Northeast DRC EBOLA OUTBREAK

CRISIS INFO # 6 (29.01.2019)

THE TIMELINE

- **01/08:** The MoH declares an Ebola outbreak in Mangina, in the northern part of North Kivu, near the Ituri border.
- **06/08:** An MSF isolation unit is installed in the Mangina reference health centre.
- **07/08:** Results of genetic analysis from the national laboratory confirm that the circulating virus is of the Zaire species, but a different strain from the one reported in the Equator outbreak earlier this year.
- **08/08:** Vaccination of frontline health workers begins under WHO's supervision (not done by MSF).
- **14/08:** MSF's 30-bed treatment centre opens in Mangina (in tents 300m from the isolation unit). Its capacity is immediately increased to 68 beds.
- **14/08:** Decontamination activities begin with the local health centre in Mangina and other health centres where confirmed cases have transited.
- **24/08:** MSF begins offering developmental therapeutic drugs to eligible patients in the ETC in Mangina.
- **28/08:** MSF opens a transit centre in Makeke. This will close on 19/9, with IMC opening an ETC on site.
- **08/09:** MSF opens an isolation centre in Butembo.
- **09/09:** MSF investigates cases in Louto (one hour from Lubero).
- **20/09:** MSF opens a 28-bed (12 isolation, 16 hospitalisation) ETC in Butembo in partnership with the Ministry of Health.
- **22/09:** An attack attributed to ADF makes at least 19 dead (of which 14 civilians) in Beni. The following week, Beni is declared 'ville morte' and Ebola response activities come to a virtual stop.
- **24/09:** MSF sets up an isolation unit in Tchomia, on Lake Albert in Ituri, following notice of 2 confirmed cases. MSF will open an ETC here on 12/10.
- **17/10:** WHO states that the outbreak is not a Public Health Emergency of International Concern (PHEIC).
- **17/10:** MSF starts vaccinating front line workers in the city of Beni.
- **20/10:** An attack attributed to ADF (Allied Democratic Forces) in Beni's Rwenzori area makes at least 12 dead. Ten people are also reportedly abducted. On the next day, Beni is declared again "ville morte" and demonstrations happen in the city. On 22/10 activities restart as normal.
- **05/11:** The Tchomia ETC is handed over to the MOH. The outbreak reaches the 300th case.
- **07/11:** MSF opens an Isolation Center in the premises of the General Hospital in Bunia, Ituri.
- **09/11:** The outbreak reaches the 319th case and becomes the biggest ever known in the country.
- **15/11:** MSF opens a transit center for suspect cases in Beni, the current epicenter of the outbreak.
- **07/12:** IMC takes over Mangina ETC from MSF.
- **27/12:** Following the announcement of the postponing of the elections in Beni and Butembo due to the ongoing Ebola epidemic, political protests force a temporary suspension of Ebola activities in the city, including the Beni transit center.
- **31/12:** Activities resume at the Beni transit center.
- **04/01:** MSF opens a new ETC in Katwa, near Butembo, and a transit centre in Bwana Sura, in the Ituri province to the north.
- **15/01:** 3 new cases are found in Kayna, 4 hours-drive south of Lubero: MSF sends its Rapid Response Team and begins preparations to set up a small treatment unit.

THE OUTBREAK

The area and the geographical spread of the epidemic

Located in North-eastern DRC, the North Kivu province is a densely populated area with approximately 7 million inhabitants of whom more than 1 million are in Goma and about 800.000 in Butembo. Despite the topography

and the bad roads conditions in the region, the population is very mobile. North Kivu shares a border with Uganda to the east (Beni and Butembo are approximately 100 km from the border). This area sees a lot of trade, but also trafficking, including 'irregular' crossings. Some communities live on both sides of the border meaning that it is quite common for people to cross the border to visit relatives or trade goods at the market on the other side.

The province is also well-known for being an area of conflict for over 25 years, more than one hundred armed groups are estimated to be active. Criminal activity such as kidnappings, are relatively common and skirmishes between armed groups occur regularly across the whole area. Widespread violence has caused population displacement and made some areas in the region quite difficult to access. While most of the urban areas are relatively less exposed to the conflict, attacks and explosions have nonetheless taken place in Beni, an administrative centre of the region, sometimes imposing limitations on MSF's ability to run its operations.

North Kivu is also a very rich region with a lot of natural resources (a third of its territory is dedicated to mining exploitation) which is also a political challenge as the province has the reputation to be an opposition area. The last elections were a big issue with the population who represents 10% of the electoral corp.

Background of the epidemic: first declared in Mangina, a small town of 40,000 inhabitants, the epicentre of the outbreak appeared to progressively move towards the south, first to the larger city of Beni, approximately 400,000 people and the administrative centre of the region. As population movements are very common, the epidemic continued south to the bigger city of Butembo, a trading hub. Nearby Katwa became a new hotspot near the end of the year and recently cases have been found further south, in the Kanya area. Meanwhile, sporadic cases also appeared in the neighbouring Ituri province to the north, most recently in the Komanda health zone.

Overall, the geographic spread of the epidemic appears to be unpredictable, with diffused small clusters potentially occurring anywhere in the region. This pattern makes ending the outbreak even more challenging. Given the appearance of new confirmed cases further and further to the south, the risk of the epidemic reaching Goma, the capital of the province, is another reason for concern.

Story of the outbreak

18 health zones in North Kivu and Ituri provinces have so far reported confirmed or probable cases of Ebola by the Ministry of health (Ituri: Komanda, Mandima, Nyakunde and Tchomia. North-Kivu: Beni, Biena, Butembo, Kalunguta, Katwa, Kayina, Kyondo, Mabalako, Mangurujipa, Masareka, Musienene, Mutwanga, Oicha and Vuhovi).

In almost six months after the start of the epidemic, the epicentre moved a few times, initially from the town of Mangina to the much bigger city of Beni, where the number of confirmed cases has recently dwindled but still not-existent. Now, the number of new confirmed cases and new hotspots are increasing around Butembo, as in the commune of Katwa or in rural areas as Kalenguta or Kyondo. The fact that some of the new cases are not linked to any previously known chains of transmissions is a concern, as it makes it more difficult to trace contacts and control the evolution of the outbreak. Katwa is currently the main hotspot of the outbreak. 65% of the new cases (68 cases on 104) which has been recorded during the last 3 weeks come from there.

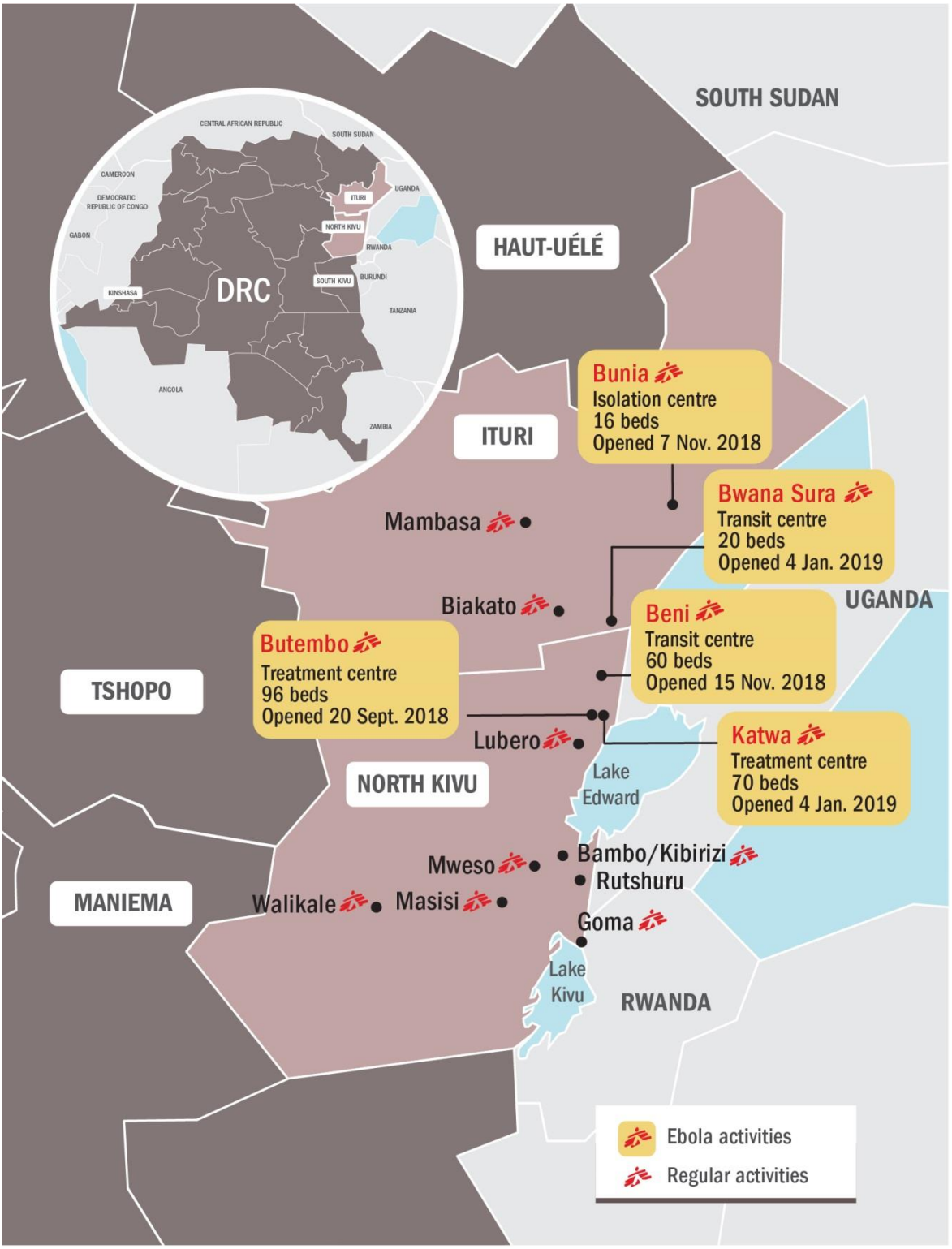
On December 20 2018, the long-awaited presidential elections originally scheduled for December 22 were postponed to December 30. This decision caused tensions throughout the country, especially in areas such as Beni and Butembo, strong opposition strongholds. On December 26, the national electoral commission (CENI) announced that elections would be further postponed in three areas including Beni and Butembo because of the ongoing Ebola outbreak and the risks of attacks. This announcement resulted in violent protests, especially in Beni, where a MSF transit centre for treatment and screening of suspect Ebola cases was partly vandalized on December 27 (throwing of stones, looting of small equipment). The incident led to the temporary evacuation of the team. Of the 28 patients that were in the transit centre at the time of the demonstrations, 9 left

spontaneously the center during the troubles, 18 were referred to Alima CTE and 1 was discharged. With no patients left, activities at the Beni transit centre remained on standby until 30 December. After reassessing the situation, the centre opened again on the 1st January and is now fully operational.

During the same incidents in late December, several health centres in and around Beni were damaged during protests. Some of the health centres targeted by the unrest had received support from our IPC (Infection Prevention and Control) teams to be able to properly screen and refer patients showing symptoms compatible with Ebola. The impact of these attacks has been to both reduce the population's access to general healthcare and to reduce the number of facilities equipped to screen and refer suspect Ebola cases as triage space. Because of the peak of insecurity, MSF also had to limit all activities outside the transit centre in Beni and the treatment centres in Butembo and Katwa for a while.

With the temporary closing of the transit centre and the suspension of external activities, we face the additional challenge of an accumulated delay in screening and treating potential confirmed cases, as well as identifying their contacts. Moreover, while IPC support suspended patients might have been contaminated inside health structures, accelerating the spread of the disease. Sick people have been known to visit more than one health centre before being identified as suspect cases and referred to an Ebola Treatment Centre. This work is also made more difficult by the relative inaccessibility of parts of the region due to the insecurity of the context.

Since the beginning of the outbreak, almost 6000 contacts have been identified and more than 5100 followed up by the Congolese Ministry of Health. Nearly 17850 contacts have been vaccinated. The contact tracing and follow-up is done by the Ministry of Health with a team of epidemiologists.



MSF'S ROLE

At the Ministry of Health's request, MSF is part of the national task force coordinating the intervention on several pillars of the response:

- Caring for patients affected by the virus (in ETCs in Butembo and Katwa) and treating and screening suspect cases (in TCs in Beni, Bunia, Bwana Sura and Kayna);
- Communication & Health Promotion toward the communities;
- Vaccination of frontline workers in Ituri, Katwa/Butembo, Beni, Lubero ;

- IPC (Infection Prevention & Control): protecting local health structures (and their workers) by helping with screening patients at the entrance, hand and foot disinfection, capacity for short-term isolation of suspect patients and decontamination of the facilities where confirmed Ebola patients have transited;
- Trainings of staff;
- Supporting surveillance activities.

In total, more than 200 MSF staff members are currently working in Ebola projects in North Kivu and Ituri. This excludes MOH personnel working in MSF structures, in order to keep a clear distinction between MSF and MOH in our public communication.

Isolation, transit and treatment centres

Beni - An isolation centre was built in early August by MSF in Beni. This was handed over to the Ministry of Health who assigned it to another NGO, Alima, who turned it into a treatment centre. On 14 November, in Beni, MSF opened a Transit Center for suspect cases, most of them referred by the surveillance team (around 30 by day). The facility is located approximately 200 meters from the existing Alima ETC and confirmed cases are transferred by ambulance from the TC to the ETC; those who turn out to be negative are referred to other health structures in the area, to facilitate their access to care for other health problems. MSF has a financial agreement with Nyakounde health facility in order to follow-up some medical cases. The MSF TC is currently operational with 60 beds.

Butembo and Katwa - An ETC built and run by MSF is operational in Butembo, a town estimated to be home to 800,000 people that became a hotspot for the outbreak in November, including seeing imported cases from Beni and other surrounding areas. Another Ebola treatment Centre was opened in the eastern part of Butembo city, falling under the administration of the Katwa health zone. The Katwa ETC was inaugurated on 3 January and the first patients were admitted the following day. The total capacity will be up to 80 beds by the end of the month. The MSF ETCs in Butembo and Katwa are currently operational with respectively 96 and since the 26/01, 52 beds.

Bunia - During the first week of November, MSF opened an isolation centre on the premises of the General Hospital in Bunia, Ituri, with a hospitalisation capacity of 8 beds as well as a screening point at the entrance (with more than 2,000 people screened each day) and a small isolation unit for suspect cases. The centre is currently still active and run by MSF.

Bwana-Sura (Komanda) - a 20-bed transit centre was opened in Bwana-Sura, Ituri province on 4 January following alerts reporting new confirmed cases in the area. This centre is currently still active and run by MSF.

Kayna – On the 22/01, MSF opened an isolation center of 10 beds which will be soon be replaced by a CTE.

Other sites – An ETC was opened on 12 October following the appearance of confirmed cases in Tchomia, Ituri Province, on Lake Albert (on the Ugandan border). This treatment centre was handed over to the MOH on 5th November, following an extended period with no new cases being reported. MSF supported the Ministry of Health personnel working in the centre by providing training, logistic support and technical expertise. MSF also operated for a few weeks a 7-bed transit centre in Makeke (on the North Kivu-Ituri border), where suspect patients could be isolated and tested for the virus and transferred to Ebola Treatment Centres in Mangina or Beni. The centre has now been closed because the Ministry of Health and IMC (International Medical Corps) opened an ETC in Makeke. MSF is no longer working in Tchomia and Makeke. Mangina - MSF first helped to improve an isolation unit for suspect and confirmed cases that the local staff had quickly set up in the Mangina health centre, the first epicentre of the outbreak, where patients were isolated and cared for, while a treatment centre was being built. The treatment centre opened on 14 August. The centre had initially a capacity of 68 beds; it has since been reduced to 24 beds and handed over to IMC on 7 December as the volume of activity in Mangina dwindled and the focus of the outbreak shifted to other areas. There is no MSF activity in Mangina at present.

The numbers

Total number of cases as per Ministry of Health data on the 28/01/19 (you can always find the latest numbers on the twitter account of the Congolese Ministry of Health: https://twitter.com/MinSanteRDC)

- Total number of cases: 736 (682 confirmed + 54 probable*)
- Total number of people died: 459 (405 confirmed + 54 probable)

* *'Probable' refers to community deaths that have links to confirmed Ebola cases but which were not tested before burial.*

MSF Ebola treatment centres (ETC) and transit centres (TC) numbers on 27/01/19

	Butembo ETC	Katwa ETC	Beni TC	Bwana Sura TC	Mangina CTE	TOTAL
Admitted	1400	206	1370	62	316	3292
Confirmed	187	18	41*	1	75	321
Cured	90	3	N/A	N/A	35	128
Dead	109	10	15	1	43	148
Transferred	N/A	N/A	108*	1	N/A	109

The total figures includes data from Beni, Butembo , Katwa, Komanda, Mangina since the beginning of the outbreak.

Total number of people received by MSF: 3292
Total patients confirmed with Ebola treated by MSF: 321

* Those confirmed patients are referred for treatment to Alima CTE immediately after we get the confirmed result. The suspect severe cases are also referred to CTE for higher level of medical care.

Developmental drugs

In these ETCs, MSF teams have been progressively increasing the level of supportive care (oral and IV hydration, treatment for malaria and other coinfections as well as treatment of the symptoms of Ebola) and have also been able to offer new potential therapeutic treatments to patients with confirmed Ebola infection under the MEURI protocol. A team of clinicians makes the choice on an *ad hoc* basis between five potential drugs (Remdesivir (GS5734), REGN3470-3471-3479, ZMapp, mAb114 and Favipiravir). The treatments are given only with the informed consent of the patient (or a family member if they are too young or too sick to consent) and are provided in addition to the supportive care.

These five drugs have not passed all steps of clinical testing yet and we are unable to measure their efficacy - yet their utilization has been approved by the ethical committees of the Ministry of Health and MSF, because it is believed they may improve a patient's chances to survive. While caution must be exercised, these treatments are an added resource to the response. Because of their untested status, their utilization is subject to a strict protocol which places particular emphasis on the informed consent of the patient.

On 21 November, the Ministry of Health announced the official start of the randomized clinical trial (RCT) of ZMapp, Mab114, and Remdesivir. Without a general agreement amongst partners, the previous protocol needed some important improvements. Some of the main issues to fix for instance was the inclusion of REGN-EB3 in the trial, and an adaptation of the analysis model as the current one is considered not likely enough to yield useful results. The protocol was amended to reflect these concerns and the new version has been approved as of December 24th. MSF will implement it in the Butembo and Katwa ETCs. So far, the randomised clinical trial is being conducted only in the ETC run by ALIMA in Beni.

We are training our staff to be able to run the trial in our ETCs. It should start on 30/01 in Butembo and beginning February in Katwa.

Infection prevention and control

In addition to patient care in ETCs, MSF is active in several pillars of the Ebola intervention. One of them is ensuring that the health system remains functional for non-Ebola patients and patient do not get infected in health structures, this contributing to the spread of the disease. Health centres that have seen positive cases in are visited by MSF teams and decontaminated and we support some of them structures to implement infection prevention and control measures, such as training staff on the proper triage of Ebola suspects, setting up isolation areas in case of need and providing material for all these activities. This activity has been deployed by MSF in the Beni, Butembo, Katwa, Komanda and Bunia health zones at different times, depending on when and where positive cases are identified.. For example in Beni, we're supporting 20 health centers from different volume of activity or number of beds. Most of them have been damaged during the protests. Without activities during 2 weeks, the team is currently doing an assessment of the situation and investigate new health areas.

Rapid Response Team

One of the critical components of the Ebola response is the ability to react quickly to new alerts, being able to investigate them and decide on setting up new structures for the intervention: for this, MSF set up a Rapid Response Team (RRT) composed of experienced Ebola staff from other MSF projects : a medical doctor, a nurse, a water & sanitation expert and a community engagement specialist. This RTT investigated alerts in Luotu, a village outside of Lubero, in response to alerts of a positive case. The team was not only involved in case investigation but also in building a small isolation unit for suspect cases. As no confirmed cases were found, MSF withdrew its staff on 27/09 from this centre, leaving the structure to the Ministry of Health. The same team was deployed to Tchomia when the first confirmed case appeared there in Octobre 2018.

In December a second specific team composed by a team leader, a specialist in community engagement anthropologist, an epidemiologist and a watsan expert started operating in remote rural areas with activities such as pre-triage, decontamination, IPC and community awareness-raising, in an effort to refer as many cases as possible to the treatment centres and limit transmission. The team was put on standby following the increased tensions in late December.

The RRT has recently been dispatched to the Kayna health zone, further south, an area located one day away from Goma by car. The team is generally based in Katwa, close to area of intervention : health zones surrounding Butembo city with active Ebola transmission.

Vaccination

MSF has mostly been involved in vaccination of frontline health workers, those most exposed to the virus. In total, MSF has so far vaccinated over 4800 frontline workers, particularly in the areas along the Ituri-North Kivu border and in Butembo. It'll be starting now in Bunia.

Surveillance

The surveillance strategy is led by the MoH/WHO. MSF epidemiologists in Beni, Butembo, Katwa and Komanda support the surveillance activities.

Health Promotion

MSF health promotion teams in Beni, Butembo and Katwa work in support of the IPC teams and vaccination teams, as these activities require intensive communication with the community. The HP teams are also in contact with local leaders of several health zones, to exchange information about Ebola and the community. MSF also runs HP activities in Bunia (Ituri) and in support of the MoH-led vaccination campaigns.

Emergency preparedness

MSF regular projects in the North Kivu and Ituri provinces have been supplied with equipment including Personal Protective Equipment (PPE) and installed proper hygiene and infection control protocols to safeguard staff and patients from the risk of contamination, should the epidemic reach these locations.

MSF remains ready to support the authorities of these – and other – neighbouring countries in the implementation of their response to the Ebola outbreak in DRC.

OTHER MSF PRESENCE IN EASTERN DRC

North Kivu

MSF has been operational in North Kivu since 2006. Today, we have regular projects in North Kivu:

- Bambo: ER, paediatrics, nutrition and support 3 health centres.
- Kibirizi: ER, paediatrics, nutrition and support 2 health centres.
- Lubéro: ER, paediatrics, nutrition and support 2 health centres.
- Rutshuru (planned): surgery, ER, paediatric nutrition.
- Goma: HIV support at Virunga Hospital + 5 health centres, Eprep for mass casualty plans, cholera treatment centres.
- Masisi: support regional hospital, health centres and mobile clinics for malaria care
- Mweso: support 12 health centres and the general hospital.
- Walikale: general hospital on pediatric, nutrition, maternity and laboratory services and 4 health centers.

Ituri

- Bunia: support to 9 health centres in 2 health zones - primary healthcare and referrals.
- Mambasa: medical care for victims of sexual violence and treatment for sexually-transmitted infections (reopening after a period of standby as teams supported the Ebola intervention).

South Kivu

(South Kivu is not affected by the current Ebola outbreak.)

- Lulingu: post-conflict assistance to both displaced and host communities in the area.
- Kalehe: primary and secondary health care.
- Mulungu-Kaniola: primary and secondary health care, EPI, pediatrics, referrals.