

KANTAR

UNICEF Tanzania

Saving mothers' and children's lives through innovative, sustainable, and comprehensive reproductive, mother, child and adolescent health services, 2015-2019



Annex Documents

15 July 2020

Final Report

Contents

| | |
|--|-----------|
| Annex A: Terms of reference | 4 |
| Annex B: Evaluation methodology | 20 |
| Annex C: Evaluation matrix | 30 |
| Annex D: Sample characteristics and balancing | 38 |
| Annex E: Primary data collection instruments | 41 |
| Annex F: Additional analysis | 42 |
| Annex G: Health facility sample | 45 |
| Annex H: Research ethics | 46 |
| Annex I: Theory of change | 49 |
| Annex J: Comparison of outcome indicators and targets | 53 |

List of figures and tables

| | |
|---|----|
| Figure 1: Steps to conducting contribution analysis | 21 |
| Figure 2: Aspects of sustainability targeted by the project | 24 |
| Figure 3: Infrastructure available in the health facilities..... | 44 |
| Figure 4: Availability of supporting infrastructure and equipment in the health facilities | 44 |
| Figure 5: Revised ToC | 50 |
| | |
| Table 1: Assessing sustainability aspects at the different levels | 25 |
| Table 2: Required sample size for indicators under outcome 2 and 3..... | 26 |
| Table 3: Household survey sample size..... | 27 |
| Table 4: Qualitative interview sample size | 28 |
| Table 5: Household demographic characteristics..... | 39 |
| Table 6: Access and distance to nearest MNCH and Delivery facilities | 40 |
| Table 7: Summary of availability signal functions offered by the 30 strategic health facilities at baseline and endline, by health facility | 42 |
| Table 8: Summary of the signal functions offered by the 30 strategic health facilities in the past three months prior to the survey (mid-Nov 2019 – mid Feb 2020) | 43 |
| Table 9: Reasons for not performing the signal functions in the past three months (mid-November 2018 to – mid Feb 2020)..... | 43 |
| Table 10: Pathways of change and corresponding assumptions | 51 |
| Table 11: Inconsistencies of Outcome indicators, baseline values and targets in different project documents (PDM, Annual reports, Baseline report)..... | 53 |

Annex A: Terms of reference

UNICEF TANZANIA COUNTRY OFFICE

Terms of Reference for Institutional Contract

1. Summary

| | |
|----------------------|---|
| Title | End-line evaluation of “Saving mothers' and children' lives through innovative, sustainable and comprehensive reproductive, mother, child and adolescent health services” project implemented in Mbeya and Songwe regions |
| Purpose | To generate substantive evidence and lessons learned on the relevance, effectiveness, efficiency, sustainability, gender and equity focus of the “Saving mothers' and children' lives through innovative, sustainable and comprehensive reproductive, mother, child and adolescent health services” project |
| Location: | Mbeya region – Mbeya MC, Mbeya DC, Mbalari DC, Chunya DC, Rungwe DC, Busokelo DC, and Kyela DC Songwe region – Mbozi DC, Momba DC, Tunduma TC, Ileje DC and Songwe DC |
| Total budget: | |
| Budget Code: | 4550/A0/05/201/001/004 |
| Start Date: | February 2019 |
| Duration: | Approximately 6 months |
| Supervisor: | MNCH Manager |

2. Background information

In Tanzania, while a considerable progress has been made in the reduction of under-five mortality rate from 130 in the year 2000 to 54 per 1,000 live births in 2017 – maternal mortality ratio remained unacceptably high at 398 per 100,000 live births, with close to 8,200 women dying every year during pregnancy and childbirth. Furthermore, progress for the reduction of neonatal mortality remains slow with the neonatal mortality rate currently standing as 21.1 per 1,000 live births, and neonatal deaths account for 40 percent of all under-five deaths¹.

¹ Estimates generated by the UN Inter-agency Group for Child Mortality Estimation (UN IGME) in 2018

Neonatal and maternal deaths are inextricably linked to the health of the mother during pregnancy as well as to the conditions of delivery and newborn care. The two are entirely preventable when access to high quality care is ensured. However, in Tanzania especially rural areas, access to safe delivery services in the health facilities has been deterred by long distances from home to health facilities, lack of emergency maternal and newborn care services opens 24 hours a day, insufficient number of skilled birth attendants, poor quality of service, lack of basic equipment, and lack of reliable means of transport for emergency obstetric referrals.

The Government of Tanzania is working closely with development partners including UNICEF and other stakeholders in concerted efforts to address challenges in accessing quality Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCAH) care so as to reach global goals/targets in the reduction of maternal, newborn and child mortalities. The Government through the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) developed and implemented “The National Road Map Strategic Plan To Improve RMNCAH in Tanzania 2008 – 2015 (One Plan)” and updated “One Plan II 2016 – 2020” to accelerate progress in reduction of maternal, neonatal and child mortalities. Improving availability and access to quality emergency obstetric and newborn care (EmONC) is the essential part of the strategy.

UNICEF is working closely with the Government to ensure availability and improved accessibility to quality RMNCAH services by bringing the services closer to the communities, including hard to reach communities. Advocacy by UNICEF, WHO and UNFPA resulted in government prioritization of reduction of maternal and newborn deaths. This resulted in the co -launch by the former President of Tanzania national roadmap strategic plan for the reduction of maternal, newborn and child deaths 2008-2016 (in short Roadmap) together with “Deliver now for women and children” campaign in 2008. This was followed by launch of the Campaign for the Accelerated Reduction of Maternal deaths in Africa in 2011 by the then Health Minister. To accelerate further reduction of maternal, newborn and child deaths so as to achieve MDG goals, the government conducted a mid-term review of the roadmap and developed an Accelerated roadmap action plan for the reduction of maternal, newborn and child deaths 2014-2015.

In 2015 the Government included the Health Sector in the Big Results Now (BRN) programme, with RMNCAH given big priority and included in the Star Rating assessment of health facility on quality of services provided.

The national Roadmap strategic plan for improvement of reproductive, maternal, newborn, child and adolescent health or “RoadMap II 2016-2020 has been developed. Cognizant that despite all efforts by government and development partners, no significant improvement in the reduction of maternal and newborn mortality, last year on November 2018 HE the Vice President launched the “Jiongeze tuwavyushe salama” campaign, a social movement calling for improved accountability from individuals in all sectors of society. As part of the campaign launch, HE the Vice Presidents signed contracts with Regional commissioners putting responsibility on their shoulders to oversee national targets for reduction of maternal and child deaths and improvement in RMNCAH quality of services are met. UNICEF TCO has supported and complemented the Jiongeze campaign as part of the UNICEF global Every Child Alive campaign.

UNICEF Tanzania and the Korea International Cooperation Agency (KOICA) in partnership with regional authorities in Mbeya and Songwe regions, signed a Memorandum of Understanding to design and implement a project that aimed to address some of the challenges outlined above in the two regions. The project has the total value of US\$ 5,650,000 with the timeframe from March 2015 to June 2019. Number of interventions were designed using the “three delays model” as the conceptual framework aiming at reducing the high maternal and newborn mortality in the regions. The project’s expected results are:

Outcome 1: Improved availability and readiness of quality Reproductive, Maternal, Newborn, Child and Adolescent Health Services in Mbeya and Songwe regions.

Outputs:

1.1. Strategically selected Health facilities are refurbished, equipped and ready to provide quality Emergency Obstetric and Newborn care (EmONC) services

1.2. Quality of focused antenatal and postnatal care services improved at health facilities.

1.3. Healthcare workers (HCWs) from the selected health facilities have improved knowledge and skills to provide essential Maternal, Newborn and Child Health (MNCH) and Adolescent Friendly Reproductive Health Services (AFRH).

1.4. Quality assurance for integrated Reproductive, Maternal, Newborn and Child Health (RMNCH) services in place.

1.5. Adolescent friendly reproductive health services introduced and practiced to hospitals and selected health centres.

Outcome 2: Increased utilization of Reproductive, Maternal, Newborn, Child and Adolescent Health services in Mbeya region

Outputs:

2.1. Pregnant women have access to obstetric emergency referral services.

2.2. Pregnant women have developed birth preparedness plan.

Outcome 3: Increased community awareness and demand for quality RMNCAH services in Mbeya and Songwe regions.

Outputs:

3.1. Pregnant women have knowledge on available RMNCH services and danger signs.

3.2. Pregnant and lactating women are able to provide timely feedback about the service they received using the mHealth (Mama na Mwana, meaning Mother and Child in Swahili).

Based on the situation analysis using evidence from available reports and consultations with the regional and district authorities in Mbeya and Songwe, the theory of change for the project adopted the following three key strategies:

1. Improve the availability of services through supply side interventions: 30 high client volume health facilities that are strategically located were selected and enhanced to provide emergency obstetric and newborn care (EmONC), so that women do not have to travel too far for life saving interventions. These facilities were renovated including construction of operation theatre in some facilities and provided with essential RMNCAH equipment and supplies. Further 154 smaller facilities were also targeted to receive basic equipment and receive minor refurbishment to provide normal delivery and newborn care services.

2. Improve the utilization of services through enhancing quality of care, preparedness and emergency referral systems: Health care workers in the strategic health facilities were trained on skill based RMNCAH packages and on quality of care, and established health facility quality improvement (QI) teams. Regions and districts were supported to conduct regular supportive supervision and mentorship visits to strategic health facilities; conducted regular maternal and perinatal death reviews (MPDSR); established mobile phone-based platform for registering pregnant women, and send regular text messages for ANC clinic visits reminder, receive key messages on reproductive health, and feedback system on the quality of care received at health facilities. Furthermore, ten of the 30 strategic health facilities (one in each district), have been equipped with ambulances to enable women with obstetric emergencies to reach these facilities. Pregnant women and families were encouraged to prepare for birth at health facility by developing individual birth preparedness plans under guidance of health care workers.

3. Improve community awareness and demand for quality services by the users: In order to increase demand and provide health education, the project also reaches pregnant women and those with young children through mass media messaging as well as mobile phones encouraging them to utilize available services. Key messages about care during pregnancy and labour, signs of complications were delivered through various platforms including local media such as community FM radio, mobile phone-based SMS messaging and mobile theatre /video.

At the beginning of the project, health facility survey and community/household survey was conducted to selected strategic facilities and all participating districts in Mbeya and Songwe regions to assess existing capacity to provide quality MNCH and adolescent friendly reproductive health services (AFRHS); identify strategic health facilities to be strengthened for EmONC function; identify specific needs for site renovation, training and equipment; as well as to generate baseline data for proposed indicators according to the logical framework. After four years of project implementation, the proposed end-line evaluation is expected to provide critical assessment of the results achieved, gaps and challenges, documentation of the best practices and lessons learnt, as well as to provide the recommendation for future improvement and sustainability.

3. Purpose and objectives of the Evaluation

Overall purpose

Evaluation of the project to generate substantive evidence and lessons learned on the relevance, effectiveness, efficiency, sustainability, gender and equity focus of the “Saving mothers' and children' lives through innovative, sustainable and comprehensive reproductive, mother, child and adolescent health services” project; and to provide the recommendations for future improvement and sustainability.

The evaluation findings and recommendations will be used to inform the government through MOHCDGEC and PORALG, development partners and other stakeholders on the most appropriate approaches to improve availability, access, utilization and increased awareness and utilization for quality RMNCAH services.

The primary audience of this evaluation includes the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC), the President Office's Regional Administration and Local Government (PORALG), UNICEF Tanzania Country Office, and KOICA. While MOHCDGEC is responsible to coordinate overall planning, financing and monitoring of the health sector, local level planning and service delivery are delegated to local governments under PO-RALG.

The specific objectives of the evaluation are to:

1. Determine the relevance, effectiveness, efficiency, sustainability, gender and equity focus of the “Saving mothers' and children' lives through innovative, sustainable and comprehensive reproductive, mother, child and adolescent health services” project;
2. Assess the integration of critical organizational principles and approaches, namely equity and gender in project planning, implementation, and monitoring.
3. Document good practice, lessons learned and provide actionable recommendations for improvement future anticipated project design, and advocacy for scaling up.

4. Evaluation criteria and questions

The evaluation is expected cover the following criteria and questions:

RELEVANCE.

- To what extent are the project design, results and implementation strategies relevant to the national and local contexts, strategies, policies, and programs?

EFFECTIVENESS.

- To what extent have the project's objectives and intended results been achieved?
- What are the factors that facilitate or inhibit the achievement of the project's objectives and expected results?
- Which project activities had more significance to contribute towards improving availability, utilization, and community awareness and demand for quality RMNCAH services in Mbeya and Songwe regions?
- How effective have the monitoring and evaluation framework/components of the project been at assessing results?
- How effective were key partnerships and coordination mechanisms to realize the project objectives?
- How adequate have UNICEF's supports been to the project, including from the perspectives of different partners at national and sub-national levels?

EFFICIENCY:

- To what extent have the project management and coordination been efficient?
- Are there feasible options for cost reduction and cost saving while realising the same level of quality and results?

EQUITY and GENDER:

- To what extent have the project design and interventions taken into account the most vulnerable and hard to reach population?
- To what extent have sex and age-disaggregated data been collected, monitored and analyzed to inform the project?

SUSTAINABILITY:

- What are the enabling as well as constraining factors that influence the sustainability of the project?
- To what extent have the project established processes and systems that are likely to support the continued implementation of the project?
- What could or should be done differently in future replication and scaling up of the project?
- How will good practices generated from the project be bought in and sustained at both national and sub-national levels?
- What are the good practices and key conditions for national scaling up of the project?

The impact will not be assessed given the fact that the baseline assessment did not cover impact level indicators such as mortality ratios. In addition, the project duration of 4 years and delay in the initiation of field implementation means it is too early to provide an accurate picture of the impacts (i.e., impacts will be understated when they had insufficient time to develop). The above-mentioned evaluation questions are a loose guide for the development of a proposal for bidding submission; they can be further refined by the selected evaluation team at inception phase, along with a detailed evaluation matrix outlining how each evaluation question will be answered. UNICEF being a rights-based organization, will ensure the evaluation will take gender, equity and human rights lenses throughout the process.

5. Scope of the evaluation

The endline evaluation will cover all components of the four year project funded by KOICA. In terms of geographical areas, it will be conducted in the 12 participating districts in Mbeya and Songwe regions:

- Mbeya region – Mbeya MC, Mbeya DC, Mbalari DC, Chunya DC, Rungwe DC, Busokelo DC, and Kyela DC
- Songwe region – Mbozi DC, Momba DC, Tunduma TC, Ileje DC and Songwe DC

The evaluation will involve the 30 strategic health facilities, a sample from the supported 154 smaller/minor health facilities, and the community.

The evaluation will cover the entire period of the project from January 2015 to March 2019.

6. Methodology and technical approach

The endline evaluation is expected to examine the changes over the project period showing the progress towards targeted results based on the theory of change and results framework. The evaluation will also consider UNIEF's and other partners' contributions to the realization of positive maternal and newborn health outcomes in Mbeya and Songwe regions, and country as whole.

A mixed method approach employing both quantitative and qualitative methods is proposed for the endline evaluation.

Quantitative method will include health facility survey and community/household survey and qualitative methods will include desk review of key documents (proposal, log frame, baseline studies, DHIS2 data; Regional and District Annual RCH reports, Project implementation and monitoring reports, One Plan I and II, and relevant national policy and strategy documents), observation, in-depth interviews with key informants, focus group discussion, and consultations with key stakeholders at the national and sub-national levels (including health workers, beneficiaries/community members, Regional and District health management teams in project area, UNICEF, KOICA, MOHCDGEC and PORALG staff). A human rights-based, participatory and inclusive approach, is highly expected. The evaluation team have an obligation to ensure the evaluation will take gender equity and human rights lenses in line with the Convention on the Elimination of All forms of Discrimination Against Women (CEDAW) and the Convention on the Right of the Child (CRC). These principles should govern the whole evaluation process including ethical clearance from relevant bodies in the country to safeguard the rights of the participants. All participants will have right to obtain prior thorough information on aims, methods, anticipated benefits and potential risks of their participation to the evaluation. Every participant must be informed on the right to refuse to participate and will be asked to provide informed consent if choose to participate to the evaluation.

In case where children and adolescents participate in the community/household survey, the evaluation will have to go through an ethical review board based on the "Criteria for Ethical Review Checklist", using the national IRB.

A full methodological proposal is expected as part of the Inception Report to be delivered by the selected evaluation team.

Data will be collected from selected districts in Mbeya and Songwe regions and national level. The sampling design will be further discussed prior to implementation of the evaluation. For collecting qualitative data, the interviewees and focus group participants will be selected on the basis of gender and participatory perspectives.

The selected evaluation team is required to act with independent judgment, give a comprehensive and balanced presentation of the strengths and weaknesses of the programme being evaluated, and demonstrate consistent and dependable findings and recommendations.

The selected evaluation team is required to adhere to UNEG norms and standards for evaluations as well as UNICEF Procedure for Ethical Standards in Research, Evaluation and Data Collection and Analysis (effective from 1st April 2015). For this purpose, it is suggested that the evaluator(s) will complete the Agora course on Ethics in Evidence Generation (<https://agora.unicef.org/course/info.php?id=2173>) before conducting data collection". The selected evaluation team will need to demonstrate awareness of the ethical considerations arising from the data collection, as well as appropriate procedures and planning for ethical evidence generation with children, including informed consent and confidentiality.

There are some perceived limitations to this endline evaluation as follows:

- Time constraint: Relatively tight timeline for the implementation and completion of the evaluation may affect the comprehensiveness of the whole process;
- Data constraint: The baseline assessment did not capture data of impact level indicators that affect the evaluation of impacts and secondary data available from DHIS2 is not adequately disaggregated that may affect the equity analysis

7. Tasks, deliverables, and timeframe

The evaluation is proposed to be undertaken through three interrelated process phases – Inception phase; Field work, Data analysis and report writing phase; and Validation and finalization of evaluation report phase.

The evaluation is scheduled from February to July 2019

| Task | Deliverable | | Timeline |
|---|--|--|--------------|
| Inception phase | | | |
| Conduct a desk review and consultation with key stakeholders | Deliverable 1: Inception Report (in English) approved by UNICEF | | Feb-Mar 2019 |
| Develop and submit inception report including detailed evaluation methodology and tools, evaluation matrix, reconstructed underlying theory of change, work-plan, report outline in close consultation with UNICEF and key stakeholders | | | |
| Field work, Data analysis and report writing phase | | | |
| Conduct quantitative and qualitative data collection | Deliverable 2: 1st draft evaluation report (in English) | | Mar-Apr 2019 |
| Data Processing, Analysis and Report writing | | | |
| Prepare and submit 1st draft evaluation report (with the length of the report of between 40-60 pages, excluding annexes) | | | |
| Consult with key stakeholders on the 1st draft evaluation report | Deliverable 3: | | May 2019 |

| | | | |
|--|---|--|--------------|
| Revise the draft evaluation report, taking into consideration of comments and feedbacks | Revised draft evaluation report (in English) | | |
| Validation and finalization of evaluation report phase | | | |
| Validate the revised draft evaluation report with key stakeholders | Deliverable 4: Final evaluation report (in English) including abstract, executive summary, full report, Powerpoint presentation of key findings and recommendations, all annexes and data sets | | Jun-Jul 2019 |
| Finalize and submit the evaluation report including abstract, executive summary, full report, Powerpoint presentation of key findings and recommendations, all annexes and data sets | | | |

Dissemination plan for the endline evaluation report includes:

- Subnational workshop involving the participation regions and districts and other stakeholders at sun-national level;
- National workshop with national RMNCAH Technical Working Group, relevant ministries and programmes, KOICA, UN agencies, other development partners and key stakeholders;
- Production of advocacy packs with results and lessons learned to influence policies/strategies/guideline reviews;
- Pamphlets/leaflets with summary of key results, lessons learnt, and recommendations.

8. Management:

Direct supervisor of this consultancy is Dr Asia Kassim Hussein, MNCH manager, Health Section, UNICEF Tanzania with support of Dr Thomas Lyimo, MNCH Specialist.

In addition, management and governance arrangements for the evaluation will be established with a view to maximizing the credibility and hence utility of the evaluation.

The evaluation will be co-managed by the MNCH Manager, Health Section and the Monitoring and Evaluation Specialist (Child Rights Monitoring, Research and Evaluation). The Monitoring and Evaluation Specialist will be responsible for the day-to-day technical management of the evaluation and the communication with the evaluation team while the MNCH Manager, with the support of the MNCH specialist, will be responsible for the day-to-day administrative management of the evaluation as well as the coordination with key stakeholders, inter alia, including MOHCDGEC and PORALG.

As co-managers for the evaluation, the role of the MNCH Manager and the Monitoring and Evaluation Specialist will be to oversee the evaluation from inception to product dissemination, including: recruiting and managing the evaluation team, serving as the interlocutor with relevant stakeholders, monitoring the budget and work plan, organizing field missions and desk search to support data collection, coordinating Reference Group meetings, and ensuring clear and consistent communications with key stakeholders. In managing the evaluation team, the Monitoring and Evaluation Specialist will focus on ensuring adherence to the ToRs and to established norms and standards for evaluation.

An Evaluation Reference Group will constitute the main consultation platform. The Group will serve in an advisory capacity, its key role being to help strengthen the evaluation's substantive grounding and its relevance to the Organization, and thereby increase its ultimate utility. Key roles and responsibilities of the Evaluation Reference Group are included in Annex 2).

The Evaluation Reference Group includes:

- Assistant Director Reproductive and Child Health Section, MOHCDGEC
- Director of Health, Social Welfare and Nutrition Services, PORALG
- Chief of Health Section, UNICEF Tanzania
- Regional Health Advisor, UNICEF Eastern and Southern Africa
- Regional Evaluation Advisor, UNICEF Eastern and Southern Africa
- Health Advisor, KOICA

Some stakeholders will be closely involved in the project evaluation. In gathering data and views from stakeholders, the selected evaluation team will ensure that it considers a cross-section of stakeholders with potentially diverse views to ensure the project evaluation findings are as impartial and representative as possible.

9. Qualifications and experience required

The evaluation will be conducted by an institution. The institution must have a good track record and extensive experience in planning and conducting evaluations, particularly in the field of RMNCAH. The composition of the proposed evaluation should be gender balanced and include a team leader and team member(s) with the following qualifications and experience:

Team Leader's qualification and experience:

- Must hold at least a Master's Degree in one or more of the disciplines relevant to the following areas: evaluation, development studies, public health, or social sciences
- At least 7 years of recognized experience in conducting or managing/leading evaluations or review of development programmes, and experience as team leader of evaluation team and as main writer of evaluation reports
- Familiarity with the RMNCAH programming, Tanzania RMNCAH strategies, guidelines and standards
- Knowledge of, and familiarity with, the Tanzanian RMNCAH programmes monitoring and evaluation systems could be an added advantage
- Expertise on quantitative and qualitative evaluation/research methods
- Excellent knowledge and understanding of theories of change, logical/result frameworks, monitoring and evaluation systems and practice;
- Excellent skills and experience in conducting household and facility surveys, facilitating key informant interviews and focused groups discussions with various groups of stakeholders;
- Familiarity with the social and human rights-based approach, equity and gender issues

- Excellent analysis skills in writing evaluation reports with constructive and practical recommendations.
- Good audience-oriented communication, teamwork and presentation skills.
- Language: Fluency in written and spoken English. Knowledge of and Kiswahili will be an asset.

Team Member(s)'s qualifications and experience:

- Must hold at least a master's Degree in one or more of the disciplines relevant to the following areas: evaluation, development studies, public health, or social sciences;
- At least five years of experience in conducting research, evaluations or review of development programmes, including specific experience in evaluating nutrition, health or similar programme/services.
- Excellent skills and experience in facilitating key informant interviews and focused groups discussions with various groups of stakeholders;
- Familiarity with health and nutrition areas.
- Familiarity with the social and human rights-based approach, equity and gender issues
- Excellent analytical and report writing skills
- Good audience-oriented communication, teamwork and presentation skills.
- Fluency in written and spoken English.
- Fluency in spoken and written Kiswahili will be an asset.

Any changes of Team Leader and/or Team Member during the consultancy should be approved by UNICEF.

Every effort has to be made to ensure team leader, and members are not in a position of conflict of interest. Consequently, individuals who have been directly involved in the implementation of the programme cannot serve as members of the evaluation team. Any other potential conflicts of interest will need to be declared by members of a team at the point of application.

10. Estimated Budget

The consultancy is contributing to the annual work plan 2018 output 1.1 – 'Strengthened enabling environment (Health policy, health system and sector coordination strengthened)', activity 1.1.4 – 'Evidence generation to support planning for RMNCAH'. Allocated budget for the specific assignment is USD 130,000 from the KOICA Grant number SC 150129.

11. Payment schedule

The payment schedule will be as follows:

- 20% of fees and 100% flight tickets, in-country travel cost, and DSA upon the submission of the approved inception report including detailed evaluation methodology and tools, evaluation matrix, work-plan, report outline
- 20% of fees upon the submission of the 1st draft evaluation report
- 20% of fees upon the submission of the revised draft evaluation report
- 40% of fees upon the submission of the approved final evaluation report including abstract, executive summary, full report, Powerpoint presentation of key findings and recommendations, all annexes and data sets.

Payment schedule can be reviewed and refined during inception phase based on agreement with UNICEF. Payment schedule for the intended consultancy is based on the satisfactory completion of the planned deliverables.

12. Assessment/selection process and methods

Interested institutions are invited to submit a technical proposal and financial proposal to carry out the evaluation. The contracted institution is also required to provide relevant samples of previous work. The institution will be selected based on the quality of the technical proposal and financial proposal. The weight allocated between the two will be 70/30 – 70 points for technical proposal and 30 points for the financial proposal.

Only those technical proposals that score 50 points or more out of 70 will be shortlisted for the financial proposal assessment stage.

The following criteria and relative points will be used to assess the technical proposal:

| Technical Criteria | Technical Sub-criteria | Maximum Points |
|---|---|----------------|
| Overall Response | Completeness of response | 5 |
| | Overall concord between RFP requirements and proposal | 5 |
| Maximum Points for overall response | | 10 |
| Institution and Key Personnel | The institution must have a good track record and extensive experience in planning and conducting evaluations, particularly in the field of health and nutrition. | 10 |
| | Key personnel: 3.1. Proposed team structure 3.2. Relevant experience and qualifications of team-leader/team-member(s) | 20 |
| Maximum Points for Institution and Key Personnel | | 30 |
| Proposed Methodology and Approach | Relevance and rigor of the technical approach/ methodology | 20 |
| | Monitoring and quality assurance process | 5 |
| | Innovation approach | 5 |
| Maximum Points for Proposed Methodology and Approach | | 30 |
| TOTAL Maximum | | 70 |

13. Administrative issues

UNICEF Tanzania is planning to sign an institutional contract based on the following conditions:

- No work may commence unless both UNICEF Tanzania and the institution sign the contract.
- The institution will assume full responsibility for all logistics and administrative issues, including
 - Accommodation (including bookings), meals and wellbeing of its team members, whether local or international. Bidder is required to include the estimate cost of travel in the financial proposal.
 - Adequate medical/health insurance for its team members
 - Management, supervision and coordination of its team members, including all remuneration issues
- Should the institution require specific assistance/materials from the UNICEF Tanzania office and national partners, he/she should request at least ten days before the start of the mission.

- UNICEF Tanzania and government counterparts will facilitate access to specific data/institution/personnel/location for this exercise.
- UNICEF Tanzania will provide venue and facilities for meetings with the Evaluation Reference Group and other key stakeholders.
- The institution will be in regular communication with UNICEF Tanzania designated focal person for the assignment, the M&E Specialist (on technical issues of the evaluation) and MNCH manager (on administrative issues of the evaluation).

14. Review and Clearance

(Signature and date):

Prepared by:

| | | |
|--------------|-------------------|---|
| <i>Name</i> | Thomas Lyimo | Vu Manh Hong |
| <i>Title</i> | Health Specialist | Monitoring and Evaluation Specialist (Child rights Monitoring, Research and Evaluation) |
| <i>Date</i> | / /2019 | / /2019 |

Cleared by Section Chief (mandatory):

| | |
|--------------|-------------------|
| <i>Name</i> | Asia Hussein |
| <i>Title</i> | OIC Chief, Health |
| <i>Date</i> | / /2019 |

Reviewed by:

| | |
|--------------|------------------|
| <i>Name</i> | Hayrullo Malikov |
| <i>Title</i> | OIC Chief, SPRME |
| <i>Date</i> | / /2019 |

Reviewed by: [Supply]

| | |
|--------------|---------|
| <i>Name</i> | |
| <i>Title</i> | |
| <i>Date</i> | / /2019 |

Approved by:

| | |
|--------------|----------------|
| <i>Name</i> | Maniza Zaman |
| <i>Title</i> | Representative |
| <i>Date</i> | / /2019 |

ANNEX 1: KEY DOCUMENTS RECOMMENDED TO BE REVIEWED

- Data from District Health Information System 2 (DHIS2)
- Regional and District Annual RCH reports
- Project implementation and monitoring reports
- One Plan I and II

ANNEX 2: KEY ROLES AND RESPONSIBILITIES IN THE EVALUATION PROCESS

There will be 3 main actors involved in the implementation of this evaluation:

1. MNCH Manager of the Health Section and the Monitoring and Evaluation Specialist (Child Right Monitoring, Research and Evaluation) of Social Policy Section as **co-managers** of the evaluation will have the following roles and responsibilities (based on UNICEF Tanzania's Standard Operating Procedure on Research, Studies and Evaluation Management):
 - Lead the management of the evaluation process throughout the 3 main phases of an evaluation (design, implementation, dissemination and use)
 - Convene and provide coordination support to the evaluation reference group
 - Lead the finalization of the evaluation ToR
 - Coordinate the selection and recruitment of the evaluation team by making sure the lead agency undertakes the necessary procurement processes and contractual arrangements required to hire the evaluation team
 - Provide the evaluators with administrative support and required data
 - Ensure the evaluation products meet quality standards
 - Provide clear specific advice and support to the evaluation team throughout the whole evaluation process
 - Connect the evaluation team with the wider programme unit, senior management and key evaluation stakeholders, and ensure a fully inclusive and transparent approach to the evaluation
 - Review the inception report and the draft evaluation report(s);
 - Ensure that adequate funding and human resources are allocated for the evaluation
 - Take responsibility for disseminating and learning across evaluations on the various programme areas
 - Safeguard the independence of the exercise, including the selection of the evaluation team
 - Regularly update Senior Management on the progress of the Evaluation.
2. **The Evaluation Reference Group** comprising the representatives of the major stakeholders, will have the following roles and responsibilities. The Reference Group will provide advice and challenge to the evaluation. Internal stakeholders and external experts will be used to guide and challenge the evaluation process. The Evaluation Reference Group will ensure that the evaluation draws on current good practices. Members will be asked to devote their time and expertise. The Evaluation Reference Group will mostly operate by phone and email exchange.

Review the inception as well as draft evaluation report and ensure final draft meets quality standards and requirements of TORs

Facilitating the participation of those involved in the evaluation design

Identifying information needs, defining objectives and delimiting the scope of the evaluation.

Providing input and participating in finalizing the evaluation Terms of Reference

Facilitating the evaluation team's access to all information and documentation relevant to the intervention, as well as to key actors and informants who should participate in interviews, focus groups or other information-gathering methods

Oversee progress and conduct of the evaluation the quality of the process and the products

Provide advice on the quality the evaluation process as well as on the evaluation products (comments and suggestions on the adapted TOR, draft reports, final report of the evaluation) and options for improvement.

Support disseminating the results of the evaluation

3. The evaluation team will conduct the evaluation by:

Fulfilling the contractual arrangements in line with the TOR, UNEG/UNICEF norms and standards and ethical guidelines; this includes developing an evaluation matrix as part of the inception report, drafting reports, and briefing the commissioner and stakeholders on the progress and key findings and recommendations, as needed

ANNEX 3. INDICATIVE CONTENT OF EVALUATION INCEPTION REPORT

Main body of the report:

- Evaluation background
- Revised / updated theory of change and logframe of the evaluated programme / intervention
- Evaluation purpose and specific objectives
- Scope of the evaluation (timeframe, funding, geographical areas, population etc.)
- Description of the inception phase
- Summary of the outcomes of / findings from the meetings, data collection & analysis activities, and research carried out during the inception period
- Comments, interpretation, or adjustments on the ToR
- Evaluation criteria and final evaluation questions (including knowledge gaps identified and recommendations drawn from previous evaluations & studies)
- Hypotheses to be tested
- Consistency with or any change from the initial ToR?
- Conceptual framework - notably: How the evaluation will address issues of complexity
- Eval design and overall methodology
- Data to be collected
- Data source (documents to be reviewed, stakeholders to be consulted through interviews, FGD, surveys etc.) including how key information will be triangulated

- Data collection methods: stakeholder survey, field visits and observation plan, document review and M&E advisory work etc. use of smartphones etc.
- Identification of potential bias (e.g. from respondents) and how they will be managed
- Sample and sampling method
- Description of data collection instruments (actual tools in annex)
- Enumerators' training and pilot testing of survey tools (if applicable)
- Enumerators' supervision & support
- Other methods used for quality assurance of collected data
- Data analysis methods (how data will be coded, displayed, processed, aggregated, synthesized, compared...use of quantitative and qualitative data analysis methods, how to assess UNICEF's contribution to results e.g. causal contribution analysis, rival hypothesis etc.) taking into account the need to triangulate key information, judgmental statements or findings
- Any methodological and organizational limitations that need to be resolved prior to starting data collection or acknowledged throughout the evaluation process (other than triangulation and bias), or any risk and how they will be mitigated
- How equity and gender will be taken into account
- Identification of anticipated or actual ethical issues throughout the evaluation project as well as the measures and methods adopted to mitigate against these issues (methods or practices to ensure the avoidance or minimization of harm and stress to participants; security matters and protection protocols utilized - both for enumerators and people interviewed; obtention of informed consent /verbal assent from participants; protection of privacy of participants; confidentiality and anonymity of data collected; absence of benefit or compensation offered to interviewees; training of enumerators in these issues and on enumeration/communication skills; official ethical review and registration at clinicaltrials.gov if appropriate).
- Work plan with description of deliverables and time-line, including provision of time for UNICEF, the evaluation steering committee, reference group or other stakeholders to provide feedback at each stage; and including final workshop for formulating or finalizing recommendations
- Logistics and support needed from UNICEF or other partners
- Evaluation communication & dissemination plan by category of primary and secondary audience, to ensure evaluation uptake and use beyond the commissioning office
- Final report template or outline
- In annex:
 - Full evaluation matrix linking eval criteria to questions, to hypothesis, to data to be collected, to data source, to data collection methods and sampling (and possibly to criteria or standards that will be used by the evaluation team to make a judgement on whether or not UNICEF as performed well in each particular evaluation question)
 - Data collection tool: detailed and comprehensive enough for collecting all data needed and answering all evaluation questions
 - Enumerators' interview/survey guide (if applicable)

ANNEX 4. STRUCTURE OF THE DRAFT AND FINAL EVALUATION REPORT

The report Structure is required to be adhered to the UNICEF-Adapted UNEG Evaluation Reports Standards https://www.unicef.org/evaluation/files/UNICEF_adapated_reporting_standards_updated_June_2017_FINAL.pdf

The final evaluation report will be assessed based on the Global Evaluation Reports Oversight System (GEROS) which is an organization-wide system that aims to support strengthening of the evaluation function to meet and exceed United Nations Evaluation Group (UNEG) norms and standards, UN System Wide Action Plan on gender equality (UN-SWAP) and other UNICEF commitments (including equity and human-rights based approaches). The GEROS Handbook and the GEROS Handbook Summary can be accessed in the following link https://www.unicef.org/evaluation/index_GEROS.html

Annex B: Evaluation methodology

In this section, we describe the methods that we employed to answer the relevance, effectiveness, efficiency, equity and gender, and sustainability evaluation questions. See the evaluation matrix in Annex C for further details.

Relevance

The evaluation assessed the extent to which the project design, results, and implementation strategies were relevant to the national and sub-national contexts, strategies, policies, and programs. We looked at this from the perspective of the target beneficiaries and national and sub-national governments. We drew mainly on secondary document review and qualitative interviews to answer the relevance evaluation questions.

- **Secondary document review:** We conducted a review of the project design document to assess whether the project activities and outputs were aligned to addressing key barriers in relation to RMNCAH within the targeted communities and whether the implementation strategies and results were relevant to achieving the objectives of the project and needs of the target beneficiaries. We also assessed the extent to which the project design, results, and implementation strategies are in line with the national policies and strategies on RMNCAH by reviewing Tanzania Health Sector Strategic Plans, Primary Health Services Development Programme, the National Road Map Strategic Plan to Improve RMNCAH, Tanzania One Plan I and II, and other relevant documents (such as strategies, plans, and programs at the regional and LGA level).
- **Focus group discussions (FGDs) and In-depth Interviews (IDIs):** We conducted FGDs with women who have children aged between 1 to 4 years (i.e., who were pregnant during the lifetime of the project) and currently pregnant women and new mothers, and IDIs with adolescent girls to understand the extent to which the project design and results were relevant to addressing the barriers that they face around delays in seeking, reaching and receiving RMNCAH care.
- **Key informant interviews (KIIs):** To address relevance at the national and sub-national level, further to the document review, we conducted KIIs with the MOHCDGEC, PORALG, Regional Medical Officers (RMOs) and District Medical Officers (DMOs) in Mbeya and Songwe. We also conducted KIIs with community leaders to assess the relevance of the project design and results at the community level.

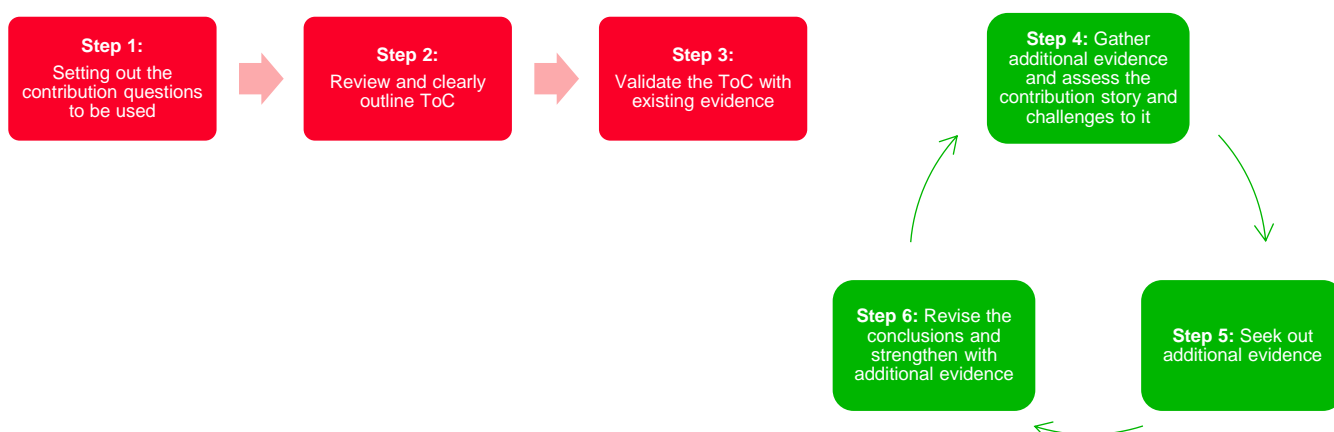
Effectiveness

The effectiveness evaluation questions focused on assessing the extent to which the project has achieved the three primary outcomes. We employed a contribution analysis method to assess and ascertain the contribution of the various activities implemented by the project on the three key outcomes.

Through the contribution analysis, we utilized the project ToC to assess the relationships between the project activities, outputs and, outcomes and further the mechanisms of change, including taking into account the assumptions, risks, and contexts that support or hinder the theory from being manifested.

Figure 1 presents the six iterative steps to our contribution analysis approach taken by this evaluation. Each step through this process is supposed to strengthen the contribution claim but also address any gaps in evidence or information in the previous step.

Figure 1: Steps to conducting contribution analysis



Below we discuss the methodology we utilized in each step of the contribution analysis.

Step 1: Setting out the contribution questions to be used

Through this first step in the contribution analysis, we sought to clearly articulate all the evaluation questions, particularly the contribution claim; the evaluation context, the use of the evaluation results by the primary audiences, the level of confidence required in the findings from the evaluation, determining what evidence or data is needed to confirm the contribution claim, and assess the feasibility of making the expected contribution claim around the three outcomes.

We conducted the following methods and activities as part of this step:

- **Remote kick-off meetings:** Following the signing of the contract, we held a remote kick-off meeting with UNICEF Tanzania team to plan for the inception mission including stating the objective of the mission, the activities the evaluation team will undertake, listing the key stakeholders and setting up appointments and sharing of relevant project documents for the initial desk review.
- **Preliminary desk-based review:** We conducted an initial desk review of relevant project documents shared by UNICEF Tanzania. This included project proposals, the results framework, annual and mid-term reports, baseline reports, situational analysis, and policy documents. The desk review at this stage was preliminary to allow the evaluation team to get a better understanding of the project before the in-country inception mission.
- **In-country inception mission:** We conducted a four-day in-country inception meeting with UNICEF Tanzania, KOICA and other national and regional stakeholders around the project implementation, ToC, conducted site visits to health facilities in both Mbeya and Songwe and discussed the scope of the evaluation to ensure that it addresses the primary focus and needs of the client and the key stakeholders. See Annex C for the inception objectives and agenda.

The information gathered at this stage was used to inform the inception report, including the evaluation design, methodology, development/revisions of instruments, evaluation matrix, project ToC, and work plan.

Step 2: Review and clearly outline ToC

The TBE approach for this study explicitly used the ToC to assess whether and how the project has contributed to the observed outcomes. Given that this evaluation is taking place at the end of the project, we did not develop a ToC afresh. However, we conducted a review of the existing ToC and engaged with UNICEF to better understand the full ToC of the project, including the assumptions, risks, external factors considered.

To do this, the evaluation team conducted a ToC workshop with the UNICEF Tanzania team during the inception mission. We started by reviewing and articulating the problems the project was trying to address, what types of activities were implemented, and any changes to the implementation during the past four years (planned versus actual). We explored how the activities and outputs tie to the anticipated outcomes and long-term impacts of the project and the assumptions (i.e., both internal and external) that must hold for the project to achieve outcomes. We discussed whether any of the anticipated risks stated in the project design documents were experienced and any mitigation measures that were taken by the project.

Following the workshop, the evaluation team worked on a refined ToC, which outlined the different pathways to change and the underlying assumptions, i.e., contribution claims that the evaluation will test. We presented and shared the revised ToC to the UNICEF team for further review and confirmation that the contribution claims to be tested by the evaluation are in line with the project's initial objectives. The revised ToC, alongside the explicit assumptions, risks, contextual factors, and various pathways or mechanisms of change identified, was used to inform the desk-based review and the design of the qualitative and quantitative instruments.

Step 3: Validate the ToC with existing evidence

In this step, we undertook a validation exercise to authenticate the project ToC through a review of **existing data and information** through desk-based review. Through existing data and information, we drew on the background literature and situational analysis conducted by the project to construct the ToC and any data via the annual and mid-term reports that validate some of the results. We used the existing data and information to test the assumptions at two levels for each of the outcomes: activities to outputs and outputs to outcomes.

Step 4: Gather additional evidence and assess the contribution claim and challenges to it

Further to step 3, we gathered other evidence drawing on project documents/reports to ensure and evaluate the contribution claim and challenges to it. To ensure a cost-effective approach, as outlined in the TOR and our proposal for the assignment, we drew heavily on the existing literature review conducted by the project.

Step 5: Seek out additional evidence

In this step in the evaluation, we gathered primary data, i.e., both quantitative and qualitative methods, to support and strengthen the contribution story by validating the ToC assumptions, and risks and external factors that may have influenced the results achieved. See section **Error! Reference source not found.** and REF _Ref39131904 \n \h **Error! Reference source not found.** for the details of the quantitative and qualitative primary data collection, respectively.

Step 6: Revise the conclusions and strengthen with additional evidence

Utilizing mixed methods data gathered in Step 5, we analyzed the data and triangulated the findings from the various data sources to improve the robustness and validation of the evaluation findings. We utilized the findings from the quantitative, qualitative, and secondary data to answer the effectiveness evaluation questions tied to the contribution of the project to achieving the three outcomes.

Efficiency

The efficiency evaluation questions assessed whether the resources purchased in relation to capital infrastructure work, i.e., renovation and refurbishment of health facilities (e.g., improvements to operation theatres, construction of placenta pit, electricity and water work, etc.) were of the appropriate quality and right price and if there are feasible options for cost reductions and savings while still realizing the same level of quality and results. We also assessed whether UNICEF's project management and coordination approach at the national and sub-national levels with government and other MNCH partners were efficient. The efficiency questions will be mainly assessed from the perception of the key stakeholders.

We drew on secondary document review and key informant interviews with relevant key stakeholders at UNICEF and sub-national levels to address both sets of questions.

- **Secondary document review:** The document review focused on understanding the project management structure and coordination mechanism employed by UNICEF both internally within the organization and also externally with the government at the national and sub-national level and MNCH partners, through reviews of the annual monitoring reports.
- **KIIs with UNICEF and sub-national level stakeholders:** We conducted KIIs with government stakeholders at the national and sub-national level and UNICEF Tanzania to get their perspective on the efficiency of UNICEF's project management and coordination mechanisms on this project and the costs incurred on renovation and refurbishment of health facilities. We also conducted KIIs with MNCH partners involved in the project.

Equity and gender

The evaluation considered the unique barriers and bottlenecks faced by the most vulnerable populations in Mbeya and Songwe regions that have been targeted by the project. As women and girls face numerous challenges gaining access to quality RMNCAH services, the evaluation questions highlight specific subcategories that represent some of the most disadvantaged, specifically to ascertain the contribution the project has had in increasing access and quality of maternal-child health, Prevention of Mother to Child Transmission of HIV (PMTCT) and other critical health services to pregnant adolescent girls, women from rural areas, as well as those who lack access to education.

We drew on secondary document review, the household and the health facility survey, as well as KIIs, IDIs and FGDs with beneficiaries and relevant key stakeholders at UNICEF and sub-national level to address various levels of questions and audiences.

- **Secondary document review:** Entailed the review of annual monitoring reports, gender, and age disaggregated data collected through the project and project reports from the media outreach, and community social behavior change initiatives.
- **Household Questionnaire:** The household questionnaire targeted rural women of reproductive age, adolescent girls aged 15-19 years, the perspectives of men, and in-laws/grandparents to gain their perspectives on health-seeking behavior.
- **Health Facility Questionnaire:** The health facility-based questionnaire provided perspectives from HCW on AFRH service training, infrastructure developments, and follow up from feedback collected from the most vulnerable adolescent girls, and women.
- **KIIs with UNICEF and sub-national level:** We conducted KIIs with key national and sub-national government stakeholders and UNICEF Tanzania to get their perspective on the targeting and contribution of the project to improve outcomes for the most vulnerable women and adolescent girls.
- **FGDs and IDIs:** We conducted FGDs and IDIs with women and adolescent girls to assess the extent to which the project has targeted their needs.

Sustainability

To ensure the sustainability of the project outcomes, UNICEF Tanzania has adopted the strategy to work with national counterparts at all levels in the planning, implementation, and M&E of the project activities. To achieve this, a consultative meeting was held at the onset of the project with stakeholders in Mbeya and Songwe region and all districts to ensure alignment of the project objectives to the regional MNCH priorities

and also to facilitate project ownership by the regional and district authorities.² The project aimed to achieve sustainability in four ways – technical, innovation, strategy, and social - see Figure 2.

Figure 2: Aspects of sustainability targeted by the project

| Technical | Innovation | Strategy | Social |
|---|--|---|---|
| <ul style="list-style-type: none"> Increased technical capacity of health service providers on essential RMNCH Pool of mentors developed at the regional and district levels and render hands on competency supervision/mentoring and provision of MNCH and AFRH services | <ul style="list-style-type: none"> Development and piloting of mMnM is based on consultation and involvement of the MoHSW and based on national guidelines, thus ensuring transfer of technical expertise and sustainability. At the health facility level service providers are trained on the day to day use and trouble shooting for mMnM | <ul style="list-style-type: none"> Strategy of strengthening select few facilities with high quality of delivery services will guide policy for effectively reducing the maternal and new born-mortalities Strategy of strengthening select few facilities with high quality delivery services will guide policy for effectively reducing the maternal and new born-mortalities | <ul style="list-style-type: none"> Increased knowledge of community members, especially for pregnant women and their partners and caregivers of children less than five years on availability and importance of uptake of key MNCH services. Shift in social attitudes, structures, and norms regarding maternal and child health behaviours Strategies to increase male involvement through community engagement and and social behaviour change communications campaigns (media/radio) |

Based on the project's definition of sustainability and the ways in which it aims to achieve sustainability in each of the four areas we will assess each of the four components against three levels:

community/individual, health facility/regional/district and national level to allow us to better capture the level of sustainability for each component at the appropriate level. For instance:

- From a *technical* perspective, the project targeted health facilities by providing essential RMNCAH services through training and manuals developed and administered by the Liverpool School of Tropical Medicine. Similarly, at the regional and district level staff were trained on quality improvement and supportive supervision strategies and MPDSR. We assessed, through the qualitative interviews, the extent to which the training is being cascaded to other staff and integrated as part of the health facility and district and regional systems and processes.
- From an *innovation* perspective, we assessed the extent to which the MoHSW has integrated the MnM platform into the Wazazi Nipendeni SMS service, and whether there are any plans and monetary support to sustain this innovation both at the national and sub-national level. At the health facility level, we assessed the level of buy-in of the MnM intervention, how data is being used by the health facilities, and their long-term plans on how they envisage the integration of the platform within their systems.
- From a *strategy* perspective, we assessed the extent to which the strategy of strengthening select health facilities with high-quality delivery services has resulted in any changes in national policy for effectively reducing the maternal and newborn-mortalities through interviews with national and sub-national level stakeholders.
- From a *social* perspective, the project aimed to change the social norms, attitudes, and structures regarding maternal and child health behaviors, i.e., demanding and seeking MNCH and AFRH services. As part of the health facility and household survey and through the community level interviews, we assessed the changes in attitudes and norms since the start of the project around the key outcome indicators and the likelihood of sustainability.
- Gender equality and equity: To ensure full community involvement beyond adolescent girls and women, the project aimed at increasing male involvement in ensuring access and retention in

² KOICA Revised Proposal Final comment KOICA_1226.doc.

RMNACH services. Community engagement was implemented through social behavior change interventions using radio programs and community dialogues.

Table 1 outlines at which level we assessed each of the four aspects of sustainability. We drew on a number of the primary quantitative and qualitative data and review of relevant secondary data sources, as indicated in the evaluation matrix in Annex C.

Table 1: Assessing sustainability aspects at the different levels

| | Individual/Community level | Health facility /regional/district level | National level |
|------------|----------------------------|--|----------------|
| Technical | | ✓ | |
| Innovation | ✓ | ✓ | ✓ |
| Strategy | | ✓ | ✓ |
| Social | ✓ | | |

Quantitative methods:

Sample size and sampling strategy for the household survey

Sample size

The sample size calculation at baseline was conducted based on the expected changes in the impact indicators over the course of the project. However, as per the TOR, the endline evaluation **will not assess impact questions at this stage since the baseline assessment did not cover impact level indicators as part of the questionnaire employed, and due to delays in the start-up of the implementation of the project, it is too early to provide an accurate picture of the impacts of the project.** Therefore, the sample size calculations for the endline study was based on the changes anticipated in outcome 2 and 3.

We undertook the sample size calculations using the FANTA April 2018 guide³, i.e., FANTA Population-Based Survey Sampling Calculator⁴ to estimate the sample size for the household survey to ensure “high precision” at two points in time estimates of indicators of proportions. Utilizing the assumption stated below, we undertook the sample size calculations for the quantitative indicators used to measure outcomes 2 and 3.⁵ Table 2 presents the sample size required for each of the indicators. Taking the indicator with the highest sample size requirement, the endline survey covered a total of 456 households (we rounded this to 480) with women of reproductive age within the 12 districts. We estimated a cluster size of 16 households, which translated into a total of 30 EAs to be covered across the 12 districts. Similar to the baseline survey, the number of clusters was divided proportion to the population of women of reproductive age by district.

Assumptions:

- **Power:** 80% power
- **Confidence level:** 95% confidence level
- **Design effect:** 2.0

³ Diana Maria Stukel. 2018. *Feed the Future Population-Based Survey Sampling Guide*. Washington, DC: Food and Nutrition Technical Assistance Project, FHI 360.

⁴ Sample size was calculated using the Population Based Survey Sampling Calculator produced by FANTA. <https://www.fantaproject.org/monitoring-and-evaluation/sampling>

⁵ Indicators for outcomes 2 and 3 are sourced from the project results framework which includes the baseline and endline targets.

- **Proportion of women aged 15-49 years among all females in Mbeya and Songwe** (Census 2012 – projected to 2019): 49% ⁶
- **Household size** (Census 2012 – projected to 2019): 5
- **Non-response rate adjustment:** 5%

Table 2: Required sample size for indicators under outcome 2 and 3

| Indicator | Baseline | Endline | Sample size required (# of households) |
|---|---------------------------------|---------------------------------|--|
| Outcome 2: Increased utilization of RMNCAH services | | | |
| 2a. % of mothers who attended 4 ANC for most recent childbirth | 9.10% | 40% | 34 |
| 2b. % mothers who attended ANC1 \leq 16 weeks for most recent childbirth | 4.40% | 15% | 143 |
| 2c. % mothers who received IPT at least twice for most recent childbirth | 80% | 90% | 235 |
| 2d. i). % live births attended by skilled personnel in the last five years | 79% | 80% | [not included] |
| 2e. % of mothers who received PNC within 48 hours for most recent childbirth | 92% | \geq90% | [not included] |
| 2f. % mother-initiated breastfeeding within an hour for most recent childbirth | 51% | 80% | 49 |
| Outcome 3: Increased community awareness and demand for quality RMNCH services | | | |
| 3a. % WCBA willing to deliver next child at health facilities | 98% | 100% | 456 |
| 3b. % fathers/mothers in law willing to allow daughters in law to deliver at health facilities | \geq90% | \geq90% | [not included] |
| 3c. % WCBA willing to visit health facilities for ANC | 90% | 100% | 87 |
| 3d. % WCBA who are aware that pregnant women should seek ANC <16 weeks of pregnancy | 82.90% | 90% | 428 |
| 3e. % fathers/mothers in law who consider ANC as essential for all pregnant women | \geq90% | \geq90% | [not included] |

Note: The indicators crossed out in Table 2 are not included in the sample size calculations since the final target was not explicitly stated, or the baseline value was almost equivalent to the target value.

Sampling strategy

At baseline, a master sample frame of all enumeration areas (EAs) for the Mbeya and Songwe region⁷ was obtained from the National Bureau of Statistics (NBS) of Tanzania. The frame included EAs across 11 districts under the Mbeya region at the time of the baseline. Later one of the districts was divided into two making up a total of 12 districts. A multi-stage cluster sampling approach was followed, where the EA was the primary sampling unit (PSU) from which households with women 15-49 years were selected (In rural areas, EAs are villages and a street or city block in urban areas). We were not able to obtain the sample frame utilized at baseline from KCMUC to verify the approach. Therefore, we used the 99 EAs selected at baseline to serve as the sampling frame from which a sub-sample of 30 EAs were chosen for the endline. In the absence of getting the full-frame from KCMUC, the evaluation team used the baseline data to identify the names of the EAs selected at baseline so that similar areas were visited at endline. We faced many

⁶According to NBS projections, <https://www.nbs.go.tz/nbs/takwimu/census2012/Projection-Report-20132035.pdf>.

⁷ At baseline both Mbeya and Songwe were considered one region until they split into two regions.

challenges in the verification of the EAs due to spelling mistakes in the baseline dataset. We used our field teams in the Mbeya and Songwe region to verify the names of the EAs from the local authorities to ensure the sample we were drawing from was accurate.

Following the construction of our master sample frame, we undertook the following multi-stage cluster sampling approach:

- In the **first stage**, we determined the number of EAs to select per district by taking the population of the women of reproductive age (15-49 years) in each of the districts. This was the same approach employed at baseline. Once we determined the number of EAs per sample, we employed a simple random selection approach and selected the required number of EAs.
- In the **second stage**, we selected and surveyed approximately 16 households in each EA selected. We utilized a systematic random sampling approach to select the households in each EA using the random route procedure.
- In the **third stage**, we selected all women of the reproductive age (15-49 years) within the households using a “take all” approach. However, these women either needed to have a child under the age of four or needed to be currently pregnant. This approach was to ensure the women we selected for the endline survey would have utilized the RMCNCAH service with the past four years, i.e., 2015-2019.

Table 3 presents the total household sample size by the district to utilized at the endline.

Table 3: Household survey sample size

| Districts | No. EAs | No. households per EA | Total no. of households |
|----------------------|-------------|-----------------------|-------------------------|
| Songwe region | | | |
| Songwe DC | 1 | 16 | 23 |
| Mbozi DC | 5 | 16 | 79 |
| Ileje DC | 1 | 16 | 22 |
| Tunduma TC | 1 | 16 | 23 |
| Momba DC | 2 | 16 | 29 |
| Sub-total | 11.0 | | 176 |
| Mbeya Region | | | |
| Chunya DC | 2 | 16 | 28 |
| Mbeya DC | 3 | 16 | 54 |
| Kyela DC | 2 | 16 | 39 |
| Rungwe DC | 3 | 16 | 43 |
| Busokelo DC | 1 | 16 | 17 |
| Mbarali DC | 3 | 16 | 54 |
| Mbeya CC | 4 | 16 | 69 |
| Sub-total | 19 | | 304 |
| Total | 30 | | 480 |

Qualitative methods

Sample size

Equal sample sizes were drawn from the two regions of Mbeya and Songwe to avoid any situation of skewed opinions from one region as compared to the other. Table 4 illustrates the total sample size for the qualitative survey.

Table 4: Qualitative interview sample size

| Target Group | | Mbeya | Songwe | Total |
|---|---|-------|--------|-------|
| Community-level | | | | |
| FGDs | A mix of women with the youngest child aged four years or below and pregnant women in their 3 rd trimester aged 20 -29 years | 1 | 1 | 2 |
| | A mix of women with the youngest child aged four years or below and pregnant women in their 3 rd trimester aged 30 -49 years | 1 | 1 | 2 |
| | Men and fathers with a child aged four years or below or with a pregnant spouse/partner in their 3 rd trimester aged 18 to 24 | 1 | 1 | 2 |
| | Men and fathers with a child aged four years or below or with a pregnant spouse/partner in their 3 rd trimester aged 25years and above | 1 | 1 | 2 |
| IDIs | Pregnant Adolescent girls in their 3 rd trimester aged 15-19 years | 2 | 1 | 3 |
| | Adolescent girls 15-19 years with a child aged four years or below | 1 | 2 | 3 |
| | A grandmother and a mother-in-law living with a child aged four years and below | 1 | 1 | 2 |
| | A grandmother and a mother-in-law living with a daughter or a daughter-in-law who is pregnant in their 3 rd trimester | 1 | 1 | 2 |
| KIIs | Community or village leaders of the sampled village | 2 | 2 | 4 |
| IDI | Health care workers | 2 | 2 | 4 |
| Regional level | | | | |
| KIIs | District Medical Officers and/or District Reproductive and Child Health Coordinators | 3 | 2 | 5 |
| | Regional Medical Officers and Regional Reproductive and Child Health Coordinators | 1 | 1 | 2 |
| | Former Regional Reproductive and Child Health Coordinators of Mbeya region | | | 1 |
| National level | | | | |
| KIIs | Ministry of Health, Community Development, Gender, Elderly and Children - Reproductive and Child Health Section | | 1 | |
| UNICEF and implementing partners | | | | |
| KIIs with UNICEF | Maternal and Child Health Specialist | | 1 | |
| | Health Communication for Development Specialist | | 1 | |
| | Innovation Team | | 1 | |
| KIIs with implementing partners | Liverpool School of Tropical Medicine | | 1 | |
| | Tanzanian Training Center for International Health (TTCIH)-Ifakara | | 1 | |

Sampling approach

The sample for the community-based interviews was pulled from four different districts, two in Mbeya and two in the Songwe region. In Mbeya, the qualitative sample was drawn from Mbarali and Kyela districts, while in Songwe, the sample was selected from Songwe and Mbozi districts. In each of the sampled districts, two project facilities were purposively selected, and the community-based research participants were then recruited from sampled villages located in the catchment area of these sampled project facilities. Recruitment questionnaires with specific requirements for inclusion to the survey were then used to ensure a balanced inclusion of varied types of respondents within the groups, and individuals with different characteristics are considered for the IDIs.

The HCWs were randomly selected among those who had participated in KOICA training from the sampled project facilities.

The key informants were purposefully selected according to their level of involvement in the project implementation process. Respondents from the national and the subnational government were included and also those from UNICEF together with the project's MNCH partners.

Annex C: Evaluation matrix

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|--|--|---|---|
| 1. Relevance | | | |
| 1. 1 To what extent are the project design, results, and implementation strategies relevant to the national and sub-national contexts, strategies, policies, and programs? | 1.1.1 To what extent are the project design and results relevant to the target beneficiaries? | Alignment of project design and results to target beneficiaries, i.e., women of reproductive age and new-borns | <ul style="list-style-type: none"> Review of the project proposal and design documents, implementation plans, etc. FGDs with target beneficiaries |
| | 1.1.2 To what extent are the project design, results, and implementation strategies aligned with the national and sub-national contexts, strategies, priorities, policies, and programs? | Alignment of project design, results and implementation strategies with national and sub-national contexts, strategies, priorities, policies, and programs | <ul style="list-style-type: none"> Review of the project proposal and design documents, implementation plans, etc. Review of national policies and strategies on RMNCAH Review of regional and LGA strategies, plans and programs related to RMNCAH KIIs with national, regional and district officials and health facility staff |
| 2. Effectiveness | | | |
| 2.1 To what extent have the project's objectives and intended results been achieved? | 2.1.1 To what extent have the project activities improved availability and readiness of quality RMNCAH services in the project supported health facilities and dispensaries? | <p>% of health facilities providing all 7 BEmONC signal functions</p> <p>% of health facilities providing all 9 CEmONC signal functions</p> <p>% of deliveries with partograph correctly filled during the last one month</p> <p>% of health facilities that provide adolescent-friendly reproductive health services</p> <p>Perception of health centers and dispensaries on the project's contribution to improving availability and readiness of quality RMNCAH services</p> | <ul style="list-style-type: none"> Health facility baseline data (2015) Health facility endline survey (2019) KIIs with DRCHCo Monitoring reports/data FGDs and IDIs with pregnant women, adolescents, |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|----------------|---|---|--|
| | | The perception among target beneficiaries on the availability and readiness of quality RMNCAH services | |
| | 2.1.2 To what extent have project activities improved utilization of RMNCAH services in the project supported health centers and dispensaries? | <p>% of mothers who attended 4 ANC for most recent childbirth</p> <p>% mothers who attended ANC1 <12 weeks for most recent childbirth</p> <p>% mothers who received IPT at least twice for most recent childbirth</p> <p>% live births attended by skilled personnel in the last five years</p> <p>% mothers who received PNC within 48 hours for most recent childbirth</p> <p>% mother-initiated breastfeeding within an hour for most recent childbirth</p> <p>Perception among pregnant women and mothers of new-born children on how the project has contributed to increased utilization of RMNCAH services</p> <p>Perception among community and village leaders on how the project has contributed to increased utilization of RMNCAH services</p> | <ul style="list-style-type: none"> • Baseline data (2015) • Household survey endline (2019) • DHIS2 • FGDs with pregnant women and mothers of new-born children • KIIs with community and village leaders |
| | 2.1.3 To what extent have project activities improved community awareness and demand for quality service by users in project supported communities? | <p>% WCBA willing to deliver next child at health facilities</p> <p>% fathers/mothers in law willing to allow daughters in law to deliver at health facilities</p> <p>% WCBA willing to visit health facilities for ANC</p> | <ul style="list-style-type: none"> • Baseline data (2015) • Household endline survey (2019) • FGDs with fathers and mothers-in-laws • KIIs with community and village leaders |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|---|---|---|---|
| | | <p>% WCBA who are aware that pregnant women should seek ANC <12 weeks of pregnancy</p> <p>% fathers/mothers in law who consider ANC as essential for all pregnant women as reported by mothers</p> | |
| 2.2 What are the factors that facilitate or inhibit the achievement of the project's objectives and expected results? | 2.2.1 What factors have <u>facilitated</u> the achievement of the project's objectives and expected results? | External and internal factors that facilitated the achievement of outcome 1, 2 and 3 (e.g., systems, process, social, economic, cultural factors, etc.) | <ul style="list-style-type: none"> • KIIs with sub-national stakeholders (DRCHCo and health facility in-charges) • FGDs with target beneficiaries • Household endline survey |
| | 2.2.2 What factors have <u>inhibited</u> the achievement of the project's objectives and expected results? | External and internal factors that inhibited achievement of outcome 1, 2 and 3 (e.g., systems, process, social, economic, cultural factors, etc.) | |
| 2.3 Which project activities had more significance to contribute towards improving availability, utilization, and community awareness and demand for quality RMNCAH services in Mbeya and Songwe regions? | 2.3.1 Which project activities targeted at improving availability and readiness of quality RMNCAH services had the most significance? | The perception among the DRCHCo, health facility in-charges and matrons on which activities contributed to achieving outcome 1 | <ul style="list-style-type: none"> • KIIs with DRCHCo, health facility in-charges, and matrons |
| | 2.3.2 Which project activities targeted at improving utilization of RMNCAH services had the most significance? | The perception among the DRCHCo, health facility in-charges, matrons and target beneficiaries on which activities contributed to achieving outcome 2 | <ul style="list-style-type: none"> • KIIs with DRCHCo, health facility in-charges, and matrons • FGDs and IDIs with target beneficiaries |
| | 2.3.3 Which project activities targeted at improving community awareness and demand for quality services had the most significance? | The perception among the target beneficiaries on which activities contributed to achieving outcome 3 | <ul style="list-style-type: none"> • FGDs and IDIs with target beneficiaries • Household endline survey |
| 2.4 How effective have the M&E framework/components of the project been at assessing results? | 2.4.1 How well was the M&E framework designed to allow the project to measure and assess the performance of the project? | <p>Clear definition of the purpose and objective of the M&E framework</p> <p>Alignment of the M&E framework with the project theory of change</p> | <ul style="list-style-type: none"> • Project M&E framework • Interviews with relevant staff of the Health Section and Field Coordination Section of UNICEF Tanzania |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|---|---|--|---|
| | | Clear monitoring activities and reporting cycles | |
| | 2.4.2 In what ways did the project use the ongoing monitoring data and the mid-term review to inform the design, implementation, and decision-making throughout the project implementation? | <p>Reports on the use of monitoring data and mid-term review to inform project design, implementation and decision making</p> <p>Availability of the monitoring and mid-term reports and documentation on decisions made</p> | <ul style="list-style-type: none"> Review of annual and monitoring reports Interviews with key UNICEF staff |
| 2.5 How effective were key partnerships and coordination mechanisms to realize the project objectives? | 2.5.1 To what extent has the partnership and coordination between national and sub-national government and working through government systems and processes enabled or inhibited the achievement of the project objectives? | The perception among national and sub-national government on the effectiveness of the partnership and coordination mechanisms with UNICEF | <ul style="list-style-type: none"> KIIs with sub-national stakeholders RMO, RRCHCo of Mbeya and Songwe Interviews with key UNICEF staff |
| | 2.5.2 To what extent has the partnerships and coordination with MNCH partners enabled or inhibited the achievement of the project objectives? | The perception among MNCH partners on the effectiveness of the partnership and coordination mechanisms with UNICEF | <ul style="list-style-type: none"> KIIs with select MNCH partners Interviews with key UNICEF staff |
| 3. Efficiency | | | |
| 3.1 How adequate have UNICEF's supports been to the project, including from the perspectives of different partners at national and sub-national levels? | 3.1.1 Technical: How adequate was the technical support, i.e., building the technical capacity of health service providers on essential maternal, new-born, and AFRH services to achieve the outcomes of the project? | Perception of national and sub-national government on the adequacy of UNICEF's technical and capital investment support on the project | <ul style="list-style-type: none"> Review of project and implementation documents KIIs with national and sub-national government officials and partners |
| | 3.1.2 Capital investment: How adequate was the | Perception of sub-national government and partners on the adequacy of UNICEF's | |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|--|---|---|---|
| | capital investment in refurbishing or renovating strategic health facilities/dispensaries and procuring essential equipment to achieve the outcomes of the project? | technical and capital investment support on the project | |
| 3.2 To what extent have the project management and coordination been efficient? | 3.2.1 To what extent has UNICEF's coordination at the national and sub-national levels and with other MNCH partners been efficient? | The perception among national and sub-nation level on the efficiency of the partnership | <ul style="list-style-type: none"> Review of project management documents, MOUs, implementation plans Interviews with UNICEF Health section team including regional staff |
| | | The perception among MNCH partners on the efficiency of the partnership | <ul style="list-style-type: none"> Review of project management documents, MOUs, implementation plans Interviews with government at the national, sub-national and select MNCH partners |
| 3.3 Are there feasible options for cost reduction and cost-saving specifically in relation to the <u>capital infrastructure</u> while realizing the same level of quality and results? | | <p>Costs incurred by the project on capital infrastructure</p> <p>Perception of UNICEF staff on the costs incurred by the project on capital infrastructure and the level of quality delivered</p> <p>Perception of sub-national government staff on the costs incurred by the project on capital infrastructure and the level of quality delivered</p> <p>Alternative options for delivering similar capital infrastructure work at lower costs but a similar level of quality</p> | <ul style="list-style-type: none"> Review of cost data on capital infrastructure on the project KIIs with UNICEF staff and regional and district officials |

4. Equity and Gender

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|---|--|---|--|
| 4.1 To what extent have the project design and interventions taken into account the most vulnerable and hard to reach population? | 4.1.1 To what extent has UNICEFs' project design and interventions taken into account the needs of adolescent pregnant teens? | | |
| | 4.1.2. To what extent have rural, hard to reach women and adolescent girls been targeted? | Adolescent girls' experiences of "adolescent-friendly" services | |
| | 4.1.3. To what extent have uneducated women and adolescent girls been targeted? | Pregnant adolescents experience receiving fair and equitable treatment within neonatal, maternal, and service delivery, PMTCT services, without discrimination, stigmatization, or exclusion | |
| | 4.1.4. To what extent have HIV prevention and quality of care to HIV positive pregnant adolescent girls and women been targeted? | Education of caregivers and mothers on the importance of ensuring adequate nutrition for pregnant adolescent girls | |
| | 4.1.5 To what extent has male involvement been involved in the intervention to encourage access and utilization of quality services? | Utilization of unique approaches by HCWs in addressing the need of adolescent girls and pregnant mothers or women of reproductive age, new-born child, etc.- review of counseling and care services – HCW attitudes | |
| | 4.1.6 To what extent have women and girls affected by disabilities been reached? | Ensured privacy of health documentation of adolescent | |
| | 4.1.7 To what extent have pregnant adolescent girls who have dropped out of school been reached by the project? | Separate patient waiting rooms specific for pregnant adolescent girls and women, particularly HIV positive | |
| | 4.1.8 To what extent have males been involved in the intervention to encourage access and utilization of quality RMNCAH services? | Reach of the project to women and girls with disabilities, pregnant adolescent girls who dropped out of school and males | |
| | | | <ul style="list-style-type: none"> • Review of the project proposal and design documents, implementation plans, etc • Review project monitoring data and annual/quarterly reports • Household/facility questionnaire targeting HCWs, adolescent women and girls • DHS 2015-2016 • DHIS • Community Dialogues/Media outputs |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|--|---|--|--|
| 4.2 To what extent have sex and age-disaggregated data been collected, monitored, and analyzed to inform the project? | 4.2.1 To what extent have sex and age-disaggregated data been collected by the project? | Baseline and monitoring data disaggregated by sex and age | <ul style="list-style-type: none"> • Results framework • M&E framework • Review of project monitoring data and reports |
| | 4.2.2 To what extent have sex and age-disaggregated data been monitored and analyzed to inform the project? | Sex and age- disaggregated data collected, monitored and analyzed to inform project design and implementation | |
| 5. Sustainability | | | |
| 5.1 What are the enabling as well as constraining factors that influence the sustainability of the project? | 5.1.1 What are the enabling factors that influence the sustainability of the project? | Enabling factors | <ul style="list-style-type: none"> • Health facility survey • Household survey • FGDs, IDIs, and KIIs • Review of the project proposal and design documents, implementation plans, etc. • Review of national and regional policies and strategies on RMNCAH |
| | 5.1.2 What are the constraining factors that influence the sustainability of the project? | Constraining factors | |
| 5.2 To what extent has the project established processes and systems that are likely to support the continued implementation of the project? | | Processes and systems established to support continued implementation of the project Drawbacks in the process and systems | |
| 5.3 What could or should be done differently in future replication and scaling up of the project? | 5.3.1 Supply side: What aspects of the project design and implementation approach could or should be adapted for future replication and scale-up of the project? | Lessons learned on project design and implementation from both supply and demand side of the intervention | <ul style="list-style-type: none"> • Health facility survey • Household survey • FGDs, IDIs, and KIIs • Review of the project proposal and design documents, implementation plans, etc. • Review of national and regional policies and strategies on RMNCAH |
| | 5.3.2 Demand side: What aspects of the project design and implementation approach could or should be adapted for future replication and scale-up of the project? | | |

| Main questions | Sub- questions | Indicators | Data Sources/Instruments/Methods |
|---|----------------|--|--|
| 5.4 How will good practices generated from the project be bought in and sustained at both national and sub-national levels? | | <p>Perception of key national and sub-national stakeholders on how the good practices generated will be sustained</p> <p>National and sub-national plans</p> | <p>KIIs with national and sub-national staff</p> |
| 5.5 What are the good practices and key conditions for national scaling up of the project? | | <p>Good practices (<i>identified by the evaluation</i>)</p> <p>Key conditions for national scale-up (<i>to be determined by the evaluation</i>)</p> | <ul style="list-style-type: none"> • Health facility survey • Household survey • FGDs, IDIs, and KIIs • Review of the project proposal and design documents, implementation plans, etc. • Review of national and regional policies and strategies on RMNCAH |

Annex D: Sample characteristics and balancing

Sample characteristics and balancing

We undertook two approaches in testing for balance between the baseline and endline samples. We discuss each step and the final approach taken below.

The first approach involved taking the sample of households in the 30 villages, i.e., EAs sampled at endline and comparing them against a sub-sample of households from the full baseline sample for the same 30 villages covered at endline. We undertook statistical significance tests on a number of demographic characteristics such as region, urban, age, education, employment status, household income, household materials, education of partner/husband, and other indicators. We found the households in both the baseline and endline sub-sample were statistically significantly different from each other.

As a result of these differences, we introduced a second approach where we applied a matching technique called coarsen exact matching (CEM). “*The CEM Method is a nonparametric method used to control for some or all potentially confounding influences of pre-treatment control variables by reducing the imbalance between the treated and control groups.*”⁸ While this method is typically applied to improve estimations of causal effects between a treatment and control group, we applied it for this evaluation to balance between the baseline sample (i.e., before receiving the treatment) with the endline sample (i.e., after treatment). We matched the full baseline sample and endline sample (i.e., we did not restrict the matching to only the 30 villages covered at endline), on region, urban/rural, and age and education of the primary respondent. We achieved a balance on these sets of indicators collectively, with an L1 distance of 0.725.

L1 distance is a measure of how balanced the sample is from 0 to 1. An L1 distance closer to zero or lower indicates a stronger balance between groups on the coarsened indicators, whereas a higher L1 distance indicates a higher imbalance. To achieve a stronger balance would require a further drop in the sample from both the baseline and endline, which would, in turn, reduce the power of the study to detect the expected change from baseline to endline for the key outcome indicators. Therefore, the trade-off with the final approach taken is that although we have coarsened the data and achieved a match between the baseline and endline sample on the indicators stated above collectively. However, there is still an imbalance between the two samples on other indicators, as shown in Table 5. As a result, there is a need to apply caution when interpreting the results in section 3.2.2 and 3.2.3 of this report. We discuss the differences between the two samples further below.

Household demographic characteristics

Table 5 presents the demographic characteristics of households in the sample at baseline and endline. We found that the sample at endline was more educated, wealthier, employed, younger in age, and lived in more urban areas than that of the baseline sample. These differences are likely to impact the outcome indicators relating to the utilization of health facilities during pregnancies and also awareness and demand for services. Therefore, it is essential to apply caution when interpreting the results. Note that for the indicators urban/rural, age, and education of the women separately, the results are statistically significant, as shown in Table 5. However, we have adjusted for this balance collectively as part of the CEM matching.

⁸ <https://gking.harvard.edu/cem>.

Table 5: Household demographic characteristics

| | Baseline | | | Endline | | | Statistical significance test |
|-------------------------------------|------------------|----------------|--------------|------------------|----------------|--------------|-------------------------------|
| | Obs (unweighted) | Obs (weighted) | Mean/Percent | Obs (unweighted) | Obs (weighted) | Mean/Percent | |
| Region | | | | | | | |
| Mbeya | 2031 | 2019 | 75% | 304 | 1163 | 74% | P=0.8038 |
| Songwe | 661 | 673 | 25% | 175 | 408 | 26% | |
| Urban/rural | | | | | | | |
| Urban | 352 | 350 | 13% | 133 | 518 | 33% | *** P=0.000 |
| Rural | 2340 | 2342 | 87% | 346 | 1053 | 67% | |
| Age | | | | | | | |
| 15-19 | 192 | 188 | 7% | 46 | 141 | 9% | *** P=0.000 |
| 20 -30 | 1055 | 1050 | 39% | 246 | 1084 | 69% | |
| 31-40 | 939 | 942 | 35% | 162 | 314 | 20% | |
| 41-49 | 506 | 511 | 19% | 25 | 31 | 2% | |
| Education | | | | | | | |
| No education | 220 | 215 | 8% | 28 | 63 | 4% | *** P=0.000 |
| Primary | 2034 | 2019 | 75% | 305 | 597 | 38% | |
| Secondary | 396 | 404 | 15% | 127 | 848 | 54% | |
| Tertiary | 42 | 54 | 2% | 19 | 63 | 4% | |
| Marital status | | | | | | | |
| Married/cohabitating | 2024 | 2015 | 75% | 399 | 1367 | 87% | *** P=0.000 |
| Single | 297 | 295 | 11% | 53 | 157 | 10% | |
| Divorced/widowed | 365 | 376 | 14% | 27 | 47 | 3% | |
| Employment status | | | | | | | |
| Employed | 54 | 54 | 2% | 334 | 360 | 24% | *** P=0.000 |
| Unemployed | 2635 | 2635 | 98% | 135 | 1139 | 76% | |
| Education of partner/husband | | | | | | | |
| No education | 110 | 100 | 5% | 7 | 0 | 0% | P=0.1171 |
| Primary | 1833 | 1827 | 91% | 229 | 570 | 42% | |
| Secondary | 56 | 60 | 3% | 127 | 664 | 49% | |
| Tertiary | 0 | 0 | 0% | 30 | 95 | 7% | |
| Other | 9 | 0 | 0% | 4 | 14 | 1% | |
| Household ownership | | | | | | | |
| Own | 1710 | 1715 | 64% | 274 | 833 | 53% | P=0.9991 |
| Rent | 546 | 536 | 20% | 161 | 644 | 41% | |
| Living with parents | 424 | 429 | 16% | 44 | 79 | 5% | |
| Household materials | | | | | | | |
| Brick | 1973 | 1972 | 92% | 188 | 680 | 81% | P=0.8039 |
| Mud | 149 | 150 | 7% | 79 | 151 | 18% | |
| Other material | 22 | 21 | 1% | 7 | 0 | 0% | |
| Household income (mean) | | | | | | | |
| Average monthly HH income | 2505 | 2505 | TZS 103,338 | 479 | 1571 | TZS 233,143 | ** P=0.001 |

*, **, *** represents statistical significance at the 10%, 5% and 1%, respectively

Table 6 presents the type of access that women in both the baseline and endline sample had with regards to MNCH and delivery facilities and the amount of time it takes to get to these facilities. The type of health facility offering MCH or delivery services closest to the respondents' house was statistically significantly

different between the baseline and endline sample. However, the average amount of time it takes to walk or travel by car or motorcycle to the nearest health facility providing delivery services was similar for both samples and was not statistically significantly different.

Table 6: Access and distance to nearest MNCH and Delivery facilities

| | Baseline | | | Endline | | | Statistical significance test |
|---|------------------|----------------|------------------|------------------|----------------|-----------------|-------------------------------|
| | Obs (unweighted) | Obs (weighted) | Mean/Percent | Obs (unweighted) | Obs (weighted) | Mean/Percent | |
| Nearest MCH facility to household | | | | | | | |
| Dispensary | 1726 | 1721 | 64% | 272 | 660 | 42% | ** P=0.0019 |
| Health Center | 474 | 484 | 18% | 151 | 550 | 35% | |
| Hospital | 489 | 484 | 18% | 54 | 346 | 22% | |
| Nearest DELIVERY facility to household | | | | | | | |
| Dispensary | 1591 | 1585 | 59% | 203 | 468 | 30% | *** P=0.0001 |
| Health Center | 506 | 511 | 19% | 169 | 640 | 41% | |
| Hospital | 590 | 591 | 22% | 101 | 452 | 29% | |
| Average time to WALK to the nearest DELIVERY facility | | | | | | | |
| Up to 30 minutes | 1621 | 1613 | 60% | 282 | 953 | 63% | P=0.6617 |
| Between 31 to 60 minutes | 520 | 511 | 19% | 52 | 212 | 14% | |
| Between 1 to 2 hours | 369 | 376 | 14% | 85 | 302 | 20% | |
| Between 2 to 3 hours | 117 | 108 | 4% | 25 | 30 | 2% | |
| More than 3 hours | 61 | 54 | 2% | 13 | 15 | 1% | |
| Average time to travel by CAR or MOTORCYCLE to the nearest DELIVERY facility | | | | | | | |
| Up to 30 minutes | 2329 | 2337 | 89% | 381 | 1363 | 92% | P=0.9895 |
| Between 31 to 60 minutes | 210 | 210 | 8% | 25 | 44 | 3% | |
| Between 1 to 2 hours | 78 | 79 | 3% | 26 | 44 | 3% | |
| Between 2 to 3 hours | 8 | 0 | 0% | 7 | 30 | 2% | |
| More than 3 hours | 1 | 0 | 0% | 3 | 0 | 0% | |
| Average FARE to travel to the nearest DELIVERY facility | | | | | | | |
| By hired motorcycle | 2309 | 2309 | TZS 1,847.00 | 479 | 1571 | TZS 2,209.00 | P=0.2916 |
| By hired care | 975 | 975 | TZS 11,380.00 | 479 | 1571 | TZS 7,214.00 | P=0.0004 |
| By public transportation | 565 | 565 | TZS 898.00 | 479 | 1571 | TZS 744.00 | P=0.1222 |

*, **, *** represents statistical significance at the 10%, 5% and 1%, respectively

Annex E: Primary data collection instruments

See separate attachment

Annex F: Additional analysis

Table 7: Summary of availability signal functions offered by the 30 strategic health facilities at baseline and endline, by health facility

| Name of health facility | Total facility deliveries | | Antibiotics | | Oxytocin | | Magnesium Sulphate | | Manual Removal of the Placenta | | Manual Vacuum Aspiration | | Vacuum Extraction | | New-born Resuscitation | | Caesarean Section | | Blood Transfusion | |
|-------------------------------|---------------------------|----------------|-------------|---------|----------|---------|--------------------|---------|--------------------------------|---------|--------------------------|---------|-------------------|---------|------------------------|---------|-------------------|---------|-------------------|---------|
| | Baseline (2014) | Endline (2019) | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline | Baseline | Endline |
| Lubanda Dispensary | 44 | 71 | √ | √ | √ | √ | √ | √ | √ | √ | × | × | × | × | √ | √ | | | | |
| Ibaba Health Center | 113 | 153 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | × | × | × | √ |
| Mbebe Dispensary | 107 | 97 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Iyula Health Center | 300 | 251 | √ | √ | √ | √ | √ | √ | × | × | × | √ | × | × | √ | √ | | | | |
| Isansa Health Center | 412 | 687 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Itaka Health Center | 182 | 437 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Kamsamba Health Center | 686 | 1949 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | × | √ | √ | × | √ | × | √ |
| Ivuna Dispensary | 831 | 358 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Ndalambo Health Center | 243 | 486 | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | × | √ | √ | | | | |
| Tunduma Health Center | 1280 | 5210 | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | √ | √ | × | √ | × | √ |
| Chalangwa Health Center | 116 | 221 | √ | √ | √ | √ | √ | √ | √ | √ | × | × | × | √ | √ | √ | | | | |
| Lupatingatinga Health Center | 38 | 539 | √ | √ | √ | √ | √ | √ | √ | √ | × | × | × | × | √ | √ | | | | |
| Mbuyuni Health Center | 269 | 560 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | × | √ | √ | × | × | × | × |
| Mawindi Health Center | 24 | 102 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Utengule Usangu Health Center | 475 | 549 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | × | √ | × | √ |
| Madibira Health Center | 619 | 1084 | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | √ | √ | | | | |
| Ukwavila Dispensary | 278 | 255 | √ | √ | √ | √ | √ | √ | √ | × | × | × | × | √ | √ | √ | | | | |
| Kamasegere Dispensary | 43 | 489 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Kanyalele Dispensary | 84 | 76 | √ | √ | √ | √ | √ | √ | × | √ | × | × | × | × | √ | √ | | | | |
| Mwakeleli Health Center | 194 | 72 | × | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | √ | √ | × | √ | × | √ |
| Ikuti Health Center | 182 | 291 | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | √ | √ | | | | |
| Masukuli Health Center | 230 | 171 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Ndaga Dispensary | 261 | 117 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Ngonga Dispensary | 76 | 169 | √ | √ | √ | √ | √ | √ | × | √ | × | √ | × | √ | √ | √ | | | | |
| Njisi Dispensary | 95 | 57 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Ipinda Health Center | 781 | 1246 | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | √ | √ | √ | √ | √ | √ |
| Isuto Dispensary | 65 | 66 | √ | √ | √ | √ | √ | √ | × | √ | × | √ | × | √ | √ | √ | | | | |
| Igoma Health Center | 107 | 197 | √ | √ | √ | √ | √ | √ | √ | √ | × | × | × | √ | √ | √ | | | | |
| Mjele Dispensary | 204 | 125 | √ | √ | √ | √ | √ | √ | √ | √ | × | √ | × | √ | √ | √ | | | | |
| Ruanda Health Center | 2927 | 1914 | √ | √ | √ | √ | √ | √ | √ | √ | √ | × | × | × | √ | √ | | | | |

Table 8: Summary of the signal functions offered by the 30 strategic health facilities in the past three months prior to the survey (mid-Nov 2019 – mid Feb 2020)

| | Baseline | | Endline | |
|--------------------------------|-------------------------|-------------|-------------------------|-------------|
| | No of health facilities | Percent (%) | No of health facilities | Percent (%) |
| Antibiotics | 29 | 48% | 30 | 80% |
| Oxytocin | 30 | 100% | 30 | 100% |
| Magnesium Sulphate | 30 | 13% | 30 | 30% |
| Manual Removal of the Placenta | 26 | 35% | 28 | 57% |
| Manual Vacuum Aspiration | 7 | 29% | 22 | 86% |
| Assisted Vacuum Delivery | 0 | 0% | 21 | 52% |
| Newborn Resuscitation | 30 | 73% | 30 | 73% |
| Caesarean Section | 1 | 100% | 5 | 100% |
| Blood Transfusion | 1 | 100% | 6 | 67% |

Table 9: Reasons for not performing the signal functions in the past three months (mid-November 2018 to – mid Feb 2020)

| Reasons for not performing function | Antibiotics | Oxytocin | Magnesium Sulphate | MRP | MVA | AVD | Newborn Resuscitation | C-Section | Blood Transfusion |
|-------------------------------------|-------------|----------|--------------------|------|-----|-----|-----------------------|-----------|-------------------|
| Lack of training | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Lack of qualified personnel | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Lack of supply of equipment | 0% | 0% | 5% | 0% | 0% | 10% | 0% | 0% | 50% |
| Lack of supply of drugs | 0% | 0% | 5% | 0% | 0% | 0% | 0% | 0% | 0% |
| Management issue | 0% | 0% | 0% | 0% | 33% | 10% | 0% | 0% | 50% |
| Policy issues | 0% | 0% | 0% | 0% | 33% | 0% | 0% | 0% | 50% |
| No cases in the past three months | 100% | 0% | 100% | 100% | 67% | 90% | 100% | 0% | 0% |
| Base | 6 | 0 | 21 | 12 | 3 | 10 | 8 | 0 | 2 |

Note: This question was a multiple response question asked to each facility that reported not undertaking any of the signal functions in the past three months prior to the survey.

Infrastructure and equipment

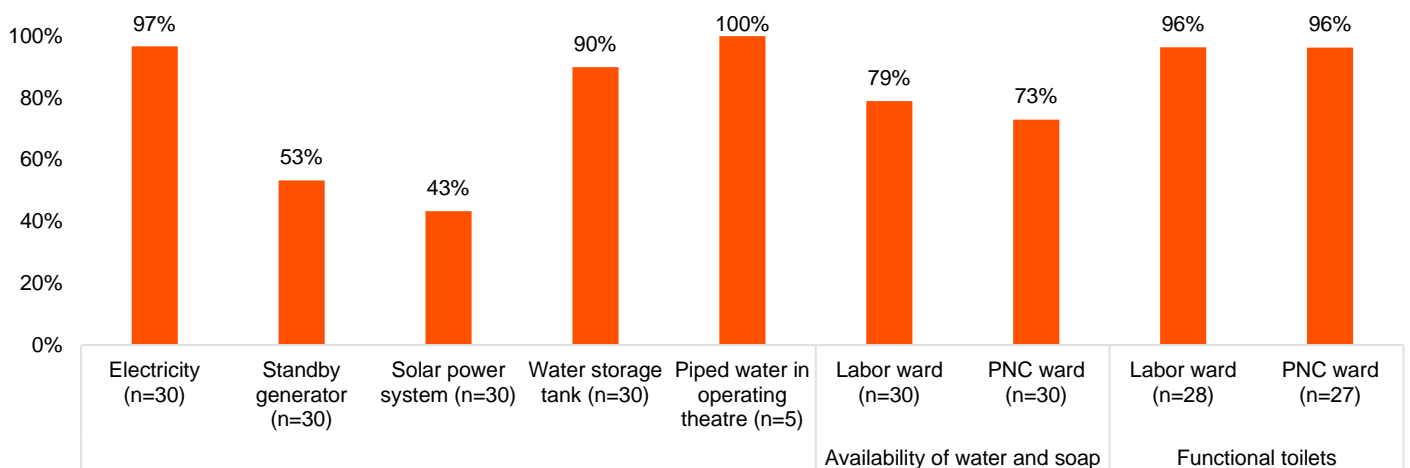
Good and appropriate infrastructure, together with sufficient and appropriate equipment and supplies, are other sets of prerequisites for optimal provision of RMNCAH services. The project had invested heavily in ensuring the selected health facilities receive a combination of infrastructure improvement through refurbishment and renovations as well as procurement of essential equipment and supplies. The project conducted a needs assessment in consultation with the regional and district council health management teams to determine the types of renovations/refurbishments and equipment/supplies required by each facility.

Figure 3 presents the infrastructure available in each of the health facilities. The project provided 16 facilities with support in accessing water either through the digging /sinking boreholes within the facility premises, installation of piping from water sources outside the facility, bringing water into labour ward and other rooms providing MNCH services from standpipes or existing wells at the facility, by the installation of water pipes/

water towers and provision of a generator to pump water from a nearby stream in one facility. All health facilities providing C-sections had piped water in the operating room. The majority of health facilities had functional toilets (>90%).

Almost all health facilities reported having access to electricity (97%), whereas 53% had standby generators, and 43% had a solar power system. The project also provided a total of five health facilities with standby generators to counteract power outage problems during C-section procedures.

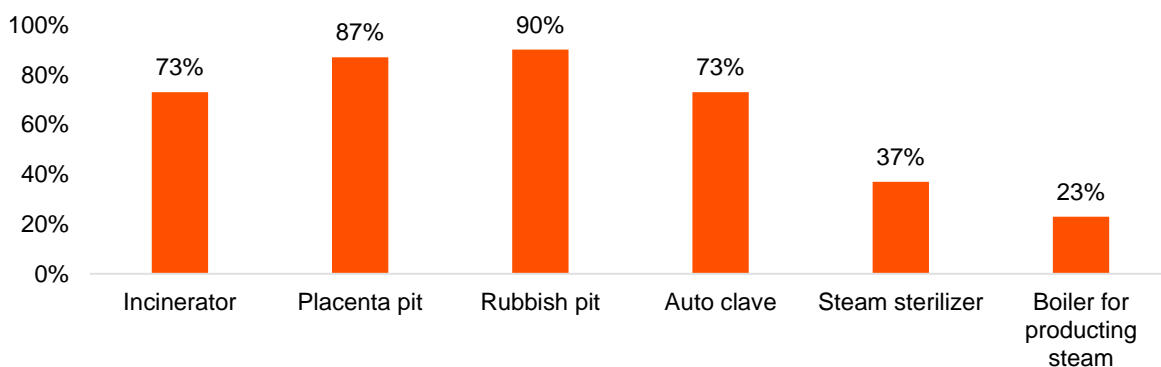
Figure 3: Infrastructure available in the health facilities



Note: The functionality of toilets are reported only for those health facilities where the interviewer was able to observe the toilets. Piped water is only reported for facilities that perform the C-section. Improvement in the number of health facilities having electricity connection is due to the roll-out of the Rural Electricity Authority (REA) program in project districts

Figure 4 presents additional available equipment and infrastructure within the health facility to disinfect reusable equipment or dispose of rubbish.

Figure 4: Availability of supporting infrastructure and equipment in the health facilities



Base: n=30

Note: The high percent in availability of placenta pit is a result of deliberate efforts and as part of the infection prevention and control which was made an important component of quality improvement to ensure the presence of functional placenta pits and incinerators in 30 strategic health facilities and selected dispensaries in Songwe region

Annex G: Health facility sample

| Songwe region | | Mbeya region | |
|---------------|-------------------------------|--------------|-------------------------|
| Councils | Health facilities | Councils | Health facilities |
| Ileje DC | Lubanda Dispensary | Busokelo DC | Mwakeleli Health Center |
| | Ibaba Health Center | | Kanyalele Dispensary |
| | Mbebe Dispensary | | Kamasegere Dispensary |
| Mbozi DC | Iyula Health Center | Rungwe DC | Ikuti Health Center |
| | Isansa Health Center | | Masukuli Health Center |
| | Itaka Health Center | | Ndaga Dispensary |
| Momba DC | Kamsamba Health Center | Kyela DC | Njisi Dispensary |
| | Ivuna Dispensary | | Ngonga Dispensary |
| | Ndalambo Health Center | | Ipinda Health Center |
| Tunduma TC | Tunduma Health Center | Mbeya DC | Isuto Dispensary |
| Chunya DC | Chalangwa Health Center | | Mjele Dispensary |
| | Mbuyuni Health Center | | Igoma Health Center |
| | Lupatingatinga Health Center | Mbeya CC | Ruanda Health Center |
| Mbarali DC | Mawindi Health Center | | |
| | Utengule Usangu Health Center | | |
| | Madibira Health Center | | |
| | Ukwavila Dispensary | | |

Annex H: Research ethics

Following the finalization of the inception report, we submitted an application for ethical clearance to the Tanzanian National Institute of Medical Research (NIMR) in December 2019, which was approved in February 2020. Following the ethical clearance certificate, which was issued from NIMR, we submitted a copy of the letter to the corresponding regional and district officials prior to engaging in the fieldwork.

The evaluation team has adhered to United Nations Evaluation Group norms and standards for evaluations as well as UNICEF Procedure for Ethical Standards in Research, Evaluation, and Data Collection and Analysis. All evaluation team members underwent ethical training before the survey commenced.

As this study also involves working with vulnerable populations, specifically adolescent girls aged 15-19 years, the study also underwent a Data Protection Impact Assessment internally at Kantar as part of our data protection policy. This review included a closer look at how we were taking steps to ensure consent is sought in the right way for minors and vulnerable populations, how the data would be managed, stored, and used. Following the internal review and approval, the study was able to proceed.

We employed each of the following set of principles and practices throughout this evaluation.

- **Do no harm:** We believe it is essential that any evaluation or research we undertake is designed in such a way as to minimize any negative impacts resulting from participation in the study, whether during the recruitment or fieldwork phases, or after fieldwork is complete. The do no harm principle is particularly pertinent to evaluation or research with vulnerable populations like children/adolescents. In the case of this evaluation, we interviewed adolescent girls and adult women of reproductive age about their sexual reproductive health both at home and at the health facility. Because we understood they might find it challenging to speak about topics related to sexual reproductive health or their current pregnancy, we ensured that the field staff selected for this work were all women above the age of 18 years and had previous experience undertaking similar studies. Each field staff underwent a police certificate clearance to show they had not committed any crime or violation. We also ensured that the interviewers were trained on how to recognize whether a respondent is in distress or is not feeling comfortable to answer particular questions and what to do in these instances. We prioritized the need of the respondent over the study, and if any respondent, particularly adolescent girls, felt distressed, they would immediately stop the interview. We did not find any issues during the study of any harm done to participants.
- **Informed consent:** Informed consent refers to “the provision of information to participants, about the purpose of the research, its procedures, potential risks, benefits, and alternatives, so that the individual understands this information and can make a voluntary decision whether to enroll and continue to participate” (Emanuel et al., 2000). We developed a detailed informed consent statement, including a description of the project, purpose, duration, rights of participants, confidentiality, risks or benefits to participation, etc. The primary purpose of the consent statement was to ensure that all respondents were fully aware of the reasons behind the study and their rights as a participant. Only individuals who gave consent were interviewed. The consent form was translated into Kiswahili. All field staff was trained on the consent statement and how this section of the interview should be administered. For the interviews with adolescent girls who were below the legal age (18 years) to consent, we obtained permission from their parents or legal guardians. Following consent from their parents or legal guardians, we obtained assent from the adolescent girls before proceeding with the interviews.
- **Confidentiality and privacy:** No interviewer was allowed to interview anyone they knew or discuss any interview responses with anyone in or outside the research team. All field staff and evaluation team members signed confidentiality agreements before undertaking this work. All data transmitted or stored electronically was encrypted as part of our electronic data collection approach. Once the

survey is submitted by the field staff, it was automatically wiped off the tablet, and therefore, the field staff did not have access to the data anymore. All data were anonymized, and personal identifying information was stored separately under password encrypted format, which was uploaded to the server. Results are only shared at the aggregate level.

- **Protection and duty of care:** For this study, we ensured that vulnerable audiences were not disadvantaged by taking part in the research. It is not enough that the research process itself will not negatively impact the participant; the participant must not be adversely affected on their return to their community, occupation, or social group after the research has concluded. We ensured that all interviews at the household level were conducted within the household in a place where the respondent felt comfortable. Similarly, at the health facility, we also ensured that we found a quiet and secure place to undertake interviews with respondents. Particularly for adolescents, the interviews were held within the eyesight of the parent/guardian following consent from the legal guardian and assent from the respondent.
- **Fairness and respect and the issue of practical benefit:** Fairness and respect are fundamental tenets that must be considered when undertaking research with vulnerable populations. During the ethical training with field staff, we ensured that all field staff members were trained on how they must not allow their personal moral code about an issue such as sexual reproductive health or practices to influence the fieldwork itself or the reporting to follow. We undertook various role-play exercises and examples to demonstrate cases where such situations may arise and how this should be managed, particularly when it comes to adolescent pregnancies. We also informed all participants of the practical benefits of participating in the study during the informed consent process.
- **Flexibility:** When conducting research with vulnerable audiences, it is essential that we understand the various pressures or difficulties which might influence participants in their attempts to complete the study. Given the length of the survey both at the health facility and household level, we adopted a flexible approach whereby we worked around the respondent's time schedule to complete the survey and did not exclude them because they were not able to sit through the full interview. We also ensured that all field staff at the household level were female so that respondents felt comfortable discussing topics related to RMNCAH.

Ethical Approval Certificate



THE UNITED REPUBLIC OF TANZANIA



National Institute for Medical Research
3 Barack Obama Drive
P.O. Box 9653
11101 Dar es Salaam
Tel: 255 22 2121400
Fax: 255 22 2121360
E-mail: nimrethics@gmail.com

Ministry of Health, Community
Development, Gender, Elderly & Children
University of Dodoma, College of
Business Studies and Law
Building No. 11
P.O. Box 743
40478 Dodoma

NIMR/HQ/R.8a/Vol. IX/3335

6th February, 2020

Dr. Gregory Kabadi
KANTAR
P. O. Box 7180
Dar es Salaam

RE: ETHICAL CLEARANCE CERTIFICATE FOR CONDUCTING MEDICAL RESEARCH IN TANZANIA

This is to certify that the research entitled: Saving mothers' and children's lives through innovative, sustainable, and comprehensive reproductive, mother, child and adolescent health services. (Kabadi G. et al), has been granted ethical clearance to be conducted in Tanzania.

The Principal Investigator of the study must ensure that the following conditions are fulfilled:

1. Progress report is submitted to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research, Regional and District Medical Officers after every six months.
2. Permission to publish the results is obtained from National Institute for Medical Research.
3. Copies of final publications are made available to the Ministry of Health, Community Development, Gender, Elderly & Children and the National Institute for Medical Research.
4. Any researcher, who contravenes or fails to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III Section 10(2).
5. Sites: Mbeya Region and Songwe Region

Approval is valid for one year: 6th February 2020 to 5th February 2021.

Name: Prof. Yunus Daud Mgaya


Signature
CHAIRPERSON
MEDICAL RESEARCH
COORDINATING COMMITTEE

CC: Director, Health Services-TAMISEMI, Dodoma
RMO of Respective regions
DMO/DED of respective districts

Name: Prof. Muhammad Bakari Kambi


Signature
CHIEF MEDICAL OFFICER
MINISTRY OF HEALTH, COMMUNITY
DEVELOPMENT, GENDER, ELDERLY &
CHILDREN

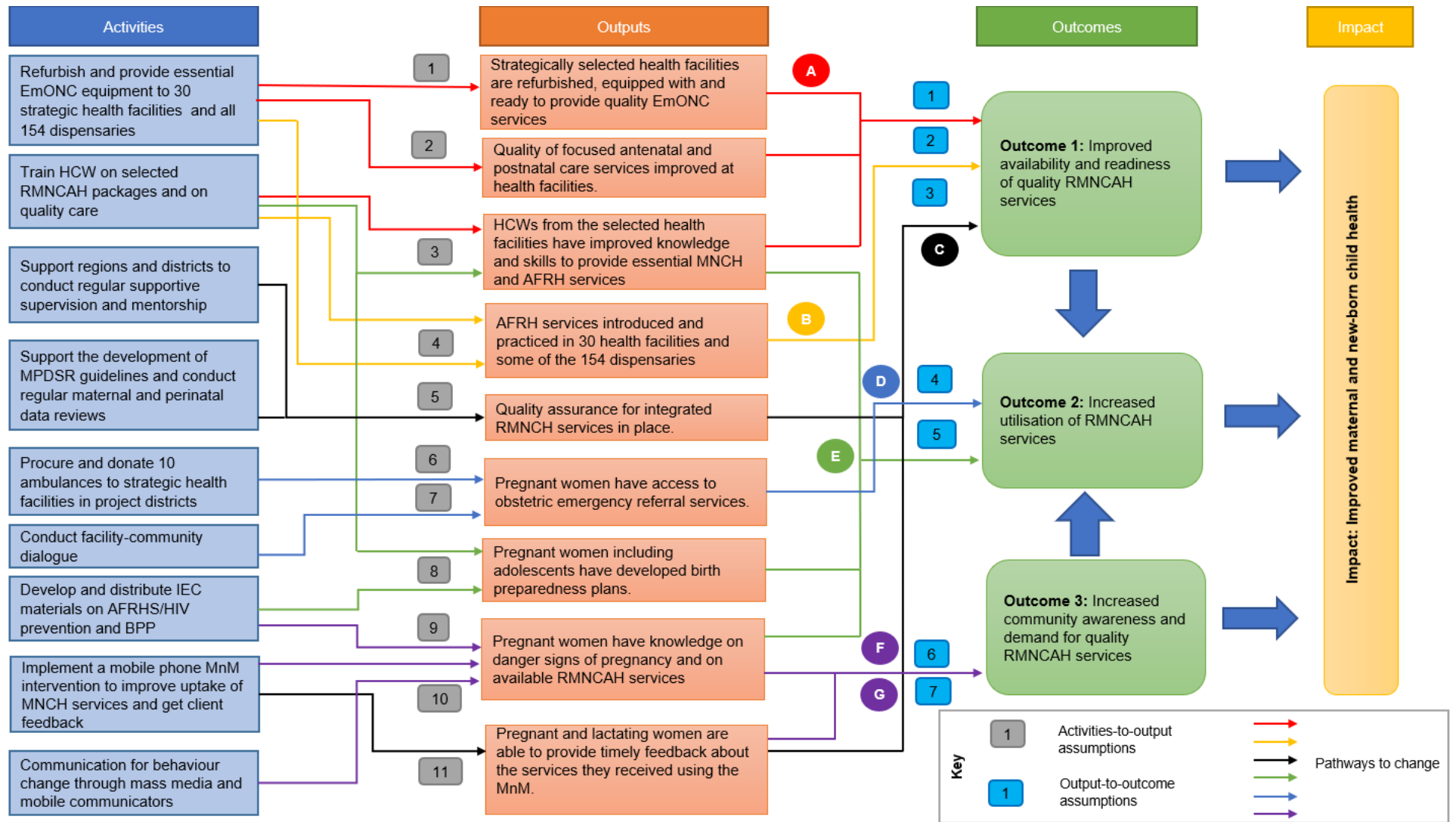
Annex I: Theory of change

At inception, the evaluation team conducted a ToC workshop with UNICEF Tanzania to review the problems or barriers the project aimed to address, identify the type of activities implemented, and any changes that were made to the implementation of planned activities over the lifetime of the project, outline the various pathways or mechanisms to change and the key assumptions linking activities to outputs and outputs to outcomes and the respective risks and contextual factors that are likely to affect the assumptions. As a result of the workshop, the following changes were made to the ToC:

- **Refinement of barriers the project aimed to address:** The evaluation team conducted a preliminary desk review of the background documents provided by UNICEF Tanzania before the in-country inception mission. Through this review, we were able to outline the key barriers as stated in the project design documents and validate whether the barriers were still accurate and whether any revisions were required. As a result of the discussions, the barriers were better articulated.
- **Planned versus achieved activities:** We conducted a review of all planned versus completed activities throughout the lifetime of the project, as part of the discussions around activities in the ToC. The UNICEF Tanzania team indicated that some activities were revised or completely discontinued due to resource constraints or implementation challenges. Further details on which activities were implemented as planned, which ones were modified, and which ones were dropped are provided under sub-section 1.1.3 (implementation of the project) below.
- **Defining the different pathways to change and articulating the assumptions and risks:** Through the workshop, we worked with the UNICEF Tanzania team to identify the various links between the activities, outputs, and outcomes and identify the multiple pathways to achieving the key outcomes of the project. The paths to change and assumptions had not been indicated in any of the project documents reviewed, and therefore, this was a critical activity to undertake to set up the contribution claim to allow the evaluation to assess the contribution story. For each of the pathways of change identified, assumptions from **activities-to-outputs** and **outputs-to-outcome** were developed in consultation with the UNICEF Tanzania team.

Utilizing the learning and changes from the ToC workshop, Figure 5 presents the revised ToC, the key assumptions, and risks to the **activities-to-outputs** and **outputs-to-outcome linkages** below.

Figure 5: Revised ToC



The ToC outlined in Figure 5, depicts seven pathways to change, with corresponding assumptions linking **activities-to-outputs** (grey numbered boxes) and **outputs-to-outcomes** levels (blue numbered boxes). In Table 10, we state the assumptions for the different pathways at both levels.

Table 10: Pathways of change and corresponding assumptions

| Pathways | Activities to outputs | Outputs to Outcomes |
|--|--|--|
| Outcome 1: Improved availability and readiness of quality RMNCAH services | | |
| A | Assumptions: <ol style="list-style-type: none"> 1. Quality and timely renovation and refurbishment takes place across all intended target of 30 strategic health facilities and 154 dispensaries 2. Equipment is provided to all intended target of 184 health facilities and is functional and of good quality 3. Training and trainers are relevant and of good quality. All HCWs from the selected health facilities receive and attend the appropriate RMNCAH training | Assumptions: <ol style="list-style-type: none"> 1. With improved facilities and equipment and proper training, HCWs will provide quality and adequate health services Trained HCWs continue to work in these health facilities, and the facilities continue to be well maintained |
| B | Assumptions: <ol style="list-style-type: none"> 4. Quality and timely renovation and refurbishment takes place across all intended 30 strategic health facilities, and some selected 154 health dispensaries to provide AFRH services Training and trainers are relevant and of good quality. All HCWs from the selected health facilities receive and attend the appropriate AFRH training | Assumptions: <ol style="list-style-type: none"> 2. With improved facilities and equipment and proper training, HCWs will provide quality and adequate AFRH |
| C | Assumptions: <ol style="list-style-type: none"> 5. Adequacy and quality supportive supervision by regions and districts Timeliness and quality of MPDSR 11. Pregnant and lactating women have functioning mobile phones, and the mobile network is stable | Assumptions: <ol style="list-style-type: none"> 1. Quality assurance results and feedback of pregnant and lactating women are used to improve the effectiveness of RMNCH treatment and services to improve the availability and readiness of quality RMNCAH services |
| Outcome 2: Increased utilization of RMNCAH services | | |
| D | Assumptions: <ol style="list-style-type: none"> 6. Thirty strategic health facilities across ten districts are equipped and have trained staff to improve access to comprehensive emergency referral services for pregnant women and new-borns 7. Facility and community dialogues allow for better advocacy among communities to facilitate emergency referrals of pregnant women to access EmONC referral services | Assumptions: <ol style="list-style-type: none"> 2. Improved transport availability for emergency referrals in the ten districts and communities engaged in advocacy to facilitate emergency referrals of pregnant women and new-borns leading to increased utilization of RMNCH services |
| E | Assumptions: <ol style="list-style-type: none"> 8. HCWs will have a better capacity to support pregnant women including adolescents in developing BPPs Pregnant women including adolescents are aware of the value and importance BPPs | Assumptions: <ol style="list-style-type: none"> 3. Pregnant women including pregnant adolescents have developed BPPs as a result are utilizing RMNCAH services more |
| Outcome 3: Increased community awareness and demand for quality RMNCAH services | | |
| F | Assumptions: <ol style="list-style-type: none"> 9. Pregnant adolescent girls know of the danger signs of pregnancy, availability of AFRH services, and HIV prevention via IEC materials and mass media channels. | Assumptions: <ol style="list-style-type: none"> 4. Pregnant adolescent girls demonstrate increased awareness and demand for quality AFRH services and increased utilization of RMNCAH services |
| G | Assumptions: <ol style="list-style-type: none"> 10. Pregnant women, their partners/husbands, and other community members are more aware of the danger signs of pregnancy and available RMNCAH services via IEC materials, MnM, HCWs, and mass media channels. | Assumptions: <ol style="list-style-type: none"> 5. Pregnant women, their husbands/parents, and community members seek and demand quality Seek RMNCH care early due to |

| Pathways | Activities to outputs | Outputs to Outcomes |
|----------|-----------------------|---|
| | | increased awareness of the danger signs |

The project anticipated seven risk factors that could affect the project implementation and achievement of the results over the lifetime of the project. Through the evaluation, we will assess whether any of the risks took place and the likely impact on the outcomes of the project. We will also evaluate whether other external factors might have impacted the project outcomes, both positively and negatively. The risks are presented below – as stated in the project proposal document.

1. **Physical:** Natural disasters such as floods, earthquakes, drought, etc
2. **Environmental:** Increased risk of impassable roads during the rainy season.
3. **Political:** Potential large-scale disruptions in the country due to the 2015 election
4. **Economic:** The staffing and recurring costs will need to be borne by the Government. Therefore significant emphasis is placed on evidence-based advocacy for the government to reduce existing Human Resource for Health gaps, ensure the right staff receives the type of training that will impact on the project and provide the environment that will likely increase the staff retention such as improving the working conditions of health workers.
5. **Provision of vehicles:** Measures will be taken to ensure vehicles procured through this project are well maintained, appropriately used, and can be replaced in case of a severe accident.
6. **Personnel:** There is a risk that the personnel trained under this project may leave their duty station due to personal or official reasons, which will severely affect the achievements of the project.

Social: There is a risk that parents/caregivers, religious and community leaders, other community members and front-line workers may see these interventions as a challenge to the status quo which, if not carefully guided, might lead to denial or defense of harmful social behavior, impacting on expected results.

Annex J: Comparison of outcome indicators and targets

Table 11: Inconsistencies of Outcome indicators, baseline values and targets in different project documents (FDM, Annual reports, Baseline report)

| FDM (Result Matrix) | | | | | Other Indicators | Baseline report | Baseline (matched) | Evaluation report (Endline) | 1 st Annual Report | | 2 nd Annual Report | | 3 rd Annual Report | | 4 th Annual Report | |
|--|--|---|----------|----------------|---|-----------------|--------------------|--|--|---|--|----------------|-------------------------------|--------------|-------------------------------------|--------------|
| Indicators | Numerator | Denominator | Baseline | Target | | | | | Baseline | Target | Baseline | Target | Baseline | Target | Baseline | Target |
| 1a (1.1) % of health facilities providing all 7 BEmONC signal functions | The number of health facilities that provide all 7 BEmONC signal functions | The total number of target health facilities | tbd | 50% | | 0 | - | 18 | 13.3%* * These figures with asterisk are from the national EmONC assessment. To be adjusted after completion of the baseline assessment | To be determined after baseline assessment | 0% from Baseline assessment (13.3% as of Dec 2016) | 50% | 0 | 30 | 0 (29 HFs or 97% as of Dec 2018) | 30 |
| 1b (1.2) % of health facilities providing all 9 CEmONC signal functions | The number of health facilities that provide all 9 CEmONC signal functions | The total number of target health facilities | tbd | 2 per district | | 0 | - | 3 | 11.5%* To be adjusted after baseline assessment | To be determined after baseline assessment. | 0% from Baseline assessment (11.5% as of Dec 2016) | 2 per district | 0 | 7 | 0 (5 HFs or 71% as of Dec 2018) | 7 |
| 1c (1.3) % of deliveries with partograph correctly filled during last 1 month | The number of deliveries in the previous 1 year which had a correctly filled partograph | The total number of deliveries in the district/region in the previous 1 month | tbd | tbd | | Not included | - | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| | | | | | # of deliveries with partographs correctly filled during last year | 50% (Good) | - | 100% (Excellent (55%) and Good (45%)) | Not included | Not included | 50% | 80% | 50% | 80% | 50% | 80% |
| | | | | | % health facility with "excellent" or "good" quality of filling of the used partograph (i) # of health facilities which use partographs in delivery rooms (labour wards) | 50% (Good) | - | Check | 87.4%* To be adjusted after baseline assessment | To be determined after baseline assessment. | Not included | Not included | Not included | Not included | Not included | Not included |
| | | | | | | 100% | - | 100% (30/30) | 65.1%* To be adjusted after baseline assessment | To be determined after baseline assessment. | Not included | Not included | 100% | 100% | 0 | 30 |
| 1e (1.4) % of health facilities which provides adolescent friendly reproductive health services. | The number of health facilities which have separate waiting and counselling rooms specifically for adolescents OR: The number of health facilities which have at least 1 | The total number of health facilities in the district OR Use instead number of target health facilities (i.e. 30+154)?? | tbd | 50% | | 0% | - | 100% (30/30) | To be filled after baseline assessment | To be determined after baseline assessment. | 0% | 50% | 0% | 50% | 0% (100% as of Dec 2018) | 50% |

| PDM(Result Matrix) | | | | | Other Indicators | Baseline report | Baseline (matched) | Evaluation report (Endline) | 1 st Annual Report | | 2 nd Annual Report | | 3 rd Annual Report | | 4 th Annual Report | |
|--|--|---|------------------------------|--------|---|-----------------|--------------------|-----------------------------|--|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|
| Indicators | Numerator | Denominator | Baseline | Target | | | | | Baseline | Target | Baseline | Target | Baseline | Target | Baseline | Target |
| 2a (2.1) % of mothers who attended 4 or more ANC for the most recent child birth | service provider trained on AFRHS OR: The number of health facilities which have allocated special hours to provide RH services specifically to adolescents. Number of mothers who attended 4 or more ANC for the most recent child birth | Total number of mothers who gave birth during the last 6 months | Mbeya Rural 44%, Mbarali 53% | 70% | | 62% | 68% | 86% *** | To be filled after baseline assessment | - | 9.1% | 40% | 9.1% | 40% | 9.1% | 40% |
| | | | | | % of mothers who attended first ANC within 16 weeks for the most recent birth | Not included | Not included | Not included | Not included | Not included | Not included | Not included | 4.4% | 15% | 4.4% | 15% |
| | | | | | % of mothers who attended first ANC within 12 weeks for the most recent birth | 47% | 99% | 56% | To be filled after baseline assessment | - | 4.4% | 15% | Not included | Not included | Not included | Not included |
| 2c (2.5) % of mothers who received IPT at least once for the most recent child birth | Number of mothers who received IPT at least once for the most recent child birth | Total number of mothers who gave birth during the last 6 months | 14% | 30% | | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| | | | | | % of mothers who received IPT at least twice for the most recent birth | 80% | 70% | 91% *** | To be filled after baseline assessment | - | 80% | 90% | 80% | 90% | 80% | 90% |
| 2d (2.3) % of mothers who were attended by skilled health personnel at the most recent child birth | Number of mothers who were attended by skilled health personnel at the most recent child birth | Total number of mothers who gave birth during the last 6 months | 43% | 70% | | 79% | 83% | 95% *** | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| | | | | | % of live births who were attended by skilled health personnel during the last five years | Not included | Not included | Not included | To be filled after baseline assessment | - | 79% | 80% | 79% | 80% | 79% | 80% |
| | | | | | % of live births who were delivered at the health facilities during the last 5 years | Not included | Not included | Not included | To be filled after baseline assessment | - | Not included | Not included | Not included | Not included | Not included | Not included |
| 2e (2.4) % of mothers who received postnatal care within | Number of mothers who received postnatal care within | Total number of mothers who gave birth | 27% | 60% | | 14% | 16% | 19% | To be filled after baseline assessment | - | 92% | >90% | 92% | >90% | 92% | >90% |

| PDM (Result Matrix) | | | | | Other Indicators | Baseline report | Baseline (matched) | Evaluation report (Endline) | 1 st Annual Report | | 2 nd Annual Report | | 3 rd Annual Report | | 4 th Annual Report | |
|--|---|---|----------|--------|--|-----------------|--------------------|-----------------------------|--|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|
| Indicators | Numerator | Denominator | Baseline | Target | | | | | Baseline | Target | Baseline | Target | Baseline | Target | Baseline | Target |
| 48 hours after the most recent birth | 48 hours after the most recent birth | in the last 6 months | | | | | | | | | | | | | | |
| 2f (2.6) % of mothers who initiated breastfeeding within 1 hour of birth for the most recent child birth | Number of mothers who initiated breastfeeding within 1 hour of birth for the most recent child birth | Total number of mothers who gave birth in the last 6 months | tbd | tbd | | 51% | 58% | 80% | To be filled after baseline assessment | - | 51% | 80% | 51% | 80% | 51% | 80% |
| Number of pregnant women with individual birth preparedness plan developed during current reporting period | NA | NA | tbd | tbd | | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| Number of new acceptors of family planning at the facility level during the current reporting period | NA | NA | tbd | tbd | | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| 3a (3.1) % of women of child bearing age (WCBA) who are willing to go to health facilities to deliver their next child | Number of WCBA who are willing to go to health facilities to deliver their next child | Total number of WCBA | tbd | tbd | | 98% | 85% | 100% *** | To be filled after baseline assessment | - | 98% | 100% | 98% | 100% | 98% | 100% |
| 3b [3.2 (i)] % of fathers who are willing to allow their wives to deliver the next child at health facilities | Number % of fathers who are willing to allow their wives to deliver the next child at health facilities | Number of WCBA | tbd | tbd | | 97% | 96% | 100% *** | Not included | Not included | >90% | >90% | >90% | >90% | >90% | >90% |
| 3b [3.2 (ii)] % of mother-in-laws who are willing to allow their daughter-in-laws to deliver the next child at health facilities | Number % of mother-in-laws who are willing to allow their daughter-in-laws to deliver the next child at health facilities | Number of WCBA | tbd | tbd | | 97% | 95% | 100% *** | To be filled after baseline assessment | - | >90% | >90% | >90% | >90% | >90% | >90% |
| | | | | | % of husband who are willing to allow their wives to deliver the next child at health facilities | Not included | Not included | Not included | To be filled after baseline assessment | - | Not included | Not included | Not included | Not included | Not included | Not included |
| 3c. % of women of child bearing age (WCBA) who are willing to visit health facilities for antenatal care | Number of WCBA who are willing to visit health facilities for antenatal care | Number of WCBA | tbd | tbd | | 98% | 91% | 99% *** | To be filled after baseline assessment | - | 98.8% | 100% | 90% | 100% | 90% | 100% |

| PDM (Result Matrix) | | | | | Other Indicators | Baseline report | Baseline (matched) | Evaluation report (Endline) | 1 st Annual Report | | 2 nd Annual Report | | 3 rd Annual Report | | 4 th Annual Report | |
|---|---|----------------|----------|--------|--|-----------------|--------------------|-----------------------------|--|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|
| Indicators | Numerator | Denominator | Baseline | Target | | | | | Baseline | Target | Baseline | Target | Baseline | Target | Baseline | Target |
| 3d. % of women of child bearing age (WCBA) who are aware of that pregnant women should seek antenatal care before 16 weeks of pregnancy | Number of WCBA who are aware of that pregnant women should seek antenatal care before 16 weeks of pregnancy | Number of WCBA | tbd | tbd | | Not included | Not included | Not included | To be filled after baseline assessment | - | 82.9% | 90% | 82.9% | 90% | 82.9% | 90% |
| | | | | | % of WCBA who are aware that pregnant women should seek ANC within 12 weeks of their pregnancy | 83% | 99% | 94% | Not included | Not included | Not included | Not included | Not included | Not included | Not included | Not included |
| 3e. % of fathers-in-laws who consider antenatal care for all pregnant women to be essential | Number of fathers who consider antenatal care for all pregnant women to be essential | Number of WCBA | tbd | tbd | | 97% | 97% | 100% *** | Not included | Not included | >90% | >90% | >90% | >90% | >90% | >90% |
| 3e. % of mother-in-laws who consider antenatal care for all pregnant women to be essential | Number of mother-in-laws who consider antenatal care for all pregnant women to be essential | Number of WCBA | tbd | tbd | | 97% | 95% | 100% *** | To be filled after baseline assessment | - | >90% | >90% | >90% | >90% | >90% | >90% |
| | | | | | % of husband who consider antenatal care for all pregnant women to be essential | Not included | Not included | Not included | To be filled after baseline assessment | - | Not included | Not included | Not included | Not included | Not included | Not included |

Note:

*, **, *** represents statistical significance at the 10%, 5% and 1%, respectively

