STOCKHOLM EVALUATION UNIT

EVALUATION OF

MATERNAL AND CHILD SEXUAL & REPRODUCTIVE HEALTH INTERVENTION

IN EL ALTO, BOLIVIA

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ACRONYMS

ANC	Antenatal Care
BEmONC	Basic Emergency Obstetric and Newborn Care
COVID-19	Coronavirus Disease of 2019
CSRA	*Consejo de Salud Rural Andino* (Andean Rural Health Council)
CV	*Consultorios Vecinales* (Neighborhood Clinics)
DHS/EDSA	*Encuesta Nacional de Demografía y Salud* (Demographic and Health Survey)
ERB	Ethical Review Board
FGD	Focus Group Discussion
FP	Family Planning
FT	Franz Tamayo
HC	Health Center
HP	Health Promotion
HR	Human Resources
HQ	Headquarters
IPV	Intimate Partner Violence
IR	Inception Report
KAP	Knowledge, Attitudes and Practices
LAC	Latin America and the Caribbean
M&E	Monitoring and Evaluation
MD	Municipal District
MMR	Maternal Mortality Rate
MNHC	Maternal and Newborn Health Care
MoH	Ministry of Health
MSF	*Médecins Sans Frontières* (Doctors Without Borders)
NGO	Non-Governmental Organization
OCB	Operational Centre Brussels
PAHO	Pan-American Health Organization
PHC	Primary Health Care
PNC	Post-Natal Care
SAC	Safe Abortion Care

SAFCI	*Salud Familiar Comunitaria Intercultural* (Family, Community, and Intercultural Health)
SEDES	*Servicio Departamental de Salud* (Departmental Health Service)
SERES	*Servicio Regional de Salud El Alto* (Regional Health Service)
SEU	Stockholm Evaluation Unit
SGBV	Sexual and Gender Based Violence
SNIS	*Sistema Nacional de Información en Salud* (National Health Information System)
SR	San Roque
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
SUS	*Sistema Unico de Salud* (Unified Health System)
SV	Sexual Violence
TBA	Trained Birth Attendant
TOP	Termination of Pregnancy
ToR	Terms of Reference
UN	United Nations
US	Ultrasound Device
WHO	World Health Organization
WRA	Women at Reproductive Age

GLOSSARY OF TERMS

Bono – Short for the "Juana Azurduy Bonus" is a conditional cash transfer, monetary benefit for pregnant, lactating and children up to 2 years old offered to all Bolivian mothers who do not have health insurance aiming to guarantee safe motherhood and early child development. A total of Bs. 1.820 is given when 4 ANC, institutional delivery and PNC are met by the mother and 12 comprehensive bi-monthly health controls for children under two years of age.[1]

Wawa (Baby) – Wawa, is a word used in both the Quechua and Aymara languages for a baby, newborn or a child of very young age.

[1] https://www.bja.gob.bo/index.php/el-bono/que-es-el-bono

EXECUTIVE SUMMARY

El Alto is the youngest city in Bolivia at 4.000 meters above sea level with one million inhabitants on the Altiplano high plateau bordering the city of La Paz. Immigrants from several rural aymara communities constitute around 80% of the population in El Alto.

Médecins Sans Frontières (MSF) implemented a project in the city of El Alto aiming to contribute to decreasing maternal mortality and morbidity of women and adolescents in *Red Lotes y Servicios*. The specific objective sets forth "The women and adolescents of *Red Lotes y Servicios* in El Alto make use of the quality and accessible curative and preventive reproductive health services provided by the project".

With this objective MSF provided support to two existing Ministry of Health (MoH) Health Centres (HCs); San Roque and Franz Tamayo. The support covered three main areas of intervention:

1) Basic Emergency Obstetric and Newborn Care (BEmONC) services, as well as a core package of Sexual and Reproductive Health (SRH) activities,
2) Adolescent-friendly services, which includes Family Planning (FP) services and antenatal and post-natal controls (integrated in the HCs), and
3) Health Promotion (HP) and community activities (aiming at increasing the uptake of maternity and newborn care services).

In 2018, rehabilitation activities started in both HCs and the provision of medical care began in April 2019. In Franz Tamayo, the first deliveries were attended to in September 2019, whereas San Roque began the same service in December 2019.

This report summarizes the findings of an external evaluation of the project. The evaluation was carried out in the two HCs where the project is implemented and within their surrounding geographic area. It was conducted by *Consejo de Salud Rural Andino* (CSRA)[2] in close collaboration with MSF Operational Center Brussels (OCB) and the national public programs.

The overall objective of the evaluation is to assess the intervention implemented by MSF in El Alto with regards to BEmONC, Antenatal Care (ANC), Post-Natal Care (PNC), and SRH (including FP, safe abortion care, sexual violence care) and adolescent-friendly services, with special attention to its appropriateness and effectiveness. To achieve the overall objective, several specific objectives were set for the evaluation. These were to assess the extent to which the health interventions are appropriate to the perception and culture of the target population (appropriateness), the agreed specific objectives were achieved (effectiveness), the medical activities reach the target population (coverage), and lastly, the main resources that MSF used to operate the project (efficiency).

The evaluation applied two evaluation designs in its approach:

1. ***Performance Evaluation.*** The performance evaluation aimed at fulfilling the MSF established assessment objectives. Instead of focusing the analysis in a pre–post review, it helped understand to what extent the projects' objectives had been achieved, as well as the extent to which the projects' interventions had facilitated this achievement.
2. ***Intervention – Non-intervention (control) Evaluation***. A non-intervention HC (the Huanya Potosi first-level HC) out of the MSF geographic area was selected. This proposal was based on the assumption that both sites have similar operating conditions and are influenced by the same

[2] CSRA is a Bolivian NGO founded in 1983 that works for highly vulnerable people in rural and peri-urban settings with a special focus on families with women, children and adolescents. CSRA has more than 10 years of experience in the implementation of social research related to primary health care interventions in El Alto, Bolivia, and internationally.

socio-economic, cultural, political, health, and environmental factors, and that the only thing that differentiates them is the MSF intervention. Comparative analysis was done based on secondary quantitative variables from MoH National Health Information System (SNIS) indicators.

The evaluation used a mixed-methods approach, with partly qualitative and partly quantitative methods, using primary and secondary data on the provision of maternal and child health and SRH care services. For collection of primary data, the following were carried out: a population survey with randomly selected mothers with at least one child less than two years of age living in the area since the birth of the baby (398); semi-structured interviews with key partners, MSF and MoH health staff (19); exit interviews with mothers and Women at Reproductive Age (WRA) after receiving health service (6); Focus Groups Discussions (FGDs) with women and adolescents (10); and program activity observations (4).

Secondary data included comprehensive desk review of routinely collected information of project key activities. The MoH's *Sistema Nacional de Información en Salud* (SNIS, ENG. National Health Information System) was also reviewed to complement the analysis using public data. This source of information includes monthly records of antenatal controls, deliveries, PNC services and FP services.

A methodological triangulation of findings was undertaken enhancing the interpretation of data.

The evaluation was conducted considering the guidelines laid down in the Declaration of Helsinki and all procedures involving human subjects/patients were approved by the National Bioethics Committee of Bolivia (*Comité Nacional de Etica*) and the MSF Ethical Review Board (ERB).

The main evaluation limitations include focus on BEmONC interventions and FP interventions (with limited analysis of other components of the project such as Sexual Violence (SV), SAC or adolescents services), lack of mortality data and lack of causality or attribution analysis. During data collection, participants of FGDs and interviews were selected by MSF staff, and the quantitative data was collected routinely by the project itself.

FINDINGS

APPROPRIATENESS

MSF has successfully adapted the BemONC services to the perception and culture of the target population in a short period of time. During the project, the labour and post-partum rooms of the two maternities of San Roque and Franz Tamayo have been adapted with colourful wall paint and fabrics. Both maternities have installed central heating supplied by solar panels and household gas, the delivery room has a corner with a mattress on the floor, a rope and a rack for women to hang onto while pushing. Cultural sensitivity has been achieved by promoting quality health care with respectful and dignified treatment to patients as well as offering mothers in labour natural and humanized delivery, including birth companions and different birth postures, without compromising the medical quality of care.

The MSF project strategy aligns with the World Health Organization's (WHO) Primary Health Care (PHC) approach and the Bolivian *Salud Familiar Comunitaria Intercultural* (SAFCI, ENG. Family, Community, and Intercultural Health) model, both being people-centred rather than disease-centred. MSF also integrated the "three delays" approach for addressing the key issues for women to access safe childbirth: (1) deciding to seek appropriate medical help for an obstetric emergency; (2) reaching an appropriate obstetric facility; and (3) receiving adequate care when a facility is reached.

The MSF project's Monitoring & Evaluation (M&E) system showed limitations mainly in the design of some indicators, which hindered planning, monitoring and evaluation processes. The evaluation did not find any designed plan or strategy for coordination with key partners, neither joint follow-up of the project. A two-year period seems to be insufficient when compared with the defined project objectives and contextual challenges.

Limited results in some of the project components, such as adolescents, Sexual Violence (SV), and Safe Abortion Care (SAC) services suggest they were not appropriately designed or adapted to facilitate access.

EFFECTIVENESS

Compared to 1,024 expected new pregnancies in the geographic area of the two HCs supported by MSF, 1,536 (150%) received ANC services in 2020. This higher-than-expected proportion compares to a much lower in the non-intervention HC (Huayna Potosí) i.e., 36% in 2019 and 25% in 2020. These results, therefore, indicate that ANC services provided in HCs supported by MSFperformed better than expected and better than non-MSF HC. This was corroborated by qualitative findings which showed that participating mothers were highly motivated to seek help from MSF supported HCs during pregnancy including in 2020 when restrictions due to the pandemic of COVID-19 were quite severe.

ANC continued attendance decreased between 2019 and 2020 to a level that can be considered low. This may be related to administrative problems (the Bono requirements) and to the booking system discouraging mothers to return to the HCs. These problems were exacerbated during the COVID-19 epidemic in 2020.

A total of 887 deliveries received care in the two maternities supported by MSF in 2020. The same year, the number of deliveries expected by the MoH in this area was 929. MSF therefore attended 95 % of expected deliveries. Interviews with mothers suggest that health services offered at the two maternities during labor responded to the main needs and concerns of the majority of them.

PNC was one of the most challenging project interventions. At the beginning of the project 18% (164/924) of mothers expected to deliver received PNC at the two HC supported by MSF. This proportion increased to 86% (802/929) in 2020.

For both institutional deliveries as well as in PNC, the non-intervention HC had lower results than MSF supported HCs.

In both the MSF-supported HCs, new FP consultations increased from 446 in 2019 to 1,273 in 2020 (Table 7). The corresponding numbers in the non-intervention HC were 331 and 276. Reported to the WRA, these number represent 10% of WRA in 2020 for MSF supported HCs and 3% for non-MSF supported HC in 2020.

The implants were the most requested method in the two project HCs; 39% in San Roque (408/1,041) and 49% (184/232) in Franz Tamayo. MSF was perceived as a pioneer in the project area in offering implants.

During 2020, a total number of ninety (90) cases of SV victims were registered in the two MSF-supported HCs. Main causes were rape (32%), sexual abuse (13%) and intimate partner violence (55%). 81% of women attending for SV received psychological support.

In terms of SAC, the total number of cases in 2020 was twenty among the adults and adolescents who attended (16 were referred to an NGO and four were carried out in MSF HCs). As around 2.5% of

adolescents are potentially eligible for SAC due to unplanned pregnancy in Bolivia, these numbers can be considered extremely low. Because the current national SAC laws are quite restrictive, this is clearly a challenging service to be implemented.

The number of adolescents aged 10 to 19 years attending FP consultations in the two MSF supported HCs was 180 representing 2% (180/9,199) of the estimated population of adolescents in 2020 in the area covered by MSF HC[3]. The percentage of FP consultations for adolescents in 2020 was 14% of the total number of WRA FP consultations. In the non-intervention HC, this proportion was 13%.

Interviewed mothers mentioned that the kind, respectful, and friendly care they received facilitated their decision to deliver at the HC. MSF hired additional staff (doctors and nurses) that contributed to 24/7 continuous provision of health services which remained available even during the social-political convulsion in 2019 and the COVID-19 lock-down. HP activities were key to community engagement, trust building and the use of health services by women.

COVERAGE

According to the population survey, 96.5% (384/398) of mothers received ANC for their last child below the age of two. This proportion is similar to the one of Demographic and Health Survey (DHS) in El Alto (94.6%).

Among women who sought ANC care in any medical facility service 92% (352/384) made the decision by themselves (Delay 1). Indicators related to the quality of the ANC, show that 60% (229/384) had four or more ANC during the pregnancy of the youngest child. This figure is low when compared to the DHS results for El Alto, with and 88% for 4 ANC (as well as 89% for first ANC with less than 5 months of pregnancy) in 2016.

The population survey indicated that 76% (302/398) of mothers gave birth to their youngest child in a medical facility (public and private HC). The DHS 2016 indicates that 92% of facility-based deliveries in El Alto municipality and 62% in Aymara population. These numbers within Aymara population are coherent with our findings. Home delivery seems to be still an important challenge as DHS 2016 reports that 11.5% of mothers at the national level and 8% in El Alto[4] decided to deliver at home, while the survey indicates 24% (96/398) in the MSF target area.

Regarding access to the HC, the majority of respondents who delivered in any medical facility (45%) (137/302) mentioned they used a private transportation to reach the HC for the birth, followed by 32% of mothers (110/302) who reached the HC using public transportation, 12% (35/302) walking and 5% (15/302) who came with the MSF ambulance.

The population survey revealed the majority of respondents, 93% (371/398), received PNC in the project target area.

The level of respondent's satisfaction is high, mainly in relation with HC temperature and comfort with furniture and infrastructure.

Almost half (45%; 180/398) of the women interviewed (or their partner) are currently using a contraceptive method. This proportion is higher than that of the DHS 2016 (32%). Modern methods are the most commonly used (66% of those using a contraceptive method), essentially the implant

[3] The population was obtained from the Project population (Table 2). MSF Project target population 2021.
[4] Bolivia DHS 2016 mentions 0.2% of deliveries in "other places".

(40%) and condom (16%). 81% of women (145/180) mentioned they took the decision to use a family planning method by themselves, and 18% (32/180) said their husband/partner had taken it.

The main factors that hindered MSF ability to reach the target population were distance and cultural factors such as beliefs. Women who decided to deliver at home mentioned their preference for a home environment due to the presence and company of several trustworthy people who provide support in various tasks related childbirth. COVID-19 pandemic seems to have exacerbated these situations.

Continous health care and the affectionate and empathetic attitude by HC staff were key contributors to coverage and the willingness to attend the HC for delivery.

The MSF adolescent program faced various problems which had a negative influence on the access of adolescents to SRH services. MSF unexpected financial constraints made it impossible to build an separate structure for the care of adolescents. As an alternative, it was decided to implement "friendly services" in the same general consultation rooms. In addition, as mentioned before, during lock-down due to COVID-19 schools were closed for about eight months in 2020, and therefore activities for adolescents were affected.

EFFICIENCY

The MSF supported maternity facilities were entirely renovated/built in communication with the existing outpatient department. Extra physical structures to host ancillary services (laundry, sterilization and doctors and nurses rooms) were also built, in alignment with MoH local norms, and culturally adapted to patient's needs and expectations. In addition, MSF hired doctors, nurses, psychologists and social workers to be in charge of SRH activities sharing shifts in maternity facilities/wards with MoH doctors and nurses to run a 24/7 activity.

CONCLUSIONS

Conclusively, MSF significantly improved WRA's access to BEmONC, ANC, PNC, and FP, with institutional delivery being the most successful component by implementing two 24/7 maternity wards during the short duration of the project. These MSF-supported HCs provide continuous multi-disciplinary (medical, psychological, social work) and culturally adapted health services to indigenous Aymara population, in two public MoH first-level HCs located in high poor peri-urban areas of El Alto.

Comparison with a non-intervention HC with similar characteristics and longer duration suggests that MSF interventions did contribute to improving access to health services.

The evaluation revealed differences between the project monitoring and evaluation (M&E) indicators and the survey conducted as part of this evaluation on the following components.

First, with respect to ANC, M&E findings seem to be higher than survey results. This seems to indicate that the project captured WRAs from beyond the project target area. Qualitative data support this hypothesis.

Second, with respect to FP, M&E fidings seem to be lower than survey results. These indicate that contraceptive prevalence is even higher than the one assessed in other national studies. Findings suggest that WRA from the MSF area seek and obtain FP services in other health structures, mainly the other public HCs in El Alto, as the National FP program offers free FP services and methods.

A positive finding is the high percentage of use of the implant, a method introduced by MSF, as modern contraceptive method among WRA.

The short time of the project, in addition to a COVID-19 lockdown resulting in the closure of schools, seemed to have had a direct influence on the MSF adolescent program results. This is confirmed by the evaluation data gathered for this component, demonstrating low effectiveness. However, the adolescents that participated in the evaluation have shown high satisfaction with the adolescent's project activities (mainly adolescent's unwanted pregnancy activities) at the beginning of the project.

The other two SRH components, SAC and SV, have proven to be less successful. Current national laws are obstacles in both cases; for SAC, the restrictive safe abortion laws hinder the SAC-specific interventions and for SV, where emphasis is put on legal care attention over comprehensive medical care. MSF attempted to overcome these legal restrictions. MSF addressed the need of SAC by referral to other NGOs for Termination of Pregnancy (ToP) during the first trimester. ToP is restricted to only rape cases in Bolivia and in practice it is rarely done due mainly to lack of drugs, lack of information and limited staff training.

MSF health staff have been primarily responsible for the operation of the maternity services, ensuring quality of care with cultural sensitivity. These services have been considered an important contribution to the current MoH national SAFCI health policy and have strengthened and generated synergies with national public incentive programs for WRAs such as the Juana Azurduy Bono, the food subsidy for pregnant women or the *Sistema Unico de Salud* (SUS). When analysing solely the national programs they are considered beneficial by the WRA, but very problematic in their administrative procedures. These administrative procedures become a cause for many pregnant women not accessing more antenatal check-ups.

Access has been improved by promoting changes at the individual level in WRAs empowering them to seek health care. In this sense, MSF promoted strong engagement with the community and empowerment, mainly in the WRA based on its HP strategy, building trust between the project staff and the WRAs. Many women recognize the importance of exercising their right to take care of their maternal and reproductive health and demand quality care, which is reflected in the high percentage of mothers who have decided on their own to seek health care during their pregnancy, childbirth and after delivery to access FP methods. This is an important contribution of the project since a large percentage of the women who live in the target population of the project have insufficient education level and are recognized as an Aymara indigenous population, traditionally considered as a patriarchal culture in every sense.

Another fundamental aspect of the MSF project in improving access seems to be to strengthen the capacity of pregnant women to plan their delivery in advance, especially regarding their transportation, mainly for women who live in isolated far places from the HC. Many mothers have used the ambulance acquired by MSF or have identified a relative/friends with a means of transportation that has made it easier for them to arrive at the time of delivery, thus overcoming an important geographical barrier.

The project management system highlights a clear structure for human resources with solid leadership, which facilitated the execution of the project and ensured continuous technical assistance from expatriate MSF staff on issues of maternal health and sexual and reproductive health. When MSF took direct charge of the two maternity wards in the two HCs, the trained and motivated MSF staff ensured stable quality of maternal health and SRH services with cultural sensitivity, generating high satisfaction in the WRAs and adolescents attended.

The medical, nursing, and administrative staff of the MoH were in charge of the other outpatient services in both HC and, although they received the same training in maternal health and SRH health and quality of care, most of them did not offer the same level of health quality services, according to the WRA and adolescents interviewed, which compromised their sustainability. MSF's planning was ensured by the technical capacity of the personnel hired for the project but also by an MSF consulting group that assisted the project, especially in its initial phases. However, the lack of joint planning and M&E with the stakeholders may have contributed to the weak engagement of the project by MoH staff. On the other hand, the lack of some recommended standard processes, such as using a baseline or mid-term evaluation, have contributed to the weak M&E of the project.

According to the conclusions of several key stakeholders interviewed the MSF project is replicable in similar settings as a model that includes improvement of health services, mainly "*buen trato*", as well as the coordinated implementation of an HP component, whose result is acceptance and improved access. We have summarized the key lessons learned of the evaluation, including findings that we recommend implementing, as well as findings that demonstrate good practices in the project. Most of the lessons learned are related to project management and project implementation.

LESSON LEARNED

In the beginning, the project carried out exploratory studies and took into account the findings of these studies in the project's design and implementation.

Lesson learned 1: Exploratory studies at the beginning of a project are essential aiming at knowing the expectations and needs of the target population. Adapting the project to these needs enables the patient-centered approach to health care to be put into practice. An organization with a culture-centered look on the patient obtains high standards of quality of service, greater safety for patients, maximization of efficiency and results, optimal satisfaction of the patient and her family and greater commitment of all those who form part of the organization.

The project does not have baseline study.

Lesson learned 2: Baseline is a useful information to know the project's status at start-up. Measuring the initial state of key project indicators may help managers identify areas to be reinforced right from the beginning. On the other hand, baseline studies may be best test for the validity of the indicators to be measured during the life of the project and key in order to be able to measure the impact of the intervention.

The model of care implemented in El Alto incorporated key elements of the WHO PHC and SAFCI national health policy, such as HP and quality health service provision.

Lesson learned 3: Working with the community based on HP actions generates community engagement that afterwards becomes community empowerment, facilitating future sustainability actions as the community will demand access and quality of services beyond the project.

Lessons Learned 4-9 (of 9) cont'd

Cultural sensitivity is the best practice of this project and has been implemented successfully. MSF has contributed to establish adequate communication bridges between health personnel and WRA and adolescents by generating favorable working conditions for MSF health personnel and a permanent training and monitoring system.

Lesson learned 4: Cultural sensitivity in health staff is achieved not only with awareness, but through following recommendations to improve interpersonal communication or supervising personnel performance. It is achieved fundamentally from cultivating a relationship of trust between health personnel and patients, in this case the mothers or adolescents of the project. The efforts made for the maternity services, especially in relation to cultural sensitivity, should be extended to other HC services.

The project invested in developing clinical skills and teamwork among staff to properly manage obstetric cases in the HCs. Health personnel have been adequately selected and well trained. In addition, a positive team dynamic and coordination with the whole HC team was motivated by project leaders. Illustrating the latter, during the referral of critical patients to a higher complexity health service, ambulance drivers and support personnel were well integrated within the rest of the team and positively contributing to the patient management.

Lesson learned 5: Upgrading obstetric services at ambulatory level seems to increase coverage and access of BEmONC in periurban areas with limited access to these services. Permanent hour service, medical protocols for case management, adequate referral of obstetric emergencies, proper selection and training of staff, team building, coordination and close supervision are important elements to successfully offered basic obstetric care at ambulatory level.

The evaluators had access to the project logframe and particular plans for some programs such as the Advocacy Plan, the SV strategy or the HP strategy. However, a plan considering other partners (Mi Salud, Community, MoH staff) was not seen . Partners, mainly MoH health staff, did not know details of the project, such as objectives or main planned activities.

Lesson learned 6: Participatory planning among MSF and its partners would strengthen the relationship among them, improve the project implementation, and allow identifying responsibilities/roles of each partner in a project that benefits the population that everyone serves.

Lessons Learned 7-9 (of 9) cont'd

Most logframe indicators, especially BEmONC and SRH, did not have defined goals or stated methods on how to be calculated. Most indicators were complex/combined, including many variables, which is difficult to measure. Partners, mainly MoH health staff, did not know details of the project objectives and indicators.

Lesson learned 7: The indicators of a project are equal or more important than the same objectives since it depends on them to measure what should be measured. Therefore, the indicators must be clear and avoid combinations of variables in one indicator, making it difficult to measure. The structure of the indicators should also be carefully constructed based on national or international standards, if possible. The objectives and indictors must meet "SMART" criteria (Specific, Measurable, Achievable, Relevant, and Time-Bound). The objectives should be thought or distributed to generate interest in both MSF and MoH or other key partners.

The MSF project has regularly monitored the project indicators. However, MoH health staff and local community members mentioned they did not participate in specific project monitoring sessions.

Lesson learned 8: Monitoring and Evaluation should include regular monitoring of project indicators. Participatory monitoring and evaluation of processes during the project contribute to its sustainability and is a verification of effectiveness of the interventions. Participatory monitoring should include key partners (in this case MoH and community) in project indicators joint review, which would contribute to the ownership of the project by other stakeholders and its sustainability. Process evaluation (qualitative and/or quantitative) would aim at measuring the strategy, key activities and/or project components verifying their sufficiency and relevance.

The Bolivian health system has a very complex management structure: the MoH designs health policies and hires part of the health staff; SEDES, SERES and the Health Network Manager in charge of MoH policies implementation, and the Municipal Health Direction responsible of the maintenance of health structures and provision of drugs/supplies. There are political power struggles between them which hinders communication and coordination.

Lesson learned 9: When working with complex health systems, advocacy efforts may be especially time consuming. It is key to understand the different actors involved and the way they interact among themselves, as well as to consider the additional efforts and necessary time to navigate them in order to implement projects and advocacy strategies satisfactorily.

INTRODUCTION

BACKGROUND

In 2015, the United Nations (UN) estimated the absolute number of maternal deaths in Latin America and the Caribbean (LAC) at 7,300. Bolivia is among countries like Haiti and Honduras with a Maternal Mortality Rate (MMR) above the regional average. [1] Among the estimated 3.6 million adolescent pregnancies in the region in 2016, 1.4 million (39%) resulted in abortion, most of them clandestine and unsafe [2]. Countries with larger populations of indigenous people or Afro-descendants in Latin America (Bolivia, Brazil, Guatemala, Ecuador, Haiti, Mexico, Peru, and Dominican Republic) have the highest levels of MMR in the region. Even within countries, the MMR of indigenous women is significantly higher than for the rest of the population. For example, in Bolivia the 2011 national study of maternal mortality showed that 68% of maternal deaths occurred in indigenous populations. The most frequent cause of maternal mortality in the region is hemorrhage (23.1%) [3]. These countries also have high poverty levels, as well as insufficient coverage and quality of care. Access to healthcare is difficult because of limited infrastructures, lack of health personnel and low quality of services [4].

Several studies have addressed the analysis of different strategies implemented aiming at reducing barriers to maternal and new-born health care services. Analyzed strategies focused on the construction of maternity waiting houses, the promotion of vertical delivery, conditional cash transfers, or the promotion of “humanized” services/protocols, which includes the presence of family members during the delivery. Evidence shows service users' lack of knowledge about the existence of the maternity homes [5], low increase of utilization of maternal and newborn services in financing schemes [6] or in applying protocols of delivery care with intercultural adaptation. The latter is due to a lack of awareness of the existence of these protocols among health care workers [7]. Conversely, there is growing evidence that perceived quality of health services and satisfaction with care may have a greater influence on childbirth care-seeking behaviors [8], which is also related to inattentive, discourteous staff behavior [9] or the “community-perceived dismal quality of health services” [10]. On the other hand, higher levels of satisfaction of service users were found in a group of patients who attended the hospitals that participated in a Quality Improvement Program in Perú [11].

In Bolivia, and specifically in El Alto, most residents first try self-medication and use domestic remedies, then traditional medicine (Delay 1), and only as a third and last option, they go to a public health facility when facing health issues. Some of these residents experienced mistreatment, discrimination, lack of privacy, long waiting times and inadequate hygienic services at public health facilities (Delay 2 and 3) [12]. Besides the limited access and the unsatisfying quality of services, Aymara cultural factors also play a role in low rates of seeking care of public health providers. Anthropological research conducted by Joaquim Guinart in 2017 for Doctors without Borders (Médecins Sans Frontières, MSF) confirms that Aymara traditional culture has a different perspective on health. The body integrity is highly valued and seen as essential in the preservation of a good health. Surgery and injections are perceived as harmful as they expose the body to exterior elements. Although the government’s current strategies include advertising insurance schemes or conditional cash transfers that warmly encourage women to visit health services, women are often met with indifference and hostility upon arrival [13].

In this context, in 2017, MSF decided to initiate, in coordination with the Ministry of Health (MoH), a project in the city of El Alto aiming at contributing to decreasing maternal mortality and morbidity of women and adolescents in *Red Lotes y Servicios*. This report summarizes the findings of an external evaluation of this project. The evaluation was carried out in the two HCs (Franz Tamayo y San Roque) where the project is implemented and within their surrounding geographic area. The evaluation was conducted in close collaboration with MSF Operational Center Brussels (OCB) and the national public programs.

The evaluation was conducted by *Consejo de Salud Rural Andino* (CSRA) a Bolivian Non-Governmental Organization (NGO) founded in 1983 that works for highly vulnerable people in rural and peri-urban settings with a special focus on families with women, children and adolescents. CSRA has more than 10 years of experience in the implementation of social research related to primary health care interventions in El Alto, Bolivia and internationally.

EVALUATION CONTEXT

El Alto is the youngest city in Bolivia at 4.000 meters above sea level with one million inhabitants on the Altiplano high plateau bordering the city of La Paz. Immigrants from several rural Aymara communities constitute around 80% of the population in El Alto [14].

El Alto has 53 public health facilities, one specialized HIV hospital, three second level hospitals and one third level hospital (*Hospital del Norte*). The latter is exclusively attending to COVID-19 patients and has been doing so for more than three months. Of the 53 primary health structures, only 14 had 24-hour care, including maternal and child care, before the project started. Those public health facilities are organized in five health networks.

"Mi Salud" is one of the main national public health strategies implemented in El Alto since 2013, made up of Bolivian doctors working from a very small community physical structure "*Consultorios Vecinales*" (CV). They provide free health services such as home visits, disease detection, basic case treatment and referral of complications to other levels as well as HP activities.

The free health care services they provide are framed within the following main programs:

a) *Salud Familiar Comunitaria Intercultural* (SAFCI[5], ENG. Family, Community, and Intercultural Health) was enshrined in Bolivia's constitution in 2008. The idea is to consider individuals not in isolation, but rather in the context of their personal environment, and to give everyone the option of "*buen vivir*" (living a good and healthy life). SAFCI implements the philosophy of World Health Organization (WHO) Primary Health Care (PHC), aiming at achieving an integrated system that covers prevention, cure and rehabilitation and involves all relevant actors, including informal ones at the community level;
b) The *Bono Juana Azurduy* (a conditional cash transfer program, also known as Bono) for mothers and children. Pregnant, lactating and mothers with children up to two years old are eligible for the Bono and a food basket benefit during the whole period, upon completion of health checkups during pregnancy, post-partum and children visits. (Bono benefit);
c) The Sistema Unico de Salud (SUS, ENG. Unified Health System) , implemented since February 2019, seeks ways to implement free health care for the whole population (previous Law 475 was providing free healthcare only for pregnant and post-partum women, children under five and citizens above 60 years old). Unfortunately, the implementation of the new SUS is still problematic; the pathway for people to benefit from it makes it difficult to access. Mi Salud program has been considered as the right arm to implement these national programs.

[5] SAFCI is the Bolivian inter-cultural model for Primary Health Care

PROJECT IMPLEMENTATION

In 2017, MSF decided to initiate, in coordination with the Ministry of Health (MoH), a project in the city of El Alto that aimed at contributing to the reduction of maternal mortality and morbidity among women and adolescents of Red Lotes y Servicios in El Alto Bolivia. The specific objective sets forth "The women and adolescents of Red Lotes y Servicios (San Roque and Franz Tamayo Health Centres) in El Alto, make use of the quality and accessible curative and preventive reproductive health services provided by the project".

MSF is operating in one of the five health networks called Lotes y Servicios, supporting two primary HCs Franz Tamayo and San Roque. There are 13 CV in the area of the two HCs supported by MSF. Table 1 shows brief information about the MSF key interventions and support regarding Basic Emergency Obstetric and New-born Care (BEmONC), Antenatal Care (ANC), Post Natal Care (PNC) and the core package of Sexual Reproductive Health (SRH). This last one includes Family Planning (FP), Safe Abortion Care (SAC), and Sexual Violence (SV) care:

Table 1. MSF project key interventions

BEmONC	ANC/ PNC
Small construction, rehabilitation, and maintenance works in the two HCs (Franz Tamayo y San Roque)	Provision of quality antenatal and postnatal care and follow up
Donation of medical equipment and furniture (Delivery room has a corner with a mattress in the floor, a rope and a rack for women to hang on to while pushing)	Training of lab technician and provision of lab supplies for ANC laboratory testing.
Training and follow up to medical and nurse staff in protocols related to ongoing BEmONC.	Fixing MoH Ultrasound device
Provision of an ambulance and hiring drivers	Enhancing MoH policy of Birth plan (discussed with every pregnant women)
Hiring extra personnel (doctors, nurses)	Direct provision of multidisciplinary care (medical, psychologist, social worker) to adolescents
Enhancing referral system. MSF ambulance available for referrals from HC to secondary and tertiary level hospital, as well as from CV/homes to HCs (Ambulance Call Center available 24/7)	Donation of post-partum kits for every women that deliver at HC (Shampoo, diapers, etc.)
Adaptation of labor and post-partum rooms with colorful wall paint and fabrics.	
Support of maternities with central heating supplied by solar panels and household gas.	
Health Promotion (HP) supports all project interventions. Leaded by MSF HP staff in coordination with the MSF psychologist and social worker organized patients support groups to address identified needs (Mothers groups, post-partum for psychological support, self-help, to break the isolation of mothers and share activities and experiences) Schools talks for adolescents. HP was implemented in close coordination with *Mi Salud MoH program*	

SEXUAL AND REPRODUCTIVE HEALTH			ADOLESCENT-FRIENDLY SERVICES
Contraceptives/FP	SV/Intimate Partner Violence	SAC	
Training on FP counseling to health staff.	Enhancing the quality of consultations	Referral to another NGO for SAC	Direct provision of adolescent multidisciplinary care (including medical consultations, psychological counselling)
Adaptation and reproduction of MSF FP educational materials	Training MoH staff in SV protocol	Direct provision of SAC	
Supply of FP methods (implants, pills, condoms, intra uterine devices)	Direct provision of multidisciplinary care		
	Hiring of psychologist and social worker		
STI diagnosis treatment			
Health Promotion (HP) supports all project interventions. Leaded by MSF HP staff in coordination with the MSF psychologist and social worker organized patients support groups to address identified needs (Mothers groups, post-partum for psychological support, self-help, to break the isolation of mothers and share activities and experiences) Schools talks for adolescents. HP was implemented in close coordination with *Mi Salud MoH program*			

PROJECT POPULATION

Table 2 shows the population for the last two years (2019 and 2020) estimated for the the Lotes y Servicios Health network, to which both HC belong:

Table 2. Population in the area targeted by the project

Age groups	%	2019			2020		
		SR HC	FT HC	Total	SR HC	FT HC	Total
Children under 1 year of age	1.9	622	281	903	625	283	908
Adolescents 10 - 14 years of age	9.75	3.199	1.447	4.646	3.216	1.454	4.670
Adolescents 15 - 19 years of age	9.46	3.103	1.403	4.506	3.119	1.410	4.529
Women at Reproductive Age (WRA) 15 -49	26.4	8.679	3.925	12.604	8.724	3.945	12.669
Expected pregnancies	2.14	702	317	1.019	705	319	1.024
Expected deliveries	1.94	636	288	924	640	289	929
Total population		32.804	14.833	47.637	32.973	14.910	47.883
Source: MoH estimations							

EVALUATION SCOPE

The overall objective of the evaluation is to assess the intervention implemented by MSF in El Alto with regards to BEmONC, ANC, PNC, and SRH (including family planning, SAC, SV care) and adolescents' friendly services with special attention to its appropriateness and effectiveness.

To achieve the overall objective, several specific objectives were set for the evaluation. These were:

- To assess the extent to which the health interventions are appropriate to the perception and culture of the target population (Appropriateness)
- To assess the extent to which the agreed specific objectives were achieved (Effectiveness)
- To assess the extent to which the medical activities reach the target population (Coverage)
- To assess the main resources that MSF used to operate the project (Efficiency)

METHODOLOGY

Two evaluation designs were applied:

Performance Evaluation. The performance evaluation aimed at fulfilling MSF established assessment objectives. Instead of focusing the analysis in a pre–post review, it helped understand to what extent the project´s objectives had been achieved and the extent to which the project's interventions had facilitated this achievement.

- ***Intervention – Nonintervention (control) evaluation***. The intervention – nonintervention comparison complemented the *Performance Evaluation*, increasing the assessment of the effectiveness of the MSF project. Lack of baseline data in the project made this approach more relevant. To this effect, a non-intervention HC (the Huanya Potosi first level HC) out of the MSF geographic area was selected. This proposal was based on the assumption that both sites have similar operating conditions (public HCs; implementation of the national programs such as the SUS, Bono; coordination with Mi Salud program; maternity beds; opening 24 hours) and are influenced by the same socio-economic, cultural, political, health, and environmental factors, and that the only thing that differentiates them is the MSF intervention. It should be noted, however, that the non-intervention HC was offering similar services to the MSF supported HCs for the past 5 years. Annex 1 displays the variables and criteria used to compare the intervention and non-intervention HCs. Comparative analysis was done based on secondary quantitative variables from MoH National Health Information System (SNIS) indicators.

The evaluation applied mixed methods, partly qualitative as the evaluation objective required an exploratory approach to understand and document perspectives on the appropriateness, effectiveness and efficiency, and partly quantitative using primary and secondary data regarding the provision of maternal and child and SRH care services.

The methods used for collection of primary data were a population survey (398 randomly selected mothers with at least one child less than two year of age living in the area since the birth of the baby), semi-structured interviews with key partners (*Mi Salud* staff, departemental, municipal health authorities and neighbourhood representatives) and MSF and MoH health staff (19), exit interviews with mothers and Women at Reproductive Age (WRA) after they received a health service (6), Focus Groups Discussions (FGD) (10) with women and adolescents, as well as program activity observations (4).

Secondary data included a comprehensive desk review of routinely collected information of project key activities (records of the project Monitoring and Evaluation (M&E) system such as antenatal control, deliveries at the health facility, referral of risk deliveries to other levels of health care, adolescent's health care, family planning users' registries, among other documents). The MoH SNIS was also reviewed to complement the analysis using public data. This source of information includes monthly records of antenatal controls, deliveries, post-natal care services and family planning services.

A methodological triangulation of findings was undertaken enhancing the interpretation of data where the population survey results were combined with individual interviews, FGDs, observations, document reviews and secondary data from the project M&E system; and MoH SNIS.

The evaluation was conducted taking into account the guidelines laid down in the Declaration of Helsinki and all procedures involving human subjects/patients were approved by the National Bioethics Committee of Bolivia (*Comité Nacional de Etica*) and MSF Ethical Review Board (ERB). All evaluation participants were given an *Information Sheet* detailing the evaluation process and invited to accept (or refuse) with a Consent Form confirming that they understood what the evaluation was about, what would happen to their data and what rights they had in relation to that data. This included agreeing to the audio recording of all interviews and FGDs. The population survey was elaborated in Spanish, however it was also translated into the native Aymara language to have it available in case the respondents would have been more comfortable with Aymara during the survey. The evaluation team included Aymara speakers that were present mainly in FGDs to facilitate the discussion. Every precaution was taken to protect the privacy of evaluation subjects and the confidentiality of all participants' information.

LIMITATIONS

RELATED TO THE SCOPE OF THE EVALUATION

The evaluation gave special attention to the BEmONC and the FP interventions. Other components such as SV or SAC could not be assessed in depth because usable data was lacking and collecting additional data on such sensitive issues required to address complex organizational and ethical considerations which were beyond the scope of this evaluation.

The adolescent component of the project was reduced due to the cut in funding by MSF in 2018. This component was also affected by the social crises in Bolivia in 2019 and the lock-down and school closings due to the COVID-19 pandemic. Although the assessment of adolescent's service was therefore limited, it could be done using secondary quantitative data from the SNIS and primary qualitative information gathered through FGDs.

The evaluation did not collect information on the management of patient safety because it did not have a usable operational definition and because the pandemic context made difficult to have people observing medical care.

Information on mortality is not presented because data available from the MoH SNIS has serious limitations: the mortality registry is not updated periodically and only some deaths are registered when the information reaches the HC as there is no active surveillance. The existing mortality data are therefore not reliable. Results provided by its analysis would have been misleading, confusing or even contradictory. This limitation is not critical as MSF's project eventually seek to impact on access and acceptability rather than mortality (for reasons explaned elsewhere).

This evaluation detected statistically significant changes in several indicators from M&E system, the population survey, and qualitative methods. The comparison of intervention and non-intervention was consistently in favor of the MSF project. However, since this is not and experimental or impact evaluation, a number of unindentified biases could explain this difference and one cannot infer causality.

RELATED TO DATA COLLECTION PROCESS

During data collection the selection of FGDs and interview participants was conducted by MSF personnel, following predefined criteria by the evaluators. This posed a risk that MSF personnel would introduce selection bias by selecting people with a certain point of view consciously or unconsciously.

In order to mitigate this evaluators triangulated FGDs and interview responses with other data collection methods.

During FGDs and interviews the evaluation team highlighted to respondents that we were not part of MSF staff, which would have generated risk of response bias. We believe this risk has decreased by reinforcing the message that we were external to MSF and that their perceptions would be kept strictly confidential.

Non-intervention HC was not selected randomly and a selection bias cannot be excluded. The evaluation team looked at various way to choose these comparison HC to mitigate this risk. The two main evaluators are confident that they manage the risk adequately as there were no obvious differences or discrepancies between the various selection options.

The assessment of effectiveness was expected to use the project's M&E system records (project log frame indicators) as one of its sources of information. However, as serious limitations were identified in the construction of numerators and denominators as well as in the indicator's definitions of the project, decision was made to use information from the MoH SNIS which includes standard information reported by the project on a monthly basis. Annex 2 describes the limitations detected in the M&E project indicators. In addition, effectiveness indicators were probably biased as errors were detected it the population tables from the MoH and received every year by the project. For years 2019 and 2020, certain age groups are overestimated, distorting the estimated value of some indicators.

The population survey revealed very low prevalence of women that suffered of any kind of violence (11%) compared with national statistics which reported that 64% of women suffered violence in 2016. It is likely that the questions on Intimate Partner Violence (IPV) used in the survey were so sensitive for mothers that a significant information bias is present.

FINDINGS

The following section describes the findings aimed at assessing the main interventions implemented by MSF in El Alto with attention to appropriateness, effectiveness, coverage and efficiency.

APPROPRIATNESS

- MSF has succesfully adapted the basic emergency obstetrics and new-born care services to the perception and culture of the target population in a short period of time. Cultural sensitivity has been achieved by promoting quality health care with respectful and dignified treatment to patients as well as offering to mothers in labour natural and humanized birth.
- The MSF project strategy aligns with the WHO's PHC approach, the Bolivian SAFCI model and the "three delays" integrated approach, addressing the key issues for women to access safe childbirth and SRH care.
- The MSF project M&E system showed limitations mainly in some indicators design which may have hindered the planning, monitoring and evaluation processes. The evaluation did not find any designed plan or strategy for coordination with key partners netheir joint follow-up of the project. Two years period seems to be scarce for project implementation considering the defined project objectives and contextual challenges.
- Limited results in some of the project components, such as adolescents, SV, and SAC services suggest they were not appropriately designed or adapted to facilitate access.

ARE THE HEALTH INTERVENTIONS APPROPRIATE ACCORDING TO THE PERCEPTION AND CULTURE OF THE TARGET POPULATION?

MSF has made significant efforts to adapt the basic emergency obstetrics and new-born care services to the perception and culture of the target population. At the beginning of the project MSF carried out studies aiming to understand WRA and adolescents' reasons for not seeking health care services in the target area, and their needs and expectations regarding maternal and SRH care services. An exploratory study in 2018 revealed that main reasons for not attending HCs were the lack of cultural sensitivity, patients long waiting time, lack of human resources, lack of continuous care, abuse and discriminatory attitude towards indigenous population, as well as obstetric violence. Among traditional and cultural beliefs the following aspects were raised: the concept of "cold" meaning a cold atmosphere in the HC (physical structure, furniture and the delivery table) as well as the low temperature of the mother and new-born during delivery; the postures for delivery, birthing companion, and meals (mainly hot soups and teas) after delivery.

During the project the labour and post-partum rooms of the two maternities of San Roque and Franz Tamayo have been adapted with colourful wall paint and fabrics. Both maternities have installed central heating supplied by solar panels and household gas, the delivery room has a corner with a mattress in the floor, a rope and a rack for women to hang on to while pushing. Currently, the HC administrative staff offer mothers breakfast, lunch and dinner at specific hours. A after delivery a common kitchen is available for the families to make some tea and heat soup . Cultural sensitivity has been achieved by promoting quality health care with respectful and dignified treatment to patients as

well as offering mothers in labour natural and humanized delivery, including birth companions and different birth postures, without compromising the medical quality of care.

Most of mothers who participated in the exit interviews mentioned their satisfaction and that most of their needs and expectations were covered during the consultation. Furtherhmore, mothers appreciated and valued more how the health personnel treated them with affection, more so than the new infrastructure or the offer of the maternity staff delivery with birth companion or in a traditional birthing position. Actually, the evaluation population survey revealed 8 out of 10 mothers did not request a traditional birthing position. A satisfaction study carried out by MSF in the first quarter of 2020 (before the pandemic) showed that only 63% of mothers had a companion during their delivery. In this regard, the final evaluation population survey showed only 24% during the COVID-19 pandemic, which seems to be the main cause of this reduction. Nevertheless, mothers mentioned that although their husbands/partners could not be with them, the good attitude of the MSF staff compensated the absence of their husband's company.

The friendly, affectionate, and empathetic attitude of the majority of the health staff was the most frequent comment of the participating mothers of the FGDs and exit interviews who sought help at the HC for their delivery. Furthermore mothers who had received loving care during their delivery were communicating to and encouraging other pregnant mothers from their family and social network to seek care at the HC.

In most key partner interviews it was mentioned that the MSF model is appropriate to the Aymara culture of El Alto and congruent to the national maternal health policies “the MSF model is a best practice that puts into practice the SAFCI model...” “...This model should be implemented in most of our HCs because this is what our people needs...”

IS THE MSF OVERALL STRATEGY APPROPRIATE IN ORDER TO ACHIEVE ITS OBJECTIVES?

In this section key aspects which relate to the appropriateness of the implementation strategy will be highlighted: the project approaches, the strategic instruments such as the logical framework and the timeframe that strategically influenced the project execution.

The MSF overall strategy addresses the World Health Organization's (WHO) PHC approach and the Bolivian SAFCI model. Both are people-centred rather than disease-centred [22]. The WHO PHC approach includes three components: 1) meeting people’s health needs throughout their lives; 2) addressing the broader determinants of health through multisectoral policy and action; and 3) empowering individuals, families, and communities to take charge of their own health.

Within this framework the MSF strategy includes two of the three main components of the PHC approach:

1. Meeting people’s health needs: Here the project began with an exploratory study to collect the needs of women and mothers regarding maternal health services and SRH. In this way, the perspective on health problems and the needs of mothers were collected. The maternal health services were were organized based on these needs, which made the services adapted to the population;
2. The MSF strategy not only helped to improve the use of services, but also allowed women/mothers to be empowered about their rights, allowing them to demand quality services, which is the second main PHC component.

MSF also considered the "three delays" integrated approach to address each of the issues women face when trying to access safe childbirth: (1) deciding to seek appropriate medical help for an obstetric emergency; (2) reaching an appropriate obstetric facility; and (3) receiving adequate care when a facility is reached. In this case and within this model the project strategy clearly allowed to tackle these three delays. They will be described in the following sections of the report.

The logical framework aids in the comprehensive analysis of the project´s results chain: inputs, processes, expected outputs, outcomes, and impact. It leads to the identification of performance indicators at each stage in this chain, as well as risks which might impede the attainment of the objectives. This tool helps also in clarifying objectives and designing activities as well as promoting M&E processes. The evaluation detected some limitations in the project logical framework, specifically some indicators showed to be very complex with several variables making it difficult to measure, whilst some indicators did not have a clear definition of how to be measured. These limitations hindered the analysis process, especially for the effectiveness criteria, as mentioned in the limitations section.

MoH health staff (Mi Salud and HC staff) and community authorities highlighted MSF's efforts to inform them about the project progress but mentioned not having participated in joint planning or monitoring and evaluation processes. Partners, mainly MoH health staff, mentioned limited information about details of the project, such as objectives or indicators. These aspects may have influenced the limited ownership of the project by part of MoH staff. The evaluation did not find any designed plan or strategy in terms of coordination/collaboration with key partners, nor a plan or strategy for joint follow-up of the project.

Regarding the timeframe, the project started with coordination activities at different levels, setting up the facilities construction plans and health staff training activities in April 2019 and recording the first deliveries in September in Franz Tamayo and in December of the same year in San Roque. The project had a short period of time for its implementation, reaching a duration of between 12 to 15 months before the evaluation. This time may be adjusted further due to the COVID-19 pandemic that affected most of the health services offered. In this regard results suggest that aiming at improving access of women and adolescents to maternal health and sexual and reproductive health services, through improving their ability to seek help, requires more time than two years (the duration of the project). This challenge becomes even greater when facing the structural problems of the Bolivian health system, especially regarding the limited number of health care staff in the first level.

Limited results in some of the project components, such as adolescents, SV, and SAC services (presented in the next section “Effectiveness”) suggest that these components of the project were not appropriately designed, especially regarding necessary interventions to facilitate access.

EFFECTIVENESS

- The high level of ANC attendance by pregnant women (148% in 2019 and 150% in 2020) surpases the MoH target. Assuming the number of expected deliveries was not underestimated in the MSF area, this suggests that mothers attending MSF ANC came from settings out of the projects target area. ANC continued attendance decreased between 2019 and 2020. This may be related to administrative problems (the Bono requirements), and the booking system discouraging mothers to return to the HCs. These both problems were exarcerbated by COVID-19 epidemic in 2020.

- Institutional deliveries increased six and eight-fold from the beginning of the project. PNC concerned 86% of expected deliveries in 2020, a clear and statisticaly significant increase from 2019.
- Interviewed mothers mentioned that the kind, respectful, and friendly/loving care they received facilitated their decision to delivery at the HC. MSF hired additional staff (doctors and nurses) that contributed to 24/7 continuous provision of health services which remained available even during the social-political convulsion in 2019 and the COVID 19 lock-down. HP activities were key to community engagement, trust building and the use of health services by women.
- FP new consultations in both MSF supported HCs increased from 2019 to 2020, and implants were the most commonly requested method by WRA.
- The number of women attended for SAC (20) and SV (90) was low. Uptake of FP services by adolescents aged 10 to 19 years in the MSF supported HCs was only 9% of adolescents attending the HCs. The lack of HP for adolescents seems to be a key reason for the low level of attendance.

The effectiveness section describes in more details findings on the main interventions implemented by MSF in El Alto in line to ANC, BEmONC, PNC, a core package of SRH (including FP, SAC and SV care) and the adolescent friendly services.

TO WHAT EXTENT ARE THE AGREED OBJECTIVES BEING ACHIEVED?

Antenatal Care

The first antenatal check-up is considered one of the key access indicators of the MoH obstetric program. It is calculated as the nuber of pregnant women with first ANC divided by the the number of expected pregnancies. The number of expected new pregnancies was 1.024 in the geographic area of these two HCs in 2020 and there were 1.536 new pregnancies registered for ANC in the same period (150 %). the two maternities supported by MSF.

Table 3 indicates the value of this indicator to be 148% and 150% in 2019 and 2020 respectively in MSF's HCs. The values of this indicator for the non-intervention HC (Huayna Potosí) were 36% and 25% in 2019 and 2020 respectively. The Chi-square comparison between MSF and HP HC provides a p-value of 0.00089 (Chi-square = 15.367) indicating that these differences are not only very wide but also high statistically significant.

The high values for this indicator calculated for MSF HCs may be due to an error in the number of expected pregnancies (underestimation). It may also be partly explained by the fact that MSF supported HCs were attending pregnant women from an area not included in the calculation of the denominator. It is therefore likely that the appearant superiority of MSF performance is overestimated. In any case, it is also important to mention that the MSF promotion of ANC services started seven months before the two maternities were set up, which could have contributed significantly to a high uptake of ANC services.

Table 3. ANC

Year	San Roque			Franz Tamayo			Total MSF			Huayna Potosí (Non-intervention)		
	1 ANC	Exp preg	%	1 ANC	Exp preg	%	1 ANC	Exp preg	%	1 ANC	Exp preg	%
2019	1101	702	157	413	317	130	1,514	1,019	148	423	1188	36
2020	1167	705	166	369	319	116	1,536	1,024	150	302	1193	25

Qualitative findings detected high motivation of participant mothers to seek help from MSF supported HCs during pregnancy, despite restrictions in 2020 due to COVID-19. Most of them mentioned they wanted to know the health status of their baby and, secondly, to know how their own health was. Some mothers visited the HC motivated by a "health problem" in her or her baby:

> "My wawa (baby) was stuck and I came to get my ultrasound report checked … they told my wawa is now in normal position … now I'm happy"
>
> "I was vomiting and I thought it was not normal, that is why I came to see what was happening to me."
>
> "I had a little bleeding when I was three months pregnant and that is why I came to control."

There were two mothers who mentioned that they attended the HC to complete their registration process for the Juana Azurduy Bono. Some young mothers explained that their friends had recommended and encouraged them to attend the HC. One of them said that although her mother had all of her births at home, she wanted to know how the care was like in a HC.

Many mothers highlighted the quality of care during the ANC of some physicians and nurses, especially MSF health staff, of whom they referred to as: "*they are good*", "*they are sensitive*", "*loving*", "*I like the way they speak to me*", "*they explain very well*", "*they care about us*", "*they are calm, they are very patient*", "*they are respectful*", "*they are encouraging!!!*"

Adequate ANC

The evaluation of ANC adequacy (or continued attendance of ANC)uses two complementary indicators: The number of women who completed their fourth antenatal check-up divided by the number of expected pregnancies; the number of women who completed their fourth ANC divided by the number with had their first antenatal check-up.

The value of the first indicator was 101% and 85% in 2019 and 2020 respectively in the MSF HCs (see Table 5.) It was 29% and 22 % in the HP HC for the same years.

Table 4. Pregnant women with 4 ANC

Year	San Roque			Franz Tamayo			TOTAL MSF			Huayna Potosí (non-intervention)		
	4 ANC	Exp preg	%	4 ANC	Exp preg	%	4 ANC	Exp preg	%	4 ANC	Exp preg	%
2019	735	702	105	298	317	94	1033	1019	101	348	1188	29
2020	617	705	88	257	319	81	874	1024	85	266	1193	22

These figures could be interpreted as an indication that the project aroused the interest of mothers beyond the MSF catchment who seek attention in the MSF HCs. During the entire time of the project

the two HCs made efforts to remains open. It is therefore possible that many mothers who did not find care in their nearby HCs came to the MSF HCs. This hypothesis is supported by the findings in the next section on coverage.

Regarding the second indicator, the proportion of pregnant women who completed four or more antenatal check-ups, was 57% in MSF HCs in 2020 (Table 5) while in the non-intervention HC was 88%[6]. The value of this indicator in the MSF HCs is lower that the MoH > 80% target. In addition its value decreased from 2019 (68%) to 2020 (57%) in the MSF HCs and increased in the HP HC (82% to 88%).

Table 5. Pregnant women with 4 ANC/At least 1 ANC

Year	San Roque			Franz Tamayo			TOTAL MSF			Huayna Potosí (non-intervention)		
	4 ANC	1 ANC	%	4 ANC	1 ANC	%	4 ANC	1 ANC	%	4 ANC	1 ANC	%
2019	735	1101	67	298	413	72	1033	1514	68	348	423	82
2020	617	1167	53	257	369	70	874	1536	57	266	302	88

As explained later, information gathered from mothers during the evaluation inferred that problems detected during the distribution of tickets for women that go to the HC to receive ANC[7] is considered to be discouraging to return for more antenatal check-ups. In addition, the Bono is considered a bureaucratic incentive with demanding administrative procedures. Both became more challenging due to the COVID-19 pandemic that generated additional restrictions in the HCs.

BEmONC

A total of 887 deliveries received care in the two maternities supported by MSF in 2020. The same year, the number of deliveries expected by the MoH in this area was 929. MSF therefore attended 95% of expected deliveries.

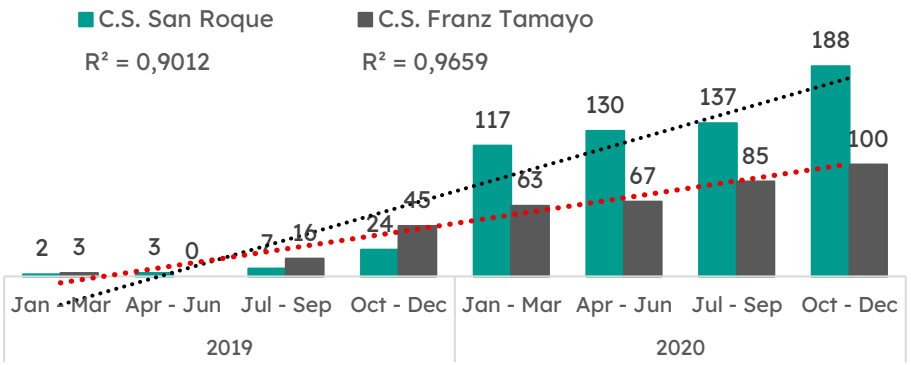

Figure 1. Number of deliveries per trimester- Franz Tamayo and San Roque HCs

[6] The figure seems to be higher, however it is because a lower number of new ANC were detected in the non-intervention HC.

[7] The current HCs booking system requests mothers to reach the HC very early in the morning to get a ticket "ficha" to be attended. The health staff make available only 15 tickets in the morning and 15 in the afternoon making a total of 30 pregnant mothers per day. Every mother would receive a consultation of 15 minutes on average. Regularly more than 30 mothers reach the HC meaning many mothers would remain without a consultation.

The number of deliveries performed at HCs increased every month and trimester (Fig 1) from the beginning of MSF´s project. Figure 1 displays the number of deliveries at Franz Tamayo and San Roque. In FT, it increased six-fold, from 16 in the third trimester of 2019 to 100 in the fourth trimester of 2020.In San Roque the increase was eight fold from 24 in 4th trimester 2019 to 188 in the fourth quarter of year 2020. Temporal trend shows a progressive linear increase over time (R^2 = 0.9).

Figure 2 also shows a linear increase over time (R^2 = 0.9) for the MSF supported maternities from January 2019 to December 2020. There is no similar trend over time in the non-intervention HC (R^2 0.0001) and the difference between these two curves is highly statisticaly significant (Chi-square = 341, 6967).

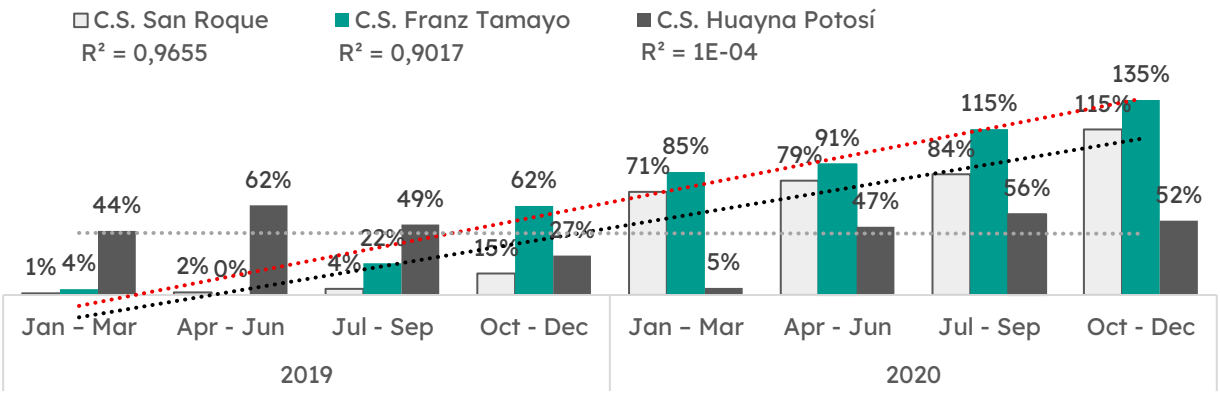

Figure 2. Percentage of deliveries at HC (intervention and non-intervention)

Responses of mothers from qualitative findings suggest the health services offered at the two maternities during labor have responded to the mayhäin needs and concerns of the majority of mothers;

> "We have come to relieve our pain thinking that doctors have studied to care for us …and actually, they helped us."
>
> "Since the ANC, we want the delivery go well, the baby to be well, it is not easy and the doctors worry about us and give us encouragement."

Post-Natal Care

Post Natal Care was one of the most challenging project interventions. At the beginning of the project 18% (164/924) of mothers expected to deliver received PNC. This proportion increased to 86% (802/929) in 2020.These results are displayed in table 6.

The proportion of mothers expected to deliver who received PNC was 38% in the non-intervention HC in 2020. A Chi-square value of 223.7 comparing MSF supported HCs and non-intervention HC indicates that this difference is statistically significant ($p < 0.05$).

Reported to the number of deliveries registered, the proportion of mothers who received ANC was 90% (802/887) in 2020.

Table 6. PNC over expected deliveries

Years	San Roque			Franz Tamayo			MSF Total			Huayna Potosi (non-intervention)		
	PNC	Expected deliveries	%	PNC	Expected deliveries	%	PNC	Expected deliveries	%	PNC	Expected deliveries	%
2019	90	636	14	74	288	26	164	924	18	287	629	46
2020	528	640	83	274	289	95	802	929	86	244	634	38

MSF staff interviewed mentioned how they monitored this indicator and implemented different strategies to improve it. During the pregnancy of the mothers, through the HP education activities and through the ANC consultations, each mother was assisted in planning her delivery, which included a record of the mother's contact information that was used by health staff for the follow-up of their ANC, their deliveries and the postpartum consultation. As a result, project staff would call and remind mothers who did not come to the HC for their PNC. In addition, each mother received an in-kind incentive consisting of a package of personal cleaning supplies as well as clothing for the new-born. Several mothers highlighted the importance of receiving these incentives that meant an important contribution to their family.

Sexual and Reproductive Health

Family Planning

FP new consultations in both MSF supported HCs increased from 446 in 2019 to 1,273 in 2020 (Table 7). The corresponding numbers in the non-intervention HC were 331 and 276.

Reported to the WRA, these number represent 10% of WRA in 2020 for MSF HCs and 3% for HP HC in 2020. Using Chi-square to compare these propostions indicates that this difference is highly statisticall significant (Chi-Square = 164.701; p> 0.0001).

Table 7. FP consultations

Years	San Roque			Franz Tamayo			Total MSF			Huayna Potosi (non-intervention)		
	FP	WRA	%	FP	WRA	%	FP	WRA	%	FP	WRA	%
2019	291	8,679	3	155	3,925	4	446	12,604	4	331	8,548	4
2020	1,041	8,724	12	232	3,945	6	1,273	12,669	10	276	8,626	3

When asking mothers who participated in FP sessions they shared mainly positive impressions of such services:

> "I participated in group sessions MSF organized and I also came to the meetings called by the psychologist or the health personnel because they became our faithful friends."
>
> "I used to hear about family planning but could not understand it…here (at HC) they taught me patiently and I was convinced."

The implants were the most requested method in the two project HCs, in San Roque 39% (408/1.041) and 49% (184/232) in Franz Tamayo. The evaluation highlights that MSF was a pioneer in the project area in offering implants. MoH's current SRH program mentions it, but does not yet have the supplies available for distribution. It aroused the interest of many women, including women from geographical locations far away from El Alto who travelled for the implant:

> "I found out from a relative of mine that they were offering implants, so I decided to travel…they (MSF) made me feel good and I am now going back home happy."
>
> "I feel very comfortable with the implant, I thought it hurt but no, I'm happy."

Sexual Violence (SV)/Intimate partner violence

Ninety (90) cases of victims of SV were registered during 2020 in the two MSF supported HCs. Main causes were rape 32%[8], sexual abuse 13% and intimate partner violence 55%. Eighty one percent (81%) of women attending SV received psychological support. The number of cases reported in the two MSF HCs are significantly high. It represents 0.6% of the WRA in the area covered by MSF compared to an average of 0.08% at country level based on the number of SV cases registered in the police department.

In fact, the qualitative findings confirm that the project staff built trust with women, who allowed them to talk about violence, which they consider highly sensitive. Considering that the official system in Bolivia emphasises legal care in case of violence against women - above and prior to medical care - these recording about multidisciplinary care (medical/psychological and social worker support) in the HC is a relevant finding.

Some expressions of the participating mothers support these facts:

> "I came here seeking help due to violence against me and the psychologist attended to me in the time that I could and wanted to tell about my problem, conversely …in other places… you have to adapt your time to the others (at police for example), or sometimes they keep you waiting, they don't care about us".

Termination of Pregnancy (SAC)

Unsafe abortion and unwanted pregnancies were the main concern of MSF before starting the project, mainly amongst adolescents. MSF started referring SAC cases and paying for them to a Bolivian NGO and at the end of 2020 MSF offered the service in the maternities they supported. Twenty cases among adults and adolescents were attended to in total in 2020 (16 referred to Marie Stops and four carried out in MSF HCs), meaning extremely low use considering that Bolivia expects around 2.5% of adolescents being potential beneficiaries ofSAC due to unplanned pregnancy.

Due to the current restrictive national laws SAC in Bolivia is a service difficult to be implemented. In the case of the MSF SAC intervention, this was made available not long enough to get the service known in the community.

Adolescents

The MSF adolescent's program was assessed considering the uptake of adolescents aged 10 to 19 years to FP services and maternal health services, specifically ANC services.

[8] ***Rape***= defined as physically forced or otherwise coerced penetration – even if slight – of the vulva or anus, using a penis, other body parts or an object; ***Sexual abuse***= any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work. For the project reporting purpose, sexual abuse does not include penetration.

The number of adolescents aged 10 to 19 years attending FP consultations in the two MSF supported HCs was 180 representing 2% (180/9.199) of the estimated population of adolescents in 2020 in the area covered by MSF HCs[9].

Table 8 shows that the percentage of FP consultations for adolescents in 2020 was 14% of the total number of WRA FP consultations. In the non-intervention HC this proportion was 13%. Although these two populations may have different needs, comparing adolescents and WRA uptake may help in better assessing access by adolescents to these services.

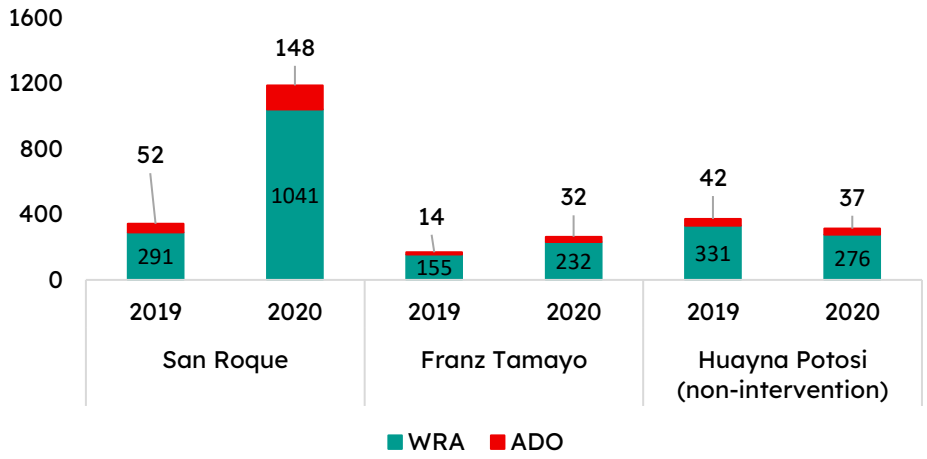

Figure 3. Number of FP consultations by Adolescents and WRA

Table 8. Adolescents with FP consultations compared with FP in WRA

Years	San Roque			Franz Tamayo			Total MSF			Huayna Potosí (Non-intervention)		
	FP ADO	FP WRA	%	FP ADO	FP WRA	%	FP ADO	FP WRA	%	FP ADO	FP WRA	%
2019	52	291	18%	14	155	9%	66	446	15%	42	331	13%
2020	148	1041	14%	32	232	14%	180	1273	14%	37	276	13%

Table 9 compares all types of consultations (medical, psychological, nursing, and/or counselling) of adolescents aged 10-19 years with the FP consultations in the same age. The percentage of FP consultations for adolescents is 9% in 2020 of all adolescents consultations [10].

In addition, the total number of consultations for adolescents decreased in the two MSF supported HCs and in the non-intervention HC from 2019 to 2020. Along the same line, the bulk of consultations are similar in both years (2019-2020) between HC intervention and non-intervention. This suggests that MSF interventions did not facilitate access of adolescents to health care or FP.

[9] The population was obtained from the Project population (Table 2). MSF Project target population 2021.
[10] The evaluators could not find data disagregated by age among adolescents to compare acccess among younger and older adolescents.

Table 9. Adolescents with FP consultations compared with total adolescent consultations

Year	San Roque			Franz Tamayo			MSF Total			Huayna Potosí (Non-intervention)		
	FP ADO	Tot ADO	%	FP ADO	Tot ADO	%	FP ADO	Tot ADO	%	FP ADO	Tot ADO	%
2019	52	1449	4%	14	1029	1%	66	2478	3%	42	1308	3%
2020	148	1278	12%	32	731	4%	180	2009	9%	37	714	5%

Table 10 presents data on uptake of maternal health services by adolescntes aged 10 to 19. In 2020, 13.5% of the pregnancies followed up in the HCs supported by MSF were adolescents. This proportion is similar to that of pregnancy in adolescence of the MoH at the national level which is at 14.8% (DHS 2016).

Table 10. Adolescents with ANC compared with total ANC (WRA)

Year	San Roque			Franz Tamayo			Total MSF			Huayna Potosí (Non-intervention)		
	ANC 10-19	ANC Total WRA	%	ANC 10-19	ANC Total WRA	%	ANC 10-19	ANC Total WRA	%	ANC 10-19	ANC Total WRA	%
2019	98	1101	9%	47	413	11%	145	1514	9.6%	71	423	16%
2020	132	1167	11%	76	369	21%	208	1536	13.5%	62	302	20%

For the adolescents who attended the HCs training sessions were developed for smaller groups at the HC, particularly for adolescent pregnant women, under the leadership of the psychologist and/or the social worker who talked with them about the pregnancy and their life plans. The psychologist also provided specific mental health counselling for adolescents who needed specific support, especially for pregnant adolescents. A group of adolescents who participated in the training sessions for adolescents on pregnancy and life plans recall with great satisfaction having participated in the meetings:

> "I learned that it is a right to come and seek information to prevent pregnancy, for example, today it is a big problem between us because we do not have correct information."
>
> "Social networks help us, they give us information but it is not a place where I can have the confidentiality that the MSF psychologist assured us when we participated in the meetings ".

WHAT WERE REASONS THAT FACILITATED ACHIEVEMENT OF OBJECTIVES?

- ***Respectful and friendly attitudes with patients and Human Resources (HR) management***

Kind, respectful, friendly/loving care facilitated the decision of many mothers to deliverat the HC. Studies in Aymara communities [17] highlighted cultural sensitivity as fundamental. With the objective of facilitating the provision of culturally sensitive care by MSF health workers, the MSF project invested in: a) Careful HR selection process (identifying people that showed empathetic principles); b) Solid induction process regarding MSF humanitarian principles and the objectives of the project; c) Continuous theoretical regular trainings and daily coaching for health staff, and performance follow up; d) Permanent support, recognition and appreciation of doctors and nurses. Valuing the health staff work is key in HR management as mentioned in the book *Quality of Health Care* [18]; e) Provision of psychological and mental health support to the health staff during the first phase of the COVID-19 pandemic.

- ***Functioning Maternal Health Units (24/7)***

MSF hired additional staff (doctors and nurses) that contributed to the continuous provision or health services 24 hours a day and 7 days a week, having maintained the services available even during the social-political instability in 2019 and during the COVID 19 lock-down. Many pregnant women from other neighbourhoods that found their HCs closed went to seek help in the open MSF HCs. In addition, the two health facilities were renovated and refurnished. Medical equipment, such as delivery beds, surgical lamps and Dopplers, medicines and other medical and administrative supplies were provided by the MSF project (for more detail, see section "Efficiency").

- ***Health Promotion***

The evaluation findings indicate that HP was one of the key strategies contributing to community engagement, trust building and the use of health services by women and adolescents.

This is in line with several studies confirming the relationship between raising women´s awareness on the benefits of delivering in a health facility and the choice of delivery place [19]. The MSF HP staff collaborated with local health partners (Mi Salud staff, local neighbourhood authorities) motivating them to participate in some activities at the community level, such as information and communication, and empowering to mothers and adolescents. The HP strategy targeted three main groups: 1) WRA thought community talks, talks in the HC waiting rooms, and community promoters/peers; 2) Adolescents, organizing school talks in high schools and through peer strategy (however, this last one was not very well developed, due to the short time the project had); and 3) Local Health Authorities, organizing trainings. Both for WRA and adolescents, the main objective of HP activities was to promote health seeking behaviour. Empowerment of target population was in the core of the HP activities to help them to enhance control over their SRH (See more detail in Annex 3). This component was implemented by an MSF coordinator and two health educators, each one based in each HC (Franz Tamayo and San Roque) in close collaboration with the MoH Mi Salud and the health staff of the two maternities and local neighborhood authorities.

Among others, 16 mothers were trained as community promoters to disseminate health messages, 1.367 teenagers participated in the school talks and 13 local health authorities were trained on SRH.

- ***Adaptation to the context and response to challenges***

The health services provided were in line with MSF standards and adapted to the Bolivian maternal and SRH protocols and to local culture. In the opinion of some key stakeholders, consultation with families in the target population at the beginning of the project (qualitative exploration studies and anthropological studies) was decisive in adapting these health services to local culture. All health services, mainly the SV component had a multidisciplinary approach including medical, psychological and social worker services. Transportation through the MSF ambulance to mothers for delivery care from homes to HCs was perceived as very innovative and highly appreciated by families in the target area. In fact the survey population revealed 5% of mothers delivering at HCs used the MSF ambulance[11]. Furthermore, establishing public/private coordination during the COVID-19 lockdown (Referral to private hospitals) guaranteed maternal health services continuity and saved lives.

[11] The MSF ambulance, as part of the MSF handover phase will be transfered to the municipal government based on the current municipal competencies and responsabilities that establish the mayor office as the manin responsible of the administration of public HCs and hospitals in Bolivia.

- ***Local language***

Communication with patients was strong, which was largely facilitated by having people within the MSF project staff that speak the indigenous Aymara language. It contributed to building trust and enhancing the provision of quality services

- ***Integration and collaboration***

MSF implemented the project in two public HCs, therefore a large percentage of its time and efforts were given to establishing a relationship of integration and good collaboration with different MoH units and programs at different levels (local, municipal, departmental), as well as with other stakeholders such as the municipal government in charge by law of the public HC´s administration issues. MSF also collaboratedwith local health authorities to implement mainly HP activities.

Collaboration with the MoH was formalized through a cooperation agreement. In the two HC supported by MSF a hand-in-hand work method was established with the MoH staff, with MSF being primarily responsible for the operation of the maternity services and the sexual and reproductive health services and the MoH staff in charge of the other OPD services (children and adult health programs). MSF has facilitated capacity-building in maternal and SRH through theoretical and on the job trainings and daily coaching to MoH doctors and nurses since the beginning of the project. At the final phase of the project, the MoH staff gradually started to perform delivery care as part of the handover strategy.

The departmental and municipal health authorities as well as local neighborhood authorities recognized/acknowledged the relationship established by the project with the community calling the project an "Intercultural successful model", meaning the health services offered were based on mothers needs/expectations and adapted to those needs.

WHAT WERE THE MOST IMPORTANT FACTORS FOR NON-ACHIEVEMENTS OF OBJECTIVES?

- ***Tickets (fichas) to be attended***

Both in the interviews and in the FGD most of the mothers, even those who live close to the HCs, complained about the system of distribution of tickets for attending consultations (current booking system for mother´s consultations):

> "I come very early for a ticket, which it's over quickly"
>
> "The lines to get a ticket are very long… many mothers or the husbands come from four am and it is very dangerous at that time."

In the interview with the director of one of the HCs, she/he mentioned the ticket system became a problem due to the COVID-19 pandemic, since it is related to the staggered shifts of 24-hour doctors in such a way that fewer doctors are found in one turn. With fewer doctors, there is less time to attend to all the mothers who arrive on a certain shift.

- ***Administrative procedur–s - Bono Juana Azurduy***

Although participant mothers recognized the benefits of this conditional cash transfer (aimed at facilitating proper ANC care to pregnant women, by cash benefits if attending at least 4 ANC), they argued they face many difficulties related to administrative processes and internal organization at HCs. It is important to mention that these problems were more evident in the responses of mothers of San Roque than in Franz Tamayo. In San Roque the responses suggest that mothers have insufficient and confusing information about processes and roles of different parties at HC. Some mothers mentioned that there are three health personnel related to the Bono, the doctor responsible for the care, the Bono doctor and the doctor of a Food Allowance (subsidy) that is given as a complement to the Bono.

On the other hand, there are other mothers who replied that a single doctor takes care of both the bonus and the subsidy. Whether there are two or three doctors, they claimed the health staff should improve their coordination themselves since it is not confirmed when the person responsible of the Bono/subsidy will be at HC and since the responsible professional is itinerant:

> "there is no communication, nobody knows what day will come the Bono doctor to the HC, the only thing the HC staff tell us is to be attentive for when he arrives, how can I be attentive? I live far away, I have to leave my house at 4:30 in the morning"
>
> "… when the Bono doctor comes, long lines with a lot of mothers appear and on the way they only offer 15 consultations and tell us … we are just going to attend up to here, for the rest they tell us to come back the next month"
>
> "…Two months ago, when I succeeded to find a space for the Bono consultation, the doctor informed us he forgot to bring the registration forms and told us to come back the next month"
>
> "… once the HC doctor forgot to register my ANC and the Bono doctor told me that I must have complete check-ups and that is why she did not want to attend me… it was not my fault".

The complex and dysfunctional implementation of this Bono program (based on pregnant womens' perceptions), seem to jeopardize its potential contribution to motivating pregnant women to complete their ANC program.

In 2019, the law of the SUS was launched in the country, which includes Universal Health Insurance. This new law forced Bolivians to go through an initial registration. This fact further aggravates the problem with the Bono since many mothers mentioned they could not finish the process of registration in the SUS, which again negatively influence the processes with the Bono. According to mothers, they cannot register the SUS at the HC, so that adds one more concern.

- ***Insufficient health personnel***

As described before, the MoH health staff experienced a significant increase in maternal health services which was difficult for them to accomplish with the friendly outpatient services or differentiated services for maternal and child health or SRH for adolescents. This was aggravated by the limited MoH health staff in the HCs and the amount of administrative work they must do when implementing their activities.

- ***Cancellation of HP activities due to COVID-19***

The COVID-19 pandemic represented important challenges to the MSF project, as for the rest of Bolivian health system. An important immediate consequence for the MSF project was related to HP activities, especially the ones targeting adolescents. As mentioned already, the project component for adolescents and young people relied heavily on an ambitious HP plan based on school talks (covering topics such as SRH rights and contraceptive methods). Due to the COVID-19 situation, schools were closed for about 8 months in 2020, and therefore HP activities were cancelled. The lack of HP for adolescents seems to be a key reason for the low access of adolescents to the MSF SRH services.

- ***Complexity of the health system***

The complex management structure of the Bolivian health system was a main barrier faced by the project. This is reflected in the number of instances of health authorities that exist, many of which have different institutional and political dependencies. For a specific request, notes were prepared to the health network manager, the regional health office of El Alto (SERES), the departmental health office (SEDES), and to the MoH and a health office of the Municipal Government. These management levels have different political representations that makes coordination very difficult. To further aggravate the

problem, all these instances present high staff turnover. To give an example, the project had to coordinate with five Ministers of Health in two years. These barriers were especially relevant during advocacy and handover related activities delaying the coordination to obtain health staff to replace MSF staff when the project will end.

- ***Reference hospitals***

The Lotes y Servicios Health Network, where the two HCs supported by MSF are located, does not have a second level reference hospital. The only nearby hospital is a third level hospital that rejected several mothers who were transferred from the two HCs supported by MSF. Worse, this third level hospital was declared a COVID-19 reference hospital during the pandemic, which exacerbated MSF difficulties referring obstetric emergencies.

COVERAGE

- The population survey indicates that the population in MSF project area is represented by an indigenous Aymara low-income population with insufficient educational level. Survey results show how MSF project has contributed to high coverage of the first ANC, PNC, and FP in the target population.
- The coverage of institutional delivery is relatively high (76%), however delivery at home continues to be a challenge in the project area (24%), with figures higher than those found in national studies. ANC consultations before the fifth month (58%) and the completion of at least fourth ANC consultations (60%) show low coverage. The low coverage of the Bono (51%) suggests problems in its administration consistent with qualitative findings. 45% of interviewed women mentioned to be currently using a contraceptive method.
- A high percentage of mothers had decided for themselves to access ANC, childbirth and FP which may suggest an important contribution of MSF to the empowerment of women to demand maternal and SRH services
- The main factors that hindered MSF ability to reach the target population were distance, cultural factors – beliefs, and mistreat by health professionals. COVID-19 pandemic seems to have exacerbated some of these situations.

This section explores the extent of which inhabitants within the MSF geographic area and target population have access to a specific health service promoted by the project and identified factors. The information presented is based on the results of the population survey and FGDs conducted during this evaluation. The results of the last official Bolivian Demographic Health Survey (DHS) 2016 are used in some cases for comparison purposes[12].

It may be noted discordance in results for the same indicators in the Effectiveness section. This difference will be explained in the conclusions section.

This section is organized through the following project topics: BEmONC, ANC, Childbirth, New-born care, PNC and satisfaction. The SRH program has key indicators related to FP and IPV. Annex 4 presents a complete list of survey results.

[12] There are two differences between the final evaluation population survey and the DHS: the WRA in the final evaluation survey is 19-49 years old and in the DHS 15-49 years old. The evaluation survey considers mothers of children under 2 years of age and the DHS children under 5 years of age. Even these differences, and since both are randomized, they would be considered comparable with that limitation

Socio-demographic characteristics of population survey respondents: A total of 398 women in the age group of 19 to 49 years old, mothers of at least one child less than two years of age were randomly selected in the two target geographic areas (San Roque and Franz Tamayo). The average age of respondents were 27 years old. Almost half of them 41% (165/398) were young mothers belonging to the 19 to 25 years old age group.

TO WHICH EXTENT DO THE MEDICAL ACTIVITIES REACH THE TARGET POPULATION?

The survey reveals that 95% (377/398) of the total respondents had finished only elementary (32%) and secondary level (63%) (Figure No 4).

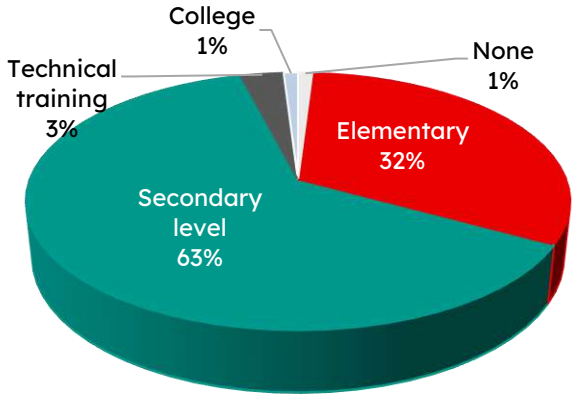

Figure 4. Education of respondents (n=398)

The majority of the respondents had a rented house and 44% (174/398) mentioned their house was their property. This latter data was a proxy for the economic status of the respondents. Only 29% (116/398) were married and the rest were single mothers or in-union women.

Antenatal Care

According to the population survey, 96.5% (384/398) of the interviewed mothers answered they received ANC for their last less than two years old child, similar than the DHS that shows 94.6% in El Alto. Among them, 98% (376/384) mentioned they received care in a public sector Health Center (HC). Out of the women who sought care in a public HC, 54% received care in MSF supported HCs meaning women use other public HCs to follow up their pregnancy within the target area.

The highest percentage (92%) (352/384) of women who mentioned they sought care in any medical facility service mentioned they took the decision to seek ANC by themselves (Delay 1). Indicators related to the quality of the ANC received, show that 58% (224/384) of mothers that received care in any medical facility had their first ANC before the 5th month and 60% (229/384) had four or more ANC during the pregnancy of the youngest child (Figure 5). These figures are low, when compared to the DHS results for El Alto, with 89% for first ANC with less than 5 months of pregnancy and 88% for 4 ANC in 2016.

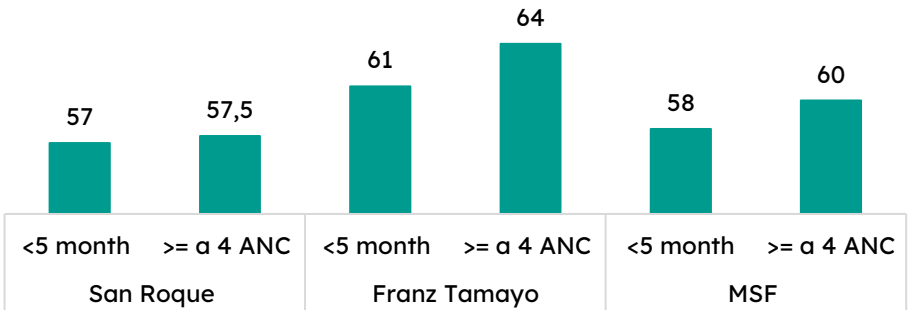

Figure 5. Antenatal Care (n=348)

Concerning services offered to mothers during the ANC, 96% of the total number of respondents mentioned they received iron tablets and took 48 tablets on average; 86% women (331/384) received 3 or more types of complementary services and laboratory tests (ultrasound, US; blood tests for early detection of anemia; syphilis; HIV/AIDS; urinary tract infection; diabetes; and neonatal tetanus vaccination). Conversely, only 51% (204/398) (Figure 6) mothers received the Juana Azurduy Bono. Qualitative findings revealed administrative problems in public HCs that may influence negatively in ANC as mentioned in Effectiveness section.

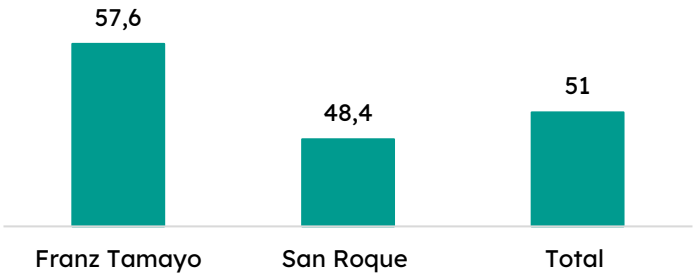

Figure 6. Juana Azurduy bonus in percentage (n=398)

The majority of respondents that received care in any medical facility, 96% (367/384) said they received information/counseling during ANC from health staff: breastfeeding (82%), adequate feeding during pregnancy for the mother (76%), family planning (67%), and danger signs during pregnancy (58%), and birth preparation plan (56%). However, less than 50% of mothers mentioned they received information related to danger sings during birth or during the post-partum period or newborn danger signs.

The survey shows relatively low levels of knowledge of respondents regarding danger signs. Figure No. 7 shows 47% (187/398) of respondents correctly mentioning at least 2 danger signs during pregnancy; 24% mentioned at least two danger signs during labor/birth, 32% mentioned danger signs during postpartum period and 52% mentioned danger signs in the newborn.

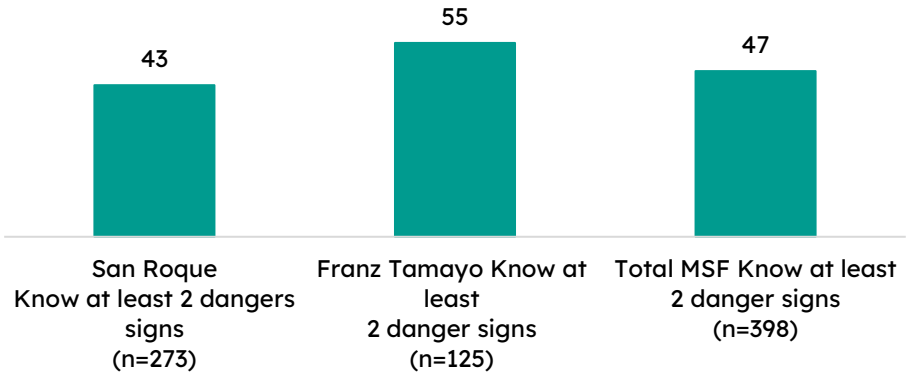

Figure 7. Knowledge about danger signs in percentage (n=398)

Among the mothers who answered they had a danger sign during their pregnancy, 69% (109/158) mentioned they sought help in a HC when they had a danger sign.

Almost all the respondents mentioned they prepared their childbirth (92% decided where to deliver – HC or home; 76% saved money for additional delivery expenses; and 63% arranged help with somebody to get transportation).

BEmONC

The population survey reported 76% (302/398) mothers that gave birth to their youngest child in a medical facility (public and private HC) and 24% (96/398) that delivered at home. Out of the total number of deliveries occurred in any medical facility 93% (281/302) happened in a public HC and within this group 43% (121/281) of the deliveries received care in any of the MSF supported HCs. Most of the mothers (84%) took the decision to deliver the baby at the HC by themselves (Delay 1).

The DHS 2016 registered for El Alto municipality 91.8% of facility-based deliveries and for Aymara population 62% which gives consistency to our findings. Home delivery seems to be still a very important challenge since DHS 2016 reports lower percentages (11.5% at the national level and 8% in El Alto[13]) of mothers that decided to deliver at home compared with the 24% in the MSF target area.

Among mothers who had delivered in a medical facility (302), 204 respondents (84%) mentioned they wanted a companion present during childbirth, however only 24% (72/302) were accepted by the health staff to have a companion. Only 56 mothers (19%) that delivered in a medical facility asked for a birthing position and among them 59% (33/56) were accepted.

Regarding access to the HC, most respondents who delivered in a medical facility (45%) (137/302) mentioned they used a private transportation to reach the HC for the birth, followed by 32% of mothers (110/302) that reached the HC through public transportation, 12% (35/302) of mothers that reached walking and 5% (15/302) that went using the MSF ambulance.

Newborn care: 74% of mothers who gave birth in a medical facility (223/302) remembered they received their babies in their chest after birth, and almost all of them, 99% (220/223) did it immediately within the first hour, considering it as early attachment. It should be noted, however, that the population survey question would have the limitation of not looking for details related to "attachment skin to skin".

[13] Bolivia DHS 2016 mentions 0.2% of deliveries in "other places"

In contrast, only 19% (59/302) of mothers who had delivered in a medical facility recalled the health staff did eye prophylaxis in their babies and more than half of respondents (59%) did not remember or were not able to see if this procedure was done.

Regarding immediate breastfeeding 75% (227/302) of mothers who delivered at a medical facility and only 44% (42/96) of mothers who delivered at home, mentioned they started breastfeeding within the first hour.

Post-Natal Care

The population survey revealed that the majority of respondents, 93% (371/398) received PNC in the project target area. Among this group, 95% (353/371) received care in a public HC and the rest in private and community services. Within the public HCs, 80% (214/353) of mothers received care in both MSF supported HCs.

More than half of women attended by health staff (64%) (236/371) received health care within 8 to 29 days. Most mothers attended by health professionals (96%) (355/371) received at least two types of health care services (Baby's navel exam, counseling about baby's danger signs, breastfeeding, baby's temperature measurement, Vitamin A for mother).

Figure No. 8 shows the level of respondents' satisfaction with the services received from the medical doctor, nurses, or from administrative staff (receptionist, cleaning staff, others) during childbirth. The graph also shows the level of satisfaction with the main services provided at the HC (meals after birth, heating in the rooms and better furniture at waiting halls and beds in maternity section) during the HC stay. In all cases the level of satisfaction is high, mainly in relation with HC temperature and comfort with its furniture and infrastructure.

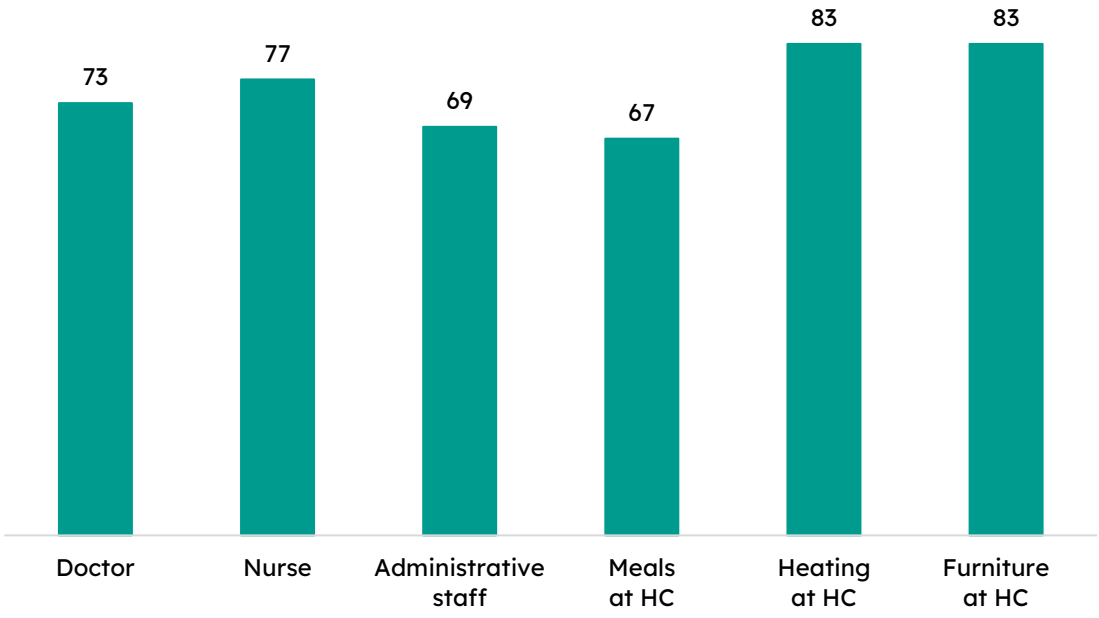

Figure 8. Respondents satisfied in percentage (n=302)

Sexual and Reproductive Health

96% (382/398) of interviewed women mentioned they received contraceptive information. Most of them, 75% (286/382) received this information from public HCs, with a 49% (188/382) receiving it rom

MSF supported HCs. Another main source for respondents who received FP information is the internet and social networks (23%) (89/382).

Figure No. 9 displays the answers of mothers related to information they received by types of methods, highlighting women heard more of modern methods than natural or traditional alternatives.

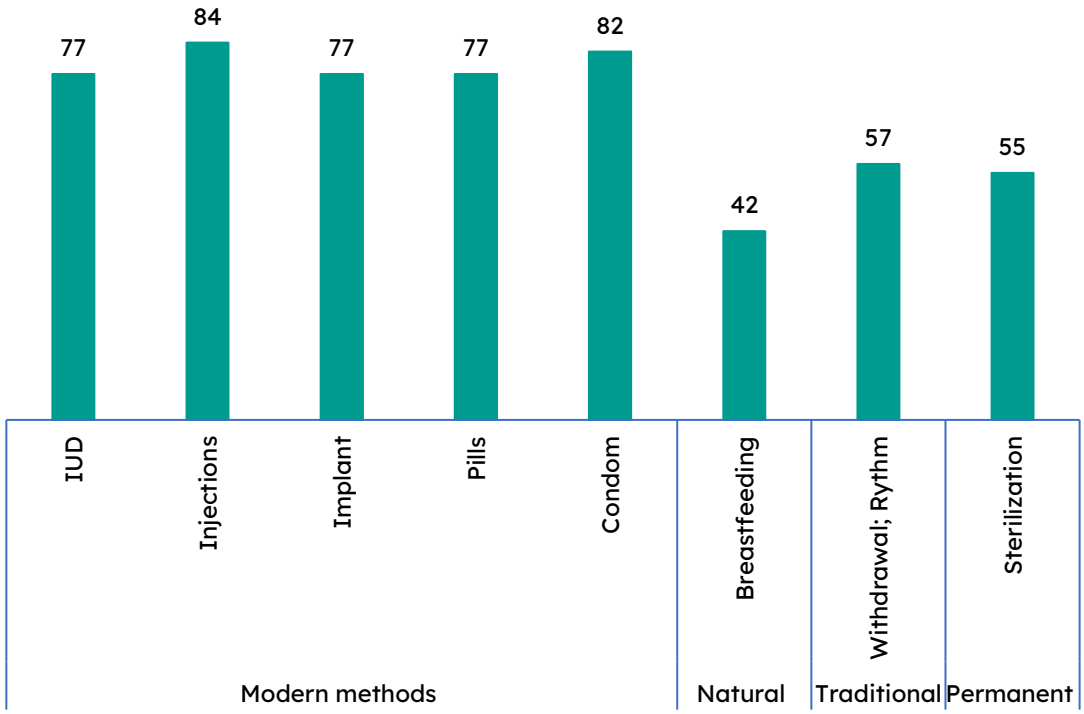

Figure 9. Information FP methods in percentage (n=398)

The *contraceptive prevalence* is understood as the percentage of interviewed women (19-49 years old) in the target population who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used. Based on the population survey results, 45% (180/398) of the total women interviewed are currently using (or her partner) a contraceptive method which is higher than what the DHS 2016 showed (32%).

Modern methods are the most common contraceptive methods used (66% of the total of methods used), and among this group the implant represents a 40% and condom 16%. The other modern methods show small numbers (Figure No. 10). Within the traditional methods the most common is rhythm, representing 28% of the total of methods used. The graph also shows the overall preference of women for long-acting alternatives over the widely known short acting FP methods such as pills, or injections.

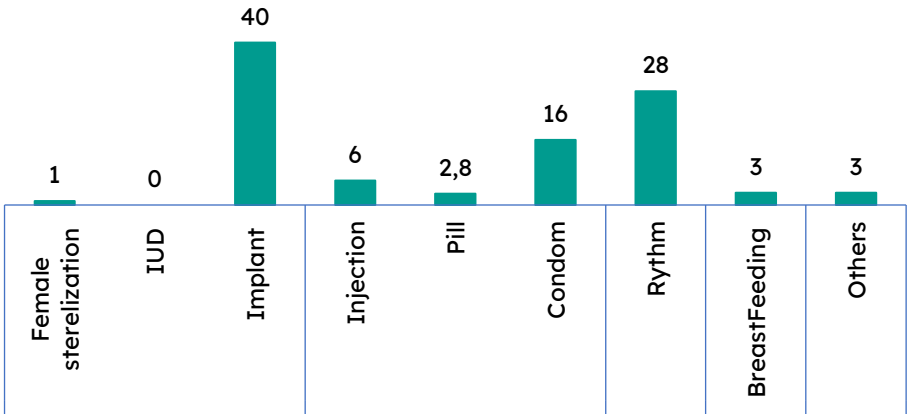

Figure 10. Family Planning methods in percentage (n=180)

Regarding accessibility, most of the modern methods are accessible from public HCs (65%), except Implant which was offered only by the MSF HCs in the project target area. Few respondents (13%) mentioned they get the methods from other sources such as pharmacies or shops (mainly condoms).

Regarding *decision-making* about contraception use, the majority of mothers using properly contraceptive methods, 81% (145/180), mentioned they took the decision to use a family planning method by themselves, and 18% (32/180) said their husband/partner did it.

ARE THERE ANY FACTORS THAT HINDER MSF ABILITY TO REACH THE TARGET POPULATION AND THOSE MOST IN NEED?

Geographic access

The geographic area that the MSF project covered is significantly large, especially on the side that corresponds to San Roque HC. The outermost areas of the city have more rural appearance with different difficulties in terms, especially of access with roads or streets. As the city grows up permanently, this problem becomes more serious, making it increasingly difficult to reach the most distant populations or for families living in those areas to try to reach HCs to seek care. Some mothers of the FGDs came from those distant places mentioning that it is very difficult for them to reach to the HC even if they wanted to.

The HP program tried to reach these distant places through the support of the Mi Salud doctors who have the small Consultorios Vecinales in different places of the MSF target area. Despite these efforts didn't seem to be enough to address these structural problems.

Cultural factors – beliefs

During the FGDs with women who decided to deliver at home, several of them mentioned they knew cases of successful home births, in their own case and/or in the case of their mother that had home births it has become a family tradition that passed from generation to generation:

> "I have 5 children at home and I will continue to have babies there."
>
> "My mother has always had dry births at home (understood as fast deliveries without bleeding) and that is why I also have them at home."

Many among the women who decided to deliver at home mentioned their preference for a home environment due to the presence and company of several trustworthy people in their own environment who provide permanent support in various tasks of childbirth at home. A mother mentioned: "*your husband is at home, or your children or someone in the family who helps you out*" The TBA was mentioned not only as responsible to provide health care but also as an active company that facilitates the delivery and helps the mothers to cope with the pain. "*The TBAs not only see you but also they give you massages (kakorean in Aymara), they stay with you in all the process*". Mothers also highlighted the easy access to TBAs since they live very close to their households"

They also highlighted that staying at home has the benefit of quick/timely access to medicinal traditional drinks, specifically infusions or "mates" that help them in the birth process "*I don't go to the HC because dilation progresses slowly there, instead at home the mates rush you*". Food was also mentioned giving it much more importance for the immediate postpartum. Among the foods, it was highlighted two characteristics that soups must meet, it has to be hot and be offered immediately after delivery. Regarding the type of soup, the majority mentioned that it must be made of lamb, an animal that according to their knowledge and culture, resists extreme climates, especially in the highlands "*you have to eat lamb, the wawa becomes stronger*"

Fear and mistrust

Several participants of the FGDs with women who decided to deliver at home mentioned they were afraid of hospitals and that not going to a HC helped them mitigate the potential risks that would likely occur in a hospital setting. The mothers who never had their births at HC mentioned "*they – at the hospital- change babies" or "they (babies) get lost at a HC*". A very distressed mother mentioned that in a second level hospital, a doctor told her that her baby was at risk in a bad position and she needed a cesarean section. Every time the mother went to the hospital for her ANC the doctor reminded her, insisting she needed a cesarean section to save her life. The mother said that she stopped going to the hospital and that her delivery at home was normal. The fear that is generated by a possible "invasive" action in the mother at a HC is consistent with the comments of other mothers who said that at the HC they only think about surgical intervention "*the other day we were in the line waiting with other mothers they mentioned that doctors only want to operate*". In this regard, other mothers commented that even when the baby is in a bad position, the baby can be born naturally with help:

> "When the wawa (baby) is Tallulla (on her feet), they just want to operate on you, but at home the TBA can help you."

Mistreatment and obstetric violence

Most of the mothers consulted during this evaluation have praised the health care in the two HCs. However, the comments of some mothers still suggest the occurrence of some acts of abuse and discrimination towards them by some people in the two HC (some doctors and nurses, but especially administrative staff) mainly during childbirth. "*There is a lady in information section at HC that because of her, many mothers left the HC, she yells at us and forces us respond her with sane attitude*" who mentioned they would not seek help in their next pregnancy due the abuse or discrimination (less than in the past) but is still present in the MSF HCs.

Considering the nature of the situations described by some of these mothers, some of them could be classified as direct or indirect obstetric violence:

> "They scold us."
>
> "They do not explain calmly."
>
> "…some of us speak Aymara and we would like them to speak to us in Aymara in order to understand better."
>
> "They admitted me and the doctor who was treating me did not come at night to see me, my baby was almost born in the bathroom."
>
> "They took me to the hospital and they left me a block away."

In the interviews with MSF doctors they mentioned their concern about many mothers being rejected in the reception section of the HC for any reason. Many mothers confirmed this in the FGDs mentioning that certain MoH administrative person is the reception unit usually scolds mothers for different reasons.

COVID-19

COVID-19 pandemic seems to have exacerbated these situations. A mother told her testimony when, being herself tested positive for COVID-19, she delivered her baby at the HC supported by MSF in the middle of the pandemic. After making a pilgrimage from this HC, to the three different hospitals , she had to return to the HC, where she, at the end, gave birth since no HC wanted to admit her:

> "I returned to the HC where a doctor, who did not stop scolding me, left me in the COVID-19 ward, very angry, from 1 in the morning until 6 am when I had my baby with the help of my husband… at 8 in the morning another MSF doctor came who took better care of me, with affection and I received at 11 in the morning, 5 hours later, a cup of chocolate … the meals that they gave me were left near the door far away from my bed and had to move as best I could to reach them…"

Other factors

Additional factors were mentioned also by some mothers who participated in the evaluation, who despite planning to deliver in the HC, could not eventually reach them for their deliveries. Most of the mothers attributed as causes to the fact that they were alone most of the time: "*my husband was not there, there was no car*"; "*I was alone with two wawas (babies) and there was no transportation*"; "*my husband comes back very late, so I do not have anyone else to help me*". Some mothers mentioned staying home due to rapid onset of labor pains, which was common for mothers who had multiple children. A couple of mothers who live close to the HC had to stay home "*My pains came so quickly, it was dry birth (parto seco) and I had not been able to do anything*". A third group of participants blamed the health staff for staying home "*We called to the phone number they gave me… they told me they could not come with the ambulance,… come by taxi they told me… at that hour it was difficult to find any transport*"; "*I went to the HC when the pain started, but they told me that I must return when the bag breaks and I live far away, how should I return*?"; Finally, a smaller group of mothers with children under 1 year old mentioned they had not been able to reach the HC due to the COVID-19 quarantine.

WHICH ARE THE MAIN ENABLING FACTORS TO FACILITATE THIS ACCESS?

Continuous health care (24/7)

As mentioned before (effectiveness section), continuous health care was a key factor to facilitate coverage. Many mothers compared what happened before when MSF project started, when the HC only attended during the day and they had to walk a lot at night when their labor pains began, instead now they have a place where they can go and although they wait they know that they are going to be attended. Several mothers remembered the telephone number to call the HC and request an ambulance, something that gave them confidence to seek care.

Friendly and adapted services

As already mentioned, the friendly, affectionate and empathetic attitude of the majority of the health staff was the most frequent comment of the participating mothers who sought help at the HC for their delivery "*they treat me well, they told me that it is my right to receive good care, I trust them*"; "*They take care of us with patience, and so, that makes you want to come*"; "*They treated me well, they gave me encouragement ... you will be able!!! They told me*" Mothers who had received loving care during their delivery were transmitting and motivating other pregnant mothers from their family and social network to seek care at the HC.

Less than half of the mothers highlighted the fact that the HC infrastructure improved, mainly mothers who had already had experience of being attended at the HC before MSF started the project, as opposed to young mothers who did not notice the changes. A mother of Franz Tamayo mentioned the HC is very comfortable and when she had her baby she felt very hot inside the rooms and with a smile in her face she said that she almost burned. Participants mentioned also as something of value the meals received during labor or the post-partum, both mothers who received food highlighting hot chocolate after delivery or mothers who (although they did not receive meals) were allowed to bring meals from her house. Many mothers highly valued the package of supplies they received at the end of their labor that included diapers, shampoo, and soap (among other cleaning supplies).

Most of the mothers mentioned they had the company of their husband/partner during their delivery, while others recalled that the health staff did not allow them to have somebody of their family as companion, especially due to COVID-19, although it was not a rule because a couple of participants mentioned that their husbands had accompanied them even during the pandemic. When asked about their perception with the company, they mentioned that it is something important but that having the presence of MSF staff, they felt that the trust they usually place in their husband/partner was placed in the health staff. In relation to the position for childbirth, most of the mothers explained that near the time of delivery the pain intensifies in such a way that they do not worry about whether being horizontal or vertical and focus only on following the recommendations of the health staff waiting for the baby to be born well "*in that moment of pain it does not matter and you don't have time to think about the position*".

IS ANY GROUP EXCLUDED FROM THE SERVICES PROVIDED BY THIS PROJECT?

The MSF adolescent program faced different problems that negatively influenced the access of adolescents to SRH in general. First: MSF originally planned to set up an exclusive infrastructure for the differentiated care of adolescents in the two MSF supported HCs. The idea of exclusive physical space for them was supported by an exploratory study with adolescents in schools that MSF carried out before starting the project and by the recommendations of the adolescent program of the Municipal Government of El Alto that suggests having private consultations rooms for them. Due to financial constraints at MSF, these environments were not built and it was decided to instead

implement "friendly services" in the same general consultation rooms. In addition, as mentioned before, during lock-down due to COVID-19 schools were closed for about 8 months in 2020, and therefore activities for adolescents were affected.

Adolescents participating in the FGDs expressed their barriers to access to the SRH services. Several adolescents mentioned their parents did not allow them to leave home due to the lockdown last year. Some of them sought help from HC for medical as well as nursing services when needed but not for other services such as family planning "*we went to the HC in case of an accident, or some illness but not for other reasons*". As other obstacles to access to HC services some other adolescents mentioned they did not request any health service because they witnessed mistreatment by someone from the health staff "*I accompanied my aunt to the HC and I saw how a person in the HC information unit scolded her because her boy was playing making noise in the waiting room ... she told my aunt to make better control of her boy, otherwise she needed to leave the HC*". Another adolescent recalled that when they came to MSF pregnancy training sessions, they had to contact the psychologist before reaching the HC to go inside together "*I used to send her a text message (to the psychologist) asking to wait for us before getting inside the HC*"; " Other adolescents explained other factors that hinder their access to HC. They mentioned he strict control of their parents when they attended MSF meetings "*My parents always think that I am looking for an excuse to go out*". Some of them mentioned the distance to the HC as another reason not to participate or to seek for any health service.

EFFICIENCY

- The MSF supported maternities were entirely renovated/built communicating with the existing outpatient department. Extra physical structure to host ancillary services (laundry, sterilization and doctors and nurses rooms) was also built, under close coordination of MoH local norms and culturally adapted to patient's needs and expectations. In addition, MSF hired doctors, nurses, psychologists and social worker to be in charge of SRH activities sharing shifts in maternity with MoH doctors and nurses to run a 24/7 activity.

WHAT ARE THE MAIN RESOURCES THE MSF USED TO OPERATE THE PROJECT?

Infrastructure

The two maternity facilities were entirely renovated by MSF communicating with the existing infrastructure.

The Franz Tamayo maternity facility (350 m^2 newly built and 236m^2 refurbished) was inaugurated in September 2019 and San Roque (290 m^2 constructed and 280 m^2 refurbished) in December 2019.

The new spaces include: 1 entrance space used as nursing / doctor station for maternity, 1 labor room, 1 delivery room: 1 delivery bed, 1 baby

warmer, 1 corner for “cultural deliveries” with a mattress, a rope and a rack to hang on while pushing and 1 postpartum room.

Some extra structure was also constructed to host ancillary services, laundry, sterilization and doctors and nurses rooms, cooking area and supplies, sterilization, staff office and meeting rooms.

To respond to the cultural needs of women, the two maternity wards have gas connections for heating systems that keep the rooms warm. The qualitative findings and the population survey have shown mothers' satisfaction with these aspects.

The new infrastructure was constructed after long negotiations with MOH and the municipal government.

Equipment and furniture

Within the equipment and furniture implemented, the following are key elements donated by MSF: Delivery beds, quirurgical lamps, Doppler, stethoscopes, tensiometers and a fridge.

Chairs, TV, printers and computers, data show, chairs for the waiting rooms, washing machine

Others: For the laboratory (cell counter, centrifuge, water stills, and glucometers) and a Dentistry chair.

MSF has also donated, medical exam beds and desks for the Mi Salud CVs.

Human Resources

MSF hired overall human resources that are mainly responsible of maternal and SRH Health services and the MoH Health staff mainly responsible of the Outpatient Unit. The MoH has been also in maternity with MOH doctors and nurses (5 medical doctors, and 6 auxiliary nurses in San Roque, and 6 medical doctors, 1 registered nurse and 5 auxiliary nurses in Franz Tamayo). It is important to mention that before the project, the two HCs attended 12 hours a day without hospitalization of patients. The evaluation did not consult on the situation prior to the project, however, we can assume that the number of doctors and nurses at that time was in line with the level of resolution at that time and only when the HCs started attending 24/7 did the human resources were insufficient.

Health Staff hired by MSF (2020 list):

- 9 medical doctors (one with the role of SRH local manager)
- 14 nurses (one with the role of Nurse Manager)
- 2 psychologists
- 1 Social worker
- 1 HP manager and 2 HP facilitators.
- 5 ambulance drivers
- 1 administrative assistant

CONCLUSIONS

In the short time the project was implemented MSF significantly improved WRA's access to BEmONC, ANC, PNC, and FP, with mainly institutional delivery being the most successful components by putting into operation two (24/7) maternity wards. These MSF supported HCs provide continuous multi-disciplinary (medical, psychology, social work) and culturally adapted health services to indigenous Aymara population, in two public MoH first-level HCs located in poor peri-urban areas of El Alto.

Comparison with a non-intervention HC with similar characteristics and longer duration suggests that MSF interventions did contribute to improving access to health services.

The evaluation revealed differences between the project monitoring and evaluation (M&E) indicators and the survey conducted as part of this evaluation on the following components.

First, with respect to ANC, M&E findings seem to be higher than survey results. This seems to indicate that the project captured WRAs from beyond the project target area. Qualitative data support this hypothesis.

Second, with respect to FP, M&E fidings seem to be lower than survey results. These indicate that contraceptive prevalence is even higher than the one assessed inother national studies. Findings suggest that WRA from the MSF area seek and obtain FP services in other health structures, mainly the other public HCs in El Alto, as the National FP program offers free FP services and methods.

A positive finding is the high percentage of use of the implant, a method introduced by MSF, as modern contraceptive method among WRA.

The short time of the project, in addition to the COVID-19 lockdownleading to the closure of schools, seems to have had a direct influence on the MSF adolescent program, as confirmed by the evaluation data gathered for this component which shows low effectiveness. However, the adolescents that participated in the evaluation have shown high satisfaction/appreciation with the adolescent's project activities (mainly adolescent's unwanted pregnancy activities) at the beginning of the project.

The other two SRH components (SAC and SV) have shown less successful achievement. In the case of the SAC current national laws have turned out to be an obstacle with a very restrictive safe abortion law that hinder the SAC specific interventions. MSF addressed the need by referral to other NGO for TOP first trimester. TOP is restricted to only rape cases in Bolivia and in practice, it is rarely done due mainly lack of drugs, lack of information and limited staff training. SV was another MSF challenge trying to overcome the Bolivian laws that emphasize violence legal care attention against violence comprehensive medical care.

MSF health staff have been primarily responsible for the operation of the maternity services, ensuring quality of care with cultural sensitivity. These services have been considered an important contribution to the current MoH national SAFCI health policy and have strengthened and generated synergies with national public incentive programs for WRAs, such as the Juana Azurduy Bono, the food subsidy for pregnant women or the SUS. Analysing these national programs by themselves, they are considered beneficial by the WRA but very problematic in their administrative procedures, becoming by themselves a cause for many pregnant women not to reach more antenatal check-ups.

Access has been improved by promoting changes at the individual level in WRAs empowering them to seek health care. In this sense, MSF promoted strong engagement with the community and empowerment, mainly in the WRA based on its HP strategy, building trust between the project staff

and the WRAs. Many women recognize the importance of exercising their right to take care of their maternal and reproductive health and demand quality care, which is reflected in the high percentage of mothers who have decided on their own to seek health care during their pregnancy, childbirth and after delivery to access FP methods. This is an important contribution of the project since a large percentage of the women who live in the target population of the project have insufficient education level and are recognized as an Aymara indigenous population traditionally considered as a patriarchal culture in every sense.

Another fundamental aspect of the MSF project in improving access seems to be to strengthen the capacity of pregnant women to plan their delivery in advance, especially regarding their transportation, mainly for women who live in isolated far places from the HC. Many mothers have used the ambulance acquired by MSF or have identified a relative/friends with a means of transportation that has made it easier for them to arrive at the time of delivery, thus overcoming an important geographical barrier.

The project management system highlights a clear structure of MSF human resources with solid leadership, which facilitated the execution of the project, and continuous technical assistance from expatriate MSF staff on issues of maternal health and sexual and reproductive health. When MSF took direct charge of the two maternity wards in the two health centers, the trained and motivated MSF staff ensured permanent quality of maternal health and sexual and reproductive health services with cultural sensitivity, generating high satisfaction in the WRAs and adolescents attended.

The medical, nursing, and administrative staff of the MoH were in charge of the other outpatient services in both HC and although they received the same training in maternal health and sexual and reproductive health and quality of care, most of them did not offer the same level of health quality services, according to the WRA and adolescents interviewed, compromising their sustainability. MSF's planning was fed by the technical capacity of the personnel hired for the project but also by an MSF consulting group that assisted the project especially in its initial phases. However, the lack of joint planning and M&E with the stakeholders may have contributed to the weak engagement of the project by MoH staff. On the other hand, the lack of some recommended standard processes such as the baseline or evaluations (mid-term) have contributed to the weak M&E of the project.

Finally, according to the conclusions of several key stakeholders interviewed, the MSF project is replicable in similar settings as a model that includes improvement of health services mainly "*buen trato*", plus the coordinated implementation of a HP component whose result is the acceptance and improved access.

LESSONS LEARNED

We have summarized the key lessons learned of the evaluation, including findings that we recommend implementing, as well as findings that demonstrate good practices in the project. The majority of the lessons learned are related to project management and project implementation.

In the beginning, the project carried out exploratory studies and took into account the findings of these studies in the project's design and implementation.

Lesson learned 1: Exploratory studies at the beginning of a project are essential aiming at knowing the expectations and needs of the target population. Adapting the project to these needs enables the patient-centered approach to health care to be put into practice. An organization with a culture-centered look on the patient obtains high standards of quality of service, greater safety for patients, maximization of efficiency and results, optimal satisfaction of the patient and her family and greater commitment of all those who form part of the organization.

The project does not have baseline study.

Lesson learned 2: Baseline is a useful information to know the project's status at start-up. Measuring the initial state of key project indicators may help managers identify areas to be reinforced right from the beginning. On the other hand, baseline studies may be best test for the validity of the indicators to be measured during the life of the project and key in order to be able to measure the impact of the intervention.

The model of care implemented in El Alto incorporated key elements of the WHO PHC and SAFCI national health policy, such as HP and quality health service provision.

Lesson learned 3: Working with the community based on HP actions generates community engagement that afterwards becomes community empowerment, facilitating future sustainability actions as the community will demand access and quality of services beyond the project.

Cultural sensitivity is the best practice of this project and has been implemented successfully. MSF has contributed to establish adequate communication bridges between health personnel and WRA and adolescents by generating favorable working conditions for MSF health personnel and a permanent training and monitoring system.

Lesson learned 4: Cultural sensitivity in health staff is achieved not only with awareness, recommendations to improve interpersonal communication or supervising personnel performance. It is achieved fundamentally from cultivating a relationship of trust between health personnel and patients, in this case the mothers or adolescents of the project. The efforts made for the maternity services, especially in relation to cultural sensitivity, should be extended to other HC services.

The project invested in developing clinical skills and teamwork among staff to properly manage obstetric cases in the HCs. Health personnel have been adequately selected and well trained. In addition, a positive team dynamic and coordination with the whole HC team was motivated by project leaders. Illustrating the latter, during the referral of critical patients to a higher complexity health service, ambulance drivers and support personnel were well integrated within the rest of the team and positively contributing to the patient management.

Lesson learned 5: Upgrading obstetric services at ambulatory level seems to increase coverage and access of BEmONC in periurban areas with limited access to these services. Permanent hour service, medical protocols for case management, adequate referral of obstetric emergencies, proper selection and training of staff, team building, coordination and close supervision are important elements to successfully offered basic obstetric care at ambulatory level.

The evaluators had access to the project logframe and particular plans for some programs such as the Advocacy Plan, the SV strategy or the HP strategy. However, a plan considering other partners (Mi Salud, Community, MoH staff) was not seen. Partners, mainly MoH health staff, did not know details of the project, such as objectives or main planned activities.

Lesson learned 6: Participatory planning among MSF and its partners would strengthen the relationship among them, improve the project implementation, and allow identifying responsibilities/roles of each partner in a project that benefits the population that everyone serves.

Most logframe indicators, especially BEmONC and SRH, did not have defined goals or stated methods on how to be calculated. Most indicators were complex/combined, including many variables, which is difficult to measure. Partners, mainly MoH health staff, did not know details of the project objectives and indicators.

Lesson learned 7: The indicators of a project are equal or more important than the same objectives since it depends on them to measure what should be measured. Therefore, the indicators must be clear and avoid combinations of variables in one indicator, making it difficult to measure. The structure of the indicators should also be carefully constructed based on national or international standards, if possible. The objectives and indictors must meet “SMART” criteria (Specific, Measurable, Achievable, Relevant, and Time-Bound). The objectives should be thought or distributed to generate interest in both MSF and MoH or other key partners.

Lessons Learned 8-9 (of 9) cont’d

The MSF project has regularly monitored the project indicators. However, MoH health staff and local community members mentioned they did not participate in specific project monitoring sessions.

Lesson learned 8: Monitoring and Evaluation should include regular monitoring of project indicators. Participatory monitoring and evaluation of processes during the project contribute to its sustainability and is a verification of effectiveness of the interventions. Participatory monitoring should include key partners (in this case MoH and community) in project indicators joint review, which would contribute to the ownership of the project by other stakeholders and its sustainability. Process evaluation (qualitative and/or quantitative) would aim at measuring the strategy, key activities and/or project components verifying their sufficiency and relevance.

The Bolivian health system has a very complex management structure: the MoH designs health policies and hires part of the health staff; SEDES, SERES and the Health Network Manager in charge of MoH policies implementation, and the Municipal Health Direction responsible of the maintenance of health structures and provision of drugs/supplies. There are political power struggles between them which hinders communication and coordination.

Lesson learned 9: When working with complex health systems, advocacy efforts may be especially time consuming. It is key to understand the different actors involved and the way they interact among themselves, as well as to consider the additional efforts and necessary time to navigate them in order to implement projects and advocacy strategies satisfactorily.

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ANNEXES

See separate PDF with annexes.

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Médecins Sans Frontières

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ANNEX 1: INTERVENTION/NON-INTERVENTION COMPARING TABLE

Table 1: The following table describes variables and criteria used to compare the intervention area (MSF supported HCs, Franz Tamayo and San Roque) and the non-intervention one (Huayna Potosi HC).

CRITERIA/VARIABLES	INTERVENTION		NON-INTERVENT
	FT HC	SR HC	Huayna P HC
Population**			
Total	14.974	33.200	32.241
Children < 1 year old	287	636	615
Adolescents 10 – 14 years old	1.481	3.284	3.189
Adolescents 15 – 19 years old	1.424	3.157	3.702
Women at reproductive age (15 – 49)	4.006	8.883	8.626
Expected pregnancies	554	1.229	1.193
Expected deliveries	295	654	634
Infrastructure*			
Maternity ward beds	7	7	7
Inpatient general, beds	7	7	7
Human Resources*			
Medical doctors	6	5	7
Nurses	1	0	1
Auxiliary nurses	5	6	8
Other variables			
First level public HC**	Yes	Yes	Yes
Located in a peri urban area	Yes	Yes	Yes
# of Mi Salud Consultorios vecinales.*	3	9	7
2nd level hospital for obstetric complications referrals*	Los Andes and del Norte Hospitals	Los Andes and del Norte Hospitals	Los Andes and del Norte Hospitals
Minutes by public transport to 2nd level Hospital	20 min	20 min	15 min
Hours open per day	24	24	24
Ongoing maternity activities	15 months	13 months	5 years
Social and cultural background*	Aymara migrants	Aymara migrants	Aymara migrants
Bono Juana Azurduy to pregnant mothers*	Yes	Yes	Yes

*Source: Health Network Coordination 2020
**SNIS 2020

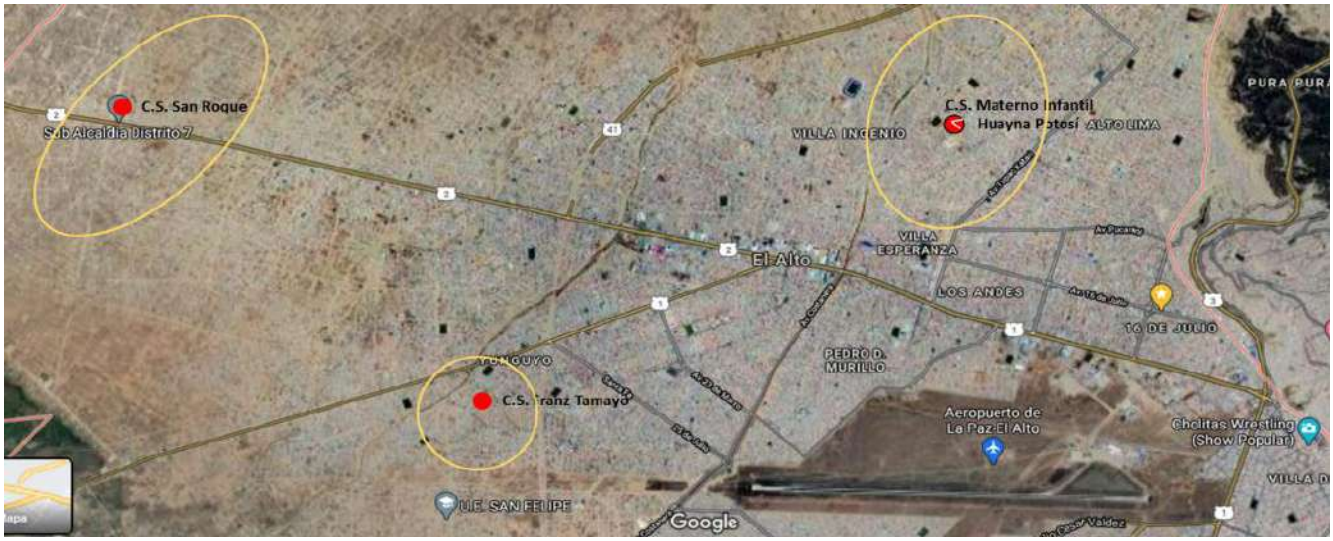

Figure 1: Geographic location of intervention and non-intervention HCs.

ANNEX 2: LOGFRAME INDICATORS - EVALUATION COMMENTS

The following table mentions specific observations identified in some of the MSF project indicators detected during the final evaluation process. Due to the limitations mentioned as part of them, most of these indicators were not used. The information in columns 1) to 4) were obtained from the M&E MSF project staff, and information in column 5) reflects the evaluators´ comments to them.

Table 1: Limitations identified

M&E INFORMATION OBTAINED FROM MSF PROJECT STAFF				
Objectives (1)	Main indicators (2)	Definitions/comments (3)	Formula (4)	Limitations detected during evaluation (5)
General Objective				
Contribute to the reduction of maternal mortality and morbidity among women and adolescents of Red Lotes y Servicios in El Alto Bolivia.	# and % of adolescent accessing FP increase every trimester	Adolescents: 10-19 years old Accessing: New + follow up consultations. FP: Orientations/Counselling + FP methods given	# of Total adolescents 10-19 years old accessing FP services/ Total # of consultations to 10-19 years old x 100	1. The MSF´s M&E system registered consultations instead of adolescents (persons) as required in the formula. 2. The indicator adds new + follow up consultations among adolescents which may create a false idea of progress of the indicator 3. It does not give any information/proxy about mortality neither morbidity 4. It does not include information about adult women 5. It does not provide information about % adolescents accessing FP from the general population (as denominator used is not # of adolescents in the targeted area by the HC)
Specific Objective				
The women and adolescents of Red Lotes y Servicios in El Alto, make use of the quality and accessible	% of adolescent accessing FP	Adolescents: 10-19 years old Accessing: New + consultations (new and follow up consultations. FP: Orientations/Counselling + FP methods given	# of Total adolescents 10-19 years old accessing FP services/ Total # of consultations to 10-19 years old x 100	1. The MSF´s M&E system registered consultations instead of adolescents (persons) as required in the formula. 2. The indicator adds new + follow up consultations among adolescents which may create a false idea of progress of the indicator 3. It focuses on adolescents, but does not mention anything about adult women 4. It does not provide information about % women or adolescents accessing FP from the general population

curative and preventive reproductive health Services provided by the project				(as denominator used is not # of adolescents/womenin the targeted area by the HC)x
	# of adolescents that receive ANC, PNC	Adolescents: 10-19 years old Receive ANC/PNC: Only consultations at HC Both ANC and PNC are reported	N/A	1. The indicator adds ANC + PNC among adolescents. Adding two different variables of different moments with maybe different beneficiaries (persons) would not contribute in quality data monitoring. Using a number (rather than a percentage) is not so relevant (as it does not give an idea of how many of the pregnant adolescents are receiving or not ANC neither PNC care) 2. It gives information about adolescents, but not about the rest of WRA
	# of deliveries performed in the HCs VS Number of deliveries happening at home	Deliveries at home: detected at HC during a PNC	N/A	1. The indicator used a "VS" between two variables, in this case between deliveries at HC and deliveries at home. The confusion is generated when definition says "Deliveries at home during PNC" and do not compares the two variables mentioned.
	# of referrals from home to HC and for emergency cases from HC to other Hospitals		N/A	1. Specific registries for home to HC referrals were not found.

The quality Basic Emergency Obstetric and Newborn Care and core package of SRH activities of MSF is available in the Health Centers of San Roque and Franz Tamayo.	PNC coverage	PNC: one consultation within 10 days after delivery. Only new consultations	# of women with PNC/ # Monthly expected deliveries X 100	1. The MSF indicator definition refers 10 days, however the project included PNC even after 10 days 2. The formula is expressed as the "expected deliveries" as denominator. According to WHO/PAHO this indicator should be constructed with the "# of women aged 15–49 years with a live birth as denominator". If the M&E system does not catch live births the expected births can be used as proxy..
	Type of FP consultations (# and %)	Type: The first format of monthly report included new and (+) follow up consultations for FP users. A new format of monthly report was applied showing a table with types of FP methods	# of new FP consultations/ # monthly WRA 15 to 49 years x100	1. The indictor adds new + follow up consultations which may create a false idea of progress of the indicator
	100% of victims of SV receive the full package of care, including TOP if asked	Full package: Medical and Psychologic support + social work support Only new patients	# of victims of SV receive the full package of care/ # total of victims of SV that attended the HC X100	1. The indicator is complex because it combines different variables that make measurement difficult.
	100% of children born in the HCs receive proper newborn care	Proper new born care: (APGAR score, BCG-Polio-HepB vaccination, vit K and eye prophylaxis)	# of new born that received proper care / # total new born attended to at HC x 100	1. The indicator is complex because it combines different variables that make measurement difficult.

Table 2: Recommended indicators

OBJECTIVES	MAIN INDICATORS	DEFINITIONS/COMMENTS
General Objective		
Contribute to the reduction of Maternal Mortality and morbidity among women and adolescents of Red Lotes y Servicios in El Alto Bolivia.	# of maternal mortality among WRA # of maternal mortality among adolescents Maternal Mortality Rate	
Specific Objectives		
The women and adolescents of Red Lotes y Servicios in El Alto, make use of the quality and accessible curative and preventive reproductive health services provided by the project	Antenatal Care (1st Visit) (adolescents/WRA)	% of women who received one or more antenatal care visits from a skilled health provider
	Antenatal Care (4 + visits) (adolescents/WRA)	% of women who had four or more antenatal visits while pregnant
	Facility birth (adolescents/WRA)	% of last-born children who were born in a health facility
	Disrespectful care (self) (adolescents/WRA)	% of women who experienced physical or verbal abuse during labor or childbirth or immediate postpartum in a health facility
	Disrespectful care (others) (adolescents/WRA)	% of women who reported awareness that other women experienced physical or verbal abuse during labor or childbirth or immediate postpartum in a health facility
	Postnatal care for mothers (adolescents/WRA)	% of women who received postnatal care from an appropriately trained health worker within 2 days of birth of their child

	Postnatal care for newborns (adolescents/WRA)	% of last-born children who received postnatal care from an appropriately trained health worker within 2 days of birth
	Birth preparedness support: Place to deliver decided (adolescents/WRA)	% of mothers whose husband/partner helped decided on a place to deliver before the birth of their youngest child
	Birth preparedness (any) (adolescents/WRA)	% of mothers who made birth preparations before the birth of their youngest child
	Contraceptive prevalence (adolescents/WRA)	% of women who are using (or whose partner is using) any contraceptive method
	Modern contraceptive prevalence (adolescents/WRA)	% of women who are using (or whose partner is using) a modern contraceptive method
	Cesarean section	% of last-born children who were delivered by cesarean section
	Total unmet need for family planning (adolescents/WRA)	% of mothers who (1) are pregnant and want to either postpone or avoid their next pregnancy, or (2) who are fecund and want to either postpone or avoid their next child but are not using a contraceptive method

ANNEX 3. MSF HEALTH PROMOTION (HP) COMPONENT

Table 1. An overall description of objectives, key HP activities and tools used during the project implementation.

OBJECTIVES AND KEY HP ACTIVITIES		
Objectives		
Reinforce knowledge on healthy practices among women at reproductive age related to pregnancy and family planning	Reinforce the knowledge of adolescents about Sexual and Reproductive Health and contraception	Strengthen the community social structure to generate solidarity, commitment and co-responsibility in caring pregnant women and prevention of unintended pregnancy mainly in adolescents.
Key activities carried out		
Information on pregnancy and family planning trough: a) Community talks (through ferias and groups); b) Talks in the HC waiting rooms Training to mothers (community promoters) who motivated other mothers to seek help at HCs and who facilitated the dissemination of the healthy messages to other mothers (peers' strategy) and early identification of pregnant women with health risks	School talks for adolescents in their last high schools' years	Training of Local Health Authorities aiming at increasing their capacity to contribute to improving the health of their communities.
HP tools		
• Printed materials (flyers and posters) • Audio visual materials of different topics	• Printed materials (flyers and posters) • interactive and participative tools/games • Data base of videos	
Topics		
• Family planning and pregnancy to empower women to improve control over their health, as well as to improve the demand for and access to quality health care services. • Birth Plan	• Family planning • Pregnancy • Life plan	

(Source: MSF project documents)

ANNEX 4. SURVEY RESULTS

The tables below show detailed information regarding the survey results.

Table 1. Survey respondents

SURVEY RESPONDENTS	
No of responses (n):	398
Age of mother respondents (average)	27.7 years
Age in months of index child	11.4

Table 2: Gender, level of education and socio-economic level

GENERAL INFORMATION	FREQUENCY	PERCENT (95% CI INTERVAL)
Marital Status = Married women	116	29.10% (24.66 - 33.63)
Level of education of the respondent		
Primary	128	32.20% (27.61 - 36.80)
High school	249	62.60% (57.80 - 67.30)
Socio-economic level of the respondent (proxy)		
(a) High level (own house/property)	174	43.70% (38.80 - 48.60)
(b) Medium/low level (Rented house/antichresis/other)	224	56.30% (51.40 - 61.20

Table 3: Pregnancy and antenatal care

PREGNANCY – ANTENATAL CARE	FREQUENCY	PERCENT (95% CI INTERVAL)
Coverage of mothers with children <2 years with Antenatal Care (ANC) in relation with youngest child	384	96.50% (94.70 - 98.30)
Decision for the use of ANC services during ANC (Delay 1) (gender indicator) (n 384) = The same mom (the respondent)	352	91.70% (88.90 - 94.40)
Health provider who attended the ANC, Health provider who performed the antenatal control = Medical doctor	364	94.80% (92.60 - 97.00)
Percentage of mothers with children <2 years whose first ANC of that child was before the 5th month	224	58.30% 53.40 - 63.30
Percentage of mothers with children <2 years with 4 ANC or more (Quality)	229	59.60% (54.70 64.60)
Mothers of children <2 years of age who received complementary services during the ANC of their youngest child = received >= to 3 services	331	86.20% (82.70 - 89.70)
Percentage of mothers with children <2 years who received ferrous sulphate in the ANC of their last child	368	95.80% (93.80 - 97.80)
Percentage of mothers of children <2 years of age who have received orientation/counselling on any of the following topics: danger signs during pregnancy; danger signs during childbirth; danger signs after childbirth; new-born danger signs; nutrition during pregnancy; preparation for delivery; family planning; breastfeeding	367	95.60% (93.50 - 97.60)
Juana Azurduy Bonus care coverage for mothers with children <2 years of age (n 398)	204	51.30% (46.30 - 56.20)

Percentage of mothers of children <2 years of age who know at least 1 danger sign during pregnancy (n 398)	292	73.40% (69.00 - 77.70)
Percentage of mothers of children <2 years who know at least 2 danger signs during pregnancy	187	47.00% (42.10 - 51.90)
Percentage of mothers of children <2 years of age who have had some risk signs during pregnancy of their youngest child	158	39.70% (34.90 - 44.50)
Percentage of mothers of children <2 years who sought help when they showed danger signs during pregnancy of their youngest child (n 158)	109	69.00% (61.70 - 76.30)

Table 4: Delivery and new-born care

DELIVERY AND NEW-BORN CARE	FREQUENCY	PERCENT (95% CI INTERVAL)
Coverage of childbirth in health facilities for mothers of children <2 years of age (n 398)	-	-
Public Health Facilities	281	70.60% (66.10 - 75.10)
Private health services	21	5.30% (3.10 - 7.50)
Home	96	24.10% (19.90 - 28.30)
Decision for the use of health service during Childbirth (Delay 1) (gender indicator) = The same mother (the respondent) (n 398)	336	84.40% (80.80 - 88.00)
Health provider attending the delivery by type = Medical doctor (n 398)	287	72.10% (67.70 - 76.50)
Percentage of mothers of children <2 years who wanted companionship at the time of delivery of their youngest child (n 302)	254	84.10% (80.00 - 88.30)
Percentage of mothers of children <2 years of age who had company at the time of delivery of their youngest child (n 302)	72	23.80% (19.00 - 28.70)
Accompanying person present at the time of delivery at last birth = The baby´s father (n 72)	60	83.30% (74.50 92.20)
Percentage of mothers of children <2 years who were accepted to have their child's birth in the position they wanted (n 302)	33	10.90% (7.40 - 14.50)
Did not ask for it / did not request it (n 302)	244	80.80% (76.3 - 85.3)
Percentage of women who were mobilized to the health center by type of transport (n 302)	-	-
Using the MSF ambulance (San Roque/Franz Tamayo)	15	5.00% (2.50 - 7.40)
In any private car	137	45.40% (39.70 - 51.00)
Percentage of new-borns who received eye prophylaxis	59	19.5% (15.00 - 24.00)
Percentage of new-borns who received immediate breastfeeding (within the first hour) (n 302)	227	75.20% (70.30 - 80.10)
Percentage of mothers of children <2 years who know at least 2 danger signs during childbirth (mothers with childbirth at health center) (n 302)	74	24.50% (19.60 - 29.40)
Satisfaction of mothers of children <2 years of age with childbirth care by health providers (n 302)	-	-
Medical doctor	222	73.50% (68.50 - 78.50)
Nurse	234	77.50% (72.70 - 82.20)

Administrative staff (cleaning, kitchen, porter)	209	69.20% (64.00 - 74.40)
Satisfaction of mothers of children <2 years with the services provided at the health center (n 302)	-	-
Food at health center?	205	67.90% (62.60 - 73.20)
Heating in health center?	251	83.10% (78.90 - 87.40)
The facility, beds?	252	83.40% (79.20 - 87.70)

Table 5: Delivery at home

DELIVERY AT HOME	FREQUENCY	PERCENT (95% CI INTERVAL)
Percentage of new-borns who received immediate breastfeeding (within the first hour) (n 96)	42	43.80% (33.70 - 53.90)
Percentage of mothers of children <2 years who know at least 2 signs of danger during childbirth (mothers home birth)	26	27.10% (18.00 - 36.10)
Percentage of mothers of children <2 years who sought help in case of danger during delivery (home birth) (n 25)	15	60.00% (39.40 - 80.60)

Table 6: Post-natal care

POST-NATAL CARE	FREQUENCY	PERCENT (95% CI INTERVAL)
Coverage of postdelivery care for women with children <2 years of age in relation to youngest child (n 398)	371	93.20% (90.70 - 95.70)
Postdelivery control timing for mothers of children <2 years = Average days (n 371)	-	9.40% (8.30 - 10.40)
Health provider (l) who provided the postpartum care of mothers of children <2 years = (n 371)	354	95.40% (93.30 - 97.60)
Percentage of mothers of children <2 years who recognize at least 2 signs of danger during postpartum (n 398)	130	32.70% (28.00 - 37.30)
Percentage of mothers of children <2 years who presented any danger sign after the delivery of the youngest child (n 398)	112	28.10% (23.70 - 32.60)
Percentage of mothers of children <2 years of age with any danger sign of who sought care at a health service (n 112)	50	44.60% (35.30 - 54.00)
Percentage of mothers of children <2 years who recognize at least 2 danger signs of the new-born (n 398)	211	53.00% (48.10 - 57.90)

Table 7: Sexual and reproductive health

SEXUAL AND REPRODUCTIVE HEALTH	FREQUENCY	PERCENT (95% CI INTERVAL)
Percentage of mothers of children <2 years who recognize at least 2 consequences in case of consecutive pregnancies (n 398)	64	16.10% (12.50 - 19.70)
Percentage of mothers of children <2 years of age who have received family planning guidance/counselling = At least one piece of advice (n 398)	382	96.00% (94.00 - 97.90)
Prevalence of use of family planning methods in mothers of children <2 years (n 398)	180	45.20% (40.30 - 50.10)
Prevalence of method use in mothers of children <2 years (n 180)	-	-
Modern methods	118	65.60% (58.60 - 72.60)
Permanent methods	2	1.10% (0.40 - 2.70)

Natural methods	54	30.00% (23.20 - 36.80)
Decision for the use of any family planning method in mothers of children <2 years (Delay 1) = The same mom (n 180)	145	80.60% (74.70 - 86.40)

Table 8: Violence during pregnancy/delivery/post-delivery

VIOLENCE	FREQUENCY	PERCENT (95% CI INTERVAL)
Prevalence of mothers of children <2 years who have suffered any form of violence by their partner/husband in the last three months (n 398)	44	11.10% (8.00 - 14.20)
Prevalence of mothers of children <2 years who have experienced sexual violence by their partner/husband in the last three months (n 398)	13	3.30% (1.50 - 5.10)
Percentage of mothers of children <2 who have suffered any form of intimate partner violence in the last three months who have sought for help (n 44)	15	34.10% (19.50 - 48.70)
Prevalence of mothers of children <2 years of age who have suffered any form of obstetric (health providers) violence during pregnancy/delivery/post-delivery of the youngest child (n 302)	116	38.40% (32.90 - 43.90)

Table 9: Mothers with children 12 months or younger

CHILDREN <=12 MONTHS	FREQUENCY	PERCENT (95% CI INTERVAL)
Childbirth and new-born care		
Coverage of childbirth in health facilities of mothers of children <=12 months (n 211)	-	-
Public Health Facilities	146	69.20% (62.90 - 75.50)
Private health services	12	5.70% (2.50 - 8.80)
Childbirth at home (n 211)	53	25.10% (19.20 - 31.00)
Post Natal Care		
Coverage of post-delivery care of women with children <=12 months for their youngest child (n 211)	193	91.50% (87.70 - 95.30)