2. Primary healthcare**

[12] Within the territorial organisation of DRC, g*roupement* (grouping) is a territorial unit composed of villages. In DRC, there are five levels of administrative units (first and highest being provinces; fifth and lowest being villages) and the *groupement* is the fourth.
[13] Ziralo area – Ziralo groupement is an administrative subdivision the Kalehe territory.
[14] PROMAV is the abbreviation from the French *programme maternel avancé* (advanced maternal programme)
[15] MSF OCBA, PROMAV – Programme Maternel Avancé, 2016.
[16] PRONA is the abbreviation from the French *programme nutrionnel avancé* (in English advanced nutritional programme)
[17] MSF OCBA, PRONA - Programme Nutritionnel Avancé®, 2016.

- Support for two Ministry of Health (MoH) primary healthcare (PHC) facilities: Tushunguti health centre (HC) and Ramba HC with MoH staff receiving incentives from MSF. The HCs provide PHC and maternity care and can admit patients for observation. Ramba HC also has a maternity waiting room for women with normal pregnancies.

3. **Secondary healthcare**

- Support to Kusisa RHC (a secondary health facility run by the MoH): MSF transformed Kusisa HC into a hospital in 2018 (although it is not yet officially recognised as such) with maternity, paediatrics, internal medicine, surgery, a maternity waiting home for women with at-risk pregnancies, and an outpatient department (OPD) that offers PHC. Most of the staff are MoH employees receiving incentives from MSF, complemented with MSF staff working in some key positions.

The implementation of specific components also changed over time. *See Kalehe project overview on target areas, components, timeline in Annex 6.5.*

All MSF-supported health facilities provide free healthcare to children aged under 15, pregnant and lactating women and medical emergencies.[18] For other adults, the Congolese cost recovery system applies. A huge number of the catchment population of health centres not supported by MSF (i.e. Mianda and Matutira HCs in the Ziralo area) apparently use Tushunguti and Kusisa health facilities even for PHC. Malaria points are also used by patients from the neighbouring North Kivu province. People from the highlands in Ramba HA still struggle to access Ramba HC due to the challenging geographic landscape. Patients from Ramba HC who need secondary healthcare are either referred to Kusisa RHC (six hours walk away) or to Chigoma hospital, which is not supported by MSF (one-two hours' drive by motorbike).

## 2.4 Methodology

The evaluation is based on a mixed methods case study design, combining qualitative methods with quantitative retrospective analysis of secondary medical data. Qualitative data collection took place during a field visit in Bukavu and Kalehe project between 27 October and 2 November 2019, alongside a number of Skype interviews, carried out by a team of two evaluators. Retrospective analysis of routinely collected medical data was conducted off-site by an epidemiologist with input from the field evaluators.

Qualitative data was collected through:

- **Review of key documents** (list in Annex 6.8)
- **Semi-structured interviews and focus group discussions** (list of interviewees in Annex 6.6)
    - Individual interviews: with key MSF informants (headquarter, country coordination, project team), former key MSF staff, health workers, local health authorities, Médecins du Monde and brief interviews with patients/caretakers at MSF-supported health facilities (n=59, 29 in-depth and 28 brief interviews with patients)
    - Interviews with groups of two or three: with malaria CHWs, nurses, patients, MSF Operational Centre Amsterdam (OCA), representatives of provincial health authorities (n=10)
    - Focus group discussions (FGD): with community leaders/members (male and female separately), malaria CHWs, patients, and health workers (n=19)

[18] These include 12 criteria, among others severe malaria, respiratory stress, shock, trauma, sexual violence etc. MSF OCBA. *Politique des références des malades. Mission R.D.C.* November 2019

Interview guides were developed for each group of interviewees, covering the respective relevant evaluation questions.[19]

- **Field observation and site visits** to four malaria treatment points, one PROMAV, the only PRONA and all MSF-supported health facilities (n=9).
- **Analysis of medical data:** routine monitoring data were analysed retrospectively.
- **Feedback workshop** with MSF project staff and feedback meeting with the medical coordinator to present first preliminary qualitative findings.

**Sampling:** key informants were sampled purposively, with some participants selected on convenience depending on their availability during visits to health facilities. Four out of six malaria treatment points, (two in Ziralo area, two in Ramba HA) one out of two PROMAV sites in Ziralo area and the only PRONA site in Ramba HA were visited, as well as all the three MSF-supported health facilities. *For details of the sampling strategy for the selection of interviewees and site visits see Annex 6.3.*

**Analysis:** Transcribed summaries of interviews were coded using NVivo and Atlasti software, categorised and analysed for content according to the evaluation criteria and questions and interpreted jointly by the two evaluators. To validate findings, evaluators used triangulation of different sources of qualitative information, of qualitative findings with quantitative analysis results, as well as early feedback from project and country coordination team.

**Quantitative data** was collected from:

- Population figures originated from the "*Cartography_PS_2019*"
- Number of CHWs according to the information provided by the project
- MSF health management information system (HMIS) database for medical data collected at health facilities, malaria points, PROMAV and PRONA
- Data from HMIS:
    - *for outpatient departments* - external consultations, paediatric external consultations, gynaecology/obstetrics external consultations, emergency room, observation room, ATFC
    - *for inpatient departments* - hospitalisation ward, paediatric ward, surgical ward, gynaecology/obstetrics ward, intensive care unit /paediatric intensive care unit. (ICU/PICU), inpatient therapeutic feeding centre (ITFC)
- Proportion of patients tested malaria positive at malaria points as collected by project staff
- Proportion of patients referred from communities who arrive at health facilities, as collected during the field visit report by DMC advisor (Dvorzak JL) in July 2019, and the database of Kalehe project health promotion activities for 2019.

**Analysis**: for this evaluation the following indicators have been calculated: accessibility coverage, availability coverage, contact coverage, referral system, and health facility-based mortality. *Details on the methods used for each calculation can be found in Annex 6.4.*

**Ethical considerations**: after an explanation of the evaluation, its objectives and procedures, the free decision to participate and withdraw from the interview at any time, and the assurance of anonymity in the report, participants provided verbal consent. Translators were trained in informed consent and the importance of maintaining confidentiality was emphasised. An ethical review exemption had been provided by MSF OCBA's medical director.

[19] MSF, Evaluation of decentralized models of care in DRC, CAR and South Sudan : Evaluation Protocol, September 2019.

## 2.5 Limitations

**For the qualitative data** there are several sources of potential bias:

Evaluators may have been perceived as MSF staff. This was compounded by the fact that MSF staff translated the interviews with participants who don't speak French. Translation may also have biased some findings. In some FGDs with women, only male translators were available. Evaluators tried to reduce bias by explaining their role, ensuring anonymity and proactively encouraging interviewees to be open and critical of MSF (if the case). Whenever possible, MSF staff not involved in healthcare or DMC activities were asked to translate.

The absence of a baseline study on health seeking behaviour also limits the validity of the changes described.

Recall difficulties made it hard to establish a precise timeline of events and reasons for changes in strategy.

**For the quantitative data:**

The lack of baseline data on community mortality limited the assessment of the impact of DMC activities.

No community mortality surveillance data are available prior to 2019 (earlier mortality surveys conducted in the project could not be used as baseline since the project area changed over time).

The frequent changes in the project target area, supported facilities and DMC activities made it hard to interpret observed changes with available data.

Several limitations are related to the limits of the HMIS including: lack of data on the origin of patients coming to health centres/DMC points to estimate accessibility coverage; lack of data on the number of emergency and observation room deaths to help interpret the IPD mortality data; lack of information on the prior use of DMC activities for patients seeking higher level care to analyse the direct effect of DMC on health facilities; lack of data on the numbers of severe malaria cases to assess the effect of the malaria points on this reduction. Other limitations resulted from the availability of data on the referral system from the community to higher level care[20], as well as on the use of the two maternity waiting homes in Kusisa RHC and Ramba HC, to show the trend in their utilisation.[21]

[20] A request to collect data from registration books for a period of three months with support of additional data collectors who would have been hired with the evaluation budget was rejected because of conflicting priorities.

[21] An electronic database was only introduced at the end of 2019 with an objective to get a better picture on the effectiveness of the maternity waiting homes, following a request made by the health advisor. A request to collect at least the number of monthly admissions from registration books with support of additional data collectors remained unsuccessful due to conflicting priorities.

# 3 Findings

## 3.1 Relevance

**Decentralising malaria care** in the community in the Ziralo area was relevant given the poor accessibility of health facilities in this mountainous region, as well as the high number of severe malaria cases and malaria related mortality. Malaria points remain relevant in this endemic area where transmission occurs year-round. **PROMAV** was also relevant given the insufficient coverage of ANC and institutional deliveries, as well as the high number of women arriving late at health facilities with maternal complications. Opening a **PRONA** in Chitebeka was relevant given the high number of children with malnutrition in the area.

**Malaria points**

In 2015, a significant increase of malaria cases was recorded in Tushunguti HC. The number of cases more than quadrupled compared to the previous year, with 700 cases a week by September-October 2015 (*detailed data in Annex 6.7, figure 10*). Most patients came from Tushunguti and Kusisa HA, due to the presence of a chain of rivers that crosses the two villages. Tushunguti HC was overwhelmed with patients and the number of referrals of severe malaria to Numbi HC tripled.[22] Poor geographic access to early diagnosis and treatment, poor knowledge of the causes of malaria and the importance of early treatment, as well as difficult access to effective referral care, were identified by MSF teams as the reasons for increased rates of severe malaria and high malaria related mortality.

Former MSF staff, the MoH staff in Tushunguti HC and community members described this period as an emergency situation. Many patients with severe malaria were referred from Tushunguti to Numbi HC, which often meant several hours journey by foot up the mountains. Children were carried by their parents and adults were carried on stretchers. Many of the anaemic patients referred required blood transfusions; and until blood transfusions became available in Numbi HC, these patients had to be referred again from Numbi to Minova hospital either by motorbike or carried by porters. According to former MSF staff and Tushunguti HC staff, these delays resulted in high mortality, with many anaemic children dying on the way to the referral centre.

In response to this situation, MSF developed the community-based malaria point strategy[23] to improve access to healthcare, ensure earlier treatment and reduce the number of severe malaria cases and related mortality. CHWs were trained in malaria management to ensure permanent staffing of malaria points, which remains relevant given the high malaria incidence and the year-round transmission. Care was offered free of charge to all age groups. In response to the perceived poor local knowledge of malaria and its attribution to witchcraft, the curative package was complemented by health promotion activities carried out by HPCW, including health education about malaria, prevention, and the importance of early treatment, which was pertinent.

**PROMAV**

In 2016, the PROMAV strategy was developed as a decentralised intervention in response to high estimates of maternal mortality ratios (800/100,000 live births according to a 2015 survey[24]) to prevent and detect complications related to pregnancy and delivery.[25] It was implemented in two communities in Tushunguti HA, which was relevant for several reasons: first, available data suggests that by 2015 Tushunguti had relatively low ANC1 coverage (71%) and institutional delivery

[22] MSF OCBA, Stratégie communautaire Ziralo, PECADOM focalisé Paludisme, October 2015.
[23] MSF, Niger 2013, Tackling the deadly combination of malaria and malnutrition, April 2013.
[24] MSF OCBA, Rapport enquête de mortalité maternelle: Hauts Plateaux, Minova – RDC, Avril 2015
[25] MSF OCBA, Protocole Programme Maternel Avancé Communautaire, 2016; MSF OCBA, PROMAV (Programme Maternelle Avancé), 2017

coverage (49%) *(Annex 6.7, table 5);* second, there were reported late arrivals of women with maternal complications at health facilities, and anecdotal reports of maternal deaths on the road from Tushunguti to Numbi.

PROMAV activities are conducted by qualified midwives once to twice a month to prevent pregnancy complications, for example systematic intermittent chemoprophylaxis of malaria and iron/folate substitution; to detect and treat pregnancy complications as early as possible; to refer where needed; to promote institutional deliveries; and to provide medical care for survivors of sexual violence – all relevant interventions to prevent maternal mortality and improve reproductive health.

**PRONA**

The PRONA strategy with a simplified protocol[26] for the ambulatory treatment of acute malnutrition, was developed as a response to the poor uptake of referral advice to facility based ATFCs and/or the high dropout rates due to access barriers to healthcare for isolated communities. The objective of the strategy is to increase the coverage of early detection and treatment of acute malnutrition. PRONA were implemented from 2016 to 2018 in five sites in Tushunguti and Kusisa HAs, and as of November 2018 in Chitebeka, Ramba HA. According to MSF staff, the reason to open a PRONA in Chitebeka was due to a high number of malnutrition cases from the area and the distance to Ramba HC, which justified a response with PRONA. Baseline data were not available for the evaluators. However, the 2018 defaulter rate at the ATFC in Ramba HC was acceptable at 2.6% and would therefore not have been a reason to open a PRONA. Information on the reasons to open PRONA in the other sites was not available.

## 3.2 Appropriateness

### 3.2.1 Adaptations in the approach

The strategies for malaria points, PROMAV and PRONA lacked adaptations over time to respond more effectively to the needs. Referral criteria from the community to higher-level-care lack differentiation between the levels of urgency, and responsibility for transport of the very sick is left to the community without MSF input. However, the new 2020 community-based strategy is an appropriate adaptation of the malaria point approach because it contains a more comprehensive community case management package and better geographic coverage.

**The community-based malaria control strategy**

Malaria points were not supposed to be permanent but meant as a flexible response to incidence and seasonal needs. According to former MSF staff, the reasons for this approach were MSF's limited financial resources to operate a larger network of points, the very difficult geographic access to community sites in the project area, and operational priorities[27]. There were two main criteria to open a malaria point: the long distance from the nearest health facility, and the high number of severe cases arriving at the HC or high community-based mortality. Closing criteria were not defined initially[28] but specified as the following in a 2019 planning paper: the drop in diagnosed cases below 100 per month per malaria point, security problems, problems with

[26] MUAC based criteria, increased MUAC cut-off of 120 mm for inclusion, immediate provision of ready to use therapeutic food (RUTF) Plumpy'nut® by HPCW followed by referral to PRONA for nurse led follow-up.
[27] MSF OCBA's operational priority is to assist populations affected by violence.
[28] In the past, the malaria point in Kilambolambo was closed as result of population displacement.

"overconsumption" of drugs/suspicion of theft, and support by MSF for more than 18 months.[29] The latter two criteria are questionable in conditions when the needs remain high.

As for the number of malaria cases diagnosed per month, this did not drop below 250 in any of the malaria points open since 2015. This suggests that the initially planned "flexible" approach of opening and closing according to the needs was in fact not applicable in this project area, where needs remain huge and malaria transmission occurs year-round. Instead, the area required permanent community-based malaria case management and would have needed a higher number of malaria points to achieve better geographic coverage.

As for the malaria prevention activities, they remained limited to health education on the use of mosquito nets, targeted mosquito net distribution for pregnant women in ANC and after delivery, patients in the therapeutic feeding programme and all inpatients at discharge, and the intermittent prophylactic malaria treatment for pregnant women in ANC. No vector control activities were implemented. The South Kivu mission's 2016 malaria strategy[30] included also an intermittent malaria preventive treatment in infants (IPTi) with sulfadoxine-pyriméthamine and innovative vector control activities, but according to the MSF OCBA health advisor, this plan was cancelled when an external study showed resistance to the drug. The diagnostic part for the vector control strategy was conducted in all MSF OCBA projects, and some related activities – such as sugar bed traps and several sanitation measures at community level – were piloted in Lulingo project (which had a high concentration of vector breeding locations). The study of effectiveness of these strategies was finalised in early 2019,[31] and the roll out of most of its recommendations for all projects is still pending.[32]

**PROMAV and PRONA**

Despite its high relevance to population's needs, PROMAV has been implemented only in two rural sites in the project area. No adaptations were made to allow pregnant women with limited geographic access to ANC in other sites to benefit from even a light community-based package of minimum high impact interventions, such as systematic preventive treatment of malaria, iron/folate supplementation, and deworming (as in case of MSF OCBA's Kabo project in CAR). The role of a community-based female counsellor "*Maman conseillère*" planned as part of the original 2016 strategy document was lost over time. In addition, referral criteria to the maternity waiting home are limited to a list of predefined risk factors for complications during delivery. Living far away from the closest health facility was not included among the criteria, which overlooks the extremely difficult geographic access in the project area and the unpredictability of certain childbirth complications such as post-partum haemorrhage and protracted labour.

As for PRONA, the simplified protocol[33] allows for rapid access to therapeutic feeding for children with severe acute malnutrition and even includes a security margin for children with moderate acute malnutrition.[34] But the immediate provision of Plumpy'nut® by HPCW in the community was stopped after suspicion of theft of the Plumpy'nut®. Thus, the advantage of immediate community-based provision of ready to use therapeutic food (RUTF) unfortunately disappeared. However, as MSF OCBA's nutrition advisor highlighted, the enlarged admission criteria of the PRONA protocol are nevertheless still likely to prevent cases of complicated severe acute malnutrition.

**29** MSF OCBA Kalehe project, Proposition stratégie périphérie Kalehe 2019, 2019

30 MSF OCBA, Stratégie de Prévention et Lutte Contre le Paludisme; Mission de MSF Espagne en RDC, April 2016.

31 N'Do, S. Rapport de fin de mission : Résultats préliminaires des études entomologiques, December 2018. Prudhomme, S et al. Identification moléculaire et résistances génétiques aux insecticides.

32 The only operationalised recommendation refers to the replacement of previously used insecticide treated mosquito nets with PermaNet® 3.0 due to resistance to pyrethroids and DDT.

33 See footnote 25

34 MSF OCBA, PRONA – Programme Nutritionnel Avancé®, 2016.

**Referral system from the community to health facilities**

A general limitation in the DMC approach in Kalehe is the weakness of the referral system from the community to the health facility. While criteria for referral were clearly defined for the malaria points, they lacked definition between categories of urgency and a reliable transport system for patients who are too sick to walk.

**New community-based DMC strategy planned for 2020**

MSF OCBA has developed a new DMC strategy for the Kalehe project which includes a more comprehensive preventive and curative package, with the implementation planned to start in 2020[35]. Part of the strategy is to train about 100 curative CHWs for the whole project area, aiming at a ratio of one CHW per 500 inhabitants. According to the preliminary plan, these curative CHWs will provide home-based management for simple malaria and simple diarrhoea, conduct MUAC screening, and refer complicated cases of malaria, diarrhoea and pregnant women, acutely malnourished children, all acute respiratory tract infections (ARI) and other cases that have a negative malaria RDT. CHWs work will be complemented by 100 HPCWs to help reinforce health promotion activities and disease surveillance. For the time being, the project plans to keep malaria points, PROMAV and PRONA according to the needs, but once the new DMC strategy is rolled out malaria points will close.[36]

This strategic adaptation will improve the geographic coverage of community case management. Whether the home-based approach will actually be an advantage compared to the fixed community site approach as applied in the malaria points will still have to be monitored during the pilot phase. The scattered settlement pattern and walking distances could become a challenge in identifying households with sick patients. According to MSF staff, only three additional health educators have been factored into in the annual plan to support the periphery supervisor and health promotion team for the implementation of this ambitious scale-up. Given the geographic challenges and the scale of the population, this number seems too small to assure the quality of care provided by new DMC CHWs. Furthermore, initial plans still lack proper strategies for monitoring and handover in the event of an MSF exit.

### 3.2.2 Alignment with MoH/WHO policies

Case management in malaria points was partially in line with WHO and Congolese MoH policies for integrated community-based management of childhood diseases, but the DMC package of care was less comprehensive.

Since mid-2000, the WHO and Congolese MoH policies for Integrated Community Case Management aim to bring treatment of the main childhood killer diseases closer to the population to reduce child mortality.[37] According to these policies, curative CHWs on incentives are trained to treat simple malaria, diarrhoea and pneumonia, screen for malnutrition among children aged under five and refer complicated cases for higher level care. They collaborate with volunteer HPCWs who carry out health promotion activities in the community. However, the implementation of these

[35] By the time of this evaluation, a written strategy with an implementation plan was not available and the strategy final approval was still pending.
[36] MSF OCBA, *2020 Phase 3 Annual plan Kalehe project,* Version 4 November 2019; MSF key informants.
[37] WHO/UNICEF, *Joint statement; Integrated Community Case Management (iCCM),* Retrieved from https://www.who.int/maternal_child_adolescent/documents/statement_child_services_access_whounicef.pdf; Ministère de la santé; Prise en charge intégrée des maladies de l'enfant : Sites des soins communautaires. Guide de mise en œuvre, 2007

policies has so far been heavily dependent on the support of international donors and implementing partners.[38]

Malaria points were in line with the WHO and Congolese policies for Integrated Community Case Management, in the sense that they were community-based, CHW-led, and offered malaria treatment and nutrition screening – which is positive for future handover plans. However, other than planned in WHO and national policies, treatment of simple diarrhoea and acute respiratory tract infections (ARI) was not included so far in the Kalehe DMC strategy. While it was appropriate to prioritise malaria, particularly in the beginning of the implementation of the DMC strategy when the situation demanded a rapid response to the malaria peak, it took the project until the 2020 annual planning process to shift away from a vertical malaria approach to a more comprehensive community case management approach. However, even if the new 2020 community-based DMC strategy will include management of diarrhoea and ARI, it does not foresee antibiotic treatment of ARI by CHWs because of their low education level and the fear of antibiotic resistance. Patients with ARI will be instead referred to a health facility which is appropriate.

While falling behind the existing policies with the integrated community case management package of care for children, MSF has taken the appropriate step beyond WHO/Congolese policies by providing community-based malaria treatment to *all* age groups in their malaria points.

### 3.2.3 Response to new health needs

Since the start of the implementation of malaria points, PROMAV and PRONA, new areas, communities and new health needs were identified through monitoring health facility data, community-based surveillance and surveys, and general context monitoring. MSF OCBA's response was organised timely and appropriately in some cases and delayed in others due to limited capacity and lengthy operational planning processes.

Interviews with MSF staff revealed several examples when MSF responded effectively to new health needs. In 2019 when high numbers of patients with severe malaria started to arrive in Tushunguti HC from Ufamandu in North Kivu, the malaria point in Kilambolambo – a village people cross on the way to Tushunguti – was reopened[39]. In response to a measles outbreak in the region, MSF organised a vaccination campaign in July 2019 in collaboration with the MoH, targeting the most affected villages. MSF will also support a mass measles vaccination campaign currently being planned.

Further effective responses to new health needs were triggered by a 2019 survey that showed mortality rates above the emergency threshold in Ramba HA, with malaria as the main cause[40]. As a result, MSF opened two malaria points – one in Chitebeka and another in Lukanga, the village with highest number of reported deaths in the survey – although the overall coverage with community-based malaria management in Ramba HA is still too low. In reaction to the survey in July 2019, MSF also started supporting Ramba HC with the same package of free care as Tushunguti and Kusisa. In November 2019, when the Congolese military operation against the CNRD resulted in the arrival of

[38] In South Kivu, 112 sites were created with support of USAID, some of them also in Bunyakiri health zone outside of the current Kalehe project area, but have largely become non-functional when USAID support stopped in 2017

[39] The point had been closed in 2018 for security reasons.

[40] The survey showed a crude mortality rate of 4,32/10,000/day and an under five mortality rate of 9.18/10,000/day for Ramba HA, both above the emergency threshold. A potential interviewer bias was suspected for two villages with a very high number of reported deaths; however, even after excluding them the results remain above the emergency threshold (2.93 and 6.44 respectively). Malaria had been identified as the main cause of mortality (43% of reported deaths), followed by diarrhea (23%), ARI (5%) and maternal deaths (4%). Source: Kasi, B. Rapport de l'enquête de nutrition et de mortalité rétrospective : Aires de santé de Kusisa, Matutira, Mianda, Tushunguti et Aire de santé de Ramba, Mars-avril 2019.

approximately 2,500 IDPs in Matutira HA, MSF responded with mobile clinics, PROMAV and donations to non-MSF-supported health facilities to increase immediate access to healthcare.

Interviews with MSF staff also revealed examples of newly identified health needs where the MSF response has been too protracted or delayed. This was particularly the case with implementing PROMAV in areas with high needs: the high maternal mortality in Mianda and Matutira HAs (community surveillance data), and in the highlands in Ramba HA (exploratory mission in October 2019) resulted in plans to open PROMAV in these areas. But at the time of the evaluation this had not yet been implemented. The project also had proposed to open a PRONA in the Ziralo area in response to high defaulter rates in the ATFCs in Tushunguti and Kusisa HCs. Mapping the places of origin of these ATFC patients admitted between January and March 2019, had shown that most of the patients (18%) were from Ufamandu in North Kivu. Opening a PRONA in a village that is more easily accessible for this population was discussed but is still pending.

Reasons given for delays in response to newly identified needs and for the limited geographical coverage of DMC activities were financial and human resources constraints combined with the very challenging geographic access to the periphery. Opening and closing sites based on medical and operational priorities[41] had therefore been chosen as a way to maximize the impact with the resources available. However, the current MSF country team has ambitions to expand and substantially improve this coverage with the new 2020 DMC strategy.

### 3.2.4 Community participation[42]

The degree of community participation and involvement varied by project component and phase but has been globally insufficient. The programme was exclusively designed by MSF. Community involvement mainly consisted of information sharing and remained inconsistent during implementation. As a consequence, MSF is considered by local stakeholders as a "boss" rather than a partner.

**Community participation in the design and planning phase**

The malaria point strategy was designed in an emergency context, when a huge logistic and physical effort[43] was needed to reach communities affected by high levels of malaria incidence in the Ziralo area. Under these circumstances, it was impossible to implement a truly participative co-design process. The launching phase was planned with input from the humanitarian anthropology, health promotion and community engagement advisor at MSF OCBA's headquarters. HPCWs helped to establish contacts with village chiefs who then organised community meetings where MSF staff could present their plans. The recruitment process of malaria CHWs was community-led, transport of the severely sick was done by the community and the community provided the hut and furniture for the malaria points.

The new 2020 DMC strategy's main objective is to move towards a "real community-based strategy".[44] Based on this wording, one might expect a higher level of community participation in the design and planning, even more so since the September/October 2019 period was not an emergency situation. However, MSF's efforts remained limited to visiting and informing villages. No proper consultation or co-design has been carried out.

[41] MSF OCBA's operational priority is in assisting population affected by violence.

[42] The term 'participation' is often used interchangeably with 'engagement'; participation is the most common form of engagement discussed in the literature. One of the earliest humanitarian definitions appears in the ALNAP handbook *Participation by Crisis-Affected Populations in Humanitarian Action.*

[43] The periphery team, based in Numbi, had to walk long hours in a difficult and often wet terrain

[44] MSF OCBA Kalehe project. *Annual Plan 2020.*

*"There was small participation … no involvement in planning. Information yes, we went to all villages, we explained. It has been top down. We opened a space for questions e.g. on level of education for recruitment, more on procedures". (MSF staff)*

*"They didn't ask our opinion, but they explained the plan well to us." (FGD men in community)*

This said, the recruitment process of the new CHWs under the DMC 2020 strategy has been participatory and transparent. *See 3.3.8 for more details.*

**Community participation during implementation**

There are several positive examples of community participation in the project implementation. Communities provided/built malaria points and latrines; they also improved paths and built bridges to enable access by motorbikes with tools and materials provided by MSF. Communities were also involved in health promotion activities. The regular meetings held with community members are another example of good practice.

A further strength has been the effort to ensure inclusion of the main ethnic groups in the area, Tembo and Hutu. During the recruitment process for the malaria CHWs in Lukanga, the community was asked to propose an equal number of candidates from the two ethnic groups. However, Pygmies, a marginalised ethnic group, were never targeted specifically although they may have specific needs. Consequently, at the time of the evaluation none of the CHWs were Pygmies.

Another positive point is the effort made to improve the gender balance among CHWs, although men are still overrepresented.[45] Equal gender balance has been achieved in the first group of candidates for the curative CHW positions under the 2020 DMC strategy (10 female/10 male). The final recruitment will be decided depending on the results of the exams at the end of the training course.

There are also examples when the community involvement was too little or inadequate. In some instances, MSF delegated the selection of curative CHWs to the village chief, instead of asking for wider community involvement. On the other hand, communities' capacities with regards to the referral system were overestimated. Engagement with other healers (traditional healers, healing sects and TBAs) has also been inconsistent. *See section 3.3.8 for more details.*

**Community participation and ownership**

Despite community involvement in some aspects of project implementation, local stakeholders do not feel ownership of the programme as it has been financed and implemented by MSF. MSF is perceived to be a very rich organisation and their huge investments – e.g. the construction of Kusisa RHC – seem to have had a negative effect on the sense of community ownership, as the following quote illustrates:

"*We tried to convince the community to build a maternity waiting home. They refused. They said MSF can do it. If they built the hospital in Kusisa, they can finance it. The community is like a spoilt child."* (MoH HC staff)

**Community participation and monitoring**

Efforts have been made by MSF to hold regular meetings and take feedback from the community into account. However, community consultation has apparently not been enough to prevent some problems, such as Kinyarwandaphone Hutus avoiding the use of Kusisa and Ramba HCs because there were no Hutu staff or Kinyarwanda speakers, or women refusing ANC blood tests because of a rumour that their blood would be sold (*"Nobody told us why they were doing it"* a woman mentioned in a FGD). Lack of information about the reasons for closing malaria points was also pointed out by community members:

[45] Among HPCWs the ratio is 18 female / 30male, among for malaria CHWs four female and eight male, though all men are in the leading position and women are "backups" for replacement.

*"Before, we went to the malaria point in Bundje. Now it is closed. We don't know why. They left without telling us. I would have liked them to stay longer."* (FGD women in community)

*"I wrote a letter to ask* [why it was closed]*. They told me that they had not been able find me*". (Village chief)

A formal feedback system that could channel community concerns while guaranteeing confidentiality does not exist, but MSF field staff acknowledged that more could be done.

**Community participation and security**

MSF has a good understanding of the context, good relationships with the main stakeholders including health and traditional authorities and is in good dialogue with representatives from the various armed groups. This has led to a high level of acceptance of MSF, facilitated the buy-in for MSF strategies and provided a good leverage for negotiation of community participation and staff security. The network of CHWs and HPCWs is an additional asset in this respect.

However, acceptance and security is not only the result of the continuous dialogue with key stakeholders, but also based on the fact that MSF is the only actor providing healthcare in the area and also the main employer. As a MoH health worker put it: ***"MSF is untouchable because MSF is the boss (le patron) of the Ziralo area."*** MSF's central role therefore guarantees MSF's security, at least for the time being, but might put the organisation at risk when it decides to leave, as pointed out by one MSF member of staff. This highlights the importance of engaging in transparent dialogue and joint planning when MSF plans its exit from the project area.

## 3.3 Effectiveness

As mentioned in the introduction, the objectives of the DMC strategy in the Kalehe project includes improving access to care for malaria, pregnancy complications and malnutrition, and to increase early diagnosis to reduce severity and complications and subsequently reducing or preventing mortality. The following sections present relevant findings on the level of achievement of the objectives, as well as on the effective implementation of DMC activities.

### 3.3.1 DMC effect on geographic access to healthcare and health promotion

While DMC activities have improved geographic access to healthcare, significant gaps remain. The ratio of HPCWs in the main supported HAs is within MSF minimum standards but is too low given the scattered population and difficult landscape. Trends in consultations at malaria points varied according to the number of malaria points. Malaria points were all very well utilised and made an important contribution to diagnosis and treatment of malaria in the project area, despite their limited coverage.

**Geographic accessibility of curative services**

The availability of health facilities supported by MSF, and malaria points, PROMAV and PRONA changed over time in the project area, therefore geographic accessibility to the various services varied too. To estimate the proportion of the population with easy geographic access to care in the project area, we calculated the accessibility coverage for each level of care – HC, malaria points, PROMAV and PRONA, per target health area.[46]

[46] In the absence of precise information on travel time and distance from the villages to the nearest point of care, we based our calculation on the assumption that the population living in the village where the health service is located or in the surrounding sub villages have easy geographic access to the service

**For Tushunguti HA,** with 17,721 inhabitants, by 2019 the proportion of population with easy geographic access was 38% for PROMAV and 26% for the HC and the malaria points. As for PRONA, data from 2018 reveal that only 4% of the population had good geographic access. By adding two PROMAV sites to Tushunguti HC, the easy geographic accessibility coverage to ANC in Tushunguti HA increased from 26% in 2015/16 to 64% in 2017, then to 68% in 2018, decreasing back to 64% in 2019. This implies that at the time of the evaluation, 36% of the population remains without easy geographic access to ANC.

By adding malaria points to Tushunguti HC, the easy geographic accessibility coverage to malaria diagnosis and treatment increased from 32% for 2015, to 52% in 2016/19. This implies that at the time of the evaluation, 48% of the population remains without easy geographic access to malaria treatment. *See table 3 in Annex 6.7.*

**For Kusisa HA,** with a population of 9,334 inhabitants, the Kusisa RHC provides easy geographic access to healthcare for 17% of the target population. Malaria points provided easy geographic access to up to 41% of the population in 2017 and 2018 but decreased to 16% in 2019 as result of the closure of two malaria points. Therefore, malaria points and the Kusisa RHC substantively increased the easy geographic access from 28% in 2015, to 44% in 2016 and to 58% in 2017 and 2018. However, in 2019 easy geographical accessibility coverage decreased again to only 33%, implying that 67% of the population remained with poor geographical access. *See table 3 in Annex 6.7.*

**For Ramba HA** we looked only at 2019 data because this is when MSF support became more comprehensive[47]. In 2019, the easy accessibility coverage was 11% for PRONA, 19% for malaria points and 20% for the HC. Malaria points and Ramba HC together have increased accessibility coverage to malaria treatment from 20% (Ramba HC) to 39% (Ramba HC combined with malaria points). This implies however that 61% of the population still have poor geographic access to malaria treatment. With the opening of the PRONA in Chitebeka, easy accessibility coverage to the therapeutic feeding programme increased from 20% (Ramba HC) to 31% (Ramba HC combined with PRONA) in the HA. *See table 3 in Annex 6.7.*

**Availability of health promotion community workers**

In 2019, the ratio of population served by HPCWs across the 5 HAs covered by Kalehe project was one for 1003 people. This is below the minimum standard recommended by MSF for refugee settings, which is one home visitor per 500-1,000 inhabitants.[48] However, there were variations depending on the HA. In Kusisa, Tushunguti and Ramba HAs, where the presence of MSF is stronger, this minimum standard has been met. At the same time, in Matutira and Mianda HAs the ratios were far below the standard (one HPCW for 1,850 inhabitants in the former and one for 1,402 inhabitants in the latter), as data in table 1 reveals.

**Table 1: Ratio of population per each HPCW per health area, Kalehe project, 2019**

| Health area | Population | HPCW | Ratio |
|---|---|---|---|
| Kusisa | 9334 | 12 | 778 |
| Tushunguti | 17721 | 20 | 886 |
| Ramba | 14882 | 16 | 930 |
| Matutira | 9251 | 5 | 1850 |
| Mianda | 7009 | 5 | 1402 |
| Total | 58197 | 58 | 1003 |

[47] In 2018, Ramba HA was only supported with an ATFC in Ramba HC and with a PRONA, while two malaria points and full support to Ramba HC were only added during 2019

[48] MSF, Refugee Health, An approach to emergency situations, 1997.

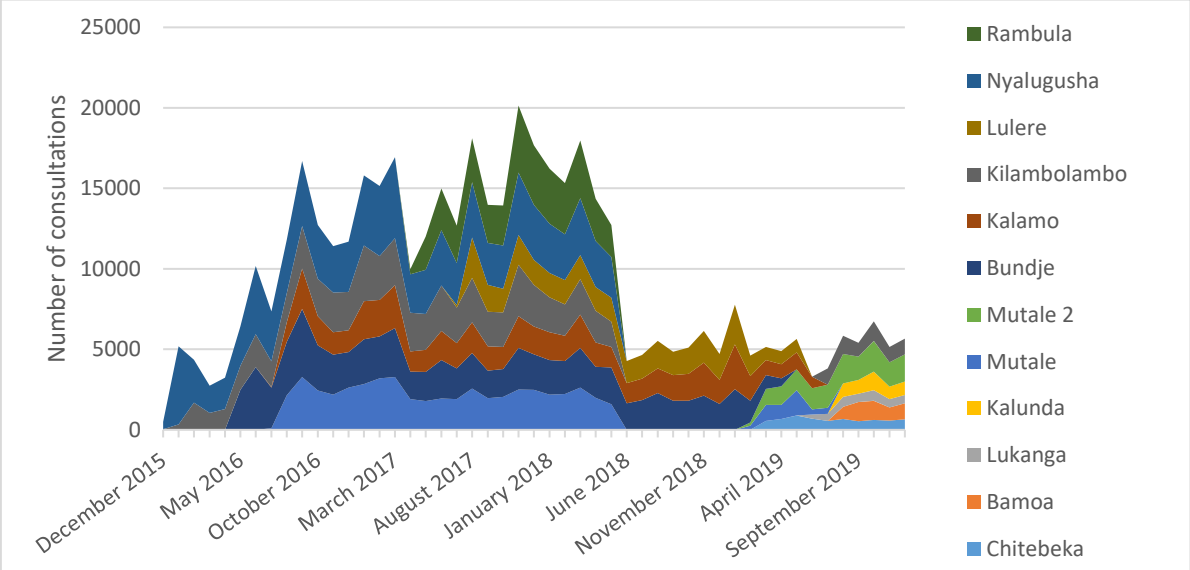
Given the difficult landscape and the scattered settlement patterns in the project area, the ratio of one HPCW per 500 to 1,000 inhabitants is insufficient.[49] MSF's health promotion supervisor team highlighted that due to very long walking distances, HPCWs are unable to achieve their target of five home visits a day. The recommended ratio per inhabitant applicable for home visitors involved in health promotion and preventive activities is currently under revision by the MSF OCBA DMC referent. Ratios will be differentiated depending on the complexity of activities carried out by CHWs. Following a recommendation of the DMC advisor, the project is planning to increase the ratio to 1 per 500 inhabitants in 2020, under the new DMC strategy.

**Trends in consultations and RDT positivity rate at malaria points**

The number of malaria points varied over the time, from three to seven. Trends in the number of patients who sought care in the community varied accordingly, as shown in figure 1 (below). The average number of consultations per month per malaria point was 2,358 in 2016, 2,418 in 2017, 2,080 in 2018, and 984 in 2019. The yearly average RDT positivity rate at malaria points ranged from 94% in 2015 to 81% in 2019 *(Annex 6.7, table 4).*

The data show the continued relevance of community-based malaria treatment, and the good utilisation and important contribution of malaria points for diagnosis and treatment of malaria in the project area, despite the limited coverage.

**Figure 1: Number of consultations by malaria points - MSF Kalehe project - 2015-2019**




## 3.3.2 DMC and referral to higher level of care

Data on referrals from the community to higher level care indicate serious weaknesses in the existing system.

DMC needs an effective referral system to ensure the continuum of care for patients who need higher level care. Although there is little medical data available to analyse the effectiveness of the referral system, our findings indicate serious gaps. There is no routine monitoring system for referral from malaria points and referrals from PROMAV to health facilities. For referrals from the community by HPCWs, a monitoring system was only recently introduced.

[49] José Luis Dvorzak, Bullet Points Field Visit; Reorientation Community Strategy Kalehe (DRC), 22 June and 12 July, 2019

The proportion of patients referred from three malaria points that had been closed earlier in the year to Tushunguti HC, was analysed by the DMC advisor during his field visit in June 2019. The proportion of referred patients that arrived at Tushunguti HC were extremely low, ranging from 0% for Bundje malaria point to 5.4% for Kalamo malaria point *(Annex 6.7, table 11).*

Compared to the results of referrals made by the three malaria points, the referrals made by HPCWs seem to be more effective, though also unsatisfactory. For the period of August to September 2019, the average proportion of patients that were referred by HPCWs and who arrived in a MSF-supported health facility was 65%; ranging from 58% in Ramba HA to 63% in Kusisa HA and 75% in Tushunguti HA *(Annex 6.7, table 12).*

These very low or unsatisfactory proportions could be related to the fact that patients might have accessed other non-MSF-supported HCs because they were closer (e.g. Matutira or Mianda HCs for Kalamo and Lulere malaria points), or another MSF-supported health facility. It might also be the case that referrals from the community have not been accurately recorded in the facility, or that patients may have presented without mentioning that they have been referred. Even if this was the case, the extremely low proportions found in the DMC advisor's analysis suggest that there is a serious problem with the effectiveness of the referral system.

As for the referral from PROMAV, data on the proportion of pregnant women who were referred and arrived at the maternity waiting home in Kusisa RHC were not available for analysis. Data were also not available on referrals for survivors of sexual violence from MSF DMC sites and other NGOS working in this sector. The community sensitisation staff working for the NGOs ASP in Tushunguti and PANZI in Ramba, are supposed to refer survivors for medical care to MSF-supported facilities. However, only very few cases arrive at the health facilities. MSF is aware of this problem and has started to discuss how referral of survivors to care could be made more effective.

### 3.3.3 DMC effect on coverage of ANC and institutional deliveries

PROMAV contributed to increased ANC1 coverage in Tushunguti HA. In all other HAs, ANC1 coverage and institutional delivery coverage are above 100%, most likely because women from other HAs are using the facilities. Institutional delivery coverage remains below 100% for Tushunguti and Ramba HAs.

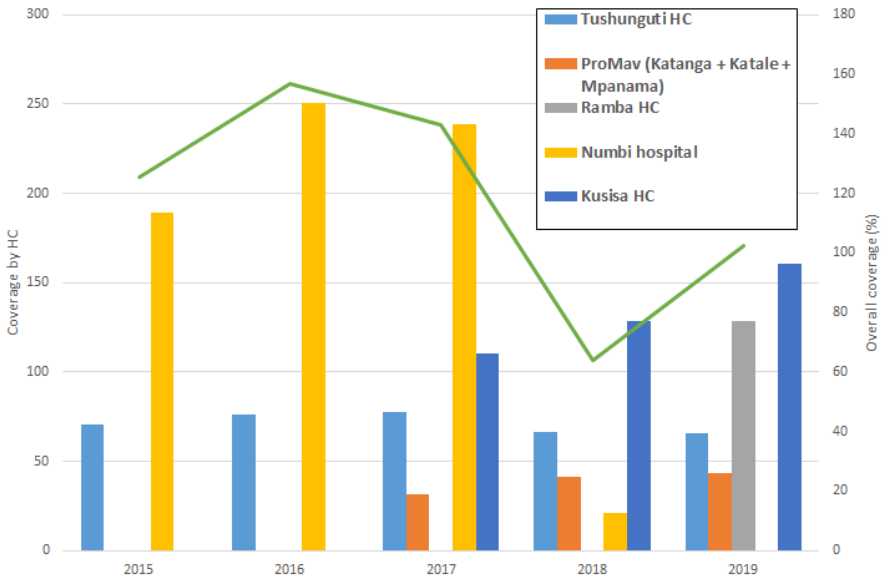
**ANC1 coverage**

In Tushunguti HA, the coverage of women who had at least one ANC consultation (ANC1) achieved by the two PROMAV sites, increased from 32% in 2017 to 43% in 2019, which shows good population acceptance of the decentralised strategy. Despite the limited easy geographic accessibility coverage to ANC, PROMAV seems to have contributed to increased ANC1 coverage for the whole Tushunguti HA from 71% in 2015/2016 to 109% in 2017/2018/2019. However, the real ANC1 coverage for Tushunguti HA could be lower, as women from outside the HA also use these services.

In all other MSF-supported health facilities, ANC1 coverage is above 100%, even though there is no PROMAV available. This can be explained by the fact that women from other HAs were also using these health facilities either because they were able to travel longer distances to access free maternal healthcare, or because they were referred to higher level care *(see figure 2 below and Annex 6.7, table 5).* Qualitative findings from interviews and FGDs suggest that free maternal healthcare together with reinforced health promotion activities have contributed to this result.

Overall, the trend of ANC1 coverage decreased in 2017/2018 (when MSF gradually left Numbi hospital) but increased again in 2019 *(green line in figure 2 below).*

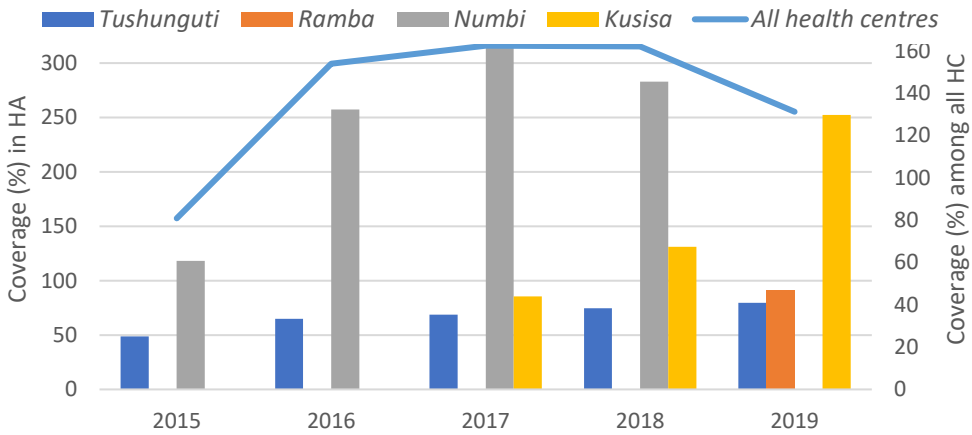
**Figure 2: ANC1 coverage for MSF-supported health centres and PROMAV, Kalehe project, 2015-2019**




### Institutional delivery coverage

For all MSF-supported health facilities together, the coverage of institutional deliveries increased markedly from 81% in 2015 to 162% in 2017 *(blue line in figure 3 belo*w). It is most likely that the high coverage can be explained by the fact that women from outside the project's target areas were also using MSF-supported health facilities. A decrease was observed in 2019 when MSF gradually left Numbi hospital. Institutional delivery coverage for Numbi hospital and Kusisa RHC (the latter since 2018) was also above 100%, as they are referral centres. In Tushunguti HC, institutional delivery coverage increased from 49% in 2015 to 80% in 2019 but remained below 100%. In Ramba HC, institutional delivery coverage was 91% for the period from July 2019, when MSF started to support this maternity to November 2019 *(see figure 3 below and Annex 6.7, table 5).*

**Figure 3: Institutional delivery coverage in MSF-supported health centres, Kalehe project, 2015-2019**




The contribution of DMC (health promotion and PROMAV) to high institutional delivery rates could not be measured due to lack of data of follow-up of referrals or surveys on the effect of health promotion, but is probably limited compared to the pull factor of free maternal care and maternity waiting homes. FGDs and interviews revealed that the major supporting factor to good institutional

delivery coverage rates is free maternal care at MSF-supported health facilities. Furthermore, MSF provides cloth, soap and a mosquito net as an incentive to all women who deliver in MSF-supported health facilities.

The contribution of the maternity waiting home in Kusisa and the maternity waiting room in Ramba HC to overall institutional delivery coverage could not be assessed, since data on monthly admission were not made available to the evaluators. In Kusisa, the maternity waiting home however is only open for women with identified signs of risk due to their obstetric history or current pregnancy – a minority among all pregnant women. It can therefore be assumed that the contribution of the Kusisa maternity waiting home to the overall institutional delivery coverage is probably low.

### 3.3.4 Changes in health seeking behaviour

There is a general perception that the implementation of DMC has increased people's access to healthcare particularly for malaria. Evaluation findings indicate important changes in the perception of illness and therapies of choice. Major changes in health seeking behaviour pathways have been described for malaria and to a lower extend ANC and deliveries. The incorporation of traditional healers, TBAs and syncretic sects in the referral pathways is still pending.

**Improved access to healthcare and health promotion activities as drivers for changes in health seeking behaviour**

By the time malaria points were launched in 2015/2016, access to healthcare was extremely limited and people relied on self-medication with home remedies, traditional healers, "new healers" (syncretic sects), TBAs or medicines sold in the market. For medical treatment, inhabitants of the Ziralo area had to travel to distant health facilities. Due to distance, lack of financial means and insecurity, this was usually the last option.

As of the end of 2015, malaria points run by CHWs brought free treatment to up to seven of the most malaria-affected villages in the area. Later, PROMAV and PRONA provided SRH and treatment for acute malnutrition in up to two villages. Increased availability of free healthcare and health promotion activities contributed to changes in health seeking behaviour.

> *"A lot has changed due to free healthcare. It has helped a lot. Now, even a poor person can seek care without a problem*." (FGD men in community)

Even though access to healthcare has improved with DMC activities, the availability of services is limited, and geographic and financial access barriers remain. Therefore, some people still opt for alternative treatments.

**Community perception of malaria in 2015**

*"There was a rumour that an unknown illness was causing lots of deaths. I went to visit one of the villages. It was malaria. Communities were left to themselves, thought it was witchcraft. Mortality was huge. More than 50% had died. Many had run away. The traditional healers' remedies were some herbs. We tried to convince the traditional healers (…) to refer the cases to us, but we were not very successful. The malaria point reduced mortality and modified health seeking behaviour. Before, people had to walk a day to get treatment."* (Former medical coordinator)

*"People thought it was witchcraft, the traditional healer made them vomit with herbs"* (FGD women in community)

*"Before, people thought that malaria was witchcraft brought up by men who travelled to other areas"* (FGD men in community)

Overall, important changes in health seeking behaviour due to the introduction of DMC were described by MSF staff, MoH health workers and the community during interviews and FGDs. As no

health seeking behaviour baseline study is available for comparison, the following findings only represent the perceptions of people interviewed during this evaluation.

**Changes in perception of illness and therapy of choice**

**Malaria**

In 2015/2016, when MSF started to increase their activities in Ziralo area, the cause of malaria was unknown to the rural population and was often attributed to witchcraft. For treatment, people used herbal home remedies, went to the traditional healer, or sought treatment with syncretic sects. Only severe cases arrived at health facilities, often late and in a critical condition. Many died on the way to hospital and the malaria case fatality rate was very high.

Today, malaria CHWs can test, provide early treatment and refer severe cases for higher level care. Most people now know about the cause of malaria and the importance of mosquito nets for prevention.

**Changes in knowledge about the cause of malaria**

*"MSF explained to the communities that it was a mosquito, now everybody knows*." (FGD men in community)

*"If it hadn't been for MSF, we would all have died of malaria*. *We all know now that the malaria comes from a mosquito.* (FGD women in the community)

Nevertheless, MSF staff and some community members highlighted that cerebral malaria is sometimes still perceived as a symptom of witchcraft. Many people living in the Ramba highlands, where malaria is not endemic and where MSF's health promotion activities have limited coverage, apparently still don't understand the chain of transmission. For this population, fear of getting malaria simply by entering the Ramba or Kusisa towns, is one of reasons not to use these health facilities.

**Measles and vaccinations**

Many women interviewed noted measles as one of their main worries. They understand the symptoms and know about the importance of vaccination for prevention. Thanks to health education, the level of acceptance of vaccination as a preventive measure is high, but some resistance due to rumours of negative side effects remain.

> *"My wife refused to take the children to the vaccination point. There are rumours that with the vaccine children could suffer paralysis… vaccinated children are not intelligent… vaccinated children become sterile*." (FGD caretakers in measles ward, Kusisa RHC)

The rumours are apparently spread by the *Tempérants*, a syncretic Christian sect that uses traditional medicine for healing in their prayer rooms. Other FGD participants mentioned the gaps in the MoH vaccination campaign as a reason why their children were not vaccinated.

**Antenatal care and deliveries**

The importance of ANC is understood by the majority of women interviewed, and many attend consultations. Women living close to a PROMAV site confirmed that access to ANC has improved. ANC is perceived by women as "helping during delivery and giving you more blood." Nevertheless, nausea, vomiting and headaches, were reasons mentioned for not following prescribed treatment. This corresponds to findings from interviews with midwives, who explained that pregnant women who tested positive for malaria often refuse to take the treatment due to side effects.

In the past, the custom was to deliver at home with the help of a TBA. Apparently, only a few women delivered in a health facility and maternal deaths were frequent. All groups of interviewees perceived that the proportion of institutional deliveries in the project area had increased thanks to free maternal care in MSF-supported health facilities, health promotion activities and decentralised ANC in PROMAV points. This is also supported by our quantitative findings (Annex 6.7, Table 5).

**Impact of free maternal care**

"I *am very happy that there is free healthcare. Before, we had to sacrifice ourselves."* (FGD women in community)

*"Before, women delivered at home. We didn't have money to pay the hospital bills."* (FGD women in community)

Free maternal care was highlighted as a major driving factor for the improved acceptance of institutional deliveries, particularly in Ramba HA where MSF started to support the HC in July 2019. The maternity waiting room in Ramba HC (open to all pregnant women who live far away) and the maternity waiting home in Kusisa RHC (open for women with risk criteria) where referred women can wait for their delivery during the last weeks of pregnancy are perceived as another supporting factor for improved acceptance.[50] Community members also believed that maternal deaths have reduced, while midwives in Kusisa RHC noted that less women arrive with maternal complications in the health facilities than previously.

FGDs with women in the community revealed that most women are aware of the importance of institutional delivery, but barriers remain. Long walking distances to health facilities is still the main challenge for most people: women usually begin the long trip by foot when labour pain starts, which can sometimes be too late, and the evaluators heard several stories of women delivering on the side of the road. Other hindering factors mentioned were having to work for economic reasons until delivery, no care taker for older children, feelings of shame when husbands are too poor to buy new clothes for mother and baby as the tradition demands, and in some cases ethnic and language barriers.[51] Therefore home deliveries still take place. Sometimes older women in the village assist with the deliveries, sometimes women go to the "prayer room", where the pastor manages the delivery.

**Other therapeutic choices: traditional healers, syncretic sects, TBAs, self-medication and private health posts**

Although there is a significant change in health seeking behaviour pathways, other therapeutic choices still play an important role. The long distances and cost recovery system for non-pregnant adults in health facilities remain important barriers and reasons why people seek traditional alternatives.

People continue to go to traditional healers for medical advice; but various Christian sects seem to have a much more prominent role, and both are registered with the MoH. In the case of the *Tempérants* they have developed a religious syncretism (Christianity and traditional healing) and seem to be very influential in the area. They organise healing sessions including for women during deliveries in village "prayer rooms" using traditional medicines. People apparently believe that some diseases can't be treated by modern medicine. These include bad spirits that can manifest as

[50] In Kusisa RHC, a maternity waiting home is where women can sleep and receive three meals a day; in Ramba HC, women can sleep in the maternity waiting room but self-cater. The bed capacity of the latter is too small for the current demand. At the time of the evaluation, eleven women were sharing four beds.

[51] Kusisa RHC is considered a Tembo area health facility and some Hutu women therefore prefer to deliver in Numbi hospital that is considered a Hutu area. Language barriers were apparently given as a reason not to use Kusisa RHC in the past and in Ramba HC up to today. On request of MSF, MoH has placed some Kinyarwanda speaking staff in Kusisa RHC and has most recently decided to do the same for Ramba HC.

convulsions caused by cerebral malaria and chronic diseases such as HIV.[52] They also spread rumours against vaccinations and are against family planning.

*Who is MSF? MSF are the caregivers*
*What do they do? The heal the children*
*How do they do it? They heal free of charge*

Children singing MSF song in villages

Traditional birth attendants are not authorised by the MoH to practice. For this reason, it is difficult for MSF or HPCWs to identify and establish collaboration with them. For the same reason, women in FGDs talked of "other women helping during deliveries" instead of identifying them as TBAs.

Over the years MSF has made several efforts to include these non-formal health actors in referral pathways. Some good practices included: 1) initial engagement and sensitisation of traditional healers and sects on the new project; 2) follow-up on cerebral malaria deaths in villages that had been attributed to witchcraft and sensitisation on malaria symptoms; 3) sensitisation on the importance of institutional deliveries to avoid deaths due to haemorrhage that was attributed to witchcraft; 4) mapping and meetings with traditional healers and TBAs; 5) meeting with the *Tempérants* and other sects to discuss their position against family planning.

Planned future activities include: 1) setting up a referral pathway for TBAs and traditional healers; 2) plans to reduce home deliveries that includes a plan to incorporate TBAs in the referral pathway by providing them a reward in-kind (pending approval).

Many people also self-medicate as a treatment option. Adults with fever, who tested negative for malaria at malaria points where care is free of charge, seem to opt first for traditional remedies before following referral advice. If these fail and if they have some money, they buy medicine in a small pharmacy which is still cheaper than consultation and treatment in a health facility.

**Illegal private health posts*:*** In some villages there are small private health posts run by nursing assistants that are used because they are close by. These only refer very severe cases. A MoH nurse explained why he had not taken action against these health posts: *"I can't close these private centres down, even if they are illegal. I would get in trouble, there is militia around."*

### 3.3.5 Community perception of DMC related services

The communities highly appreciate the improved access to healthcare gained through malaria points, PROMAV and PRONA and access to free care for children, pregnant women, and emergencies at health facilities in case of referrals. They are satisfied with the quality of care provided by CHWs and staff in referral health facilities. Main perceived weaknesses include the exclusion of adults to free care in health facilities, the closure of malaria points, and no transport support to referral hospitals from Ramba HC.

**Improved access to free healthcare**

The community highly appreciates MSF efforts and staff commitment to overcome geographic challenges and make malaria, ANC and malnutrition care more accessible. According to community perceptions, this has helped to decrease mortality and has had a positive effect on the health of the population. Having access to malaria treatment - the most feared disease - without restrictions and in close proximity to where people live, has made a huge difference to their lives. It has not only reduced mortality, but the information provided by malaria CHWs and HPCWs has also increased people's knowledge and changed their perception of the disease. Access to free healthcare for everyone at malaria points, PROMAV, and PRONA, as well as free care in MSF-

[52] The health promotion team mentioned recent cases of a child death in the prayer room in Ramba, and several parents who refused referrals to Kusisa RHC.

supported facilities for children aged under 15, pregnant women and emergencies is perceived as a major positive change and a big relief the local population.

**Satisfaction with quality of care and health worker attitude**

The population is satisfied with the quality of care provided by CHWs, PROMAV and PRONA staff, the advice provided by the HPCWs and health educators. People are also satisfied with the quality of care they receive at the MSF-supported referral facilities, the good care and free food at the maternity waiting home in Kusisa RHC, and the attitude of their health workers. In Ramba HC, women also appreciate being able to wait until their delivery at the HC, even though the room is far too small for the number of women (11 women for four beds) and they have to bring their own food.

Some gaps and areas for improvement were also mentioned:

- Expanding the curative package at community treatment points was the main request. (The visited communities were not aware of MSF plans to expand the coverage and curative package as of 2020.)
- Limited target group for free care in MSF-supported health facilities
- Referral from Ramba to Kusisa RHC is only accessible by foot (one day walking distance)
- Emergency referrals by motorbike taxis from Ramba to Chigoma hospital are not covered by MSF
- MSF's limited support to measles vaccination campaign given incomplete coverage by the MoH campaign
- Request to MSF to provide stretchers for referrals from the community
- Closure of malaria points despite the needs
- Insufficient access to safe drinking water

**Community perception of DMC**

*"MSF really cares for us." "We didn't know what to do when we were sick".* (FGD women in community)

*Now, if people die it's because their moment has arrived, not for lack of healthcare*".

"*I thank God, before we were landlocked"* (FGD women in community)

*"A big thank you to MSF, many died before they came"* (FGD men in community)

### 3.3.6 DMC effect on higher levels of care

Limited data were available to assess the effect of DMC activities on higher level care in the project area. Referrals for severe malaria to secondary healthcare decreased during the malaria points two-month pilot phase, and health workers reported a reduction in severe malaria cases at facility level after the opening of malaria points and increased health promotion activities. Malaria points do not seem to have decreased OPD consultations or OPD utilisation rates. Given the changes in DMC activities, supported facilities and change in referral centres, it is impossible to interpret a possible effect of DMC activities on the number of IPD admissions.

**Admissions/referrals for severe malaria**

According to an internal report from January 2016, there was an important decrease in the number of referrals of severe malaria from Tushunguti HC to Numbi hospital during the first two months after the implementation of the first malaria points, compared with two months before implementation *(table 2 below).*This decrease could be possibly interpreted as a positive effect of the decentralisation and improved access to early malaria treatment, but the effect could potentially be due also to the seasonality of the disease.

**Table 2: Number of referrals of patients with severe malaria from Tushunguti HC to Numbi hospital, two months before and two months after implementation of malaria points**

| Dates | < 5 years | > 5 years |
|---|---|---|
| **19/09/2015 – 18/11/2015** | 77 | 47 |
| **19/11/2015 – 18/01/2016** | 27 | 25 |

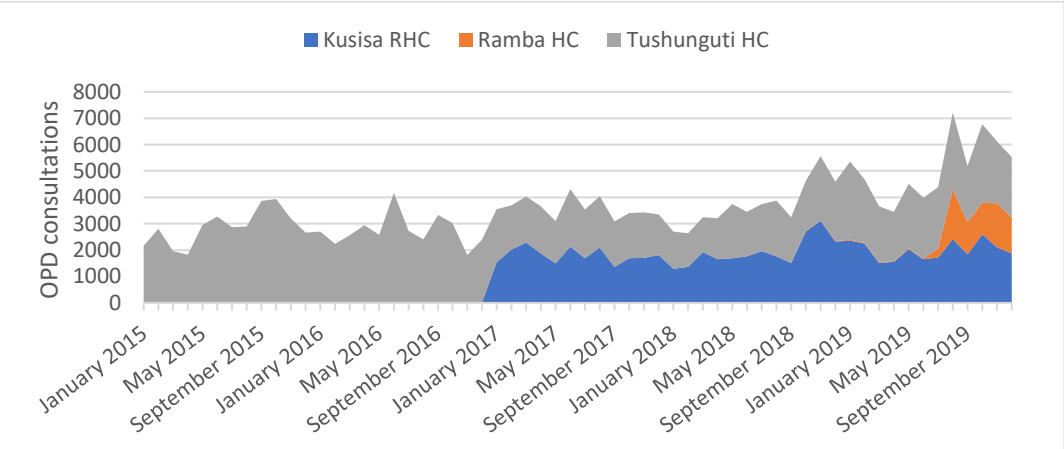
The figures support the findings from interviews with former MSF staff and health workers in Tushunguti HC. Interviewees reported that considerably fewer patients with severe malaria arrived at the health facility after malaria points were opened, and health promotion activities on malaria prevention and the importance of early treatment were intensified. Health workers from Kusisa RHC made similar observations for the initial phase after the implementation of malaria points. However, they also remarked that the number of severe malaria cases increased again when Kusisa became a referral centre, although most of these patients come from outside their direct referral catchment area, including those from North Kivu.

**OPD consultations**

Health workers from Tushunguti HC observed an immediate drop in OPD consultations after the opening of the first malaria points in November 2015. OPD consultations dropped from 3,942 in October 2015, to around 2,670 in December 2015 and to 2,245 in February 2016 but increased to 4,171 in March 2016. Therefore, we cannot exclude that malaria seasonality may have also contributed to this change (*see figure 11 in Annex 6.7).*

Looking over the past several years, the opening of malaria points does not seem to have had a decreasing effect on the number of OPD consultations. The average number of OPD consultations per month ranged between 2,868 in 2015 and 1,791 in 2017 in Tushunguti HC, between 1,810 in 2017 and 1,995 in 2019 in Kusisa RHC and was 1,281 between July and December 2019 in Ramba. Consultations at Tushunguti HC decreased from 2017, which could be explained by the fact that MSF started to support the neighbouring Kusisa HC with the same package of free care (*Annex 6.7, table 7 and 8 and figure 4 next page).*

**Figure 4: Number of OPD consultations by months, MSF-supported facilities, Kalehe project, 2015-2019**



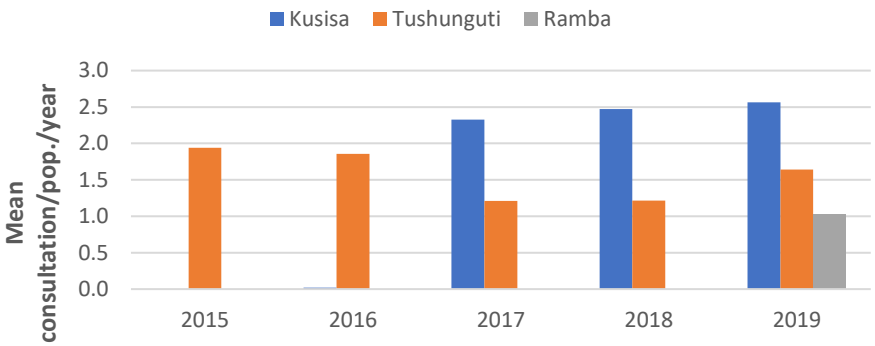

**OPD contact coverage/utilisation rate**

It also seems that malaria points did not decrease the utilisation rate of the MSF-supported health facilities in the project area. The OPD contact coverage/utilisation rate in Tushunguti HC remained 1.9 per person per year in 2015 and 2016, decreased to 1.2 per person per year in 2017 and 2018, and increased again to 1.6 per person per year in 2019. The decrease in 2017 was most likely caused by the start of MSF's support in the neighbouring Kusisa RHC. In Kusisa RHC utilisation rates increased from 2.3 (2017) to 2.5 (2018) and 2.6 in 2019 per person per year. The relatively high

utilisation rates in these two HCs can be partially explained by the fact that patients from outside their direct catchment areas are using these facilities, attracted by MSF's free care policy.

In Ramba HC, the utilisation rate remained at the minimum target of one consultation per person per year throughout July and through to December 2019, after full MSF support began. No complete data were available for comparison before July 2019. However, health workers also reported an important increase in utilisation (*see figure 5 below and Annex 6.7, table 9).*

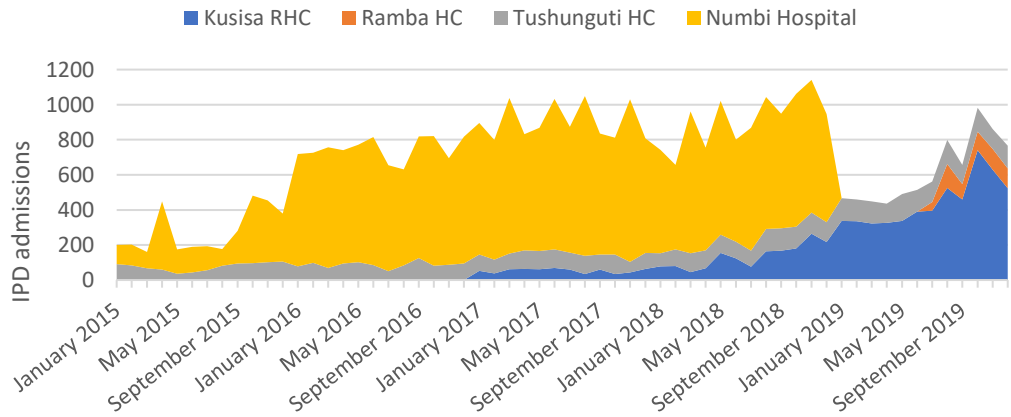
**Figure 5: OPD contact coverage for health facilities by health area, Kalehe project, 2015 - 2019**




### IPD admissions

In 2019, IPD admissions ranged from 609 in Ramba HC (for July-December 2019) to 1,505 in Tushunguti HC, and 5,325 in Kusisa RHC. The general trend shows a yearly increase in admissions at all MSF supported facilities taken together from 3,342 in 2015 to 10,946 in 2018, followed by a decrease to 7438 in 2019 largely due to the withdrawal of the Numbi hospital. IPD admissions in Kusisa increased as of 2018, when MSF finalised the construction of Kusisa RHC (*see figure 6 below and Annex 6.7, table 8).*

**Figure 6: Number of IPD admissions by months, Kalehe project, 2015-2019**




It is impossible to determine whether DMC activities influenced the number of OPD consultations and IPD admissions in MSF-supported health facilities. This is due to several factors including the fact that the locations and number of DMC activities, target health facilities and referral health facility changed over time; and the fact the MSF-supported facilities are also used by people from

outside the direct catchment area.

### 3.3.7 Effects on health outcomes

Mortality data are difficult to interpret. In general, inpatient mortality remained very low during the whole observed period (with the exception of Kusisa in 2017). There has been a decrease in emergency room mortality in Tushunguti parallel to the decrease in inpatient malaria CFR after 2015. Malaria points could possibly have contributed to this result.

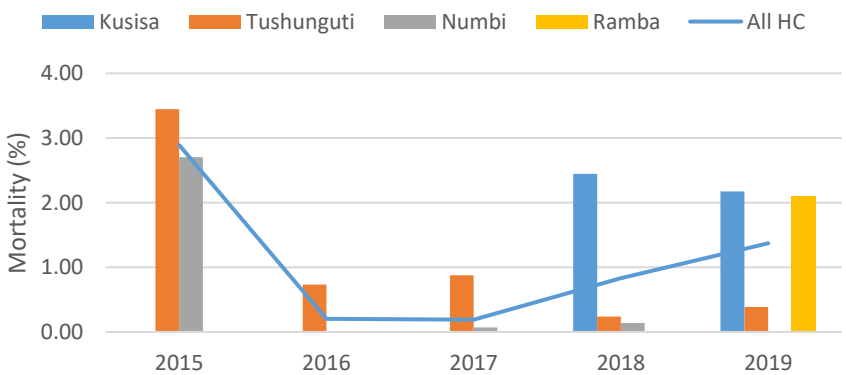
Decentralisation of therapeutic feeding to the PRONA in Chitebeka did not result in very low defaulter rates.

**Trends in hospital mortality**

Mortality figures from health facilities are difficult to interpret due to several factors: with the exception of Tushunguti, MSF support and referral centres changed over time, which also implied changes in catchment area for MSF supported referral centres. This made it difficult to interpret mortality trends over time. Furthermore, emergency and observation room deaths are not included under inpatient mortality in the HMIS, although in practice these patients are inpatients. We therefore analysed them separately. Nevertheless, this limits the interpretation of the inpatient department mortality data.

In emergency and observation rooms, mortality decreased globally after 2015 (blue line in figure 7 below). This decrease can be observed in Tushunguti HC and Numbi hospital. This could be interpreted as a positive effect of the malaria point strategy but could also be an effect of improved quality of care due to increased support from MSF to these two facilities. However, a small increase was observed in 2018 and 2019, mainly due to the high emergency/observation room mortality in Kusisa and Ramba HCs. This increase is difficult to interpret; it could be due to problems with quality of care at the beginning of the MSF support to these centres. In the case of Kusisa RHC, it could have been partially influenced by an increased number of late arrivals of patients from outside the MSF target area e.g. from North Kivu as health workers suggested (*see figure 6 below and Annex 6.7, table6).*

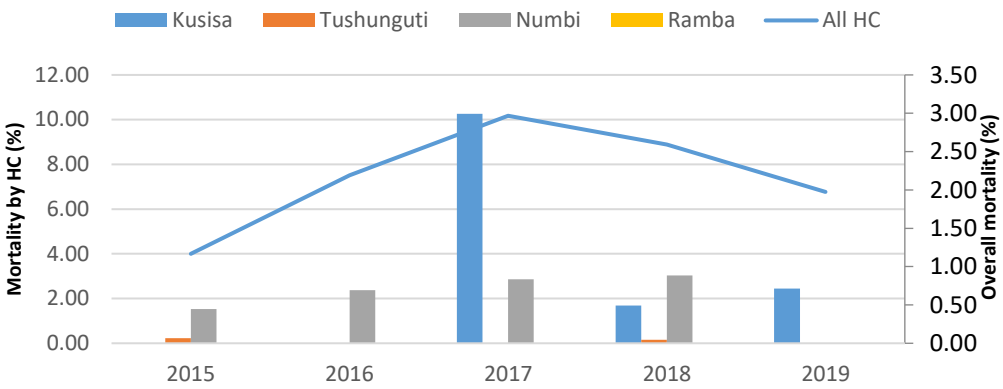
**Figure 7: Emergency & observation room mortality (%) by MSF-supported health facilities, Kalehe project, 2015-2019**




Inpatient mortality was particularly high in Kusisa in 2017 at 10.3% - which is above the MSF target of 5%, but this figure decreased thereafter. The reasons for this high IPD mortality rate in 2017 could not be clarified. A small increase in inpatient mortality was observed in Numbi hospital. Overall data from all the health facilities revealed an increase in inpatient mortality until 2017, when it started to decrease *(see figure 8 below and Annex 6.7, table 6).*

Overall, inpatient mortality was very low, except for Kusisa in 2017. This could be because deaths have been registered in emergency/observation rooms instead of the IPD.

**Figure 8: Inpatient mortality (%) in MSF-supported health facilities, Kalehe project, 2015 - 2019**

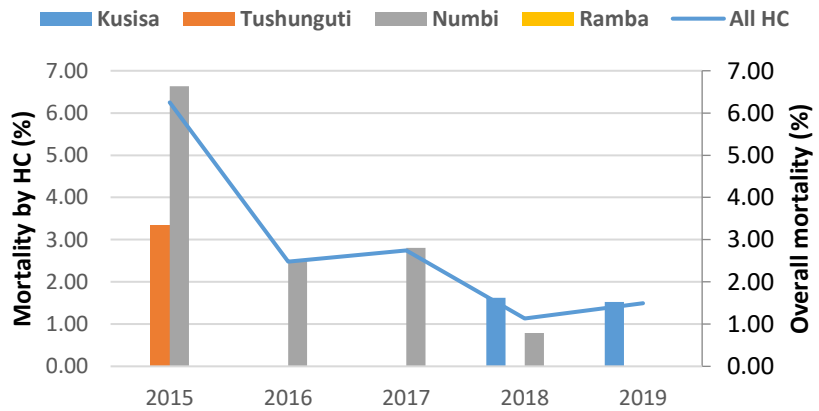



Early inpatient mortality increased until 2018 and decreased in 2019. As for inpatient mortality, there was a peak of 10.3% in Kusisa in 2017. Otherwise, proportions were below 2%. This peak could potentially be explained by the fact that MSF had only started light support to Kusisa HC in 2017, and that quality of care was still unsatisfactory *(Annex 6.7, table 6).*

### Inpatient malaria case fatality rates

Considering all health facilities, the inpatient malaria case fatality rate (CFR) decreased from 6.3% in 2015 to 1.5% in 2019. This decrease was particularly evident in Tushunguti HC and Numbi hospital, the two health facilities who received a very high burden of malaria cases in 2015/2016. Numbi hospital was the referral centre for Tushunguti HC until 2018. This reduction of malaria CFR might indicate that patients reached the health facility in a less severe state, a possible effect of improved geographic access to early diagnosis and treatment in malaria points, and improved knowledge of malaria thanks to increased health promotion activities. It could also be because not all patients referred from malaria points were patients with severe malaria *(see figure 9 below and Annex 6.7, table 6).*

**Figure 9: Inpatient malaria case fatality rates per health facility and year, Kalehe project, 2015-2019**



The most interesting finding for this evaluation is the decrease in emergency room mortality after 2015 in Tushunguti, parallel with the decrease in inpatient malaria CFR in Tushunguti HC and Numbi hospital. This could possibly be interpreted as a positive effect of the malaria points. However, confounding factors and other potential effects should be considered to assess the effectiveness of the strategy on CFR. In addition, the fact that MSF support to the various health facilities and referral centres changed over time makes it difficult to interpret mortality trends. Another interesting analysis would have been to compare the CFR among patients coming from areas covered by DMC activities with those coming from areas without DMC activities. However, no information on the origin of the patients is available in the HMIS.

**Trends in lost to follow-up PRONA patients**

One of the main objectives in the PRONA strategy, is to reduce the number of patients lost to follow-up in ATFCs by increasing geographic access through decentralisation of this activity. Looking at the data available for Ramba HA, the proportion of defaulters was low with 2.6% in 2018 at the ATFC in Ramba HC but is much higher in the PRONA in 2019 with 13.3% (though still within the MSF target of <15% *Annex 6.7, table 10).* The reason for not reaching the expected result might be related to the fact that the PRONA in Chitebeka is partially accessed by children who come from outside the MSF target area and have long travel times to reach the PRONA site. Further decentralisation would therefore be needed to improve this defaulter rate. A similarly high defaulter rate of 13.1% was also observed in 2019 in Tushunguti HC ATFC, which underlines the relevance of decentralisation for therapeutic feeding in other health areas.

### 3.3.8 Effectiveness of implementation

Overall, the DMC activities were effectively implemented as planned. Main strengths are generally fair CHW selection process and good training and supervision of CHWs, effective task shifting for management of simple malaria, reliable supply system, good health promotion and community surveillance, and comprehensive SRH package in PROMAV. Main challenges are difficult geographic access, low capacity of CHWs, limited human and financial resources, delays in higher level operational decision making, ineffective referral system from the community to higher level care, and insufficient electronic data base for monitoring of malaria points.

**Implementation Progress**

Following the recommendation of the operational cell to develop a community-based malaria management approach, the malaria point strategy was drafted by the mission in 2015, though apparently with some delay as it had taken the mission some time to understand the concept. The strategy effectively started to be implemented in November 2015. The first three malaria points were piloted with success in Tushunguti HA. The presence and leadership of an MSF nurse with experience in community-based care has been identified as a key factor of success. After the pilot phase, the strategy was scaled to up to seven malaria points in the project area that were selected according to the priorities identified by the medical team.

The implementation of the PROMAV strategy (drafted in 2016) was delayed by a long approval processes for technical protocols at headquarters, and implementation only started in July 2017.

PRONA was implemented in 2016 in a total seven sites, an average of one to two sites per year with a duration ranging from one to 12 months. Since November 2018, Chitebeka (Ramba HA) is the only PRONA site still operating. Delays in the implementation of new PRONA sites in Tushunguti HA in 2019 were explained by issues with higher level operational decision-making for the future DMC strategy in mid-2019.

**Implementation constraints**

The main constraint for the implementation and scale-up of the network of malaria points and PROMAV sites was the difficult topography combined with the poor network of paths and roads. Initially, all the supervision visits had to be done by foot. Along with the limited human and financial resources, this has been highlighted as the main reason for not increasing the number of malaria points, PROMAV and PRONA sites. At the time of the evaluation, part of the sites had become (partly) accessible by motorbike, which reduced the travel time for MSF teams. Security problems also affected the access or functionality of selected malaria points to some extent.

## Strengths, weaknesses, enabling and hindering factors during implementation

**CHW - Recruitment process**

Efforts were made quite consistently to ensure a fair selection of malaria CHWs through a transparent and participative process. After informing the community in open assemblies about the recruitment process, candidates were mostly selected by the assembly with an effort to respect gender balance. Literacy of French was among the requirements, although in the new DMC strategy, CHWs only need Swahili. The final selection is carried out by MSF according to performance in a test. However, the good practice of involving the community in the recruitment process was not always respected, but sometimes delegated to the village chief, which brought the risk of selecting the chief's preferred candidates.

**CHW – Training and supervision, skills before and after training and task shifting**

Overall, the low capacity of CHWs prior to training was considered a challenge requiring good initial training, intensive coaching and ongoing supportive supervision. Consequently, for the first malaria CHWs, a recruitment test was carried out to select the strongest candidates followed by two days theoretical and one-week practical training in a health facility. However, the duration of the training was eventually reduced to one or three days in total, too short to consolidate knowledge and develop practical skills. Moreover, no refresher courses have been organised.

Under the 2020 DMC strategy, future curative DMC CHWs will be given two weeks' training to cover theoretical and practical aspects of diagnosis and treatment for uncomplicated malaria and diarrhoea, diagnosis of ARI, MUAC screening, and referral of all severe cases. After observing part of the course, evaluators determined it was well prepared and interactive methodology including role plays to simulate consultations was used. However, no practical training in a health facility was included to gain consultation experience under observation. Moreover, no pre-test was done at the beginning to measure the learning progress.

As for the supervision, all MSF interviewees highlighted its importance given the low education levels of CHWs. Supportive supervision is an opportunity to provide on-the-job training, monitor quality of care, data collection, and the consumption of supplies. In practice, supervision is a challenge because of long distances and mountainous topography. Most places can only be reached by foot. The current frequency of supervision for malaria points run by experienced malaria CHWs, seems appropriate with two visits a month. But this frequency of supervision was apparently neglected in the past. Written feedback on performance, with recommendations for follow-up, is given at the end of each supervision visit which is good practice.

The implementation of supervision of the planned increased number of curative CHWs (approx. 100 by mid-2020) will become a big challenge. So far, the 2020 budget has only planned for three additional health educators to support the current periphery team[53]. This appears to be insufficient. At the same time, the future roles of health educators and nurses supervising curative CHWs needs to be clarified. While professionals with no clinical skills can supervise administrative

[53] The current medical periphery team consists of one MSF supervisor, two MSF nurses supported by two MoH supervisors to supervise six malaria points, one PRONA and two PROMAV and two HCs.

and educational aspects of CHWs' work, they do not have the profile to supervise the clinical part, e.g. recognising signs of severity in patients with a negative malaria test result. Moreover, the additional health educators will also have to supervise the HPCWs who will also increase in number.

Because of their low level of education, CHWs require close coaching, particularly in the first months after the training. This is one of the reasons why MSF decided not to include antibiotic treatment for ARIs in the future curative DMC package. Supervisors confirmed that CHW skills have improved over time, but that their capacities and understanding still vary. CHWs are able to carry out RDT for malaria, treat simple malaria, conduct MUAC screening and recognise and refer patients with clear signs of severe malaria. But when the cases are more complex, they do not always recognise when they should refer.

Overall, CHWs are well motivated, well accepted and respected by their communities. However, this could be negatively affected by the new DMC strategy, which plans to reduce the level of incentives for CHWs.

**Referral/counter-referral system**

As shown in section 3.3.4, the available data on referral system use suggests its effectiveness has been limited. Findings from FGDs and interviews revealed several possible reasons for this. First, the distance and very difficult geographic accessibility remains an important barrier for patients who are referred. Second, the cost of facility-based healthcare is reported as barrier for referred non-pregnant adults. Third, no criteria have been established to explain to CHWs which patients need to be urgently referred to the health facility, and which referrals are less urgent. Fourth, traditional healers, TBAs and healing sects, are not included in the referral pathway. Finally, a motorised transport system for referrals is only available between Tushunguti HC and Kusisa RHC; all other referrals are by foot or stretcher.

In particular, the poor effectiveness of the community transport system for referrals was highlighted. Challenges often arise because stretchers are not readily available in the community, which contributes to delays. Whenever possible, patients try to walk.

> *"If people still have some strength they walk. It is difficult to find men to carry, most are away in the field … For deliveries, we walk with somebody who accompanies us in case we deliver on the road".* (FGD women in the community)

The responsibility for patient transport from the community to health facilities is left exclusively with the community and their volunteers. This puts particularly the more vulnerable with lower status in the community at risk of delays. While many community informants stressed the fact that transporting severely sick patients is a community obligation[54] that no one can refuse, several MSF staff explained that the most vulnerable community members are at a disadvantage:

> "*The speed of referrals depends, if they are well known, it will be fast*." (Health promoter)

When the DMC activities were launched in 2015/2016, MSF endorsed this community referral transport system, since there was no alternative. But MSF sometimes supported porters with small rewards. For transport between Numbi HC and Minova hospital, porters were hired and paid by MSF. The system was combined with motorcycles where possible.

With the reason to avoid destroying traditional community systems, MSF has transferred the responsibility of referral by stretchers entirely to the community over the past several years. Reinforcing the system by paying incentives to porters was abandoned, which has negatively impacted the effectiveness of the referral system. According to evaluators, this understanding of community participation is questionable for several reasons. It does not consider that community

[54] Transport by stretcher is a community service provided free of charge, though commonly the family of the patient gives a reward of one 20 liters container of local alcoholic drink to the porters.

perception of the severity of a condition may not match the medical criteria, that community capacities are limited, and resources are scarce. Moreover, not supporting/paying for referral transport is not in line with MSF's general commitment to cover costs of lifesaving referrals. According to MSF key informants, the project plans to provide stretchers to communities under the 2020 strategy and will consider providing non-monetary incentives to porters, which is a step in the right direction to increase the effectiveness of the referral system.

**Surveillance and data collection**

Routine data of DMC activities are recorded in registers. Initially, a detailed Excel database of all malaria points was maintained but eventually abandoned. Since mid-2017, data are entered exclusively into the HMIS. However, since the HMIS has no specific matrix for community-based preventive and curative activities, only partial information is collected electronically, which limits the possibility of analysis.

HPCWs collect detailed data on MUAC screening, mortality surveillance and referrals etc. In 2019, a detailed Excel database was installed and is used by the health promotion supervisor for monthly monitoring; however, no data is available from previous years.

The integration of DMC activities into the HMIS system is being prepared in MSF's Barcelona headquarters, to improve electronic data collection and facilitate monitoring.

**Health promotion and community engagement**

The health promotion and community engagement team consisting of one supervisor, three community health educators and one facility-based educator, is experienced, motivated and well accepted by the community. The team supervises 48 HPCWs (18 of them women). Monthly meetings with HPCWs are organised to discuss findings and include refresher trainings. The main challenges for this programme component are the limited number of professional health educators, the insufficient coverage of HPCWs given the difficult geographic access, and the limited competences of the recently recruited HPCWs in Ramba HA, who require a lot of guidance.

Despite these challenges, the health promotion team, together with the network of HPCWs, seems to have positive impact. Community FGDs showed that basic messages on malaria prevention, hygiene, nutrition, vaccination, and ANC are well understood. Moreover, the team has a lot of potential and has effectively contributed to the programme in general. For example, the increase in reported community deaths flagged by HPCWs, triggered a recent exploratory mission to the Ramba highlands. HPCWs also engage with various churches to explore the barriers regarding family planning and health seeking behaviour in terms of modern medicine. They also provided support for the mapping of villages and for the selection of curative CHWs for the new DMC strategy.

However, this programme component is not prioritised and lacks clear guidance and support. A community engagement and health promotion strategy was drafted with the support of a health promotion officer in December 2018. Yet according to the health promotion supervisor, his last revision of the strategy is still awaiting approval since March. Consequently, several activities are on standby, e.g. the strategy for the reduction of home deliveries, "*maman lumière*" for sexual violence[55] and malaria prevention activities such as cleaning up stagnant waters.

**Supply of malaria treatment points and Plumpy'nut® at community level**

Malaria treatment points are supplied weekly based on consumption. No problems of stockouts during the past several months were reported at the time of the evaluation. In the past, there was a shortage of rectal Artesunate (used for pre-referral treatment of severe malaria for children aged under six) for about one year, due to insufficient availability on the international market. Problems

[55] *Maman lumière* is a respected woman of trust who could be trained as a community focal person for survivors of sexual violence and refer them to care.

of “overconsumption”/suspicion of theft of medicines had been reported in 2019 from the malaria point in Bundje. Problems with theft of Plumpy’nut® in Ramba HA were given as a reason for not providing Plumpy’nut® to HPCWs for direct distribution to children with PRONA admission criteria.

**Relationship with higher levels of care**

Malaria points usually refer patients with severe malaria or patients with a negative malaria test to the closest MSF-supported health facility, where treatment is free for children aged under 15, pregnant women, and all emergencies. However, there is currently no formalised referral system with the PHC centres in Mianda and Matutira HAs (that are not supported by MSF). However, MSF operates one malaria point in each of these two HAs. Due to the availability of free care at these malaria points and the vicinity of free care facilities in Tushunguti and Kusisa HAs, Mianda and Matutira HCs are underutilised with a negative impact on their income of user fees and staff salaries. Health workers in these HCs therefore feel disadvantaged compared to their colleagues working in MSF-supported facilities who receive incentives. In 2020, MSF is planning to provide light support to these two HCs, which will also benefit the local catchment population.

# 4 Conclusion and discussion

Overall, we can conclude that the decentralised models of care implemented in the Kalehe project are a relevant and an effective response to the identified needs in this given context. However, the strategies lacked appropriate adaptations over time that would have allowed for increasing effectiveness and geographic coverage. Promising adaptations are planned for 2020.

**RELEVANCE**

There is no doubt about the relevance of decentralising care in the community in this part of DRC, given the extremely difficult geographic accessibility to health facilities in this mountainous isolated area. **Malaria points** were particularly relevant given the high number of severe malaria cases and malaria related mortality in 2015/2016 and remain highly relevant in this area where transmission occurs year-round. Decentralising sexual and reproductive healthcare interventions with **PROMAV** was also relevant given the insufficient coverage of ANC and institutional deliveries, and the high number of late arrivals with maternal complications at health facilities. Opening a **PRONA** in Chitebeka was relevant because of the high number of registered patients with malnutrition in this area.

**APPROPRIATENESS**

The strategies for malaria points, PROMAV and PRONA lacked appropriate adaptations over time which would have increased effectiveness and geographic coverage.

**Limited package of community-based care**
While it was appropriate to initially focus on malaria as a rapid response to the malaria peak, with the exception of adding MUAC screening and the referral of malnourished children early on, the strategy did not evolve further into a comprehensive community case management model to also cover other preventive or curative components.

**Community-based malaria control**
The strategy of opening malaria points in identified hot spots was appropriate as an initial emergency approach, but the “flexible” approach of opening and closing malaria points according to need, proved inappropriate in the long term since needs remained high year-round. In most cases, closing malaria points was therefore not appropriate. Instead, a higher number of malaria points were needed to achieve continuous improved access to malaria care for the whole target population. Malaria prevention activities remained limited, with no expected impact on incidence. Recently, MSF OCBA invested in studies to inform the development of vector control strategies in South Kivu, but the recommendations from these studies have not yet been implemented.

**PROMAV**
Given its staff intensive approach and the challenges with access, PROMAV was limited and only implemented in two sites. Complementing or replacing it on a large scale with a lighter package of high impact interventions, such as systematic preventive treatment of malaria, iron/folate supplementation and deworming, that could be implemented by CHWs or TBAs could increase coverage with a relevant minimum package of care.

Furthermore, given the difficult access to health facilities and the unpredictability of certain childbirth complications, distance (from a health facility) should be added to the referral criteria for maternity waiting homes. Additional maternity waiting spaces could be constructed with community participation in Tushunguti and Ramba HCs to increase bed capacity. Even though food is currently working as a strong incentive for the acceptance of the maternity waiting home in Kusisa RHC, self-catering could be an option should MSF be unable to provide food for more pregnant women. Good preparation with community participation would be needed in this case, to create ownership and assure reliable food supply by family members.

**PRONA**
Opening a PRONA site in Chitebeka was appropriate to improve geographic access to malnutrition care, but its effectiveness was reduced after direct Plumpy'nut® distribution to eligible children by HPCWs was stopped. It would be interesting to explore the feasibility of reintroducing this element, combined with improved monitoring of the supply system and consumption of RUTF.

**Referral system**
The referral system from the community to higher level care, and from Ramba HC to secondary healthcare, needs to be strengthened. Referral criteria lack differentiation between levels of urgency, and the responsibility of transporting the very sick is left exclusively with the community, without MSF participation. In 2020, however, MSF plans to provide stretchers to communities and is considering providing non-monetary incentives to porters, which is an appropriate step to increase the effectiveness of the referral system for the very sick.

**Response to new health needs**
The project made efforts to respond to new health needs when they arose. This was organised timely and appropriately in some cases, and with delay or with insufficient coverage in other cases.

**The new 2020 DMC strategy**
The new 2020 DMC strategy aims to close the gap in geographic coverage with malaria treatment points and expand the curative community-based package, an adaptation that comes late, is very ambitious, but also very appropriate. Depending on the progress in implementation, it could be of added value to complement the community-based package with systematic preventive treatment for pregnant women and postnatal home visits by TBAs. Some challenges are already foreseeable: the number of human resources planned for the supervision of 100 CHWs seems insufficient to guarantee quality of care; whether the home-based approach will actually be more effective than the fixed community sites will have to be monitored given the scattered settlement pattern. Careful planning of a future MSF exit strategy, and ideally the early identification of a handover partner, will also become important to avoid the risk of having trained 100 "village doctors" who may continue to work without quality control.

**Community participation**
The malaria point strategy was designed exclusively by MSF. Despite some efforts to inform and involve the community, there was no comprehensive plan for community engagement. The low sense of ownership observed in our evaluation, indicates that there is still room to improve the level of community participation. Community participation also remained limited during the design of the new 2020 DMC strategy. But with the implementation of the new strategy, there is still an opportunity to give community engagement a more prominent place. Health promotion and community engagement activities will be a key element. MSF's health promotion team is strong and has a lot of potential. The recognition and support of their work, including sufficient human resources, is important to allow them to fully contribute to the success of the project. Efforts are being made by MSF to react to complaints from the community, but a confidential formal feedback system is missing.

**EFFECTIVENESS**
Overall, the DMC activities were effectively implemented with good results, but coverage of DMC activities in the project area remained low. Main observed changes that could be at least partially an effect of the DMC activities in Kalehe are:

- Accessibility of malaria diagnosis and care; SRH care and therapeutic feeding has increased substantially for the population living in close vicinity of the malaria points, PROMAV and PRONA sites. This said, difficult geographic access remains an important barrier for patients who do not live close to a health facility or a DMC site. Geographic barriers also remain for women who want to deliver in a health facility and for patients that are referred for higher level care.

- A high number of patients have been diagnosed and received care in the vicinity of the malaria points, even though overall geographic accessibility coverage remained low due to the limited number of malaria points and limited time of their operation.
- ANC1 coverage in Tushunguti HA improved with PROMAV, but geographical access barriers remain. Institutional delivery coverage also increased in Tushunguti and Kusisa HA, which could be partially a positive effect of health promotion activities in the community and at facility level. Free maternal healthcare was another major driving factor.
- Our findings suggest important changes in the perception of illness and in health seeking behaviour towards modern medicine, especially for malaria and to a lower extend for ANC and deliveries (though we had no baseline study for comparison). Efforts to incorporate traditional healers, TBAs and religious sects in the referral pathway are limited. The difficult landscape and long distances are the main barriers for women when accessing hospital for deliveries.
- Health facility data show a decrease in emergency room mortality after 2015 in Tushunguti, parallel to the decrease in inpatient malaria CFR in Tushunguti HC and Numbi hospital. This could be a positive effect of the malaria points. However, confounding factors and other potential effects should be considered to assess the real effectiveness of the strategy on CFR.
- Referrals for severe malaria to secondary healthcare decreased in the malaria points two-month pilot phase in 2015.
- Communities, health workers from MoH facilities and former MSF staff reported important changes in the number of severe malaria cases and malaria related deaths.
- Communities highly appreciate the improved access to healthcare and are satisfied with the quality of care provided by CHWs and staff in referral health facilities. Main areas for improvement perceived by communities include the exclusion of adults for free care in MSF-supported health facilities, the closure of malaria points and lack of transport to a referral hospital from Ramba HC.

**Main strengths in implementation**: 1) overall fair CHW selection process; 2) overall good training and supervision of CHWs; 3) effective task shifting for management of simple malaria; 4) reliable supply system; 5) good health promotion and community surveillance and, 6) comprehensive SRH package in PROMAV.

**Main weaknesses:** 1) poor geographic coverage of DMC activities; 2) temporary time of operation for malaria points; 3) poor effectiveness of the referral system; 4) no routine monitoring of effectiveness of the referral system; 5) insufficient electronic data collection for routine monitoring of malaria points; 6) limited malaria prevention activities at project level.

**Main challenges**: 1) difficult geographic access; 2) low education level of CHWs; 3) limited human and financial resources. Given the low education level, good initial training of CHWs including practice at a health facility and regular supportive supervision are key to ensure quality of care. As the number of CHWs increases, it will be important to set up a good follow-up and evaluation system to assess learning progress and skills. Monthly refresher courses are highly recommended for the new DMC CHWs, as is the increase in number of staff and the clear division of tasks between clinical staff and health educators within the future supervision team.

**Enabling factors for success**: 1) motivated MSF team willing to reach isolated places by foot; 2) strong leadership from an experienced MSF nurse during the start-up of the malaria point strategy; 3) determination of the country coordination and project staff to roll out the malaria point strategy, backed up by cell and technical advisors; 4) good understanding of the local context; 5) good negotiation skills with armed actors; 6) high level of acceptance of MSF.

# 5 Recommendations

Following the recommendations provided by the DMC advisor after his field visit in July 2019, the MSF OCBA DRC mission has decided to take a major strategic shift in their DMC approach in 2020, with the objective to improve access and coverage to community-based care for the main killer diseases. This package of care will be offered permanently by a network of 100 curative CHWs and will replace malaria points in the long term. Our recommendations will therefore focus on other areas of improvement identified during this evaluation.

## For MSF Kalehe project – MSF OCBA DRC mission

⇒ **Implement new DMC strategy, monitor and adapt package based on needs and feasibility**

- Develop a strategy document with logical framework, planned timeline, and risk analysis.
- Establish a monitoring system with all relevant indicators managed through an electronic database, including the effectiveness of referrals to higher level care.
- Monitor effectiveness of the mobile, home-based approach to care, given the scattered settlements.
- Depending on CHW's capacity, consider adding more preventive and curative elements, such as systematic preventive treatments for pregnant women or postnatal home visits.

⇒ **Strengthen referral system from communities to higher level care and from Ramba HC to secondary healthcare**

- Establish a list with clear medical criteria that defines which patients need transport by stretcher and which patients can be referred by foot.
- Work with communities to co-design an effective referral system to ensure a reliable response when porters are needed.
- Implement the plan to provide stretchers to communities and an MSF reward system for porters.
- Explore feasibility to establish a motorbike transport system for communities that have become accessible or partially accessible for motorbikes.
- Explore options to support referral transport from Ramba HC to secondary healthcare facilities.
- Support initiatives from the health promotion team to develop referral pathways with other community healers and reinforce the referral pathway for survivors of sexual violence.

⇒ **Strengthen CHW training and supervision**

- Include simulations and practical training at health facilities for new curative CHWs.
- Ensure regular supportive supervision and refresher training for all curative CHWs. Make sure there are enough staff, including medical staff, to supervise 100 CHWs at least twice a month.
- Develop a tool to monitor the learning progress of CHWs with support from advisors of the training department at Barcelona headquarters.
- Request training material (currently being developed by headquarters) for the DMC toolkit.

⇒ **Increase admission criteria and the bed capacity of maternity waiting homes**

- Add long distance between residence and maternity to the admission criteria.
- Increase bed capacity in Ramba maternity waiting space and construct maternity waiting area in Tushunguti HC with community participation.
- Engage the community to take responsibility for self-catering, where MSF cannot provide food.

⇒ **Strengthen health promotion and community engagement**

- Review and adapt the health promotion and community engagement strategy in the new DMC strategy and develop an action plan with support from headquarter advisors.
- Prioritise community engagement and clarify the division of roles and responsibilities between project medical referent and field coordinator.
- Carry out a community perceptions study to improve the understanding of local perspectives and facilitate the design of an action plan which considers a future MSF exit.
- Carry out a health seeking behaviour study to provide a baseline for the new DMC strategy and monitor changes.
- Increase the number of HPCWs to achieve the ratio of one per 500 inhabitants.
- Increase the numbers of health educators to allow appropriate supervision of HPCWs.
- Support the creation of community monitoring committees for healthcare to monitor effectiveness of the CHW work and give feedback to MSF.
- Continue efforts to include all ethnic groups including Pygmies.
- MDM will set up the community engagement component in the MSF Itombwe project, using an innovative methodology "protective community" for identification and referral of survivors of sexual violence. If successful, consider implementing in Kalehe.

⇒ **Improve data collection and monitoring system of existing DMC strategies**

- Start using the templates from the HMIS community which will be released soon.
- Monitor effectiveness of referrals from community to health facilities.

⇒ **Strengthen malaria prevention activities by implementing recommendations of vector control studies, as well as those made by the OCBA Water, Sanitation and Hygiene Advisor.**

⇒ **Explore the feasibility to reintegrate immediate community based Plumpy'nut® distribution by HPCWs for children with PRONA criteria to enable early access to therapeutic feeding.**

⇒ **Make sure potential future MSF exit and handover are planned in a timely manner**

- Involve the MoH and the community in the planning of the exit strategy and the reflection on a feasible future of the model of community-based care without MSF.
- In time, look for a handover partner (MoH/NGO) who could continue to support the new DMC strategy to avoid the risk of leaving behind 100 village doctors without quality control.

## For MSF OCBA headquarters

⇒ **Finalise the community engagement strategy and the DMC toolkit including training material for CHWs and disseminate to the field; create a mobile DMC implementation officer position to provide technical support to projects and country coordination team.**

⇒ **Develop a framework for improved monitoring of DMC activities at project, coordination and cell level.**

- This should include baseline indicators and follow-up indicators for the various expected results to be able to measure progress and impact.
- Finalise integration of DMC activities in HMIS to facilitate joint monitoring of activities.

# 6 Annexes

## 6.1 Terms of reference

TERMS OF REFERENCE / 03.06.19

Evaluation of decentralised models of care in DRC, CAR and South Sudan

| | |
|---|---|
| Commissioned by | DRC, CAR and SSD missions/cells |
| Commissioner | José Luis Dvorzak (DMC Advisor MSF-OCBA) |
| Commissioned to | Vienna Evaluation Unit |
| Time period evaluated | 2017 - 2019 |
| Duration of evaluation | July – December 2019 |
| Expected start date | July 2019 |
| ToR elaborated by | José Luis Dvorzak, Cristian Casademont, Maitane Azkarraga, Liliana Palacios, José Mas, Sylvain Groulx, Mohamed Eltom, Mónica Camacho |

### 1. CONTEXT

Decentralised models of care (DMC) depict the implementation of care outside of health facilities or outside of its usual facility, and closer to patients in order to make medical activities (curative and preventive) more accessible to those populations (*according to MSF-OCBA SP 2014-2017*).

DMC can be divided in two main interventions:

1) Community-based interventions: activities implemented by CHWs/TBAs in the community, they are members under incentives of those communities where the activities are implemented, the skills are mainly low and the number of activities should be limited to the skills.

2) Decentralised interventions: activities implemented in the community but originated in the facility, with MSF higher skilled staff. Includes “one shot” interventions, mobile clinics, vaccination campaigns in the community, etc.

This evaluation will focus on community-based interventions and decentralised interventions focusing on the implementation of activities close or inside the community rather than within a centralized medical facility. This approach is a transversal methodology meaning any activity that can be re-designed for a community setting, rather than a centralized setting, would fit the concept. For MSF, any decentralised approach can improve access to medical care, leading to our overall goal of reducing morbi-mortality.

The DMC strategy encompasses the designing and planning of activities including community-based interventions (with a community involvement at the core of the design) and decentralised interventions or both. The main objective of these community strategies is to improve access to healthcare of vulnerable populations (situation of conflict, violence, displacement, etc.) facing barriers to reach care in formal facilities. As these strategies must be adapted to the contexts, the specific particularities of each project must be taken into account and a new model needs to be created in every case tailored to this specific situation. The scope of options and variability of this strategy can include a broad spectrum of activities and these must be selected according to the needs of the populations identified by MSF.

The main component of this strategy is the community case management approach focusing on primary healthcare level activities with an emphasis on increasing access and quality of care at community level as well as strengthening preventive measures, community knowledge and practices as well as community mobilization. In the community-based model networks of community workers (community health workers and traditional birth attendants) are chosen in villages outside of walking distance of a health facility. These workers are trained to provide treatment for specific diseases to people who cannot access formal health

facilities and to identify alarm signs to be able to refer cases that cannot be treated by them. The community workers are trained and supported by a supervisor who reports to the local health facility.

The DMC strategy has been implemented by MSF OCBA with this name for the first time in 2017 in Malakal project, South Sudan. In February 2017 it was implemented in Kabo and Batangafo projects in the Central African Republic (CAR). Before that, some similar interventions with these models were implemented. Since then several projects in different countries have implemented this strategy in both emergencies and regular projects. Currently, several DMC interventions have been approved to be implemented in many countries in 2019 or are in process of design/implementation *(see Table 1).*

**Table 1: Description of countries and MSF-OCBA projects with DMC interventions (on-going, closed and in the pipeline), 2017-2019.**

| N | Project | Country | Cell | Status |
|---|---|---|---|---|
| 1 | Malakal | South Sudan | 5 | Opened in 2017 (on-going) |
| 2 | Kabo | CAR | 3 | |
| 3 | Batangafo | CAR | 3 | |
| 4 | Ansongo | Mali | 2 | Opened in 2018 (on-going) |
| 5 | Kidal | Mali | 2 | |
| 6 | NW Cameroon | Cameroon | EU | |
| 7 | SW Cameroon | Cameroon | EU | |
| 8 | Alindao | CAR | 3 (Eureca) | |
| 9 | Bocaranga | CAR | 3 (Eureca) | Opened in 2018 (closing or closed) |
| 10 | Kalonge | DRC | 3 (RUSK) | |
| 11 | Salamabila | DRC | 3 | |
| 12 | Yambio | South Sudan | 5 | Starting soon or pending approval in 2019 |
| 13 | Ulang | South Sudan | 5 | |
| 14 | Al-Zuhra | Yemen | 1 | |
| 15 | Baidoa | Somalia | 5 | |
| 16 | Douenza | Mali | 2 | |

As this strategy is relatively new in MSF-OCBA and is becoming more relevant in medical operations, it is necessary to evaluate the activities that have already been implemented with the aim to learn how access to healthcare was modified and how the efficacy of the interventions can be improved. It is also crucial to better understand enablers and constraints of this strategy.

South Sudan, DRC and CAR are selected for the first DMC evaluation because these were the first countries where DMC strategies were designed and implemented. As enough time passed since the implementation of the first experiences and a considerable corpus of information was already collected about the projects, it is now time to compile and analyse this information in the form of an evaluation, with the aim of knowing if the initial goals of the strategy were achieved and to get a summary of lessons learned to be replicated in future interventions.

## 2. OVERALL OBJECTIVE and PURPOSE

**OVERALL OBJECTIVE, PURPOSE and USE**

Evaluate the community activities implemented in DRC, SSD and CAR with a particular focus on changes in access to healthcare, effects of DMC on higher levels of care (Hospital, PHCC), community perception of the DMC and specific aspects of DMC strategy (design, implementation, set-up).

MSF OCBA aims to derive lessons learned from DMC implementation in 3 contexts to improve the performance of community activities in the current and future interventions.

The results will be used both by operations and the medical department to inform the decision making in current and future DMC interventions.

**SPECFIC OBJECTIVES**

- To evaluate the effect of the community strategy in terms of access to healthcare
- To evaluate the consequences of the strategy on the workload of the staff in the higher levels of care (Hospitals/PHCC)
- To evaluate the participation of the community in the planning (co-design) an and implementation of DMC activities (ownership, acceptance, perception, perceived impact and benefits, etc.)
- To evaluate specific aspects of DMC interventions (design, implementation and set-up)
- To identify enabling and constraining factors during the implementation of DMC interventions for the improvement of the performance in current and future interventions

**Out of scope**

The revision of the global DMC strategy as such is out of scope of this evaluation.

## 3. KEY EVALUATION QUESTIONS

CASE STUDIES

1. **Relevance**
    - How was the design of each DMC model informed by the identified needs and the context?
2. **Appropriateness**
    - Were appropriate adaptations made in the approach with enhanced understanding of the situation?
    - Did new health needs that have not been tackled arise throughout the period of the implementation?
    - To what extent did the community participate in the process (co-design, planning, implementation)?
    - Are community-based activities aligned with or adapted to MoH/WHO community-based care policies
3. **Effectiveness**
    - Were the DMC activities carried out as originally planned? To which extent the objectives have been achieved?
    - Access: How the access to healthcare evolved after the implementation of DMC? How the communities in the catchment areas have modified their health seeking behaviour since the DMC approach started? Malaria data will be used as a proxy to evaluate the access (to check the hypothesis of increased number of malaria cases received at community and primary healthcare level and decreased case fatality rate of severe malaria in the hospital (especially less than 48 hours after admission)

- Consequences on higher levels of care: What consequences do the community-based interventions have on the activities at higher levels of care (Hospital/PHCC)? For example, in the quantity and quality of consultations done in the higher-level facility.
- Perception: How are the DMC related services perceived by the communities?

TRANSVERSAL ANALYSIS

What are the common enablers and challenges that can be extrapolated from the projects?
Commonalities and differences in:

- Community workers: Recruitment process, skills before and after training and task shifting
- Referral/counter-referral system
- Training and supervision activities
- Surveillance system/data collection
- Health promotion and community engagement activities
- Relationship of the DMC with higher levels of care

## 4. PROJECT REQUIREMENTS

- Ideally, having activities in the community with CHWs/TBAs/HPs-HEs and the members of the community
- Project has been open for a minimum of 1 year (and retrospective data is available)
- Expected duration: minimum of 1 to 2 years (to allow for follow-up post evaluation)
- Projects proposed: South Sudan: Malakal project; CAR and DRC: available projects to be confirmed

## 5. PRACTICAL IMPLEMENTATION OF THE EVALUATION AND GOVERNANCE

| | | |
|---|---|---|
| **Number of evaluators** | *2* | |
| **Timing of the evaluation** | | |
| **Required amount of time (days);** | *Evaluator 1* | *Evaluator 2* |
| **Inception Phase (Days)** | *15* | *15* |
| **Data collection Phase (Days)** | *45* | *45* |
| Data collection from off-site & data collection in DRC, CAR and South Sudan | | |
| **Analysis and Reporting Phase** | *32* | *32* |
| Analysis and development of case study reports and compiled report | | |
| **For presentation (Days)** | *2* | *2* |
| **Total time required (days)*** | **94** | **94** |

## 6. EXPECTED RESULTS and INTENDED USE OF THE EVALUATION

Phase 1: Inception Phase

- In-depth inception report incl. spelled out data collection instruments (e.g. topic guides for interviews with MSF staff).

  Requirement: Clearly depicted methodology to allow transversal application by different evaluators in three projects.

Phase 2: Case study phase

Presentations

- Presentation of evaluation plan for projects prior to visits
- Debriefings in each project/mission
- Virtual presentation to missions and projects where the evaluation has been conducted
- Presentation of findings to OCBA audience

Reports with findings and recommendations; general recommendations and mission/context specific recommendations

- Case study report CAR including integration of quantitative analysis of Malaria data endorsed by Commissioner and VEU
- Case study report DRC endorsed by Commissioner and VEU
- Case study report South Sudan endorsed by Commissioner and VEU

Phase 3:

Overall report with common findings and general recommendations on community activities designed to improve planning, implementation, performance of staff, monitoring and quality of care in decentralised community activities in OCBA projects

- Based on the transversal analysis: Concrete proposal of a document for improving the performance of OCBA in the implementation of community activities

Presentations:

- A presentation of the final report will be done at HQ in Barcelona
- Presentation at the HoM/MedCO week 2020

INTENDED USE

OPERATIONS AND MEDICAL DEPARTMENT

1. Medical department to develop appropriate tools
2. Operations department to commit to implementation of tools and recommendations in future DMC interventions

## 7. TOOLS AND METHODOLOGY PROPOSED

- Review and analysis of project documents
- Interviews with key-team members at HQ and field levels
- Interviews, focus group discussions with MSF-CHWs/TBAs/HP-HE, health centre/health post staff and hospital staff
- Interviews with key informants (e.g. health professionals from MoH or from the facilities, community gatekeepers)
- Interviews, focus group discussions with patients/former patients
- Observations
- Examination of files and registers
- Quantitative and qualitative data gathering and analysis

## 8. DOCUMENTATION FOR READING

- Project documents (logframes, situation reports)
- Medical reports (in the facility)
- Guidelines
- Data files
- DMC relevant documents

## 9. STAKEHOLDERS AND INTERVIEWEES

KEY STAKEHOLDERS

Dir Ops, Cell 3, Cell 5, Cristian Casademont (MedOps); José Luis Dvorzak (DMC referent)

Other stakeholders:

- Operations: HoM, MedCos, PMRs; FieldCos, staff in field
- Medical department:
- Other members of medical department

Beneficiaries

INTERVIEWEES

- CHWs/TBAs/MW/Nurses/COs/Hos/doctors/staff in the field, capital level and HQs
- Beneficiaries in the communities and in some facilities

## 10. PROFILE/S OF EVALUATOR/S

**A <u>team of 2 evaluators is foreseen for this evaluation.</u>**

**Evaluator 1 – Evaluator with medical profile**

- Medical/paramedical degree
- Proven experience in health promotion/community engagement
- Operational/managerial experience
- Solid experience in applying techniques of qualitative data collection and analysis
- Experience in conducting evaluations
- Experience in collection and analysis of quantitative data
- Understanding of the relevance of community activities in resource-limited countries
- Excellent analytical skills with attention to detail and drawing well-grounded conclusions
- Proven report writing and presentation skills
- Working experience in MSF is a strong asset
- Very good written and spoken English and French

**Evaluator 2 – Evaluator skilled in qualitative research**

- Academic degree in relevant field
- Long standing experience in designing and applying techniques of qualitative data collection and analysis
- Very good communication skills
- Working experience in MSF is a strong asset
- Proven report writing and presentation skills
- Excellent analytical skills with attention to detail and drawing well-grounded conclusions
- Very good written and spoken English
- Knowledge of French is a strong asset
- Previous Working experience in MSF desirable
- Experience in conducting evaluations is an asset

Applicants meeting the criteria are invited to apply individually or as a team.

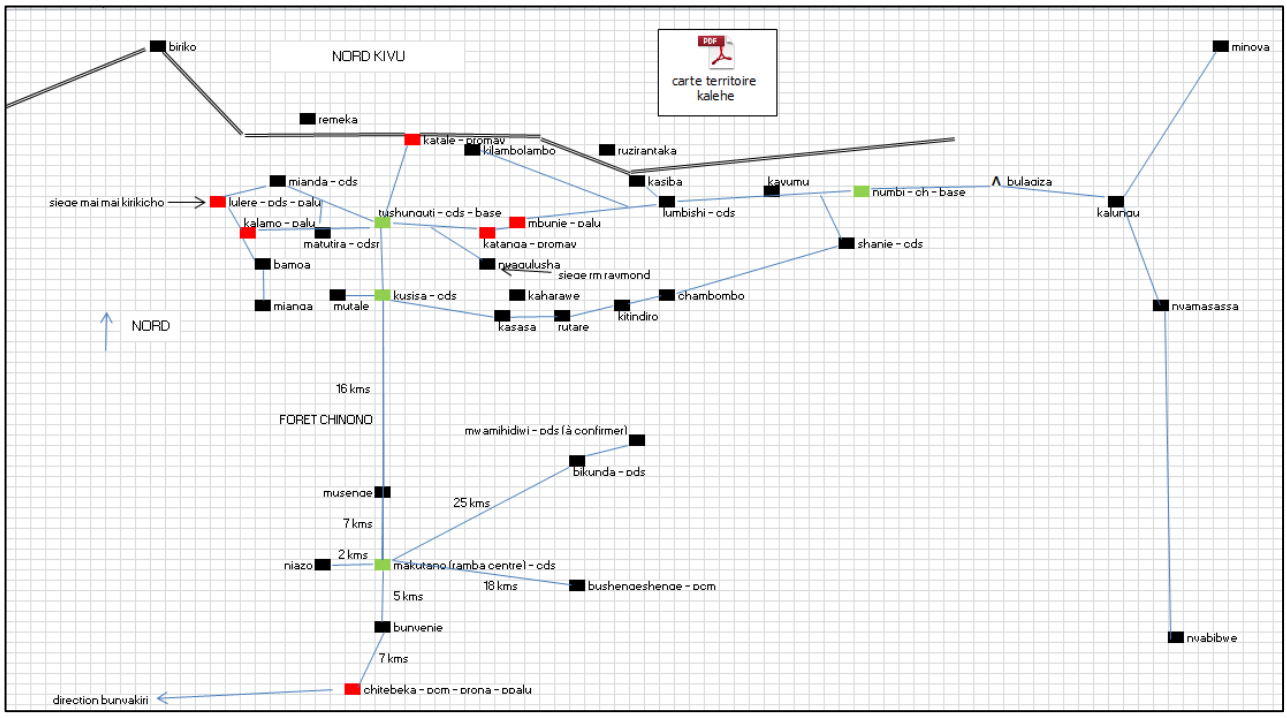
For the case study of the CAR project, in case of a need an experienced epidemiologist will support the team.

## 6.2 Maps

**Map Democratic Republic of Congo**

## Map Bunyakiri health zone and health areas


## Map MSF Kalehe project area, 2019



## 6.3 Methodology: sampling strategy

**Site visits**

- For malaria treatment points, PROMAV and PRONA, sites were selected according to the regular schedule of the project's DMC activities. This way four out six malaria points (two in Ziralo area and two in Ramba HA), one out of two PROMVAV sites in Ziralo and the only PRONA site in Ramba HA could be visited.
- **All three MSF-supported health facilities in the project area**: Kusisa RHC (PHC and secondary healthcare), Tushunguti HC, Ramba HC (PHC) as MSF supported health facilities to assess the effect of the community-based care on higher level care

**Interviews and focus group discussions**

Purposive sampling has been used for the selection of the groups of interviewees with the objective to reach all the groups of informants that were relevant for this evaluation. Some of the individual patients/care takers were selected on convenience depending on their availability during visit of the health facilities, or DMC treatment points.

- **MSF key informants:** key informants from Barcelona headquarters including current and former members of the operational cell in charge of DRC, current technical advisors, current and former key project and country coordination staff members to explore the rationale for the development of the current DMC strategy, its relevance, appropriateness, effectiveness and supporting and hindering factors for success. Most were semi-structured individual interviews either face to face or via Skype.
- **Other health actors** including MOH, MSF OCA and Médecins du Monde were interviewed to explore the relevance and appropriateness of MSF OCBA's DMC strategy in Kalehe, aspects of coordination and complementarity as well as contextual factors that may have favoured or hindered the project's achievements.
- **Health workers** were interviewed in each of the visited sites, either individually or in a group primarily to explore the effects of the community-based DMC strategy on higher level care.
- **CHW** were interviewed to explore success and challenges in their area of work. At the same time they were also key informants of their communities.
    - Malaria CHW: two malaria CHW in group of two in Ramba area, one FGD with malaria CHWs in Ziralo area
    - Health promotion CHW: three individual interviews, two interviews in groups of two
    - DMC CHW trainees: one FGD with participants of a DMC CHW training course
- Among the **beneficiaries** the following groups were selected for interviews to explore their perception of the level of community participation/engagement in planning and managing the community treatment sites, potential changes in access to healthcare, barriers in accessing care, potential changes in their health seeking behaviour and their perception of the quality of service delivery at community treatment sites, decentralised activities and health facilities after referral to higher level care.
    - **Male community leaders/members:** five FGD, one per visited community treatment
    - **Female community leaders/pregnant women and mothers of children < 5 years of age**: in total five focus group discussions (one per visited community site).
    - **Patients and care takers of children** from the periphery that had been referred or self-referred to the MSF-supported health facilities. Individuals or small groups of patients were sampled on convenience in the waiting area of the OPD, the paediatric ward and the maternity ward; 2 FGD was held with pregnant women present at the maternity waiting homes in Kusisa RHC and Ramba HC.

**Sites visited and groups of people interviewed during field work**

| Area | Sites visited | Referral Health Centre | Health Centre | Malaria treatment point | PROMAV | PRONA | MSF key informants | Health workers | Health Promotion CHW | Malaria CHW | FGD Male community leaders/members | FGD Female community leaders, members | Patients/care takers | Health authorities | MSF OCA | Médecins du Monde |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Skype** | | | | | | | x | | | | | | | | | |
| **Bukavu** | | | | | | | x | | | | | | | x | x | x |
| **Ziralo** | Tushunguti | | x | | | | x | x | | x | | | x | | | |
| | Kusisa | x | | | | | | x | | | | | x | | | |
| | Katanga | | | | x | | | | x | | x | x | | | | |
| | Kilambolambo | | | x | | | | | x | | x | x | | | | |
| | Bamoa | | | x | | | | | x | | x | x | | | | |
| **Ramba Health Area** | Ramba | x | | | | | x | x | | | | | x | | | |
| | Lukanga | | | x | | | | | x | x | x | x | | | | |
| | Chitebeka | | | x | | x | | | x | x | x | x | | | | |
| **Bunyakiri** | | | | | | | | | | | | | | x | | |

## 6.4 Methodology: calculation of indicators

***Accessibility coverage***

In order to estimate the percentage of the target population with *easy* geographic access to care, we calculated the accessibility coverage for each level of care - health facilities, malaria points, PRONA and PROMAV. At the numerator, we used the population of all sub-villages around the main village (as indicated in "*Cartography_PS_2019*"). This was assumed to be the best proxy for the 5 km catchment area of each level of care. At the denominator, we used the population figures of the whole HA. If more than one malaria point or PROMAV was present in the same HA, their catchment areas were added. The calculation was done per year in order to analyse the trends. For this indicator we only included DMC sites of the health areas that correspond to the project area at the time of the evaluation and that were operational for a minimum six months.

**Note:** although DMC activities were in some cases not performed all over the year, accessibility coverage was calculated per year (adjusting for the time the health centre/DMC points was open) in order to see trends over years. Trends over months would have been difficult to see for the readers.

***Availability coverage***

The ratio of HPCW per people was calculated for each HA according to the 2019 data. Number of inhabitants of the whole HA was divided by the number of malaria CHW and HPCW present in 2019.

***Contact Coverage***

For external consultations in HCs, we calculated the number of OPD consultations per population of the whole health area, adjusting for the duration of the time the HC has been supported by MSF.

To estimate the number of pregnancies and deliveries per year, we used the calculator for sexual and reproductive health estimates – OCBA, with a crude birth rate of 4.5% (as used by the DMC advisor in his July 2019 field visit report) adjusting for the time the DMC activity/HC was open. ANC coverage was calculated by dividing the number of first ANC visits (ANC1) in each PROMAV/HC by the total number of expected pregnancies in the HA. Coverage of institutional deliveries was calculated by dividing the number of deliveries in each HC by the total expected pregnancies in the HA. For 2019, the number of ANC1 and deliveries included only data until November.

***Referral system***

For the proportion of patients referred by malaria points that arrived in Tushunguti HC we used the analysis made by the DMC advisor on three malaria points in June 2019. For the proportion of patients referred by HPCW that arrived at health facilities we used the database of health promotion activities provided by the project. We used data of August and September 2019, that appeared most complete.

***Health facility-based mortality***

*Emergency room mortality* corresponds to the number of deaths in emergency and observation rooms in MSF-supported health facilities divided by the number of consultations/admissions in these two departments. *Inpatient mortality* corresponds to the number of deaths that occurred in inpatient department (IPD) including Gyn/obs ward, paediatric ward, hospitalisation ward, ITFC and neonatology ward, divided by the number of IPD exits on the same period of time. *Early inpatient mortality* corresponds to the mortality within 48 hours after admission among all IPD exits. We calculated the *inpatient malaria case fatality rate* by dividing the number of malaria deaths in IPD by the number of severe malaria cases in inpatient department (IPD) services. Malaria deaths in emergency room and observation room are not included in this indicator.

## 6.5 Kalehe project summary: target areas, components, timeline

| Year | Health Zone | Supported health facilities | DMC activities |
|---|---|---|---|
| 2013 to end 2015 | Minova | • Minova Hospital (referral centre) and other HCs in lowlands<br>• Numbi, Shanje, Lumbishi HCs | |
| | Bunyakiri | • Tushunguti HC | • Mobile clinics in Ziralo<br>• November 2015: Start of malaria points<br>• Health promotion and mortality surveillance |
| 2016 to 2018 | Minova | • **Numbi hospital (referral centre)**<br>• Shanje HC until end 2016<br>• Lumbishi HC | • Health promotion and mortality surveillance |
| | Bunyakiri | • Tushunguti HC<br>• Kusisa HC<br>• August 2018: Ambulatory Feeding Centre (ATFC) in Ramba HC | • Malaria points in Ziralo<br>• 2016: start of PRONA activities;<br>• 2017: start of PROMAV activities<br>• Health promotion and mortality surveillance |
| 2019 | Bunyakiri | • **Kusisa Referral HC (referral centre)**<br>• Tushunguti HC<br>• July 2019: Ramba HC | • **6 community-based malaria points**<br>✓ 1 in Tushunguti HA: Kilambolambo<br>✓ 1 in Kusisa HA: Mutale 2<br>✓ 1 in Mianda HA: Kalunda<br>✓ 1 in Matutira HA: Bamoa<br>✓ 2 in Ramba HA: Chitebeka, Kalunda<br>• **2 PROMAV** in Tushunguti HA<br>✓ Katanga, Tushunguti HA, 1/month<br>✓ Katale, Tushunguti HA, 2/month<br>• **PRONA** Chitebeka, Ramba HA<br>• **Health promotion and mortality surveillance** |

## 6.6 List of interviewees

| |
|---|
| **MSF OCBA Headquarter** |
| DMC advisor, since 2018 |
| Medical Director |
| Health Advisor, Cell 3 |
| Former Health advisor Cell 3 from Sept 2017 - Oct 2018 |
| Programme Manager Cell 3, June 2015 until February-March 2017, Programme Manager Emergency Unit |
| WASH advisor |
| **MSF OCBA DRC coordination** |
| Head of Mission |
| Medical Coordinator |
| **MSF OCBA DRC former coordination team members** |
| Former Head of Mission 2015 - 2017 in tandem with Cisco Otero |
| Former HOM in 2015 - 2017 in tandem with Albert Vinas |
| Former Medical Coordinator, 2016 -2017 |
| Former Medical Coordinator, 2015 - 2017 |
| PMR Kalehe, 2016, 2017/2018 Medco DRC |
| **MSF OCA Staff** |
| MSF Operational Centre Amsterdam Medical Coordinator |
| MSF Operational Centre Amsterdam Deputy Medical Coordinator |
| **Kalehe MSF Staff** |
| Field Coordinator Kalehe |
| Field Coordinator |
| PMR Kalehe |
| NAM Hospital, interim PMR (and former nurse periphery Feb-Sept 2017) |
| Nurse Team Supervisor Periphery since 7 June 2019 |
| Nurse periphery since 10 Sept 19 |
| Supervisor health promotion. Since Jan 19 |
| Periphery nurse, Ramba |
| Health educator, Ramba |
| **Former MSF Kalehe staff** |
| Field Coordinator September 15 to April 16 |

| | |
|---|---|
| Nurse Periphery 2015 | |
| **PROMAV team** | |
| Midwife | |
| Midwife MOH, Tushunguti HC, | |
| Nurse supervisor periphery MOH | |
| **Kusisa Referral Heath Centre** | |
| Midwife, maternity | |
| Assistant midwife, | |
| Assistant midwife, maternity | |
| Midwife OPD /ANC | |
| Receptionist | |
| Head nurse, emergency room | |
| **Tushunguti Health Centre** | |
| Head nurse | |
| Pharmacy responsible | |
| **Health Centre Ramba staff** | |
| Assistant head nurse | |
| Nurse | |
| Chargé de vaccination | |
| Nurse in charge of ATFC | |
| Midwife | |
| Midwife in charge | |
| Midwife | |
| Pharmacy responsible | |
| **Malaria CHW** | |
| | . 2 Malaria CHWs, Lukanga |
| | . 2 Malaria CHW, Chitebeka |
| FDG with 4 Malaria CHW (3 men, 1 woman) | from malaria points Kilambolambo, Kalunda, Bamoa, Mutale 2, Ziralo area |
| **Health Promotion CHW** | |
| | Health promotion community worker, Lukanga |
| | Health promotion community worker, Lukanga |
| | Health promotion community worker, Chitebeka |
| | Health promotion community worker, Chitebeka |

| | |
|---|---|
| | Health promotion community worker, Bamoa |
| | Health promotion community worker, Katanga |
| | Health promotion community worker, Kilambolambo |
| **CHW trainees** | |
| FGD with 18 participants (9 women, 9 men) | Tushunguti health area |
| **Community members** | |
| FGD Men and female chief Katanga | 25 men and 1-woman chief |
| FGD Women Katanga | 12 women |
| FGD Women Kilambolambo | 9 women |
| FGD men Kilambolambo | 15 men, 2 of them from North Kivu |
| FGD women Bamoa | 8 women |
| FGD Men Bamoa | 8 men, including chef de village, pasteur |
| FGD Women Lukanga | 8 women |
| FGD Men Lukanga | 10 men |
| FGD Men Chitebeka | 14 men |
| FGD Women Chitebeka | 9 women |
| **Patients and caretakers** | |
| FGD 12 maternity waiting home Kusisa RHC | 12 pregnant women |
| FGD measles ward Kusisa RHC | 20 care takers |
| Group interview maternity Kusisa RHC | 2 mothers in maternity |
| Group interview maternity Kusisa RHC | 3 mothers in maternity ward |
| FGD care takers paediatric ward Tushunguti HC | 4 mothers |
| FGD Malaria point patients Kilambolambo | 6 women with children |
| FGD Maternity waiting room Ramba HC | 11 women |
| FGD Women ANC Ramba HC | 8 women |
| Short individual interviews, Kusisa RHC (triage, paediatrics, malnutrition ward, Maternity | 17 patients /caretakers |
| Short individual interviews, Tushunguti HC, triage, maternity, paediatric | 11 patients/caretakers |
| **External stakeholders** | |
| | Chef du Bureau Appui Technique, Division provincial de santé du Sud-Kivu |
| | Analyste Amélioration de la Qualité des Soins dans les HGR, Analyste Amélioration de la Qualité des Soins dans les HGR |
| | Médecin chef de Zone Bunyakiri |
| | Médecins du Monde Belgium General Coordinator |

## 6.7 Tables and Figures

**Table 3: Geographic access coverage (in %) by health area, type of medical care and year**

| Health Area | Organisation type | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Kusisa | PRONA | | 11 | 11 | | |
| | Malaria Point | 11 | 27 | 41 | 41 | 16 |
| | Health centre | 17 | 17 | 17 | 17 | 17 |
| Lumbishi | Health centre | 15 | 15 | 15 | 15 | |
| Matutira | Malaria Point | | 3 | 3 | 3 | 45 |
| Mianda | Malaria Point | | | 12 | 12 | 15 |
| | | | | | | |
| Numbi | Health centre | 42 | 42 | 42 | 42 | |
| Ramba | PRONA | | | | | 11 |
| | Malaria Point | | | | | 19 |
| | Health centre | | | | | 20 |
| Shanje | Health centre | 29 | 29 | | | |
| Tushunguti | Malaria Point | 6 | 26 | 26 | 26 | 26 |
| | PROMAV | | | 38 | 42 | 38 |
| | Health centre | 26 | 26 | 26 | 26 | 26 |
| | PRONA | | | | 4 | |

**Table 4: RDT malaria positivity rate (%) in malaria points**

| Malaria point/Period | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Chitebeka | | | | | 83 |
| Bamoa | | | | | 81 |
| Kilambolambo | 100 | 90 | 91 | 85 | 79 |
| Lukanga | | | | | 65 |
| Kalunda | | | | | 82 |
| Mutale | | | | | 88 |
| Mutale 2 | | | | | 85 |
| Bundje | | 85 | 77 | 79 | 79 |
| Kalamo | | 88 | 87 | 90 | 86 |
| Lulere | | | 80 | 77 | 82 |
| Nyalugusha | 88 | 92 | 86 | 83 | |
| Rambula | | | 82 | 86 | |
| Mutale (old) | | 80 | 85 | 86 | 78 |
| **Average** | **94** | **87** | **84** | **84** | **81** |

**Table 5: Antenatal care 1 and institutional delivery coverages by health service and health area (Tushunguti, Ramba, Numbi, Kusisa)**

| Health area | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| **Tushunguti** | | | | | |
| **Health centre** | | | | | |
| Expected pregnancy | 886 | 886 | 886 | 886 | 812 |
| Number of ANC1 | 625 | 675 | 687 | 588 | 534 |
| ANC1 coverage (%) | 71 | 76 | 78 | 66 | 66 |
| Expected deliveries | 797 | 797 | 797 | 797 | 731 |
| Total deliveries | 389 | 516 | 548 | 594 | 582 |
| Deliveries coverage (%) | 49 | 65 | 69 | 75 | 80 |
| **PROMAV (Katanga + Katale+ Mpanama)** | | | | | |
| Expected pregnancy | | | 443 | 812 | 812 |
| Number of ANC1 | | | 141 | 337 | 350 |
| ANC1 coverage (%) | | | 32 | 41 | 43 |
| **Ramba** (based 3 months data) | | | | | |
| **Health centre** | | | | | |
| Expected pregnancy | | | | | 186 |
| Number of ANC1 | | | | | 239 |
| ANC1 coverage (%) | | | | | 129 |
| Expected deliveries | | | | | 223 |
| Total deliveries | | | | | 203 |
| Deliveries coverage | | | | | 91 |
| **Numbi** | | | | | |
| **Health centre** | | | | | |
| Expected pregnancy | 763 | 763 | 763 | 763 | |
| Number of ANC1 | 1445 | 1915 | 1823 | 163 | |
| ANC1 coverage (%) | 189 | 251 | 239 | 21 | |
| Expected deliveries | 687 | 687 | 687 | 687 | |
| Total deliveries | 811 | 1768 | 2186 | 1942 | |
| Deliveries coverage (%) | 118 | 257 | 318 | 283 | |
| **Kusisa** | | | | | |
| **Health centre** | | | | | |
| Expected pregnancies | | | 467 | 467 | 428 |
| Number of ANC1 | | | 516 | 600 | 687 |
| ANC1 coverage (%) | | | 110 | 128 | 160 |
| Expected deliveries | | | 420 | 420 | 385 |
| Total deliveries | | | 359 | 551 | 971 |
| Deliveries coverage (%) | | | 85 | 131 | 252 |
| **All ANC1 and institutional deliveries** | | | | | |
| Total ANC1 | 2070 | 2590 | 3026 | 1351 | 1637 |
| Total expected pregnancies | 1649 | 1649 | 2116 | 2116 | 1488 |
| ANC1 coverage (%) | 126 | 157 | 143 | 64 | 110 |
| Total deliveries | 1200 | 2284 | 3093 | 3087 | 1756 |
| Expected deliveries | 1484 | 1484 | 1904 | 1904 | 1338 |
| Deliveries coverage (%) | 81 | 154 | 162 | 162 | 131 |

**Table 6: Mortality rates by MSF health facilities and departments**

| Organisation unit | Data / Period | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Kusisa RHC** | Number of OPD admissions in emergency & observation rooms | | | 553 | 1226 | 1520 |
| | Number of deaths (Emergency & observation rooms) | | | 0 | 30 | 33 |
| | Emergency room mortality (%) | | | 0 | 2,45 | 2,17 |
| | Total Exits - IPD | | | 312 | 946 | 3717 |
| | Inpatient deaths | | | 32 | 16 | 91 |
| | Inpatient Mortality Rate (‰) | | | 10,26 | 1,69 | 2,45 |
| | Deaths <= 48 hours | | | 32 | 9 | 5 |
| | Early inpatient Mortality Rate (%) | | | 10,26 | 0,95 | 0,13 |
| | Severe malaria total cases | | | 2 | 370 | 1050 |
| | Severe malaria total deaths | | | 0 | 6 | 16 |
| | Inpatient malaria CFR (%) | | | 0 | 1,6 | 1,5 |
| **Tushunguti HC** | Number of OPD admissions in emergency & observation rooms | 87 | 682 | 686 | 845 | 1304 |
| | Number of deaths (Emergency & observation rooms) | 3 | 5 | 6 | 2 | 5 |
| | Emergency room mortality (%) | 3,45 | 0,73 | 0,87 | 0,24 | 0,38 |
| | Total Exits - IPD | 436 | 456 | 511 | 672 | 707 |
| | Inpatient deaths | 1 | 0 | 0 | 1 | 0 |
| | Inpatient Mortality Rate (%) | 0,23 | 0 | 0 | 0,15 | 0 |
| | Deaths <= 48 hours | 1 | 0 | 0 | 1 | 0 |
| | Early inpatient Mortality Rate (%) | 0,23 | 0 | 0 | 0,15 | 0 |
| | Severe malaria total cases | 30 | 9 | 10 | 43 | 20 |
| | Severe malaria total deaths | 1 | 0 | 0 | 0 | 0 |
| | Inpatient malaria CFR (‰) | 3,3 | 0 | 0 | 0 | 0 |
| **Numbi Hospital** | Number of OPD admissions in emergency & observation rooms | 259 | 1763 | 2998 | 2143 | |
| | Number of deaths (Emergency & observation rooms) | 7 | 0 | 2 | 3 | |
| | Emergency room mortality (%) | 2,7 | 0 | 0,1 | 0,1 | |
| | Total Exits - IPD | 1107 | 5657 | 6928 | 5707 | |
| | Inpatient deaths | 17 | 134 | 198 | 173 | |
| | Inpatient Mortality Rate (%) | 1,5 | 2,4 | 2,9 | 3 | |
| | Deaths <= 48 hours | 7 | 28 | 35 | 73 | |
| | Early inpatient Mortality Rate (%) | 0,6 | 0,5 | 0,5 | 1,3 | |
| | Severe malaria total cases | 226 | 677 | 534 | 381 | |
| | Severe malaria total deaths | 9 | 17 | 15 | 3 | |
| | Inpatient malaria CFR (%) | 4 | 2,5 | 2,8 | 0,8 | |
| **Ramba HC** | Number of OPD admissions in emergency & observation rooms | | | | | 95 |

| Organisation unit | Data / Period | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| | Number of deaths (Emergency & observation rooms) | | | | | 2 |
| | Emergency room mortality (%) | | | | | 2,1 |
| | Total Exits - IPD | | | | | 184 |
| | Inpatient deaths | | | | | 0 |
| | Inpatient Mortality Rate (%) | | | | | 0 |
| | Deaths <= 48 hours | | | | | 0 |
| | Early inpatient Mortality Rate (%) | | | | | 0 |
| | Severe malaria total cases | | | | | 0 |
| | Severe malaria total deaths | | | | | 0 |
| | Inpatient malaria CFR (%) | | | | | 0 |

**Table 7: Average number of OPD consultation by year and health facility**

| Organisation unit / Period | | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| **Kusisa RHC** | Number of OPD | | 51 | 21715 | 23062 | 23940 |
| | Duration (month) | | 3 | 12 | 12 | 12 |
| | Average/month | | 17 | 1810 | 1922 | 1995 |
| **Ramba HC** | Number | | | | | 7684 |
| | Duration (month) | | | | | 6 |
| | Average/month | | | | | 1281 |
| **Tushunguti HC** | Number | 34418 | 32884 | 21489 | 21549 | 29069 |
| | Duration (month) | 12 | 12 | 12 | 12 | 12 |
| | Average/month | 2868 | 2740 | 1791 | 1796 | 2422 |

**Table 8: Number of OPD consultations and IPD admission per MSF-supported health facilities per year**

| Health facility / Period | 2015 | | 2016 | | 2017 | | 2018 | | 2019 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | OPD | IPD | OPD | IPD | OPD | IPD | OPD | IPD | OPD | IPD |
| Kusisa | | | 51 | 0 | 21715 | 641 | 23062 | 1618 | 23940 | 5325 |
| Ramba | | | | | | | | | 7684* | 609* |
| Tushunguti | 34418 | 919 | 32884 | 1050 | 21489 | 1125 | 21549 | 1281 | 29069 | 1504 |
| Numbi | 30900 | 2423 | 36009 | 7917 | 27635 | 9104 | 3149 | 8047 | | |
| **Total** | 65318 | 3342 | 68944 | 8967 | 70839 | 10870 | 47796 | 10946 | 60693 | 7438 |

* July – December 2019

**Table 9: Contact coverage of OPD consultations /utilisation rate MSF-supported health facilities by health area**

| Health area | Population | Consultations | Open months | Contact coverage / utilisation rate |
|---|---|---|---|---|
| **Kusisa** | 9334 | | | |
| *2015* | | | | |
| *2016* | | 51 | 3 | 0 |
| *2017* | | 21715 | 12 | 2.3 |
| *2018* | | 23062 | 12 | 2.5 |
| *2019* | | 23940 | 12 | 2.6 |
| **Tushunguti** | 17721 | | | |
| *2015* | | 34418 | 12 | 1.9 |
| *2016* | | 32884 | 12 | 1.9 |
| *2017* | | 21489 | 12 | 1.2 |
| *2018* | | 21549 | 12 | 1,2 |
| *2019* | | 29069 | 12 | 1.6 |
| **Ramba** | 14882 | | | |
| *2015* | | | | |
| *2016* | | | | |
| *2017* | | | | |
| *2018* | | | | |
| *2019* | | 7684 | 6 | 1.0 |

**Table 10: ATFC and PRONA, Kalehe project, 2018-2019**

| **Organisation unit** | **Kusisa HC ATFC** | | **Tushunguti HC ATFC** | | **Ramba HC ATFC** | | **PRONA Chitebeka** | | **PRONA Mpanema** |
|---|---|---|---|---|---|---|---|---|---|
| **Data / Period** | **2018** | **2019** | **2018** | **2019** | **2018** | **2019** | **2018** | **2019** | **2018** |
| Cured proportion (%) | 75.2 | 65.1 | 86.5 | 62 | 94.9 | 91.2 | 83.3 | 81.3 | 86.7 |
| Deaths proportion (%) | 1.5 | 0.79 | 0 | 0.99 | 0 | 0.46 | 8.3 | 1.3 | 8.9 |
| Defaulters proportion (%) | 3.7 | 7.1 | 1.8 | 13.1 | 2.6 | 3.7 | 0 | 13.3 | 0 |

**Table 11: Referrals from malaria points Kalamo, Bundje, Lulere to Tushunguti HC, Kalehe project, 2019**

| **Malaria point** | **Health area** | **Period covered in analysed registration books** | **Patients referred** | **Patients arrived** | **Percent arrived** |
|---|---|---|---|---|---|
| **Kalamo** | Matutira | 22/04/2019 - 27/06/2019 | 129 | 7 | 5.4 |
| **Bundje** | Tushunguti | 18/03/2019 - 23/04/2019 | 103 | 0 | 0 |
| **Lulere** | Mianda | 01/01/2019 - 30/06/2019 | 244 | 4 | 1.6 |

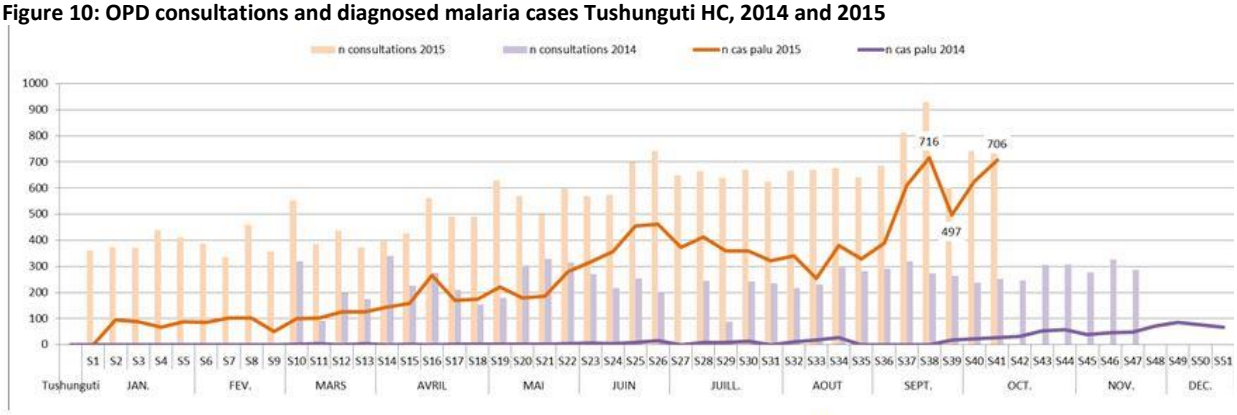
**Source:** (Dvorzak. J.L. Assessment community strategy Kalehe (DRC) Field Visit June 22nd July 12th 2019

**Table 12: Referrals by HPCW from community to health facility, by health area, August - September 2019**

| | Patients referred | Patients arrived | Percent arrived |
|---|---|---|---|
| **Tushunguti health area** | 937 | 703 | 75.0 |
| **Kusisa health area** | 1745 | 1110 | 63.6 |
| **Ramba health area** | 1010 | 591 | 58.5 |
| **All health areas** | **3692** | **2404** | **65.1** |

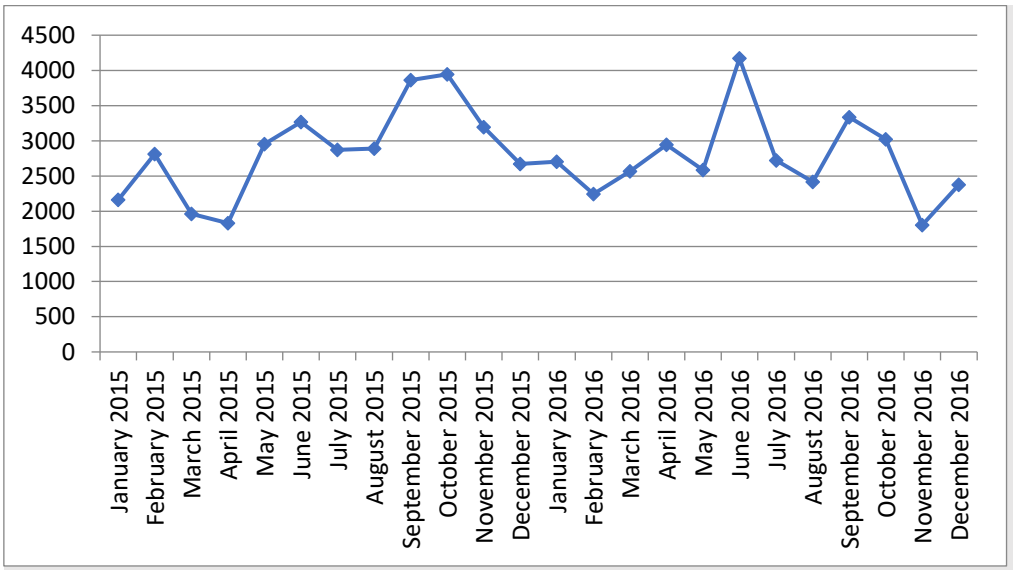
**Source:** Health promotion database, Kalehe project, 2019

**Figure 10: OPD consultations and diagnosed malaria cases Tushunguti HC, 2014 and 2015**




**Source:** MSF OCBA. Stratégie communautaire Ziralo. PECADOM focalisé Paludism. October 2015.

**Figure 11: OPD consultations, Tushunguti HC, Kalehe project, 2015-2016**



## 6.8 References and reviewed documents


ALNAP. Participation by crisis-affected populations in humanitarian action: A handbook for practitioners. https://www.alnap.org/help-library/participation-by-crisis-affected-populations-in-humanitarian-action-a-handbook-for

Council on Foreign Relations. Violence in the DRC. https://www.cfr.org/interactive/global-conflict-tracker/conflict/violence-democratic-republic-congo

Dvorzak. JL. Assessment community strategy Kalehe (DRC) Field Visit June 22nd July 12th 2019.

Dvorzak. JL. Bullet Points Field Visit . Reorientation Community Strategy Kalehe (DRC) . June 22nd July 12th 2019.

Kasi, B. Rapport de l'enquête de nutrition et de mortalité rétrospective. Aires de santé de Kusisa, Matutira, Mianda, Tushunguti et Aire de santé de Ramba. Mars-avril 2019.

Kivu Security Tracker. Movements of Rwandan rebels in South Kivu raise fears. https://blog.kivusecurity.org/movements-of-rwandan-rebels-in-south-kivu-raise-fears/

Ministère de la santé. Prise en charge intégrée des maladies de l'enfant. Sites des soins communautaires. Guide de mises en œuvre. 2007

Ministère du Plan et Suivi de la Mise en oeuvre de la Révolution de la Modernité (MPSMRM), Ministère de la Santé Publique (MSP) et ICF International. Enquête Démographique et de Santé en République Démocratique du Congo 2013-2014.2014

MSF. DRC. https://www.msf.org/democratic-republic-congo-drc

MSF. Refugee Health. An approach to emergency situations. 1997.

MSF. Niger 2013. Tackling the deadly combination of malaria and malnutrition. April 2013.

MSF. Evaluation of decentralised models of care in DRC, CAR and South Sudan: Evaluation Protocol. September 2019.

MSF OCBA. Strategic plan 2014-2017.

MSF OCBA. Extension of the strategic plan 2014-2017 (2 years).

MSF OCBA. Annual plans DRC Mission 2015, 2016, 2017, 2018, 2019

MSF OCBA. Annual reports DRC Mission 2015, 2016, 2017, 2018

MSF OCBA. Annual reports Kabo project 2017

MSF OCBA. Plan annuel 2020, phase 3, au niveau du projet

MSF OCBA. Rapport enquête de mortalité maternelle: Hauts Plateaux, Minova – RDC. Avril 2015

MSF OCBA. Stratégie communautaire Ziralo. PECADOM focalisé Paludism. October 2015.

MSF OCBA. Evaluation de la stratégie avancée a Tushunguti avec proposition d'extension. January 2016

MSF OCBA. Stratégie de Prévention et Lutte Contre le Paludisme. Mission de MSF Espagne en RDC. April 2016.

MSF OCBA. PROMAV – Programme Maternel Avancé. Protocole Programme Maternel Avancé Communautaire. 2016.

MSF OCBA. ProNA - Programme Nutritionnel Avancé®. 2016.

MSF OCBA. PROMAV (Programme Maternelle Avancé). 2017

MSF OCBA. Politique des références des malades. Mission R.D.C. November 2019

MSF OCBA Kalehe project. Proposition stratégie périphérie Kalehe 2019. 2019.

MSF OCBA Kalehe project. Cartography_PS_2019.

N'Do, S. Rapport de fin de mission: Résultats préliminaires des études entomologiques. December 2018.

OCHA. About OCHA DRC. https://www.unocha.org/democratic-republic-congo-drc/about-ocha-drc

The United Nations Inter-agency Group for Child Mortality Estimation. Levels and trends in child mortality report. 2018.

Prudhomme S. Eyent D, Ayala D. Identification moléculaire et résistances génétiques aux insecticides. 2019.

The World Bank. DRC country overview. https://www.worldbank.org/en/country/drc/overview#2

UNDP. Human development report 2018. http://hdr.undp.org/en/2018-update

UNHCR. Mise à jour Flash sur l'affrontement entre les FARDC et les éléments Armés CNRD / FDLR dans le village Busesema (RUTARE) en Groupement de Ziralo dans le territoire de Kalehe - Flash n° 23/SK/KHE /2019 (26 Novembre 2019). https://reliefweb.int/report/democratic-republic-congo/mise-jour-flash-sur-l-affrontement-entre-les-fardc-et-les-l-ments

UNICEF. Country Profile Democratic Republic of Congo. https://data.unicef.org/country/cod/#

UNICEF et al. Enquête Par Grappes à Indicateurs Multiples 2010. 2014

UN News. Measles claims more than twice as many lives than Ebola in DR Congo. https://news.un.org/en/story/2019/11/1052321

WHO. Stratégie pour améliorer l'accès au traitement par la prise en charge du paludisme à domicile. 2006.

WHO. Trends in Maternal Mortality: 2000 - 2017. Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. 2019.

WHO. Revue des performances du programme de lutte contre le paludisme en RCA : principaux résultats, recommandations et prochaines étapes. December 2017.

WHO/UNICEF. Joint statement. Integrated Community Case Management (iCCM). https://www.who.int/maternal_child_adolescent/documents/statement_child_services_access_whounicef.pdf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