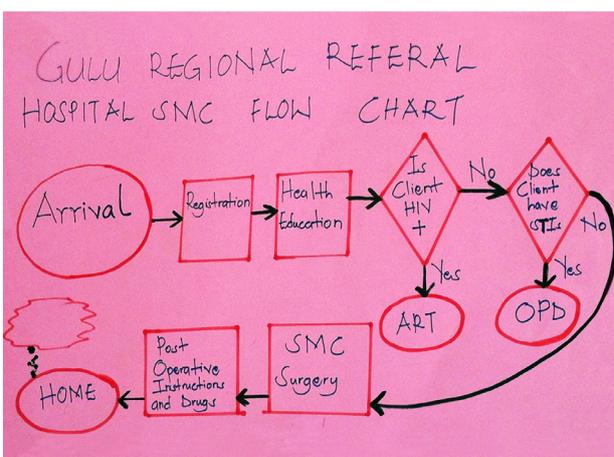




USAID
ASSIST PROJECT
*Applying Science to Strengthen
and Improve Systems*

A Guide to Improving the Quality of Safe Male Circumcision



NOTE!!!

**GET INFORMED
CONSENT BEFORE
CIRCUMCISION**



FEBRUARY 2015

This guide for improving Safe Male Circumcision (SMC) services in Uganda was prepared by University Research Co., LLC (URC) for review by the United States Agency for International Development (USAID) and authored by John Byabagambi, Angella Kigonya, Anna Lawino, Jude Thaddeus Ssensamba, Albert Twinomugisha, Esther Karamagi-Nkolo, Humphrey Megere, and Pamela Marks of URC and Barbara Nanteza and Alex Opio of the Ministry of Health, Uganda. The SMC quality improvement work upon which this guide is based was funded by the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and carried out under the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project, which is made possible by the generous support of the American people through USAID.

On the cover:

Upper left: A client receiving individual counselling prior to the SMC procedure; Mengo Hospital. *Photo by Albert Twinomugisha, URC.*

Upper right: The SMC client flow chart developed by the improvement team at Gulu Regional Referral Hospital to help map out SMC activities for the clinic and clients. *Photo by Anna Lawino, URC.*

Lower left: A notice on informed consent pinned up in the tent for group education at Apac hospital to ensure that both clients and health workers remember to obtain informed consent before circumcision. *Photo by Anna Lawino, URC.*

Lower right: Organisation of SMC records Gulu Regional Referral Hospital for easy retrieval. *Photo by Anna Lawino, URC.*

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For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

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Acronyms

AE	Adverse event
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project
BCA	Behaviour change agents
BP	Blood pressure
CDC	U.S. Centers for Disease Control and Prevention
CME	Continuous medical education
CQI	Continuous quality improvement
DoD	Department of Defense
EQA	External quality assessment
FU	Follow-up
HC	Health centre
HCT	HIV counselling and testing
HIV	Human immunodeficiency virus
IEC	Information, education, and communication
IP	Implementing partner
IRCU	Inter Religious Council of Uganda
META	Monitoring and Evaluation Technical Assistance Project (Makerere University)
MoH	Ministry of Health
MUWRP	Makerere University Walter Reed Project
NMS	National Medical Stores
NUHITES	Northern Uganda Health Integration to Enhance Services
OPD	Outpatient Department
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
QI	Quality improvement
RTI	Research Triangle Institute
SMC	Safe Male Circumcision
SOP	Standard operating procedure
SPEAR	Supporting Public Sector Workplaces to Expand Action and Responses against HIV/AIDS
SRH	Sexual and Reproductive Health
STAR E	Strengthening TB and HIV&AIDS Responses in Eastern Uganda
STAR EC	Strengthening TB and HIV&AIDS Responses in East Central Uganda
STAR SW	Strengthening TB and HIV&AIDS Responses in South Western Uganda
STI	Sexually transmitted infection
SUSTAIN	Strengthening Uganda's Systems for Treating AIDS Nationally
TB	Tuberculosis
UNAIDS	United Nations Programme on AIDS
UPHS	Uganda Private Health Support Programme
URC	University Research Co., LLC
USAID	United States Agency for International Development
VHT	Village Health Team
VMMC	Voluntary medical male circumcision
WHO	World Health Organisation

1.0 Introduction

1.1 The Evidence for Safe Male Circumcision

In 2007, World Health Organisation (WHO) and United Nations Programme on AIDS (UNAIDS) recommended that voluntary medical male circumcision (VMMC) be considered as part of the comprehensive HIV prevention strategies for countries with a high prevalence of HIV and low coverage of circumcision. This followed three independent clinical trials in South Africa, Kenya and Uganda, that provided evidence that male circumcision reduces the risk of sexual transmission of HIV from HIV sero-positive women to HIV sero-negative men by 53 to 60%.^{1,2,3} It is estimated that scale-up of circumcision to 80% of males aged 15 to 49 years will avert 300,000 HIV infections between 2011 and 2025⁴ in Uganda.

Since 2009, the Government of Uganda has implemented the Safe Male Circumcision (SMC) programme as recommended by WHO and UNAIDS, with support from the United States President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID), the U.S. Centers for Disease Control and Prevention (CDC), and the Department of Defense (DoD) through various implementing partners (IPs) spread across the country. In 2010, the Ministry of Health (MoH) issued its *Safe Male Circumcision Policy* and a *Minimum Standards of Procedure for Safe Male Circumcision* guidelines.

1.2 Why Improvement Activities Are Needed for SMC Services

In 2012, as part of the efforts to ensure that the SMC programme meets minimum acceptable standards, an inter-agency PEPFAR team conducted two external quality assessments (EQA) in selected health units providing SMC services in Uganda and found various quality gaps. Based on the findings of the assessment, the EQA team recommended that continuous quality improvement be incorporated within the SMC programme in Uganda⁵. This was assigned to two IPs: USAID ASSIST for USAID- and DoD-funded IPs and META for CDC IPs.

Continuous quality improvement (CQI): We define CQI as an iterative process of developing and testing hypotheses to achieve quality service delivery: A problem is identified, its cause is hypothesised, we hypothesise that a given intervention will resolve the problem, we try out the intervention on a small scale, we check whether our hypothesis has improved performance or not, and if performance has improved, we implement at scale. We repeat this cycle several times to give us the targeted level of performance. A team is practicing

¹ Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, et al. 2006. "Correction: Randomized, Controlled Intervention Trial of Male Circumcision for Reduction of HIV Infection Risk: The ANRS 1265 Trial." *PLoS Medicine* 3(5): e226. doi:10.1371/journal.pmed.0030226.

² Bailey RC, et al. 2007. "Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial." *The Lancet* 369(9562).

³ Gray RH, et al. 2007. "Male circumcision for HIV prevention in men in Rakai, Uganda: a randomized trial", *The Lancet* 369(9562).

⁴ Njeuhmeli E, Forsythe S, Reed J, Opuni M, Bollinger L, et al. 2011. Voluntary Medical Male Circumcision: Modeling the Impact and Cost of Expanding Male Circumcision for HIV Prevention in Eastern and Southern Africa. *PLoS Medicine* 8(11): e1001132. doi:10.1371/journal.pmed.1001132.

⁵ External Quality Assurance for VMMC in Uganda: Preliminary Findings Presented by PEPFAR EQA Teams 10 December 2012. Unpublished.

CQI if at any time, they have at least one such cycle going on to improve performance of any service delivery area.

In 2013, the USAID ASSIST Project was engaged to provide technical assistance to roll out CQI in the SMC programme in Uganda. Thirty sites were selected—three from each of 10 implementing partners supporting SMC—with the expectation that the IPs would support diffusion of better practices from these 30 to the rest of the sites in the SMC programme. The 30 sites were spread in 28 districts and supported by 10 implementing partners: STAR EC, Walter Reed, STAR E, HIPS/UPHS, STAR SW, SPEAR, IRCU, RTI, NUHITES, and SUSTAIN.

1.3 What Did These 30 Sites Achieve?

The 30 SMC sites participating in CQI with support from the MoH, USAID ASSIST, and implementing partners succeeded in making large improvements in the quality of SMC services. They measured the quality of SMC services using a self-assessment tool developed by the MoH with PEPFAR support that measures how well care and procedures in the unit meet 53 SMC standards grouped in seven major areas:

- 1) Management Systems
- 2) Supplies, Equipment and Environment
- 3) Registration, Group Education and Information Education and Communication
- 4) Individual Counseling and HIV Testing for SMC Clients
- 5) Male Circumcision Surgical Procedure
- 6) Monitoring and Evaluation
- 7) Infection Prevention

This assessment tool may be found in **Appendix 1** of this guide.

When these 30 sites started improvement work in March and April 2013, their baseline assessments showed a lot of quality gaps and areas where performance was below 50% compliance. A color-coded dashboard was used to summarise results for each area, where red showed performance was below 50%; yellow showed performance at 51%-80%; and green showed performance above 80%.

The sites succeeded in making improvements to the quality of SMC services. Through consistent work on finding ways to improve in each of the seven areas, after 18 months, all 30 sites had consistently demonstrated performance in green (good) or yellow (needs some improvement); none of the ASSIST-supported sites still had a standard classified as red (poor). Figure 1 shows the baseline assessment for the 30 sites, compared with an assessment in September 2014.

1.4 Purpose of this Guide

USAID ASSIST and the MoH have been capturing what the 30 sites have learned about what changes have actually improved quality of care. In June 2014, a three-day harvest meeting was conducted (18 months after USAID ASSIST support started) to systematically harvest and document experiences of using CQI to improve SMC services. Representatives from all 30 health units participated. Participants were put into small groups, and with support from the facilitators, discussed all the changes they had tested and what impact these changes had on each quality indicator. At the end of the discussion, teams were able to identify changes that led to improvement and those that did not lead to improvement based on the site-specific results achieved. In addition to discussing the changes, the teams shared experiences on how to initiate CQI in SMC at the health unit level.

Figure 1. Assessment against the 53 standards at baseline and in September 2014

PERFORMANCE OF SITES ON VMMC QUALITY AREAS

>80% - Good	50 -<80% - Fair	<50% - Poor	Not assessed

Site	Baseline Feb-May 2013							Sep-14						
	Management systems	Supplies, equipment & environment	Registration group education and IEC	Individual counseling & HIV testing	Male circumcision surgical procedure	Monitoring & evaluation	Infection prevention	Management systems	Supplies, equipment & environment	Registration group education and IEC	Individual counseling & HIV testing	Male circumcision surgical procedure	Monitoring & evaluation	Infection prevention
1	30	50	0			33		60	67		*	*	71	80
2	20	33	0			7	92	80	87	80	**	**	87	92
3	40	83	0			14	85	80	83	83	87	88	86	92
4	30	50	0			18	82	90	83	100	100	100	93	100
5	20	33	0			14	80	100	100	100	83	100	93	100
6	10	50				7	70	90	100	90	100	100	100	92
7	40	50	50			75	60	90	50	100	83	100	92	67
8	50	50	25			14	77	90	100	83	100	90	86	85
9	60	50	83	39	64	29	92	100	67	100	100	100	86	100
10	20	50	50			0	33	90	100	100	100	90	93	80
11	33	25	0			0		80	80	67	67	80	77	75
12	25	33	0				70	100	83	100	80	83	100	92
13	60	67	75	83	81	14	80	90	100	100	100	100	81	85
14	70	50	25			50	80	100	83	100	100	100	86	92
15	60	33	25			50	90	90	100	100	100	82	86	80
16	30	67	100			14	58.3	90	100	100	100	100	92	100
17	40	83	75	100	100	14	84.6	100	67	100	89	100	86	92
18	70	67	100	67	100	69	75	100	67	100	100	100	100	80
19	40	50	0			21	100	100	83	83	80	97	100	100
20	60	50	0			21	92	100	83	83	83	85	93	85
21	70	50	0			21	77	90	80	83	94	80	75	76
22	80	83	100			93	100	90	100	100	100	97	79	100
23	70	100	100	100	100	93	100	90	100	83	100	92	86	100
24	70	100	100	100	100	93	100	80	83	100	100	94	86	92
25	60	50	100			46	100	90	100	100	100	91	79	100
26	60	33	50			15	76.92	90	67	100	100	91	79	92
27	40	83	75	100	100	75	100	90	100	100	100	91	93	92
28	20	50				78	15	90	75	50	94	87	93	90
29	22	67	67			47	29	90	83	83	83	90	93	92
30	40	67				38	84.6	90	67	83	100	90	100	100

*No SMC, theater under renovation **Not in action on day of visit

This guide draws on the recommendations and insights from the harvest meeting to advise health units on how to get started on improvement of SMC services and assess performance against the MoH quality standards. It also gives specific ideas for changes to improve in each area covered by the standards, based on the experiences of the 30 sites. It is designed for frontline health workers offering safe male circumcision services and is intended to serve as a resource for every health unit providing SMC services in Uganda, to help improve the quality of SMC services and ensure that all patients benefit from safe and effective SMC care.

Appendix 2 contains several short case studies of how individual sites made improvements in SMC services. The case studies describe what the improvement work was like for an individual health unit.

1.5 How to Use this Guide

The guide is structured into four main sections:

- 1) Section 2: How to get started with SMC improvement work, including forming the team, obtaining necessary clinical training, conducting the baseline assessment, and identifying and prioritising gaps for improvement work.

- 2) Section 3: Addressing quality gaps in meeting SMC service standards as the first step to better care
 - a. Improving management systems
 - b. Improving supplies, equipment, and the work environment
 - c. Improving registration, group education, and information, education, and communication (IEC)
 - d. Improving counselling and HIV testing
 - e. Improving male circumcision surgical procedure
 - f. Improving monitoring and evaluation
 - g. Improving infection prevention
- 3) Section 4: Focus on process improvement: Improving follow-up of SMC clients beyond 7 days after circumcision and reducing rates of moderate to severe adverse events.
- 4) Section 5: Gender integration in SMC improvement work: Involving female partners in SMC.

We recommend that a team starts with Section 2, How to Get Started with SMC Improvement Work. Then, depending on the areas where their health unit is experiencing gaps, the team might look at the section on a specific area in the SMC standards in Section 3, rather than starting with the first area (Management Systems).

We have seen that most teams find they need to address record-keeping and documentation of care when they first get started, to make sure that documentation and recording tools are in place and being used properly. Correct documentation and recording are important for several areas of the standards, and teams have found it is easier to look at all recording and reporting issues together at first to make the rest of the work go more smoothly.

The focus on process improvement and gender issues discussed in Sections 4 and 5, respectively, reflect quality issues that are more challenging to address and may be more effectively addressed after teams make gains in complying with the service standards.

Health unit teams are not expected to replicate every change or idea mentioned in this guide. However, they should evaluate their situation and decide on which changes or ideas can be adapted to their own facility. New sites should also know that changes that have led to positive results at other health units may not necessarily lead to improvements at their own health units.

2.0 How to Get Started with SMC Improvement Work

This section provides guidance to health units intending to initiate improvement activities in SMC. It is based on lessons learned from the 30 pilot teams and the coaches who supported them. We also describe some of the key resources and steps required for a smooth start to the work. We recommend that health units first acquaint themselves with these recommendations and then decide on how to proceed with organising improvement activities in their setting.

2.1 What Does SMC Improvement Work Consist of?

Quality improvement (QI) work focuses on:

- 1) Identifying gaps in meeting standards of care;
- 2) Examining care processes to determine what is contributing to the gaps;
- 3) Testing and measuring changes on how care is organised or delivered to overcome the causes leading to the gaps;
- 4) Analysing data from client records and data collection tools to determine if the changes made actually lead to better quality care or better patient outcomes.

From our experience, we have learnt that improvement work happens more easily when health providers work in improvement teams. Staff of a health unit have deep knowledge of their own care processes and clinic setting and are best positioned to identify ways to achieve the highest quality care possible in their unit. Having different cadres of staff on the improvement team, representing all the key steps in the health care process to be improved, ensures that the team has the necessary experience to figure out how to improve compliance with standards. For SMC services, this means that the SMC improvement team should include health workers engaged in pre-procedure counselling, surgical procedure, data management, and post-procedure follow-up.

A number of QI tools have been used by SMC teams in Uganda to analyse their systems and processes of care, understand the root cause of quality gaps, identify changes that may result in improved quality and efficiency, and measure the effect of changes through data that they themselves collect (see **Appendix 3**). These include: the Uganda SMC quality improvement assessment tool (**Appendix 1**), the National MoH Quality Improvement Framework and Strategic Plan, National SMC Quality Improvement Indicators, documentation journal, and a dashboard. Improvement coaches from the District Health Office, implementing partner, or USAID ASSIST can support health unit improvement teams with analysing care processes and using data tools.

2.2 Initiating Improvement Work at the Health Unit Level

Having worked for 18 months with 30 improvement teams to address gaps in SMC, we have not only learned what changes should be made to address specific gaps but have also learned how to go about initiating continuous quality improvement activities at health units.

This section is a description of the steps we went through to initiate improvement work at the 30 sites.

- 1) Carry out a baseline assessment to identify the gaps in care
- 2) Form an improvement team
- 3) Get training and support in quality improvement, including QI tools

- 4) Prioritise gaps and begin testing and identifying changes to address gaps
- 5) Maintain the initial momentum by regularly supporting the team to meet the standards and maintain high performance on quality indicators.

2.2.1 Carry out a baseline assessment

To understand how to improve, a health unit must first measure the current quality of services to establish the baseline level of SMC service quality. Whilst we started with the baseline assessment, other schools of thought recommend forming an improvement team first which then conducts its own baseline assessment⁶. In our case we started with a baseline assessment before forming improvement teams to determine gaps in the content of care. We did this because during the EQA gaps that needed immediate remediation were identified and therefore we wanted to ensure that if such gaps are at any other site, they are quickly identified and addressed. The baseline to determine gaps in the process of care was done after teams were formed.

In January 2013, MoH a standardised SMC quality improvement assessment tool (**Appendix 1**). The tool lists the minimum standards for high-quality SMC services and provides the verification criteria for assessing adherence to the content of care for SMC. This is organised into 53 SMC standards under seven major areas. These areas are:

- 1) Management Systems with 10 standards,
- 2) Supplies, Equipment and Environment with 6 standards,
- 3) Registration, Group Education and Information Education and Communication with 4 standards,
- 4) Individual Counselling and HIV Testing for SMC Clients with 6 standards,
- 5) Male Circumcision Surgical Procedure with 10 standards,
- 6) Monitoring and Evaluation with 4 standards, and
- 7) Infection Prevention with 13 standards.

Nine key processes in the SMC service provision were identified and indicators were developed to measure them. These are:

- 1) To improve the percentage of SMC clients who are counselled, tested and receive HIV test results
- 2) To improve the percentage of SMC clients who are assessed for sexually transmitted infection prior to circumcision
- 3) To improve the percentage of SMC clients whose informed consent is documented prior to circumcision
- 4) To improve the percentage of SMC clients whose surgical circumcision is conducted under local anaesthesia
- 5) To reduce the percentage of SMC clients who experience moderate to severe adverse events following circumcision
- 6) To improve the percentage of SMC clients who are followed up within 48 hours after circumcision

⁶ The Aurum institute, *How to guide for quality improvement*, Aurum House, Johannesburg [Online] Available from: http://www.auruminstitute.org/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=2&Itemid=101 [Accessed 20/01/2014]

- 7) To improve the percentage of SMC clients who are followed up beyond 48 hours and within 7 days from after circumcision
- 8) To improve the percentage of SMC clients who are followed up beyond 7 days after circumcision
- 9) To improve the percentage of SMC clients who have partners that attend group education with their partners

For a health unit to carry out the baseline assessment by applying the MoH SMC quality assessment tool, we recommend the following steps:

1. **Assessment team:** Set up an assessment team that will carry out the exercise. We have found that it is helpful to conduct the baseline with key stakeholders and experienced SMC assessors, including: QI experts, a representative from the implementing partner working with the health unit, MoH representatives, e.g. district health office staff, a member of the health unit management (facility in-charge), and members of the health unit circumcision team.
2. **Resources:** Use the standardised MoH SMC assessment tool found in **Appendix 1** to guide the process. Depending on how many people are on the assessment team, the baseline assessment can take from five to eight hours. Having more people on the teams reduces the duration of the assessment. It is advisable that the assessment is conducted on a day when the team is in action (circumcision day) so as to be able to assess all the 7 areas.
3. **Action planning after the assessment:** After the baseline assessment (and indeed, after every subsequent application of the assessment tool), the team conducting the assessment should meet to review the results with the health unit staff, reviewing key findings and priority gaps in each of the seven areas covered by the standards. Together, the assessment team and health unit staff should develop an action plan summarising the gaps, actions to be taken, and responsibilities of all involved parties to help bridge the gap. A sample action plan from one of the 30 sites is shown in **Appendix 4**.
4. **Timeframe for action:** The assessment team should try to define a reasonable time frame in which to address the gaps. Care should be taken to avoid very tight deadlines that are not realistic, but at the same time ensuring that gaps are given the urgency they deserve to be addressed. This is especially true for any gaps that relate to patient safety. For example gaps relating to emergency preparedness and obtaining informed consent should be addressed before the circumcision procedure.

2.2.2 Form an improvement team

Our experience and existing literature⁷ has shown that having an improvement team at the health unit is vital to lead improvement work. Experience from our coaching visits has shown that facilities which had functional QI teams showed faster improvement compared to facilities did not have teams to spearhead improvement. The improvement team is charged

⁷ Massoud R, Askov K, Reinke J, Franco LM, Bornstein T, Knebel E, MacAulay C. 2001. A modern paradigm for improving healthcare quality. QA Monograph Series 1 (1) Bethesda, MD: Published for the U.S. Agency for International Development (USAID) by the Quality Assurance Project. Available at: <https://www.usaidassist.org/resources/modern-paradigm-improving-healthcare-quality-0>.

with leading the improvement activities and ensuring that all providers are testing changes to bridge gaps.

With formation of teams, we have found that approximately six to eight members is a good size for the team to be effective (note that smaller facilities may have smaller teams). The composition of the improvement team should follow the recommendations stipulated in the National MoH Quality Improvement Framework and Strategic Plan (see **Appendix 5**). A team that ensures representation of all sections of SMC like community mobilisation, group education, surgical teams, post-operative team, infection prevention and someone that manages records is recommended. It is also important that a representative from the health unit administration is included on the improvement team because a good number of changes require support of the health unit management.

2.2.3 Get training and support in quality improvement, including QI tools

The MoH has defined standard training in quality improvement for health unit QI teams. This training can be in the form of a 5-day off-site training or onsite training during coaching visits.

While QI training is helpful, health unit teams can also acquire knowledge on how to identify gaps, develop action plans, and track progress through using the documents that have been developed for implementing QI. These include: the Uganda SMC quality improvement assessment tool (**Appendix 1**), the National MoH Quality Improvement Framework and Strategic Plan, National SMC Quality Improvement Indicators, documentation journal (which is found at the end of the assessment tool in **Appendix 1**), and a dashboard (**Appendix 6**).

2.2.4 Prioritise gaps and begin making changes to address gaps

From the results of the baseline assessment, a health unit QI team can identify which of the areas have the lowest percentage of quality standards achieved. We recommend that new teams initiate their improvement work by starting with the gaps related to the quality standards, which relate more to the inputs needed for performing high-quality male circumcision services. Baseline results showed that majority of the teams performed well in standards around infection prevention. If this is case, this is an area that can be supported after other standards have also been brought to the same level. When a team has achieved a good level of performance in the priority areas they can tackle more gaps.

Experience from the 30 pilot sites showed that starting with addressing gaps in documentation (including use of data tools such as registers, and client forms, stock management tools) is an important area on which to focus. This is because having good records in place helps to monitor progress in other areas needing improvement. Data for process indicators should be monitored as regularly as required.

2.2.5 Maintain the initial momentum

It can be challenging for teams to maintain the minimum standards once improvements have been registered. This could be due to several reasons such as failure to maintain regular in-flow of supplies and changes in composition and functionality of the team.

Once the desired level of performance has been attained, we recommend conducting regular (at least once quarterly) checks using the standardized tool and process indicators to assess the level of performance and address any emerging gaps. Other suggestions to keep improvement work going:

- Ensure a regular supply of SMC commodities and equipment by including them in the health unit work plan and the district procurement plan. Order them within the timelines set by National Medical Stores (NMS).

- Assign a specific staff member to track the stock levels and ensure stock cards are kept updated.
- Regularly communicate with the implementing partner to support the provision of the supplies required such provision of transport.
- Ensure staff from top management and medical stores remain active members of the improvement team so that they take note of the issues requiring their attention.
- Schedule regular QI meetings; and these could be weekly or monthly meetings. The purpose of these meetings is for the team to discuss the data, changes made, action plans and progress towards achieving the stated objectives, plan for resources needed to achieve the work, etc.
- Develop a list of roles and responsibilities for assuring quality of SMC services and regularly go through it with the entire SMC team. Ensure all cadres understand their roles and pin up a list of these roles in a place where staff can regularly review them.
- Agree upon action plans with all stakeholders; jointly develop roles and responsibilities for all staff in implementing the QI action plan and ensure that all staff understand their roles and what is expected of them.
- Teams should endeavour to attend a quarterly QI feedback meeting with other IPs so as to share best practices and learn from other teams.

The next section of this guide, Section 3, describes, for each of the seven areas covered by the National SMC Standards, the gaps that were commonly identified by the improvement teams in the initial 30 health units in meeting individual quality standards. The changes that were tested by these teams to address each gap are listed together with a brief explanation of how the health unit teams actually implemented each change.

Section 4 of this guide then deals with follow-up of clients beyond seven days after circumcision and management of adverse events. Section 5 addresses how and why to involve female partners in supporting male circumcision and post-circumcision follow-up.

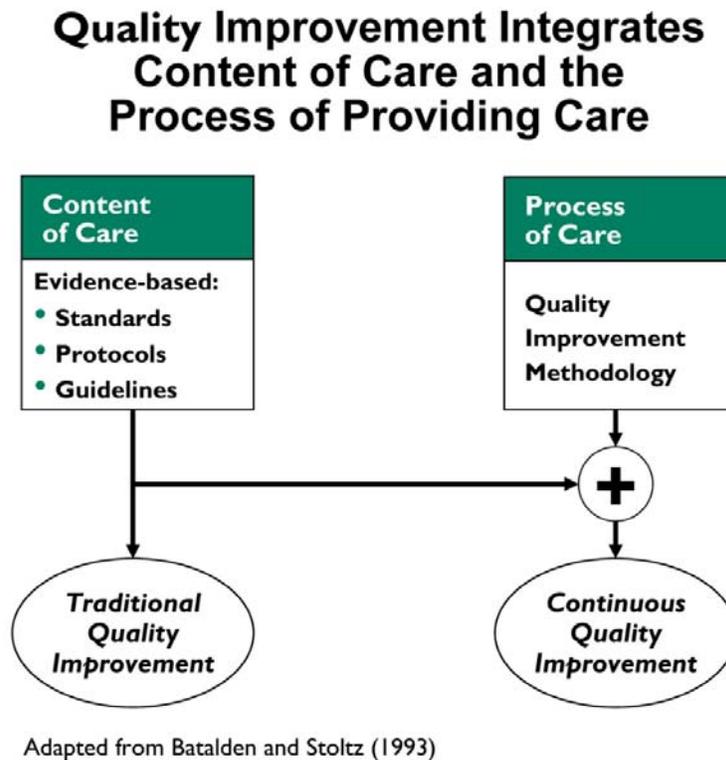
3.0 Addressing Quality Gaps in Meeting the SMC Service Standards

As was noted in Section 1, this guide is intended to help other health units improve SMC services by learning from the 30 teams that have already made significant improvements in SMC service quality. This section provides guidance on how to improve the content of care for SMC services.

Health unit teams are not expected to replicate every idea mentioned in this guide, but should instead consider the ideas outlined here and choose those which they think can be adapted to their own health unit. That is why improvement teams need to test their own ideas in their own setting to see if they improve their health unit's performance according to the SMC quality standards.

The tables in this section describe the actions taken and changes tested to address the gaps. The actions address issues to do with the content of care and mainly things to do with inputs while the changes address the process of care and the system in which care is provided. Figure 2 below illustrates the relationship between the content and process of care when implementing CQI.⁸

Figure 2. How quality improvement address both the content and process of care



⁸ Batalden PB, Stoltz PK. 1993. "A framework for the Continual Improvement of Health Care: Building and Applying Professional and Improvement Knowledge to test changes in daily work." *The Joint Commission Journal on Quality Improvement* 19 (10): 424:447.

3.1 Improving Management Systems

To improve management systems, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Recommendations to address process and content gaps
1. Relevant SMC policies, guidelines and standards are available and staff are aware of them	Obtain missing documents and kept them in a secure, but easily accessible place for the team. Teams requested for the missing documents from the District Health Offices (MoH), implementing partners, and USAID ASSIST Hold a Continuous Medical Education (CME) session to discuss important policy documents Orient staff on the relevant SMC documents
2. The site has a written plan for SMC services	The team agreed upon the activities they are able to perform, put them into an SMC work plan for the year and shared it with the implementing partner (IP) and health unit administration for their input
3. The SMC clinic is able to meet demand for services	Assign roles and responsibilities to staff so that there are staff available to provide SMC services even when others go for outreach services Hold outreaches and camps to meet the target
4. The SMC clinic or health unit has clearly defined roles and responsibilities	Staff roles agreed upon and defined
5. The SMC clinic or health unit has the human resources available according to the SMC service delivery plan	Lobbied implementing partners to train staff in SMC Conducted on-job staff training
6. SMC staff receive mentorship and support	On-going support and mentorship provided by the MoH, IP, and USAID ASSIST
7. Client flow chart is available in the health unit	Team developed and displayed client flow chart; visible to clients and staff (see Appendix 8 for an example of a client flow chart) Started recording clients linked to other services (STI treatment, HIV chronic care) in the registers (see Appendix 9 for an example of a client referral register) Phone calls to sites/stations that are receiving referred clients for other services to ensure complete documentation
8. Monitoring service delivery data are used for planning and improvement of service delivery	A program for monthly review meetings was developed for the whole year and implemented Formed a QI team which holds regular meetings to review performance, data accuracy and completeness Staff trained in QI by USAID ASSIST in conjunction with the IP Use of the SMC champions to obtain client feedback Created a client feedback corner at the health unit where feedback is received and used to improve the quality of the services Develop a client satisfaction tool

Quality standard	Recommendations to address process and content gaps
	Identify key areas on which feedback is required and develop a questionnaire to administered to the clients
9. Moderate and severe adverse events or complications are reviewed	Conducted CME on adverse events grading of adverse events and management Set up a system to identify, grade, and document adverse events. QI team reviews and investigates adverse events
	Site teams repackaged the information on follow-up, from telling clients ' <i>to come back for follow-up when they have problems</i> ' to telling all clients to ' <i>come back for follow-up at 48 hours, 7 days, and 6 weeks</i> ' Allocated a focal person for follow-up of clients
10. The health unit/SMC clinic has a functional supply and equipment ordering system.	Supply system in place including tracking stock level of SMC commodities using stock cards
	Incorporated requests for SMC supplies into NMS supply orders for the health unit

3.2 Improving Supplies, Equipment and Environment

To improve supplies, equipment and environment, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Recommendations to address process and content gaps
1. The physical facilities are appropriate for SMC service provision	Obtained partitioning screens for privacy Improvised space for pre-operative assessment Lobbied IPs to renovate SMC theatre Requested the IP to avail a tent for group education
	Identified a room at the health unit for pre-operative examination and obtained an examination couch from the health unit administration
	Used a portable hand washing health facility Improvised with buckets that have been fitted with taps
2. The necessary equipment are available for performing SMC surgeries	Requested IP to provide disposable SMC kits and re-usable kits for sustainability of the programme
3. The necessary commodities are available for performing surgeries	Requisitioned for SMC commodities from NMS, JMS, and implementing partners
	Made requisition for the protective materials to the health unit management and the implementing partners
	Improvised client gowns with the available materials of linen
	Made requisition for the petroleum impregnated gauze from the implementing partner Make petroleum gauze at the health unit
	Requested bin liners from other health units within the district, NMS, and IPs
	Requisitioned for supply from IPs

<p>4. Adequate supplies of medicines and commodities</p>	<p>Made timely orders (within the NMS schedule) that were followed up by the team leader</p> <p>Quantified medicine requirements for SMC using quantities consumed in the previous month or number of clients seen in previous month</p> <p>Requesting for HIV test kits from other health facilities when there is low or no stock</p> <p>Approach the District Health Office for support Integrated the missing SMC commodities in the hospital budget for purchase</p> <p>Encourage clients to buy STI needs/drugs(this was more so in the Private not-for-profit health facilities)</p> <p>Requisitioned for condoms from the District Health Office and implementing partners</p>
<p>5. An emergency resuscitation system exists and medications/ supplies are available with immediate access</p>	<p>Emergency drugs and equipment were requested and supplied by the IPs and NMS</p> <p>Developed emergency resuscitation protocols and displayed them in the procedure rooms</p> <p>Removal of expired drugs and routine check of the emergency drugs for potency and expiry dates</p> <p>Use a checklist to track the expiry dates before each day of surgery</p>
<p>6. Adequate measures are in place for management moderate to severe complications and adverse events (AEs)</p>	<p>Held a session to orient staff on the importance of documenting AEs</p> <p>Had a session on how to use an AE grading scale to detect AEs and manage clients better (see Appendix 10 for the MoH AE grading scale)</p> <p>Reinforcing good self -management during health education sessions, in theatre, after surgery; the importance of returning in case of AEs and the need to return for follow up</p> <p>Use of a health education checklist with information on AEs and the importance of follow-up</p> <p>Training of staff on standard techniques for SMC procedures</p> <p>A phone line was put in place specifically for clients to call in case they had an AE</p> <p>Emphasized the need for guardians/parents to attend education sessions and listen to post-operative instructions when they bring their children for SMC</p> <p>Informing clients to come with tight fitting underpants during the mobilisation drives to reduce the incidence of haematomas.</p> <p>Introduced an AE log at OPD to capture any clients that could return with AEs but could not be captured in the SMC register (for instance, clients who come at night when the SMC register is locked in the SMC clinic)</p> <p>Team got an AE grading scale from IPs or district health office</p> <p>For clients who had no tight pants strap the penis on the abdomen using adhesive tape</p> <p>Provided free underpants to prisoners as the team realised prisoners had not tight underpants</p> <p>Provide polythene bags and toilet paper to clients to keep their wounds dry while bathing and urinating</p>

3.3 Improving Registration, Group Education and IEC

To improve registration, group education and IEC, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Recommendations to address process and content gaps
1. The client is correctly recorded in the register and given a serial number	CME for staff on correct recording of client data in the register and giving a client a serial ID number
	Introduced a new register to capture all clients who come for SMC services
	Requisitioned the forms from IPs
	Introduction of someone to handle registration of clients
2. The health unit has appropriate information and educational materials on SMC and reproductive health	Requisition for IEC materials from the IP and MoH Made photocopies of take home IEC materials
3. Group education delivered with correct information	Group education included as part of the SMC process A list of talking points was generated and shared with people in charge of group education
	Counsellors oriented on the content of information given during SMC group education
	Counsellors were oriented on the importance of separating clients and resolved to separate children from adults during group education
4. Group education delivered with appropriate techniques	CME held on group education techniques

3.4 Improving Counselling and HIV Testing

To improve counselling and HIV testing, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Recommendations to address process and content gaps
1. The counsellor provides appropriate individual counselling on SMC	Acquire a tent for HCT services to provide more space and ensure privacy
	Request HCT registers from District Health Office, Implementing Partners
	Incorporate individual and couple counselling and testing for HIV in SMC
	Conduct CME on individual and couple counselling for SMC
2. The provider provides routine HIV testing for every client	Make prompt requisitions for testing kits from District Health Office, lower health units, and IPs
3. The provider is properly giving results and post-test counselling	Sensitise staff members on proper referrals and linkages of HIV clients to ART clinic for comprehensive services

Quality standard	Recommendations to address process and content gaps
4. The provider uses appropriate counselling skills throughout the session	Crosscheck for understanding of information provided
5. All clients receive condoms along with appropriate counselling and instructions on their use	Requisition for condoms from the IP Prepare a dildo (model penis) for demonstration of condom use during counselling Make the ABC strategy part of the SMC individual counselling Distribute condoms at each visit (including follow-up visits)
6. The provider obtains informed consent from clients	Orient all staff on the importance of obtaining consent from the clients prior to the procedure
	Reinforce the importance of guardian/parent consent for their children during group education sessions

3.5 Improving Male Circumcision Surgical Procedure

To improve male circumcision surgical procedure, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Recommendations to address process and content gaps
1. The provider correctly takes history	Increase the number of staff at the history taking point Allocate a room for history taking and physical examination Show STI assessment as a specific point in the client flow chart Ensure staff are trained on STI assessment; provide manual on STI diagnosis Use reminders to ensure that STI assessment has been conducted and treatment
	Ensure proper documentation of STI assessment Use the column for comments /remarks in the group education register to document the diagnosed STI cases and for following the treatment outcome of the clients diagnosed with STI
2. The provider correctly performs pre-operation examination	Re-orientate circumcisers and assistants to carry out complete head-to-toe medical examination to rule out anatomical abnormalities or signs of STI
3. The provider prepares the client for surgery	Put in place a reminder on the wall for all staff to check and verify client consent pre-operatively
	Use the disposable aprons provided in the kits Requisition for protective clothing from the implementing partners
4. The provider administers anaesthetic and performs dorsal slit correctly	Purchase reusable SMC kits that have forceps
	Re-orient the surgical team on the surgical procedure techniques and administration of anaesthesia using the minimum standards of procedure guideline for dorsal slit
5. The provider achieves haemostasis, sutures the wound and applies the dressing correctly	No recommendation since this was not found to be a gap

Quality standard	Recommendations to address process and content gaps
6. Provider is able to respond appropriately to an emergency situation	Organize a training for emergency response and management for all staff involved in SMC
7. The provider completes the procedure and assists the client to the post-operative area	Introduce regular mentorship and peer review to ensure that all providers strap the client's penis to the lower abdomen
8. The provider monitors immediate post-operative client	<p>Avail missing equipment such as the BP machine at the postoperative station</p> <p>Place reminders at postoperative station</p> <p>Assign a specific staff member to conduct the post-operative session</p> <p>Include taking of vital signs on the post-operative checklist</p> <p>Post-op staff check for oozing on the bandage in the immediate post-operative care</p>
9. The provider gives client appropriate post-operative instructions	Develop a list of post-operative instructions which are discussed with clients by the post-op nurse
10. Client records are updated and completed prior to discharge	All circumcisers complete the client forms immediately after surgery
11. The provider correctly manages initial follow-up (48-hour and 7-day)	<p>Repackage the follow-up message (telling clients to come for removal of the dressing at the health unit at 48 hours instead of telling them to come back only if they had problem)</p> <p>Give appointments and write the exact return date on the client card instead of just verbally telling the client to come back after 7 days</p> <p>Hold sensitisation meetings for staff to share the importance of follow-up and provision of appointment dates for follow-up at 48 hours, 7 days, and 6 weeks post-operatively</p> <p>Make telephone calls and send text messages to clients to remind them to come for review</p> <p>Mobilise Village Health Teams to contact clients and encourage them to return for the follow-up visit</p> <p>Facilitate follow-up by lower level facilities and health workers to reach clients in the communities</p> <p>Send a staff to the lower health units/school to conduct and pick up data on 48-hour follow-up for circumcision done at camps/outreach sites</p>

3.6 Improving Monitoring and Evaluation

To improve monitoring and evaluation, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Actions taken to address the gaps identified
1. Availability of relevant tools in SMC clinic	Requisition for the SMC tools from the IPs and MoH Print and photocopy the tools; client forms, cards, adverse events grading scale and HMIS 105 form
2. Data are correctly transferred from SMC client records to the SMC registers	Assign a records assistant/person to transfer data from the clients form to the register
3. Client records are complete and correspond with the SMC client counselling, testing and follow-up register	Orient the team on completing the data tools. Each SMC team member to actively participate in completion of the tools after use. Hold meeting and decide not to circumcise anyone whose form is incomplete until the form is completed Include a records officer on the team to always crosscheck that the register is well completed at the end of each circumcision day. Lobby for a weighing scale, BP machine and pulse oximeter from the IP Allocate counsellor the task of obtaining and completing the client's demographics. Circumcisers and assistant to verify the client forms for completeness
4. Data are correctly summarised, reported and filed	Get copies of monthly summary forms Acquire box files/folders to keep the client forms File the client forms according to follow up, STIs e.g., the ones who come for follow-up, who are diagnosed with STIs

3.7 Improving Infection Prevention

To improve infection control, we recommend that the teams do the following. Refer to **Appendix 7** for details on the gaps identified and details of how each recommendation was implemented.

Quality standard	Actions taken to address the gaps identified
1. The concentration and use of antiseptics are according to the standards	Write instructions on preparation of JIK solution and display in the sluice rooms. Orient staff on preparation of JIK solution Requisition for protocol of preparing disinfectant from IPs Orient staff on instrument storage
2. The process of cleaning rooms between and after procedures is performed according to standards	Improvise a specific room for SMC theatre
3. The preparation of a disinfectant cleaning solution is performed according to standards	Write instructions on the preparation of the disinfectant solution, share with staff and display these on the wall
4. The cleaning equipment is decontaminated, cleaned and dried before reuse or storage according to the standards	Orient staff on the standard procedure of handling the cleaning equipment before storage or reuse Make staff who do the cleaning part of the QI team
5. The decontamination of instruments and other articles (immediately after	Orientate staff who clean instruments on the steps of cleaning and decontamination. Make request for timers from the health unit stores.

Quality standard	Actions taken to address the gaps identified
use and before cleaning) is performed according to the standards	
6. The process of cleaning instruments and other items is performed according to the standards	Orient staff on instrument management (cheatle forceps handling and sterilization)
7. The process of packing items for sterilisation is performed according to standards	Request wrappers for instruments from the hospital administration and IPs
	Mark expiry dates on all sterile sets
8. The process of sterilisation is performed according to standards	Orient staff involved in sterilization of instruments on the sterilization process
	Make requests to NMS for sterilization tape
9. The storage of sterile or high level disinfected items is performed according to the standards	Secure a cupboard for storage of sterile sets
10. Waste is disposed of/handled appropriately	Hold a CME on waste management and segregation Start segregation of waste using color-coded bins Request for waste bins and bin liners from NMS and IPs
	Make orders for more safety boxes from the hospital stores and NMS
	Decontaminate the instruments and store them in a box Request IPs to identify a company to help with metallic waste disposal
	Request for utility gloves from the health unit administration and NMS
	Requisition for bin liners from the health unit administration Requisition for bin liners from NMS and IPs Improvise with labelled buckets and liners of other colors for waste segregation
	Purchase personal protective gear Requisition for protective wear from implementing partners
11. The system for interim storage is appropriate	Obtain bins for interim storage of waste Identify space for interim storage of waste
12. The health unit/SMC clinic ultimately disposes of waste properly	Liaise with the hospital administration and the municipality authority to have waste collected and taken for incineration at the municipal incinerator

4.0 Focus on Process Improvement

This section is about the priority areas in the provision of SMC services at site level which the 30 demonstration sites worked to improve. These include follow up at specific time intervals, informed consent, management of adverse events, HIV counselling and testing, linkage to HIV chronic care, and screening for STI. The specific improvement aims for these areas were:

- To increase the proportion of circumcised clients followed up at 2 days, beyond 7 days after circumcision
- To increase the proportion of circumcised clients with documented informed consent prior to circumcision
- To reduce the proportion of circumcised clients who experience either moderate to severe adverse events
- To increase the proportion of SMC clients who are counselled, tested and receive HIV test results
- To increase the proportion of SMC clients who test HIV that are linked to HIV chronic care
- To increase the proportion of SMC clients who are screened for sexually transmitted infections prior to the circumcision
- To increase the proportion of circumcised clients who attend at least one follow up visit within seven days of circumcision.

Recommendations for two of these areas are described in the section below:

4.1 Follow-up of Clients beyond 7 Days after Circumcision

The Ministry of Health recommends that clients are reviewed at 6 weeks after circumcision. The purpose of the 3rd follow-up visit among other reasons is to assess the clients for complete wound healing and reinforce other HIV prevention messages. The 3rd follow up visit is recommended at 6 weeks post circumcision but can happen any time after the 2nd follow up visit (the 2nd follow up visit is at 7 days).

Appendix 11 provides a detailed change package for improving client follow-up beyond 7 days of circumcision. We recommend that teams first test the following changes which were associated with improvement in the demonstration phase, to improve follow-up of clients beyond 7 days:

- Arrange client forms in batches according to the date of circumcision;
- Write follow up dates on the separators to ease retrieval and documentation
- Use other clients and Village Health Teams to trace SMC clients
- Write an actual date for the 6-week return visit on the appointment card
- Inform clients to return for HIV testing after six weeks
- Include reasons why it is important for clients to be reviewed after 6 weeks as part of the key messages during health education and at previous follow-up visits
- Integrate 6-week follow-up visit in other outreach services like community-based immunization, family planning camps, and cancer screening camps

- Involve female partners in SMC and encouraging them to remind their spouses to return for follow-up at 6 weeks

4.2 Reducing Rates of Moderate to Severe Adverse Events

Voluntary medical male circumcision is a surgical HIV prevention intervention, and it is therefore important that it is safe for clients and that efforts are put in place to minimise adverse events (AE).

To date, the national rate of adverse events following surgical male circumcision is unknown in Uganda, though WHO recommends less than 2%. However, various studies conducted have shown the rate to be 3.6%⁹ to 2.1%¹⁰. Rates as high as 7.5%¹¹ have been reported among clients actively followed up after circumcision in Kenya.

However good a surgical team may be, adverse events are bound to occur, so when they do occur, it is essential that they be quickly identified and properly managed. The Ugandan Ministry of Health has developed a grading scale to guide surgical teams to grade the various types of AEs; this grading scale is found in **Appendix 10**. **Appendix 12** provides a detailed change package for managing moderate to severe adverse events.

We recommend that teams first test the following changes which were associated with improvement in the demonstration phase, to reduce the rates of moderate to severe adverse events.

- Introduce the MoH AE grading scale and orient staff on its use
- Orient all staff on the importance of documenting adverse events
- Provide all clients with health education to reinforce the importance of returning for check-up if signs of infection or other adverse event are experienced
- Use polythene bags to cover the wound during bathing (sites pre-packed polythene bags and toilet paper to give to clients in the post-operative area)
- Inform patients to come for the procedure with tight-fitting underpants to hold the penis in position; clients who did not have such pants were given adhesive tapes to hold the penis in place
- Cross-check the client's understanding of post-operative wound care (e.g., use health education checklist with information on adverse events; use color photographs to show clients what adverse events looks like)
- Introduce adverse event review meetings to review case management
- Put in place a hotline for clients to call in case of an adverse event
- Introduce an SMC adverse event log at the hospital outpatient department
- Mentor staff on how to correctly perform the dorsal slit procedure

⁹ Gray RH, et al. "Male circumcision for HIV prevention in men in Rakai, Uganda: a randomized trial", *The Lancet* 2007, 369(9562).

¹⁰ Galukande M, Sekavuga DB, Duffy K, Wooding N, Rackara S, Nakaggwa F, Nagaddya T, Elobu AE, Coutinho A: Mass safe male circumcision: early lessons from a Ugandan urban site - a case study. *Pan Afr Med J* 2012, 13:88.

¹¹ Herman-Roloff A, Bailey RC, Agot K. Factors associated with the safety of voluntary medical male circumcision in Nyanza province, Kenya. *Bull World Health Organ.* 2012, 90:773-781. [<http://dx.doi.org/10.2471/BLT.12.106112>].

5.0 Focus on Gender Integration in SMC Improvement Work

This section is about improving SMC services by involving women in the program. It describes why it is important to involve women in SMC and describes changes tested to improve women's involvement in SMC which led to improved outcomes among men.

5.1 Why Involving Women in Safe Male Circumcision Is Important

Initially, SMC services exclusively targeted male clients. However, literature shows that women would like to be involved in their male partner's or child's circumcision¹² and they have a positive influence on the partner's decision to undergo circumcision.^{13,14} There are several reasons why women want to be involved in SMC, including penile hygiene for males¹⁵ and sexual satisfaction.¹⁶

In Uganda, there are anecdotal reports of problems arising from the failure to involve women. The misconceptions surrounding circumcision can lead to negative outcomes. Some of these harmful beliefs include: having unprotected sex after circumcision promotes wound healing; a painless post-circumcision penile erection is an indication of complete wound healing; as a cleansing procedure, the first post circumcision sexual encounter should be with a new female partner that will never come into the client's sexual life again; and there are possibilities that lignocaine may affect penile function and the sooner these effects are tested after surgery through sexual intercourse, the better.¹⁷ These misconceptions lead to behaviours that promote HIV transmission through unprotected sexual intercourse; having sex before complete healing of the wound; and encouraging multiple sexual partners following circumcision.

Through discussions with staff and clients, the USAID ASSIST team found that women play a role in propagating misconceptions. For example, we learned that in several instances the female partner of a circumcised man encouraged him to have intercourse after circumcision with another woman to avoid the "transmission of bad omen" so that they would not transmit the bad omen to the female partner. The most common omen mentioned was that the skin of the woman would peel off. Additionally, we registered complaints in which women that were not informed that their male partners were undergoing circumcision were reluctant to allow their spouses to complete the mandatory six weeks of post-circumcision abstinence to allow complete wound healing, believing that men were being unfaithful and that men were not being truthful that they must abstain for that long.

Involving female partners of men undergoing circumcision presented a good opportunity to provide females partners with credible information about circumcision and thereby reduce harmful practices and the probability of adverse events. In addition, involving women in

¹² Women's HIV Prevention Tracking Project (WHiPT). 2010. Making medical male circumcision work for women. Available at: <http://www.avac.org/sites/default/files/resource-files/Making%20Medical%20Male%20>

¹³ Hatzold K, Mavhu W, Jasi P, et al. Barriers and motivators to voluntary medical male circumcision uptake among different age groups of men in Zimbabwe: results from a mixed methods study. *PLoS One*. 9(5):e85051

¹⁴ Lanham M, L'Engle KL, Loolpapit M, Oguma IO (2012) Women's Roles in Voluntary Medical Male Circumcision in Nyanza Province, Kenya. *PLoS ONE* 7(9): e44825. doi:10.1371/journal.pone.0044825

¹⁵ Bailey, R. C., Muga, R., Poulussen, R., & Abicht, H. (2002). The acceptability of male circumcision to reduce HIV infections in Nyanza Province, Kenya. *AIDS Care*, 14(1), 27–40.

¹⁶ Scott, B. E., Weiss, H. A., & Viljoen, J. I. (2005). The acceptability of male circumcision as an HIV intervention among a rural Zulu population, Kwazulu-Natal, South Africa. *AIDS Care*, 17(3), 304–313

¹⁷ Data Quality Assessment (DQA) Report for APR 2012 medical male circumcision (MMC) data

circumcision-related activities presents an opportunity to provide services for women that would otherwise not be possible such as HIV counselling and testing, family planning, cervical cancer screening, and nutrition counselling.

Initially, service providers did not understand why women should be involved in male circumcision. The USAID ASSIST Project developed a technical brief to provide information to service providers and others about the importance of involving women in SMC,¹⁸ and PEPFAR organized a webinar to further highlight the importance of involving women in male circumcision.¹⁹ To ensure that site-level service providers see the value of involving women, we recommend trying the following:

- Teams convene a session to have a common understanding of the positive role that women play in improving safe male circumcision programmes
- Identify a staff member to spearhead female involvement in safe male circumcision

After understanding the importance of involving women in male circumcision, quality improvement teams have tested changes to encourage women to participate in circumcision-related activities, such as awareness-raising sessions and counselling. We recommend that after helping teams understand the importance and benefits of involving women, that teams first test these changes, monitor progress, and document changes that were associated with improvement in the demonstration phase. Successful changes can be then rolled out to other sites.

Suggestions to improve the involvement of female partners in SMC care:

- Orient service providers on the importance and benefits of female partner involvement in SMC
- Document the presence of clients and their partners in the group education register
- Emphasise the importance of female partner involvement in community mobilisation activities by Village Health Teams and other SMC mobilisers; inform clients during the mobilisation sessions that women can access services if they wish to and if they have a need while in the facility with their male partners
- Schedule SMC days with other women-friendly services such as antenatal care, family planning, and cancer screening days; involve service providers who are in charge of different departments about the change and ask them to allocate staff from the respective departments (e.g., the lab, MCH, etc.) to provide these services to the women while men are undergoing the SMC procedure
- Liaise with implementing partners to provide services targeting female partners on the same day as the SMC clinic or SMC camp
- During group education, register couples and have a designated counsellor for couples counselling
- Deploy members of the SMC team to go to the community a week before the activity is scheduled and talk to the community members about the benefits and importance of partner involvement and answer their questions so that they are able to come for SMC with their partners

¹⁸USAID ASSIST Project. "Integrating gender in VMMC programs to improve outcomes." Available at: https://www.usaidassist.org/sites/assist/files/assist_integrating_gender_in_vmmc_techbrief_june2014.pdf

¹⁹ <http://www.healthcommcapacity.org/hc3resources/webinar-women-voluntary-medical-male-circumcision/>

Appendices

Appendix 1: Quality Improvement Assessment Tool for Safe Male Circumcision (SMC) for HIV Prevention

Appendix 2: SMC Improvement Case Studies

Appendix 3: Quality Improvement Tools

Appendix 4: Sample Action Plan for Addressing Assessment Findings

Appendix 5: Roles and Responsibilities of Health Unit Quality Improvement Teams as Stipulated in the National Quality Improvement Framework and Strategic Plan

Appendix 6: MoH SMC Standards Assessment Scorecard

Appendix 7: Detailed How-to Guide for Improving SMC Standards

Appendix 8: Sample Client Flow Charts

Appendix 9: Client Referral Register

Appendix 10: MoH Adverse Events Grading Scale

Appendix 11: Detailed Change Package for Improving Client Follow-up Beyond 7 Days of Circumcision

Appendix 12: Detailed Change Package for Moderate to Severe Adverse Events

Appendix 13: Detailed Change Package to Improve Gender Integration

Appendix 1:
Ministry of Health of Uganda
Quality Improvement Assessment Tool for
Safe Male Circumcision (SMC) for HIV
Prevention



Ministry of Health

QUALITY IMPROVEMENT FOR SAFE MALE CIRCUMCISION (SMC) FOR HIV PREVENTION

Facility Name:							
Facility District:							
Facility Type:	Hospital (fill in type) _____ Health Center _____ Other (please fill in) _____ Telephone _____						
Primary Contact Person at site:	Telephone _____ Email _____						
Completion Date							
Individuals present by name and position (use back side if more space needed)	Name _____ Position _____ Tel _____ Name _____ Position _____ Tel _____ Name _____ Position _____ Tel _____						
Completed by	Name _____ HQ Team member _____						
Care Delivery	Is the SMC delivered at a separate clinic or integrated into primary care? _____ Separate location and time _____ Separate only by time _____ Fully Integrated into primary care						
Access	How many days per week is SMC provided including? _____ # days per week						
Partner Involvement	List partners who have a significant role in supporting the SMC activities						
	Area of support provided						
Partner	Staff	Training	M&E	QI	Other Data Mgt	Drugs	Other Detail

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Introduction

This tool lists the minimum standards for SMC for HIV prevention defined by the Ministry of Health (MoH) of Uganda and provides verification criteria to guide health care providers and their supervisors to measure compliance. It operationalizes the minimum standards of procedures for SMC as set by the ministry of Health. In addition, it serves to measure actual level of compliance to standards and helps identify the gaps between actual and desired performance level.

The SMC standards tool is organized in 7 areas with a total of 53 standards:

- Area 1: Management Systems – 10 standards
- Area 2: Supplies, Equipment and Environment – 6 standards
- Area 3: Registration, Group Education and IEC – 4 standards
- Area 4: Individual Counseling and HIV Testing for MC Clients – 6 standards
- Area 5: Male Circumcision Surgical Procedure – 10 standards
- Area 6: Monitoring and Evaluation – 4 standards
- Area 7: Infection prevention – 11 standards

The tool also has instructions for completing it and matrices for consolidating the assessment findings. An action plan matrix is provided to guide addressing efforts at closing the identified gaps. Then improvement plans and activities will be recorded on the QI improvement journal as indicated by the national QI framework and strategic document.

Instructions for completing the Safe Male Circumcision (SMC) Quality Standards tool

Each standard has instructions about the way that information is collected and whether by observation, interview or review of records.

Completing the SMC standards tool

- Record findings immediately as they are observed.
- Write Yes (Y), No (N), or Not Applicable (NA) in the columns provided.
- Record all relevant comments, clearly and briefly, highlighting the gaps and possible cause. This will guide in the identification of causes of gaps, and help selection of appropriate interventions

DO NOT LEAVE ANY SPACE BLANK

Write **Y** if the **item is performed or meets the description**.

Write **N** if the **item is not performed or does not meet the description (incorrect or incomplete)**. For instance:

1. Not performed:

- Does the clinic keep a safe male circumcision register?, if there is no register in the facility, write **N** for this item.

2. Does not meet the description:

- Washes hands with soap and water and dries them with a clean, dry towel.

, if the provider washes her/his hands with water but does not use soap, and dries her/his hands on her/his own clothes, you should therefore, write **N** for this item.

3. Where a criterion has sub-items and were not performed or an item was not present:

- Check availability of emergency supplies:
 - Hydrocortisone
 - Oxygen
 - Glucometer

As you are checking, if the emergency trolley, bag or supply does not have, **ALL** of them or **ONE** of them, you should write in the comment box **what item was missing**. If the sub-item that was not performed or item was not present the standard was not met since the verification criteria was not met. The standard should be marked **N** to indicate that the standard was not met.

Write **NA** when the item **specifies a condition that does not apply to the case or facility being assessed**. For instance:

- If the client is HIV positive.

If the standard being assessed involves a client who is HIV negative, write **NA** for this item.

Scoring the points and consolidation of results

- To mark a standard as accomplished, all verification criteria must be marked with **Y** or **NA**. A **NO (N) for any verification criterion** means that particular standard is not achieved.
 - Where multiple observations are conducted (ex: some standards are meant to be observed in three clients) give one point for each time the standard was correctly achieved. For example, in the counseling standard, the observation criteria were either Y or NA for two clients, but contained an N for the third client. The provider would score 2 points for that standard.

How to tabulate the results

- Use the **Consolidation Sheets (pg 36)**, based on the results from the completion of the SMC Quality Improvement tool.

In the column that synthesizes the gaps and possible causes in the section for consolidation of results:

- For each unmet standard, review the gaps identified based on the items of verification that were not complied with, and the comments provided.
Synthesize the following information:
 - Practices that are not performed
 - Practices that are performed incorrectly or in incomplete fashion.
 - Data or information incomplete or nonexistent

- **Fill out** the results (number of standards and % achieved) in the consolidation of results form. **Identify** possible causes for each verification criteria that was not accomplished

Fill out the Action Plan Matrix (pg 48) based on the identified gaps, causes of them and specific interventions to address the gaps. This should follow a formal participatory root cause analysis.

Once QI intervention is selected, document the progress of the improvement initiative using the **Documentation Journal of QI (pg 49)** available at the end of this document.

1. Management Systems			
STANDARDS	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
1. Relevant SMC Policies, Guidelines and Standards are available and staff are aware of them	Verify the existence of: <ul style="list-style-type: none"> • Interview staff and verify that the following key documents are available : <ul style="list-style-type: none"> ○ Safe Male Circumcision Policy ○ Quality improvement framework and strategy ○ HCT guidelines ○ STI diagnosis and treatment guidelines ○ Minimum Standards of Procedures for Safe Male Circumcision ○ SMC communication strategy • Staff are aware of the key documents and know where to obtain them for reference 	 _____ _____	
2. The site has a written plan for SMC services- SMC Service Delivery Plan (minimum 1 year plan)	Verify <ul style="list-style-type: none"> • The existence of a SMC plan stand-alone OR incorporated in the facilities' work plan • The SMC plan include: <ul style="list-style-type: none"> ○ Expected client flow / service delivery targets ○ Trained human resources required for SMC ○ Projected resource needs (equipment, supplies, commodities) ○ Mentoring, monitoring and quality improvement ○ Community involvement 	 _____ _____	

1. Management Systems			
STANDARDS	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
3. The SMC clinic is able to meet demand for services	Verify <ul style="list-style-type: none"> • The total number of circumcisions performed in the last quarter • Client demand numbers are in-line with SMC plan projections • Waiting list is no longer than two weeks 	_____ _____ _____	
4. The SMC clinic or facility has clearly defined staff roles and responsibilities	Verify the existence of: <ul style="list-style-type: none"> • Written roles and responsibilities (Job Description) for all staff involved in safe male circumcision services • Staff are able to describe their roles and responsibilities 	_____ _____	
5. The SMC clinic or facility has the human resources available according to the SMC service delivery plan	Verify the existence of: <ul style="list-style-type: none"> • Adequate numbers of staff for each functional area in the plan. Staffing is appropriate for: <ul style="list-style-type: none"> ○ Registration / intake/group education ○ Testing and counseling / client assessment ○ Circumciser ○ Assistant Circumciser and post-operative activities • Staff meet minimum standards <ul style="list-style-type: none"> ○ Appropriate cadre of staff according to national standards ○ Staff are trained on their specific job functions 	_____ _____	[Please document any bottleneck]

1. Management Systems			
STANDARDS	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
6. SMC Staff receive mentorship and support	<ul style="list-style-type: none"> SMC staff is periodically provided support using a standard tool (e.g., these performance standards, training checklists) Staff receive individual feedback on their performance at least once per year 	 	
7. Client flow chart is available in the facility.	<p>Verify</p> <ul style="list-style-type: none"> The presence of a client flow chart for SMC. <p>Observe that client flow follows the client flow chart and:</p> <ul style="list-style-type: none"> Clients are received and directed to the SMC registration and intake area Clients receive clear instructions on going from one station to the next Client flow is organized to maintain infection prevention standards <ul style="list-style-type: none"> clients / staff not entering procedure area except for procedure contaminated waste doesn't cross path with clients and providers A system for facilitating effective referral to linked services is in place <ul style="list-style-type: none"> Registers reflect appropriate referrals to care and treatment units Client records show clients who have been referred have received the referred services 	 	
8. Monitoring service delivery data are used for planning and improvement of service delivery	<p>Verify</p> <ul style="list-style-type: none"> The existence of a functional quality improvement team Meeting held at least monthly to review data Changes been made to services based on the feedback of these data Client satisfaction survey conducted OR other form of client feedback process (eg exit interviews) is implemented at least twice a year 	 	

1. Management Systems			
STANDARDS	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
9. Moderate and severe adverse events or complications are reviewed	Management records review: <ul style="list-style-type: none"> • A systematic process exists for investigating moderate or severe adverse event to determine causes and outcomes • Follow up is conducted as per recommendation 48 hours and 7 days post circumcision 	_____ _____	
10. The facility / SMC clinic has a functional supply and equipment ordering system	Verify: <ul style="list-style-type: none"> • MC instruments, medicines and supplies are integrated into routine forecasting, procurement and management systems of the National Medical Stores (NMS) • Requisition forms for MC commodities are available and used • Minimum stock levels are established for essential SMC commodities (at the SMC service or facility level) • Commodity stocks records are kept up-to-date • Facility records stock-outs of key commodities and reports to management 	_____ _____ _____ _____ _____	

1. Management Systems	
Total standards	10
Total observed	
Total achieved	

2. Supplies, Equipment and Environment			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
1. The physical facilities are appropriate for SMC service provision	<p>Observe:</p> <ul style="list-style-type: none"> • Reception area with printed and audio-visual information on SMC for HIV prevention • Space for health education and group counseling. • Space for individual counseling, pre and post-test counseling which affords privacy for clients. • Space for preoperative and postoperative evaluation including genital examination that affords privacy for clients, is well lit, ventilated and has sufficient space. • Source of clean running water for hand washing in the examination room, procedure room and post-operative area • There a designated room (s) for performing the surgical procedure • Theatre/operating rooms have adequate temperature control, ventilation, sufficient lighting and space • Adequate area for performing the surgical scrub <p>Layout of surgical suites allow for effective flow of clients , staff and contaminated instruments/waste</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	

2. Supplies, Equipment and Environment

STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
<p>3. The necessary commodities are available for performing surgeries</p>	<p>Facility has adequate commodities for the expected number of procedures in a day (consistent with national standard)</p> <p>Physically verify the following supplies:</p> <ul style="list-style-type: none"> ○ Plain gauze swabs ○ Petroleum-jelly-impregnated gauze ○ Sticking plaster ○ 1% lignocaine without adrenaline ○ 0.5% solution of bupivacaine if available ○ Syringe, 10ml ○ Needles (18 or 21-gauge) ○ Suture material (chromic catgut or vicryl rapidae 3-0 and 4-0) with 3/8 circle reverse-cutting needle ○ Povidone iodine (10% solution) or Chlorhexidine ○ Surgical gloves, of appropriate sizes ○ Masks, ○ Caps and ○ Aprons ○ Safety shoes of different sizes ○ Patient gowns ○ Soap or antiseptic hand-rub ○ Sharps containers ○ Waste receptacles for contaminated and non-contaminated waste ○ Properly color coded bin liners ○ Buckets for decontamination ○ Linen saver (e.g. Mackintosh) 	<p>_____</p>	<p>[Please note any missing supplies in the this column] e.g.</p> <p>Missing item:</p> <p>Plain gauze Apron</p>

2. Supplies, Equipment and Environment			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
4. Adequate supplies of medicines and commodities (HIV test kits, condoms) are available for non-surgical aspects of MC service provision	<p>Verify whether minimum stock levels are maintained of the following medications for STI management and management of post-operative infections (either in the MC clinic or in the pharmacy)</p> <ul style="list-style-type: none"> ○ Ciprofloxan ○ Podophylin 25% in tincture iodine ○ Benzathine Pencillin ○ Fluconazole tablet ○ Erythromycin ○ Doxycycline ○ Acyclovir tablets ○ Metronidazole ○ Amoxicillin ○ Cotrimoxazole ○ Paracetamol (tablets) ○ Cefixime <ul style="list-style-type: none"> ● All the medications stocked and dispensed within expiration date ● Medications stored according to temperature and light recommendations ● Is a medication inventory system in use ● A minimum stocks of HIV test kits to meet the expected demand for at least 1 day available at the MC counseling site ● Adequate stocks of condoms for distribution to clients being discharged after MC or returning for post-SMC follow-up 	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>[Please note any missing supplies in the this column] e.g.</p> <p>Missing drugs:</p> <ul style="list-style-type: none"> - Doxycycline - Cefixime

2. Supplies, Equipment and Environment			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
5. An emergency resuscitation system exists and medications / supplies are available with immediate access	<ul style="list-style-type: none"> • Emergency resuscitation protocols readily available in the operating rooms • Emergency resuscitation equipment/supplies and medicines are available in the operating room and in good working order / valid (i.e., not expired) <ul style="list-style-type: none"> ○ Adrenaline ○ Hydrocortisone ○ Sodium Chloride ○ 50% dextrose ○ Oxygen cylinder ○ Oxygen masks ○ Ambu bag ○ Cannulars ○ IV giving sets ○ Airways ○ Glucometer ○ Stethoscope ○ Sphygmomanometer 	 	[Please note any missing supplies in the this column] e.g. Missing items: Hydrocortisone Glucometer
6. Adequate measures are in place for managing moderate to severe complications and adverse events	<ul style="list-style-type: none"> • Emergency services are available 24 hours to manage clients with complications or adverse events • Transport arrangements are available to facilitate referrals if required 	 	

2. Supplies, Equipment and Environment	
Total standards	6
Total observed	
Total achieved	

3. Registration, Group Education and IEC					
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA			COMMENTS
		Client 1	Client 2	Client 3	
1. The client is correctly recorded in the register and given a serial ID number	Observe three clients to see whether: <ul style="list-style-type: none"> • The clinic has register to register SMC clients • Client data are completely and correctly entered into the register • Client are given an client card with their name and follow up appointment times 	—	—	—	
2. The facility has appropriate information and educational materials on SMC and other reproductive health	Observe whether: <ul style="list-style-type: none"> • Clients are provided with printed take home materials on SMC • Clients' partners and family are provided with take home printed materials on SMC • At least one- other sexual and reproductive health materials that provide information and education are available 	_____	_____	_____	

3. Registration, Group Education and IEC					
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA			COMMENTS
		Client 1	Client 2	Client 3	
3. Group education delivered with correct information	<p>Observe during one group education session whether:</p> <ul style="list-style-type: none"> • Appropriate segregation of clients has been done according to adults and children • Information and education being given about male circumcision includes the following: <ul style="list-style-type: none"> ○ Benefits and Risks of SMC ○ Description of the surgical procedure (including pain management) ○ SMC is only partially protective against HIV, it is still necessary to maintain other HIV prevention strategies (e.g. continue to use condoms, limit the number of sexual partners etc.) ○ Maintenance of an abstinence period of at least 6 weeks post-operation to allow for wound healing ○ There are no known HIV prevention benefit for HIV+ persons so not recommended for persons already HIV infected ○ Review other sexual reproductive health information (including but not limited to FP, STIs, fertility etc.) ○ Uses appropriate AV aids 	_____	_____	_____	

3. Registration, Group Education and IEC					
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA			COMMENTS
		Client 1	Client 2	Client 3	
4. Group education delivered with appropriate techniques	<p>Observe during one group education session whether</p> <ul style="list-style-type: none"> • Provider uses appropriate group education skills <ul style="list-style-type: none"> ○ Introduces her/himself to the clients ○ Explains purpose of session ○ Uses standardized national SMC IEC materials ○ Uses local language and terms that clients understand ○ Confirms at intervals that the clients understand ○ Encourages clients to ask questions ○ Projects voice so all clients can hear ○ Summarizes key points • Provider spends 25-35 minutes for group education • Most of the clients (2/3) maintained for one session through out Other reproductive health issues if necessary 	_____	_____	_____	[Please note any skills needing improvement in the this column]

3. Registration, Group Education and IEC	
Total standards	4
Total points achievable	6
Total standards observed	
Total points achieved	

4. Individual/Couple Counseling and HIV testing for SMC Clients					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
1. The counselor provides appropriate individual counseling on SMC	Observe during the care of three patients that the counselor emphasizes:				
	• Discussion of partial protection about SMC against HIV transmission	—	—	—	
	• Risks and benefits of SMC	—	—	—	
	• Benefits of SMC to the partner	—	—	—	
	• Necessity of 6 weeks abstinence following SMC procedure	—	—	—	
	• Risk reduction measures such as using condoms, abstinence, and being faithful	—	—	—	
	• Complete the identifying and demographic information on the standardized SMC Client Form OR SMC Register	—	—	—	
	• Complete the SMC counseling and risk assessment sections on the standardized SMC Client Form OR SMC Register	—	—	—	

4. Individual/Couple Counseling and HIV testing for SMC Clients					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
2. The provider provides routine HIV testing for every client	Observe during the care of three clients if the counselor:	___	___	___	
	○ Keeps a clock in the counseling room	___	___	___	
	○ Maintains confidentiality and privacy	___	___	___	
	○ Provides pre-test information	___	___	___	
	○ Obtains written HTC consent (Signature or thumbprint)	___	___	___	
	○ Washes hands or uses alcohol handrub solution	___	___	___	
	○ Puts on gloves	___	___	___	
	○ Collects blood sample for HIV test	___	___	___	
	○ Disposes of syringes and needles or lancets in a sharps container	___	___	___	
	○ Tests blood for HIV using national algorithm	___	___	___	
	○ Records the HIV test results in the HCT register	___	___	___	
	○ Complete the HIV counseling and testing section on the MC Client Record	___	___	___	

4. Individual/Couple Counseling and HIV testing for SMC Clients					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
3.The provider is properly giving results and post-test counseling	Provides post-test counseling				
	HIV NEGATIVE				
	• If the man is HIV negative, counsel on preventing becoming infected by ABC and MC	—	—	—	
	• Explain the window period and counsel to retest after 4 weeks	—	—	—	
	HIV POSITIVE:				
	• Counsels on positive living	—	—	—	
	• Refers to ART clinic for care and treatment	—	—	—	
	• Discusses the importance of self-disclosure	—	—	—	
	• Discusses ways to prevent HIV transmission to others	—	—	—	
	• Suggests offering HIV counseling and testing to partner(s)	—	—	—	
• Suggests offering HIV counseling and testing to family members	—	—	—		
• Explains that if a client is HIV positive, undergoing circumcision does not prevent transmission of HIV to sexual partners. Counselor emphasizes that he is highly infective within the 6 week period post-circumcision healing period.					
• Offers the possibility of opting out of male circumcision	—	—	—		

4. Individual/Couple Counseling and HIV testing for SMC Clients					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
4. The provider uses appropriate counseling skills throughout the session	Observe during care of three clients: <ul style="list-style-type: none"> • Provider uses appropriate counseling skills • Greets the client with respect and ask them to take their seats (if not seated) • Explains his/her role as a counsellor • Asks clients if they have any questions they wish to ask about their problems with empathy • Assures the client that all information provided will be kept confidential • Tells client how to contact the health center when needed • Thanks the client for time and attention if leaving • Tells clients they can stop him/her at any time if they have a question or when they have not understood • Asks for and answers any questions or concerns 	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
5. All clients receive condoms along with appropriate counseling and instructions on their use	Observe during care of three clients: <ul style="list-style-type: none"> • Condoms readily available in the SMC clinic • Condoms stored properly • Provider correctly demonstrate how to use condom • Condoms are offered to SMC clients at each visit 	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	
6. The provider obtains Informed consent from clients	Observe during the care of three clients: <ul style="list-style-type: none"> • The provider checks whether client understands the potential risks and complications of SMC before signing the consent form • The provider checks that parents/guardians of the client- if minor- understand the potential risks and complication of S before signing the consent form • Provider ensures that the client if minor understands the potential risk and complications of SMC and has given assent for circumcision • The consent section of the Client Record is signed for each client 	_____ _____ _____	_____ _____ _____	_____ _____ _____	

4. Individual Counseling and HIV testing for MC Clients		
Total of standards	6	
Total points achievable	18	
Total standards observed		
Total points achieved		

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
PRE-OPERATIVE CARE					
1. The provider correctly takes history	Observe during the care of three clients whether the provider obtains the following history: <ul style="list-style-type: none"> • Current general health • STI history (current symptoms of STI – dysuria, ulcers, discharge, pain) • Whether the client is taking any medicine • Whether the client has any known allergies to medicines • Haemophilia, bleeding disorders or anaemia • Previous operations and reaction to anaesthesia • Whether the client has problems with penile erection or any other concerns about sexual function • Complete client history section of SMC Client Record 	—	—	—	

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
2. The provider correctly performs pre-operation examination	Observe during physical examination whether the provider performs the following:				
	• Takes the vital signs (Pulse, RR, BP, Weight)	---	---	---	
	• Performs a head to toe examination to determine the general condition, check for anaemia, enlarged lymph nodes,	---	---	---	
	• Examines genitalia to rule out anatomical abnormalities, chronic paraphimosis, genital ulcer disease, urethral discharge, penile cancer, penile warts, scar tissue at the frenulum and any other abnormalities or other signs of STIs	---	---	---	
	• Verifies voluntary consent for the operation	---	---	---	
	If client has a suspected STI:	---	---	---	
	• Correct diagnosis is made using syndromic approach	---	---	---	
• Proper treatment prescribed and dispensed for free	---	---	---		
• Partner notification and treatment is encouraged	---	---	---		
• Case documentation is done	---	---	---		
Complete physical examination section of SMC Client Record	---	---	---		
OPERATIVE CARE					
3. The provider prepares the client for surgery	Observe during the care of three clients whether the provider:				
	• Prepares the necessary equipment	---	---	---	
	• Verifies clients details	---	---	---	
	• Check for the consent	---	---	---	
	• Makes sure client is clean	---	---	---	
	• Reassures the client	---	---	---	
	• Scrubs and puts on protective clothing	---	---	---	
• Cleans genitalia and surrounding (from umbilicus to mid-thigh) with povidone 10% or a mixture of 0.3% chlorhexidine gluconate, 3% cetrimide and 2.84% Isopropyl alcohol	---	---	---		

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
4. The provider administers anesthetic and performs dorsal slit correctly	Observe that the provider:	___	___	___	
	• Drapes the client exposing the genitalia only	___	___	___	
	• Administers correct amount of anesthetic (maximum dose of 3mg/kg) at the base of the penis (at eleven and one o'clock followed by a ring block)	___	___	___	
	• Waits for 3-5 min for the anesthetic to work	___	___	___	
	• Test for pain sensation using toothed dissecting forcep	___	___	___	
	• Manages pain by administering additional anesthetic if necessary throughout the procedure	___	___	___	
	• Makes a surgical marking incision at the level of the corona on a relaxed penis	___	___	___	
	• Applies straight artery forceps from 3 to 9 o'clock the mark of the incision taking care not to grasp the glans with it	___	___	___	
	• Performs a dorsal slit at twelve o'clock up to the incision line	___	___	___	
	• Excises foreskin along the marked incision	___	___	___	
	• Wraps sterile guaze around the wound and applies pressure for 3-5 min	___	___	___	
	• Provider maintains the aseptic technique throughout the procedure	___	___	___	
	• Provider able to verbalize what to do in an emergency situation (eg. unresponsive patient)	___	___	___	

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
5. The provider achieves haemostasis, sutures the wound and applies the dressing correctly	<ul style="list-style-type: none"> Exposes the wound bit by bit to identify and clamp the bleeders with the artery forceps and then finally pulls the whole skin to identify and clamp any more bleeders Ligates the bleeders either by transfixing , under-running or simple ligature OR uses diathermy less than 50 Watt power to cauterize bleeders Checks for additional bleeding points Align the median raphae with the frenulum and applies a horizontal mattress suture at 6 o'clock position Applies a vertical mattress suture at 12 o'clock then 3 o'clock and finally at 9 o'clock positions Put simple interrupted sutures in between the mattress sutures Applies sterile gauze along the suture line and apply pressure for 2-3 min Cleans the glans and genital area using normal saline if necessary Applies dressing using Vaseline gauze swabs and then applies strapping 	—	—	—	
6. Provider is able to respond appropriately to an Emergency Situation	<ul style="list-style-type: none"> Providers accurately describes emergency resuscitation procedures Providers have attended and completed an emergency management training 	—	—	—	
7. The provider completes the procedure and assists the client to the post-operative area	<ul style="list-style-type: none"> Straps the penis to the lower abdomen Helps client to get off the operating table Cleans the back of the client at the bottom Escorts client to the post-operative recovery area 	—	—	—	
POST-OPERATIVE CARE					

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
8. The provider monitors immediate post-op client	Observe during the care of three clients whether the provider <ul style="list-style-type: none"> • Observes the general condition of the client • Monitors the vital signs before discharge (BP, Pulse, RR) • Checks the surgical dressing for oozing or bleeding • Manages post-operative pain by reassuring and providing Paracetamol to be taken at home 	—	—	—	
		—	—	—	
		—	—	—	
		—	—	—	

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
9. The provider gives client appropriate post-op care instructions	<p>Observe in three clients:</p> <ul style="list-style-type: none"> • Gives post-operative instructions to the client: <ul style="list-style-type: none"> ○ Shows how to remove and reapply strapping before and after urinating ○ Avoid intercourse and masturbation for 6 wks ○ Dressing to be removed 48 hours later provided there is no bleeding or oozing or any other complication ○ Wear clean, loose fitting underwear which should be changed each day ○ Do not wet the dressing for the first 2 days ○ After 2 days wash the genitalia with non-medicated soap and lukewarm water ○ Remember to come for follow-up visit after 2 days and one week ○ To recognize and return in case of any danger signs or signs of complications (excessive bleeding, difficulty in passing urine, excessive pain, swelling, oozing of pus) ○ Rest for two days • Reinforce HIV prevention messages • Makes sure the client knows where to go if complication arise and has a contact phone number • Provide post-op SMC leaflet • Gives next appointment date (48 hour and 7 day follow up appointments) • Gives information on how to manage post-operative penile erections • Provide the client with condoms 	—	—	—	
		—	—	—	
		—	—	—	
		—	—	—	
		—	—	—	
		—	—	—	

5. Male Circumcision Surgical Procedure					
STANDARD	VERIFICATION CRITERIA	YES, NO, N/A			COMMENTS
		Client 1	Client 2	Client 3	
10. Client records are updated and completed prior to discharge	Observe the provider: <ul style="list-style-type: none"> • Fills in the follow-up visit dates and emergency contact number on the client card • Completes procedure section of SMC Client Record • Fills in SMC register • Records any post-operative complications or adverse events on the SMC Client Record and SMC Register 	_____	_____	_____	
		_____	_____	_____	
		_____	_____	_____	

FOLLOW UP VISITS					
11. The provider correctly manages initial follow up (48 hour and 7 day)	Observe during routine follow up care for first follow-up whether the provider:				
	• Retrieve and review SMC Client Record for background information on the client and the surgical procedure	—	—	—	
	• Verify the contact information	—	—	—	
	• If the client has not been tested for HIV in the last 4 weeks, offer HIV testing and counseling on an opt-out basis	—	—	—	
	• Asks the client if they have had any problems or complaints	—	—	—	
	• Remove the dressing	—	—	—	
	• Examine the site to assess healing and ensure that there is no infection	—	—	—	
	• Treat any complication found during examination or refer client to higher level	—	—	—	
	• Post-operative instructions are reinforced on wound care, potential complications and danger signs, return visits, and abstinence / resumption of sexual activity	—	—	—	
	• Review and reinforce HIV prevention messages	—	—	—	
	• Complete the follow-up notes section of the MC Client Record	—	—	—	
• Record any complications or adverse events on the MC Client Record and SMC register	—	—	—		
• Offers the client condoms	—	—	—		

5. Male circumcision surgical procedure	
Total Standards	11
Total points achievable	33
Total observed	
Total achieved	

6. Monitoring & Evaluation												
STANDARD	VERIFICATION CRITERIA										RATING YES/NO/NA	COMMENTS
1. Availability of relevant tools in SMC Clinic	Verify the availability of: <ul style="list-style-type: none"> • SMC Client card • HTC client card • HTC client register • SMC client form • SMC register • DHIS 2 / HMIS 105 form • Adverse events Grading Scale 										_____	
2. Data are correctly transferred from SMC Client Record to the MC Registers	<ul style="list-style-type: none"> • There is a designated person responsible for transferring information from the SMC Client record (client form) to: <ul style="list-style-type: none"> • The SMC register • HTC register • Data is entered in the SMC Client Counseling, Testing and Follow-up Register on a daily basis 										_____	
3. Client records are complete and correspond with the SMC Client Counseling, Testing and Follow-up Register	Select a random sample of 10 client records and verify:	1	2	3	4	5	6	7	8	9	10	
	<ul style="list-style-type: none"> • All 10 SMC Client Records are completely and correctly filled out • All relevant elements from the SMC Client Records are correctly completed in the SMC Client Register 	—	—	—	—	—	—	—	—	—	—	
		—	—	—	—	—	—	—	—	—	—	
4. Data are correctly summarized, reported and filed	Verify: <ul style="list-style-type: none"> • The monthly summary form is filled in every month • A duplicate copy of the summary form filed and stored appropriately for reference • Monthly summary report is submitted 										_____	

6. Monitoring & Evaluation			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
5. Monitoring service delivery data are used for planning and improvement of service delivery	Verify <ul style="list-style-type: none"> The existence of a functional quality improvement team Meeting held at least monthly to review data Changes been made to services based on the feedback of these data Client satisfaction survey conducted OR other form of client feedback process (eg exit interviews) is implemented at least twice a year 	_____ _____ _____ _____	

6. Monitoring & Evaluation	
Total standards	5
Total points achievable	14
Total standards observed	
Total points achieved	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
1. The concentration and use of <u>antiseptics</u> are according to the standards.	<p>Observe the following:</p> <ul style="list-style-type: none"> The antiseptic concentration is correct: <ul style="list-style-type: none"> Povidone 10% Chlorohexidine Antiseptics are prepared in small, reusable containers for daily use. The reusable containers are thoroughly washed with soap and water, rinsed with clean water and dried before refilling. Reusable containers are labeled with date each time they are refilled. Gauze or cotton wool is not stored in containers with antiseptics. Instruments and other items are not stored in containers with antiseptics. Pick-up forceps are not stored in containers with antiseptics. 	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	
2. The process of <u>cleaning rooms</u> between and after procedures is performed according to the standards.	<p>Observe in the procedure room:</p> <ul style="list-style-type: none"> Housekeeping personnel wear utility gloves and other personal protective equipment during cleaning. All waste is collected and removed from the room in closed leak proof containers. Puncture-resistant sharps containers are closed and removed when $\frac{3}{4}$ full. Containers with 0.5% chlorine solution with instruments are removed from the room. Soiled linen is removed in closed leak proof containers. Small body fluid spills are contained and cleaned with a disinfectant cleaning solution. Large body fluid spills are flooded with 0.5% chlorine solution, mop up solution, and then clean with detergent and water. All horizontal surfaces that have come in immediate contact with a client or body fluids are cleaned with lint free cloth soaked in a disinfectant solution. The procedure bed is cleaned, and all surfaces and mattress pads are wiped with a disinfectant-soaked, lint-free cloth. Instrument trolleys are decontaminated with a cloth dampened with 0.5% chlorine solution and rinsed with clean water 	<p>_____</p>	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
3. The preparation of a disinfectant cleaning solution is performed according to the standards.	Verify if the disinfectant cleaning solution is prepared as follows: <ul style="list-style-type: none"> • A 0.5% chlorine solution is prepared. • Detergent (does not contain an acid, ammonia or ammonium) is added to the 0.5% chlorine solution until a mild soapy cleaning solution is made. 	_____ _____	
4. The cleaning equipment is decontaminated, cleaned and dried before reuse or storage according to the standards.	Observe if the mops, buckets, brushes and cleaning cloths are: <ul style="list-style-type: none"> • Decontaminated by soaking for 10 minutes in 0.5% chlorine solution or other approved disinfectant, after use. • Washed in detergent and water after use • Rinsed in clean water. • Dried completely before reuse or storage. 	_____ _____ _____ _____	
Instrument processing: Decontamination, Cleaning, Sterilization and High level disinfection (HLD):			
5. The decontamination of instruments and other articles (immediately after use and before cleaning) is performed according to the standards.	Observe if: <ul style="list-style-type: none"> • The concentration of chlorine solution is 0.5%: <ul style="list-style-type: none"> - Liquid chlorine: if using JIK (3.5%), 1 part bleach for 6 parts water, or - Powder chlorine: if using Calcium hypochlorite (35%), 14 grams bleach powder for 1 liter water • A new chlorine solution is prepared at the beginning of each day or sooner as needed. • Instruments and other items are soaked in the 0.5% chlorine solution for 10 minutes. • After 10 minutes, instruments and other items are removed from the chlorine solution cleaned with soapy water and rinsed with clean water and dried. • Chlorine solution should be changed whenever cloudy or after 24 hours. 	_____ _____ _____ _____	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
6. The process of cleaning instruments and other items is performed according to the standards.	Observe if the person cleaning the instruments complies with the following steps and recommendations: <ul style="list-style-type: none"> • Wears appropriate personal protective equipment: <ul style="list-style-type: none"> - Utility gloves - Mask and eyewear protection or face shield - Plastic apron - Covered shoes • Utilizes: <ul style="list-style-type: none"> - Soft brush - Detergent - Running water • Scrubs instruments and other items under the surface of water completely removing all blood and other foreign matter • Disassembles instruments and other items with multiples parts and clean in the grooves, teeth and joints with a brush • Rinses the instruments and other items thoroughly with clean water • Allows instruments and other items to air-dry, or dry with a clean towel • Washes hands after removing gloves 	_____ _____ _____ _____ _____ _____	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
7. The process of packaging of items to be sterilized is performed according to the standards.	<p>If packaging items to be sterilized through steam sterilization (autoclave):</p> <ul style="list-style-type: none"> • The instruments are clean and dry. • Cloth items have been laundered, dried and have no holes. • All jointed instruments are opened or in unlocked position. • All instruments are disassembled. • Instruments are wrapped in the correct material:: <ul style="list-style-type: none"> - Cloth wraps, muslin (140 thread count): double wrapping using two double-thickness wraps (4 layers in all), or - Jean cloth (160 thread count): double- thickness per wrapper, or - Barrier cloth (272–288 thread count): one thickness but two wraps, or - Paper (Kraft or other): double wrapping. It is not reused • Packages are not tied tightly. <p>If packaging items to be sterilized through dry-heat:</p> <ul style="list-style-type: none"> • The types of materials used are: <ul style="list-style-type: none"> - Cloth wraps, muslin (140 thread count): double wrapping using two double-thickness wraps (4 layers in all), or - Metal containers with lids 	 	
8. The process sterilization is performed according to the standards.	<p>Observe during the loading process if:</p> <ul style="list-style-type: none"> • The autoclave / dry heat oven is loaded properly • Sterilization is done at the proper temperature / pressure / time • Time, temperature and pressure gauges are functioning properly • Processed items are unloaded properly maintaining sterility • The sterilization process is monitored appropriately • Any failure noted results in appropriate corrective measures (checking equipment and re-processing instruments) • When sterilization is not possible, high-level disinfection is done correctly 	 	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
<p>9. The storage process of sterile or high-level disinfected items is performed according to the standards.</p>	<p>Observe if:</p> <ul style="list-style-type: none"> • Clean supplies are not stored with sterile or high-level disinfected items. • Unwrapped items are used immediately and are not stored. • Sterile or high-level disinfected packs and/or containers have expiration dates on them. • There is a rotation and an inventory system to control the use of sterile or high-level disinfected items. • The packs are free of tears, dampness, excessive dust and gross oil (there is an event-related shelf-life practice, regardless to the expiration date). 	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
Health Care Waste Management			

7. Infection Prevention			
STANDARD	VERIFICATION CRITERIA	RATING YES/NO/NA	COMMENTS
11. The system for interim storage is appropriate	Observe if: <ul style="list-style-type: none"> The interim storage area is not accessible to general staff, patients/clients and visitors. Containers are leak proof and closed with tight lids. There is no waste sticking out of the containers. 	_____ _____ _____	
12. The facility / MC clinic ultimately disposes of waste properly	Observe if: <ul style="list-style-type: none"> The final disposal sites are appropriate, whether incinerated, buried, or encapsulated The disposal sites are well secured (fenced) and away from the traffic Well situated (avoid residential areas) Appropriate personnel to manage the sites. Properly managed (i.e., incinerator is run for right time at right temperature, buried wastes are not left in an open pit uncovered, etc.) 	_____ _____ _____ _____	
13. Disposable Male Circumcision Kits are disposed properly	Used Safe Male Circumcision Kits: <ul style="list-style-type: none"> Decontaminated in 0.5% chlorine solution for 10 minutes before disposal One of the below options available to dispose used instruments <ul style="list-style-type: none"> Burial of instruments in a secure instruments/sharps pits/concrete vaults OR Transporting the instruments to a recycling / smelting facility OR Specialized encapsulation 	_____	

7. Infection Prevention	
Total standards	13
Total observed	
Total achieved	

Achievements of Quality Standards

Facility: _____ Service _____ Date: _____ Supervisor/Assessor: _____

AREA		# STANDARDS	# POINTS AVAILABLE*	# OBSERVED	ACHIEVED	
					#	%**
1	Management Systems	10	10			
2	Supplies, Equipment and Environment	6	6			
3	Registration, Group Education and IEC	4	6			
4	Individual Counseling and HIV Testing for MC Clients	6	18			
5	Male Circumcision Surgical Procedure	11	33			
6	Monitoring and Evaluation	5	14			
7	Infection prevention	13	13			
TOTAL OF POINTS AVAILABLE			100			

* Some standards have more points, due to making multiple observations for those standards

** Percent Achieved (%) is # Achieved / # Observed

1. Management Systems			
STANDARDS	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. Relevant MC Policies, Guidelines and Standards are available and staff are aware of them	1		
2. The site has an written service delivery plan (minimum 1 year plan)	1		
3. The MC clinic is able to meet demand for services	1		
4. The MC clinic or facility has clearly defined staff roles and responsibilities	1		
5. The MC clinic or facility has the human resources available according to the MC service delivery plan	1		
6. Staff receive mentoring and support	1		
7. Client flow chart is available in the facility	1		
8. Service delivery data are used for planning and improvement of service delivery	1		
9. Moderate and severe adverse events or complications are reviewed	1		
11. The facility / MC clinic has a functional supply and equipment ordering system	1		

2. Supplies, Equipment and Environment			
STANDARD	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. The physical facilities are appropriate for MC service provision	1		
2. The necessary equipment are available for performing MC surgeries	1		
3. The necessary commodities are available for performing surgeries	1		
4. Adequate supplies of medicines and commodities (HIV test kits, condoms) are available for non-surgical aspects of MC service provision	1		
5. An emergency resuscitation system exists and medications / supplies are available with immediate access	1		
6. Adequate measures are in place for managing moderate to severe complications and adverse events	1		

3. Registration, Group Education and IEC

STANDARD	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. The client is correctly recorded in the register and given a client ID	3		
2. The facility has appropriate information and educational materials on MC and other reproductive health	1		
3. Group education delivered with correct information	1		
4. Group education delivered with appropriate techniques	1		

4. Individual Counseling and HIV testing for MC Clients			
STANDARD	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. The provider provides appropriate individual counseling on MC	3		
2. The provider provides routine HIV testing for every client	3		
3. The provider is properly giving results and post-test counseling	3		
4. The provider uses appropriate counseling skills throughout the session	3		
5. All clients receive condoms along with appropriate counseling and instructions on their use	3		
6. The provider obtains Informed consent from clients	3		

5. Male Circumcision Surgical Procedure			
STANDARD	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
PRE-OPERATIVE CARE			
1. The provider correctly takes history	3		
2. The provider correctly performs pre-operation examination	3		
OPERATIVE CARE			
3. The provider prepares the client for surgery	3		
4. The provider administers anesthetic and performs dorsal slit correctly	3		
5. The provider achieves haemostasis, sutures the wound and applies the dressing correctly	3		
6. Provider is able to respond appropriately to an Emergency Situation	3		
7. The provider completes the procedure and assists the client to the post-operative area	3		
POST-OPERATIVE CARE			
8. The provider monitors immediate post-op client	3		
9. The provider gives client appropriate post-op care instructions	3		
10. Client records are updated and completed prior to discharge	3		
FOLLOW UP VISITS			
11. The provider correctly manages initial follow up	3		

6. Monitoring & Evaluation

STANDARDS	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. Availability of relevant tools in SCM Clinic	1		
2.Data are correctly transferred from MC Client Record to the MC Client Counseling, Testing and Follow-up Register	1		
3. Client records are complete and correspond with the MC Client Counseling, Testing and Follow-up Register	10		
4. Data are correctly summarized, reported and filed	1		
5.Monitoring service delivery data are used for planning and improvement of service delivery	1		

7. Infection Prevention			
STANDARD	Points		Syntheses: Gaps and Possible Causes
	Possible	Achieved	
1. The concentration and use of antiseptics are according to the standards.	1		
2. The process of cleaning rooms between and after procedures is performed according to the standards.	1		
3. The preparation of a disinfectant cleaning solution is performed according to the standards.	1		
4. The cleaning equipment is decontaminated, cleaned and dried before reuse or storage according to the standards.	1		
Instrument processing: Decontamination, Cleaning, and Sterilization			
5. The decontamination of instruments and other articles (immediately after use and before cleaning) is performed according to the standards.	1		
6. The process of cleaning instruments and other items is performed according to the standards.	1		
7. The process of packaging of items to be sterilized is performed according to the standards.	1		
8. The process sterilization is performed according to the standards.	1		
9. The storage process of sterile or high-level disinfected items is performed according to the standards.	1		
Health Care Waste Management			
10. Waste is disposed of / handled appropriately	1		
11. The system for interim storage is appropriate	1		
12. The facility / MC clinic ultimately disposes of waste properly	1		
13. Disposable Male Circumcision Kits are disposed properly	1		

Action Plan Matrix

Completed by: _____

Contact number of person who completed action plan _____

Date: _____

Performance Gaps Identified	Intervention Selected to Fill the Gap	Responsible Person or Body	Internal and External Support Needs	Time Line

Documentation Journal for QI activities

Name of the Site: _____ Team Leader: _____

Team Members: _____

Start Date for using Journal: _____ End date: _____

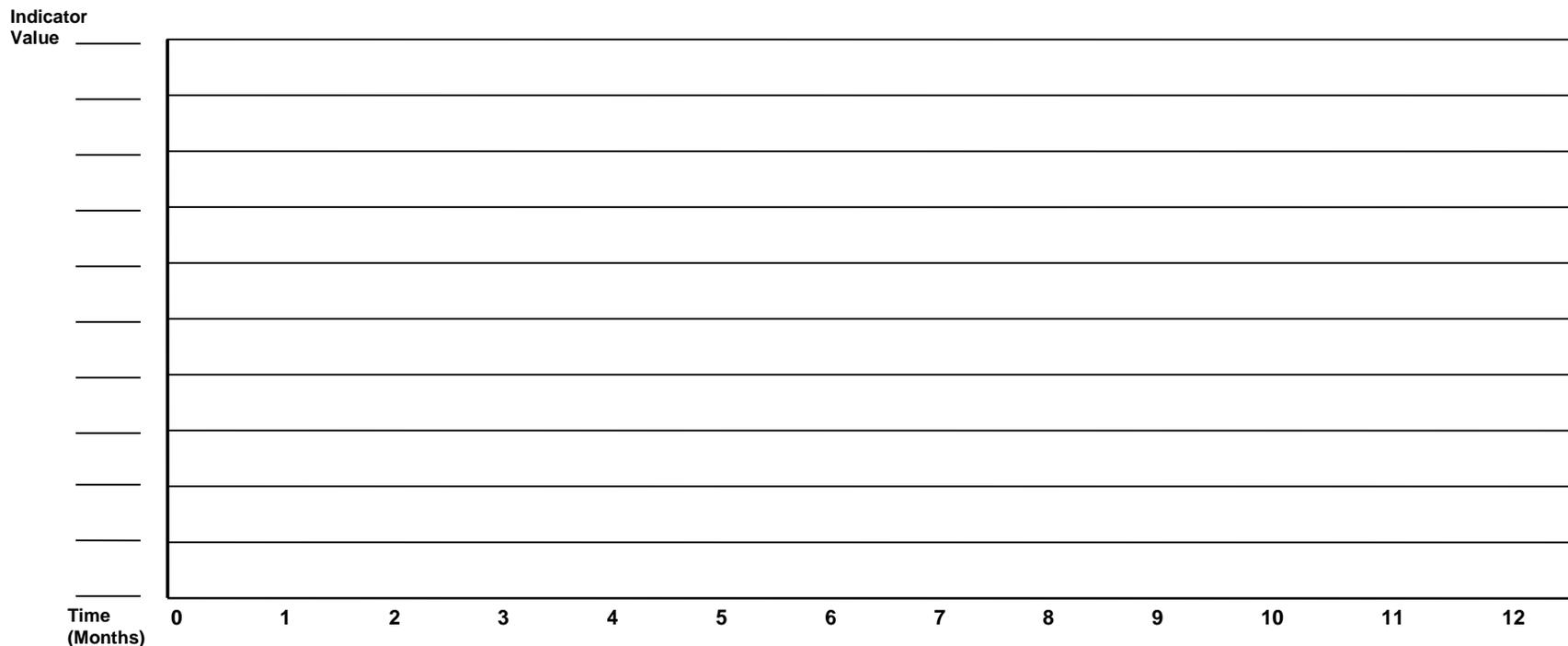
Improvement Objective: 1. _____ _____ _____	Indicator for the Objective:
Description of Problem: Briefly describe the problem being addressed and gaps between the current situation and your improvement objectives. State the differences between the MoH standard of care and the current practices. Also describe some of the challenges with the current situation.	

Part 2: Changes Worksheet – QI Team Activities: Please list below the changes that the team has tried out in order to achieve the improvement objective. Write all changes, whether effective or not. Also note when it was started and when it ended (where applicable) to enable you to annotate the results.

Tested Changes: In the space below, list all of the changes that you are implementing to address the improvement objective. Use 1-2 sentences to briefly describe the tested change.	Start Date: DD/MM/YY	End Date (if applicable) DD/MM/YY	Effective? (Yes/No) Was there any improvement registered?	Comments: Note here any potential reasons why the change was or was not effective; also indicate any change in indicator value observed related to this change.
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

Part 3: Graph Template – Annotated Results:

- Use the graph below to document your progress. Indicate the value of the numerator and denominator.
- Note on your graph the time the change was introduced



Numerator													
Denominator													
%													

Please give brief explanations for any notable trends in the graph:

Notes on the Indicator: Write down any additional comments you may have on the performance of indicators. Write anything derived from the changes worksheet and the graph template that might explain the performance trends of the improvement objective.

Notes on Other Observed Effects: Please write here any effects (positive or negative) you are *currently* observing as a result of the quality improvement effort such as comments from patients, changes in your performance or motivation, improved efficiency or the survival story of a sick patient. You may use your notes to tell the complete story at the next learning session(s).

Appendix 2:

SMC Improvement Case Studies

A fast turn-around for Mengo Hospital: Improving the quality of safe male circumcision services (February 2014)

Safe male circumcision: Improving client follow-up at Gulu Regional Referral Hospital, Uganda (June 2014)

The role of improvement teams in managing male circumcision-related adverse events: The experience of the mobile van clinic in Uganda (June 2014)



USAID ASSIST Project
Applying Science to Strengthen
and Improve Systems

Inter-Religious Council of Uganda
Religions for Peace



CASE STUDY

A Fast Turn-around for Mengo Hospital: Improving the Quality of Safe Male Circumcision Services

In December 2012, an external quality audit of the Safe Male Circumcision (SMC) program at Mengo Hospital in Kampala, Uganda, found multiple gaps in compliance with Ministry of Health (MoH) quality standards and recommended that SMC services be temporarily suspended until the issues of concern could be resolved. This case study describes how the hospital's SMC quality improvement (QI) team took quick action to address the performance gaps with support from coaches from the Inter-religious Council of Uganda (IRCU) and the USAID ASSIST Project. Mengo Hospital was able to increase compliance with MoH quality standards in critical areas like surgical procedure and infection prevention from 64% and 69%, respectively, to 100% in less than five months. The SMC improvement work in Mengo Hospital is supported by the United States Agency for International Development (USAID) and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).

Background

Uganda is among the 13 sub-Saharan countries implementing Safe Male Circumcision (SMC) services to prevent HIV infection. Uganda aims to circumcise 80% of males aged 15 to 49 years between 2011 and 2015. The number of circumcisions required to reach this target in Uganda is over 4 million, posing a huge challenge for the health system to rapidly scale up this service.

In 2010, the Uganda Ministry of Health adopted the National Safe Male Circumcision Policy, which emphasizes SMC as part of the national comprehensive HIV prevention strategy. The policy recommends voluntary SMC for all men and makes the service available through the public health system.

Mengo Hospital is a private-not-for profit hospital based in Kampala that is supported by PEPFAR through implementing partner Inter-Religious Council of Uganda. The hospital began offering SMC one day a week beginning in August 2010.

In early December 2012, as part of a global safety and quality assurance effort to support countries implementing SMC, PEPFAR conducted an External Quality Assessment (EQA) at Mengo Hospital. The EQA revealed multiple gaps in performance and quality of SMC services offered at the facility. As a result of these gaps identified, the PEPFAR EQA team recommended that SMC services at the hospital be suspended until the issues were solved.

Taking Steps to Improve SMC Care

To support facilities like Mengo Hospital to address these quality gaps, USAID asked the Applying Science to Strengthen and Improve Systems (USAID ASSIST) Project to provide technical support to the MoH and implementing partners to improve quality and safety of HIV prevention, treatment and care in Uganda,

Mengo Hospital QI Team Members

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FEBRUARY 2014

This case study was authored by John Byabagambi, Angella Kigonya, Esther Karamagi and Humphrey Megere of University Research Co., LLC (URC), Edith Namulema of Mengo Hospital, and Albert Twinomugisha of IRCU. We would like to acknowledge the contribution by IRCU and the Mengo Hospital SMC quality improvement team. It was produced by the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project, funded by the American people through USAID's Bureau for Global Health, Office of Health Systems. The project is managed by URC under the terms of Cooperative Agreement Number AID-OAA-A-12-00101. For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

including SMC services. In partnership with the MoH and IRCU, USAID ASSIST began working with Mengo Hospital to mobilize a quality improvement team to look in more depth at the hospital's care process and identify actions to allow the site to resume SMC services.

Coaches from the MoH, USAID ASSIST, and IRCU visited Mengo Hospital in late December 2012 to help the hospital mobilize an SMC quality improvement team and develop a quality improvement action plan. In January 2013, an onsite orientation to quality improvement was conducted to build capacity of the hospital QI team to identify and bridge the gaps. Coaches from ASSIST and IRCU worked with the team to conduct an in-depth baseline assessment of how the hospital fared on a series of indicators measuring seven areas of service quality.

From the baseline findings, the hospital QI team decided to first work on these two gaps:

- 1) The hospital did not have enough reusable surgical kits. The hospital had 25 kits but was seeing an average of 50 clients per service day. Moreover, some of the kits were incomplete, missing basic items such as stitch scissors and needle holders.
- 2) Lack of guidelines for how to manage emergencies in surgery and lack of basic supplies like 50% dextrose.

Based on the MoH guidelines, the team developed instructions on emergency procedures and posted them in the operating room for easy reference. With the need clearly identified, IRCU agreed to support the hospital with more SMC kits and to replenish the missing items for existing kits. The team developed a detailed action plan that highlighted the specific person responsible for carrying out a task and the date by which this should be done.

The Mengo Hospital team continued to get monthly onsite coaching visits from the USAID ASSIST and IRCU staff to support the ongoing SMC improvement work. In May 2013 the Mengo Hospital QI team attended a more detailed, three-day training in quality improvement where they further improved their skills in SMC work and had the opportunity to talk with teams from other facilities that were also trying to improve SMC services.

USAID ASSIST and IRCU coaches conducted a coaching visit to the hospital in mid-May to review progress made and provide on-going support. The team continued to make changes to improve SMC care, including:

- Segregation of clients during group education according to the age group: Clients aged 16 years and above were separated from the 12-15 year olds and given age-appropriate information.
- A written HIV testing consent form for SMC clients was developed and adopted at all counseling sessions. Later, the national MoH consent form was introduced to the site.
- The circumcision clients' form was modified to capture clients' weight, blood pressure (pre and post operation), intra-operation events, and post-operation follow-up.

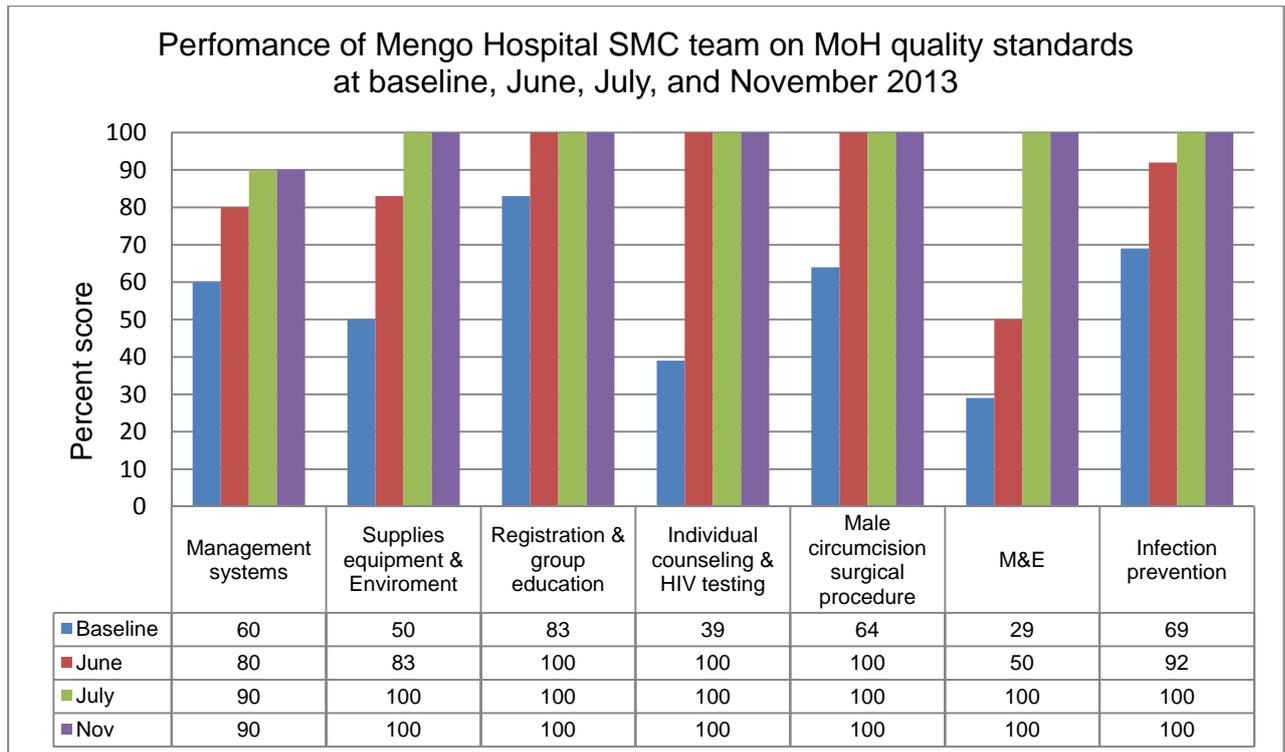
EQA Results

The evaluation team recommended that SMC service delivery should stop temporarily mainly because the hospital was putting children below 10 years under sedation. The EQA report noted: *“Attention to safety (emergency supplies, equipment and training) and adherence to the minimum package for SMC for HIV prevention (syndromic management of STIs, opt-out for HIV testing prior to surgery) are required immediately before service delivery is re-started.”*

The HIV Counselling Program Manager at Mengo noted, *“The counsellor offering individual counselling admitted to hurriedly going through the post test counselling messages and was mainly focusing on HIV test results. She was not recapping the advantages/ benefits of SMC to the client because she was worried about the long waiting time for the whole SMC exercise. After the QI training, the counsellor was able to develop and use a checklist to guide her during the post test counselling session; she noted that there were a lot of issues that are not clear to the SMC clients during the group health education which she had to address in the individual session. She has also learnt that sometimes she may forget some key talking points and that's why it's important to stick to the checklist, however experienced she may be.”*

- Installed curtains in the operation rooms to improve privacy during the procedure.
- Prepared the emergency tray and invited the hospital anaestheologist to conduct a continuing medical education (CME) session on emergency preparedness.
- Created a post-operative room to offer the immediate post-operative care.
- Instituted in place the proper documentation tools for data capture.

The QI team conducted repeat assessments of their own compliance with MoH guidelines in June, July, and November and found they had improved dramatically in all seven areas of the standards, as seen in the figure below.



How the Mengo SMC QI team achieved improvement

The QI team reported that the monthly onsite coaching and participation in quarterly learning sessions organized by USAID ASSIST were important to keep them focused and to expose them to ideas from other teams on how to improve SMC services. The creation of specific action plans that noted who was responsible to carrying out each action was useful in that it allowed for each and every task to be completed.

Team members acknowledged that at first, quality improvement was a new concept to most of them. Previously, the team was mainly paying attention to getting high numbers circumcised with less attention to quality of services provided. But with the concerted action, the team realized that safety and quality of SMC services could be improved within a short period of time. At the same time, the team recognized that some of the gaps they identified needed external support in order for them to be addressed.

A new perspective on guidelines

"I never used to look at the penis to check for oozing and proper strapping of the penis onto the abdomen after circumcision and as a result, the numbers of patients with bleeding and hematomas returning in the immediate post partum period was high yet some of this could be handled before the client leaves the clinic. Through QI mentoship we have learnt that it's important to follow all the guidelines because they help to prevent problems."

-- Post Operative Nurse, Mengo Hospital

The Implementing Partner Perspective

"It gives IRCU great joy to see the success Mengo Hospital has registered in providing quality SMC services despite the gaps and challenges identified at the baseline assessment. The continuous QI mentorship, support and training that was conducted by ASSIST and involving IRCU at all stages has been an excellent learning experience that enabled us to internalise and adopt the QI approaches even beyond Mengo Hospital. Each site is quite unique but once the principles of QI are followed, it can create a positive change as demonstrated at Mengo Hospital. The mentorship and support has been continuous and allowed the actual implementors suggest and test solutions to see their results. The involvement of top leadership of both the Implementing Partner and the site as demonstrated by both IRCU and Mengo Hospital has been invaluable. Great thanks to USAID for the funds provided to facilitate the process and the USAID ASSIST Project for the QI technical support provided to IRCU. With the lessons learnt IRCU will continue to support Mengo Hospital and all other sites to improve the quality of services being provided to the clients."

-- Clinical Services Specialist, IRCU

Initially the facility QI team took the assessment to be a fault-finding exercise. However, the MoH, IRCU, and ASSIST coaches persisted in convincing them otherwise and to recognize that using data for improvement should never discourage them.

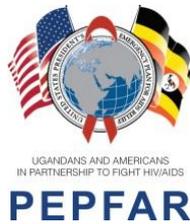
ASSIST staff noted that creating buy-in and support from the hospital leadership was also key to the success of the QI approach as demonstrated by Mengo hospital leadership team.

The active engagement of IRCU, the USAID implementing partner assigned to support Mengo Hospital, also contributed importantly to the improvement seen at Mengo. IRCU's support and facilitation encouraged the team to act on their QI plans.

About USAID ASSIST Technical Support in Safe Male Circumcision

USAID ASSIST was asked by USAID to provide technical support to Uganda MoH and implementing partners to improve quality and safety of SMC services in 29 fixed sites and 1 mobile van in 27 districts, working with 10 partners: Strengthening TB and HIV&AIDS Responses in East Central Uganda (STAR- EC), Strengthening TB and HIV&AIDS Responses in Eastern Uganda (STAR E), Strengthening TB and HIV&AIDS Responses in Southwestern Uganda (STAR SW), Northern Uganda Health Integration to Enhance Services (NUHITES), Strengthening Uganda's Systems for Treating AIDS Nationally (SUSTAIN), Inter Religious Council of Uganda (IRCU), RTI/ Uganda People's Defense Forces, Health Initiatives in the Private Sector (HIPS), Makerere University Walter Reed Project (MURWP), Supporting Public Sector workplaces to Expand Action and Responses against HIV/AIDS (SPEAR).

USAID ASSIST is providing phased support, starting with intensive support to the 30 sites involving direct activities with these sites and their partners to understand what needs to change to see measurable improvement in the quality of SMC services. Concurrently, light support is provided to the rest of the partner sites to guide duplication of activities at the 30 intensive sites. In April 2014, USAID ASSIST will scale up intense support to 50 sites (adding 20 new sites), and in May 2014, USAID ASSIST will support the MoH and partners to spread the SMC improvement lessons learnt at the first 30 sites to an additional 150 sites.



CASE STUDY

Safe male circumcision: Improving client follow-up at Gulu Regional Referral Hospital, Uganda

Gulu Regional Referral Hospital provides safe male circumcision (SMC) services as a part of its comprehensive strategy for HIV prevention. Post-operative clients are offered care on return to the facility. However, clinicians were not aware of standard follow-up guidelines for post-operative care and informed clients to return only for complications or adverse events. As a result, clients did not have information on post-operative follow-up. This case study illustrates the need for facility-based improvement in standardized documentation of client forms and registers to increase and improve post-operative client follow-up.

Introduction

Gulu Regional Referral Hospital (GRRH) serves as a centre for referral of health care services for five districts in Northern Uganda. It offers both specialized and general health care services, including provision of SMC as a comprehensive strategy for HIV prevention. The facility is one of the 30 selected health facilities participating in an SMC collaborative improvement activity support by USAID ASSIST. GRRH is supported by the USAID Strengthening Uganda's Systems for Treating AIDS Nationally (SUSTAIN) Project. The site has been offering SMC for HIV prevention for the last three years, initially with the support of the Northern Uganda Malaria, AIDS and Tuberculosis (NUMAT) Project but since March 2013, with support from SUSTAIN.

Problem Analysis

Post-operative client follow-up is the care offered to clients up on return to the health facility after circumcision. It entails clinical review of the client to assess the healing of the wound, treatment of any identified complications, reinforcement of post-operative instructions and HIV preventive strategies, provision of condoms, and provision of HIV counselling and testing for those not yet tested. Post-operative follow-up has proved to be a huge challenge in the implementation of SMC in GRRH and across Uganda. Initially, post-operative follow-up care was not being conducted at the facility, and for the very few clients who returned after the procedure, no clear care was offered to them.

Baseline assessment conducted in March 2013 by ASSIST, SUSTAIN, and the Gulu District Health Office showed client follow-up post-operatively to be at 0% at both 48 hours and after 7 days. The assessment established that the team at GRRH was conducting SMC with no clear information on post-operative follow-up; the clinicians were not aware of the standard follow-up guidelines and were informing clients to return for follow-up only if they had complications/adverse events.

As a result, clients did not receive clear information on post-operative follow-up. Documentation was very poor, with the facility lacking standard SMC data tools; improvised tools were not correctly or consistently filled out to capture whether any clients returned for follow-up. The SMC clinic was

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opened only during the time of surgical procedure and hence any clients who later returned for follow-up were left unattended or had to go to the general out-patient department for review, where data on SMC follow-up was not captured. Clients who were circumcised at the outreach sites were not followed up since after the outreach, the health facility staff returned to their main facility.

Improvement Approach

In April 2013, with the support of the ASSIST coach, the staff of the SMC clinic at GRRH formed a quality improvement (QI) team comprised of focal members in the SMC team of GRRH. The team collected and analysed data for client follow-up post-operatively, identified gaps in follow-up, and proposed changes to address the gaps.

The data tools used to establish the root cause included the improvised SMC register, client forms, and a flow chart of patient flow in the clinic (Figure 1). The team determined that the root cause of the problem was:

- i) The improvised tools did not capture all data on follow-up visits;
- ii) Incorrect information was being given to clients on follow-up (the staff were informing the clients to return for follow-up *only* if they had complications or adverse events)
- iii) Poor documentation of client follow-up.

The team identified changes they could make with support from SUSTAIN and ASSIST that could address the above problems: i) acquisition of standardized MOH data tools for SMC to capture all data required on follow-up, ii) orientation of staff on the correct use of the data tools, iii) consistent provision of correct information on follow-up to clients, including the importance of returning for post-operative follow-up, iv) giving the national package of care to clients who return for follow-up; v) giving appointment dates to clients for follow-up, vi) assigning one person to update the client records, and vii) having staffs at the lower health units conduct follow-up at the sites of outreach activities.

GRRH QI Team Members	
1.	Oyella Roselyn
2.	Bulega David
3.	Adong Lilly
4.	Kusaasira Hope
5.	Draru Margret
6.	Lanyero Joan

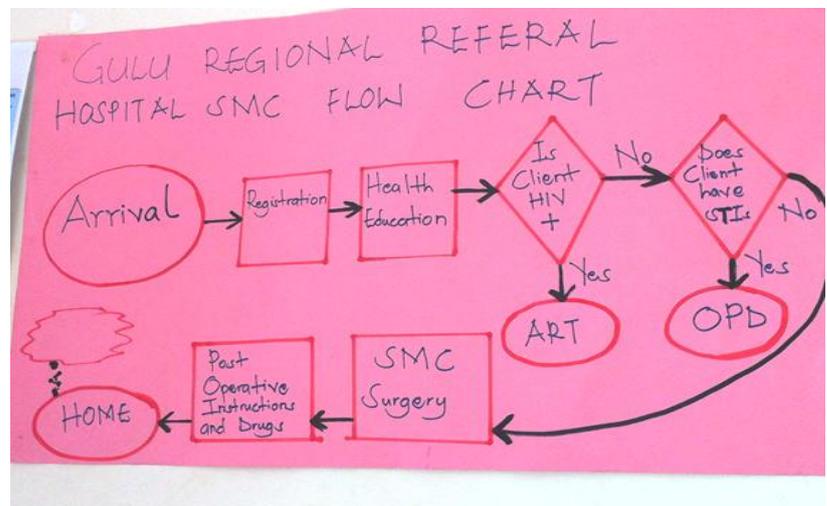


Figure 1: The SMC client flow chart developed by the team helped map out the SMC activities for the clinic and clients.

Results

Assessment of the site's performance in December 2013 revealed marked improvement in client follow-up. Initially, only 2% of the circumcised clients returned for post-operative follow-up at 48 hours and 0% returned for 7 days follow-up in April 2013. By December 2013, 99% of circumcised clients were returning for 48-hour follow-up, and 82% of clients were returning for follow-up at 7 days (see Figure 2).

Client follow-up has generally improved with the client forms and registers being correctly and consistently used.

What Changes Did the GRRH Team Test to Achieve the Results?

Improving post-operative client follow-up at 48 hours and 7 days

- **Capacity building:** The team at GRRH had sessions of medical education which involved monthly mentorship by an external coach from ASSIST and internal orientation of all the other staffs by the QI team to ensure that all staffs had knowledge of the standard post-operative guidelines of follow-up at 48 hours, 7 days, and 6 weeks. Initially, staff were not aware of these

guidelines and were not giving clients correct information on client follow-up (clients were being told to come back only if they had complications or problems).

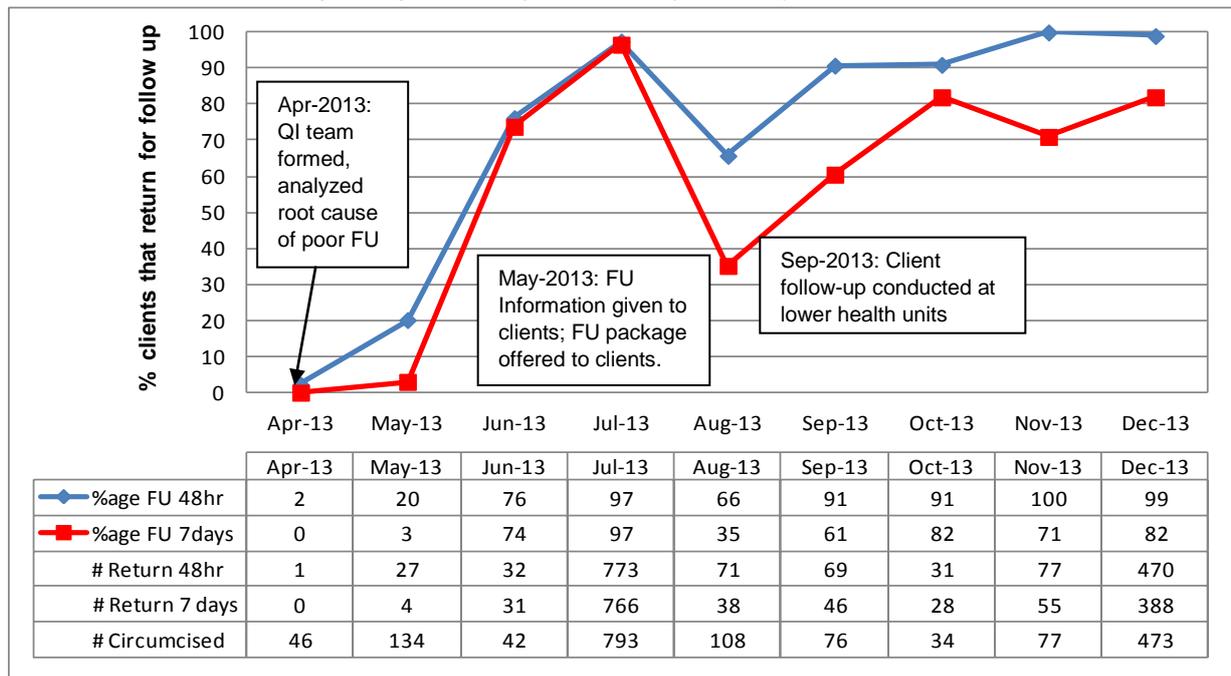


Figure 2: Percentage of clients that return for follow-up after 48 hours and 7 days post-circumcision at Gulu Regional Referral Hospital, April 2013-December 2013

Provision of the national package of follow-up care to clients who came for follow-up: The package of care offered to clients on follow-up visits was agreed on by the team with the guidance of the ASSIST coach. The standard package included: removal of the bandage dressing, assessment of the wound, health education counselling on wound care and HIV prevention strategies, distribution of condoms, and HIV testing for clients who have not yet had a test before. This follow-up package is the national standard package to be offered to all clients who return for follow-up. These services are provided by the staff in the SMC clinic.

- **Consistent information on follow-up:** Information on client follow-up was passed on to clients at all stages of care (that is, during the group education for SMC, individual counseling, and post-operative health education) to ensure that the clients get the right information and that they do not forget.

Improving data on client follow-up post-operatively

- **Standard MOH SMC data tools were requisitioned for and provided by the implementing partner SUSTAIN:** The QI team then held a session to brief all clinic staff on the correct use of the tools.
- **The national client cards having client identification numbers were issued to all clients after circumcision, clearly indicating the appointment dates for follow-up:** The identification numbers on the client forms are the same numbers that the staff at the clinic manually put on the client cards. Staff were instructed to note the appointment dates for the client to return for follow-up on the client card. This client card is issued to the client to take home; it helps to remind the client on the dates to return for follow-up. The cards are also used for tracing the client forms at the facility when the clients return for follow-up. The identification number on this card helps to quicken the tracing process of the client form, which is used to note the clinical assessment of the client. The client forms were used to capture the client's clinical assessment on the day of follow-up; this information was also used for updating the SMC register.
- **One individual was assigned the responsibility of updating the register using the client forms:** This task is rotational for each SMC clinic day to ensure that all staffs have competence in updating the register.

- **To make the retrieval process of the client forms easy, the team obtained box files for keeping the client forms:**

These were serialized with the client identification numbers and the dates of circumcision (see Figure 3). A client coming for follow-up carried along the client card with the identification number which is used for retrieval of the client forms.

The above changes have greatly improved the organization of work at the SMC clinic and facilitated the clinic's ability to monitor client treatment outcomes, detect potential problems to prevent adverse events before they occur, and enable prompt and proper management for those complications that did occur.

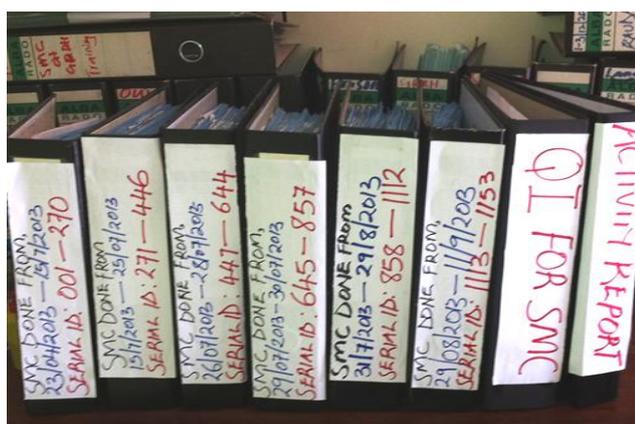


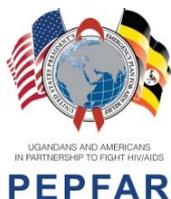
Figure 3: SMC client forms filed according to identification number and date of circumcision for easy retrieval during post-operative visits

Lessons Learned from the GRRH Team's Experience

- Formation of QI teams is vital in creating any improvement at a health facility. It offers the basis for identification of the gaps in a system and making the recommended changes. This team routinely reviewed SMC data tools at the facility to ensure quality in the work.
- Capacity building of staff on the standard guidelines for post-operative follow-up at 48 hours, 7 days, and 6 weeks ensured that the health facility's staffs have the right competencies to offer quality care.
- Provision of consistent and correct information on follow-up to clients and standardizing the package of care offered to clients on follow-up visits improved client return for post-operative follow-up since it offered the clients a reason to come back.
- Use of standardized MOH SMC data tools and regular review of records improves the quality of client records and hence, quality of care.
- Enlisting staff at lower level health facilities to also conduct client follow-up after outreach activities proved to be feasible and helped increase follow-up coverage.

Next Steps for GRRH

The health facility aims to address the challenge of post-operative follow-up at the outreach/camp sites which are often conducted far away from the health facility. The tested change of having staffs of the lower health units conduct follow-up after the outreach activities makes it difficult to document data on follow-up at these sites, since the client forms and registers are returned to the health facility after the outreach. A proposed change to address this challenge is to allocate a register at the health facility close to the site of the outreach for registration of the clients who come for post-operative care at this facility. GRRH staff will routinely come and pick up the register to update the main SMC register at the hospital.



CASE STUDY

The role of improvement teams in managing male circumcision-related adverse events: The experience of the mobile van clinic in Uganda

Since January 2013, the USAID ASSIST Safe Male Circumcision (SMC) team working with Ministry of Health (MoH), district health authorities and implementing partners has been supporting 30 health facilities across Uganda in quality improvement (QI) activities. The support was in form of QI training, supporting sites in QI team formation, monthly coaching and mentorship on national SMC quality standards, performance indicators, quarterly site assessments and quarterly meetings for all teams to share experiences and challenges of implementing improvement activities. This case study demonstrates the importance of quality improvement teams in identifying, investigating and dealing with moderate to severe adverse events secondary to safe male circumcision.

Introduction

Today, quality improvement is seen as a science of identifying and closing gaps between expected and actual performance. It hinges on four principles: providing client-centred care, focusing on systems and processes, using own data to guide in decision making, and working as a team. Though all are very important, the latter plays a pivotal role in the success of improvement projects. Improvement teams regularly identify gaps in their care delivery systems and processes, come up with new ideas (changes) for testing, implement those changes, and document the results to identify what changes of the changes being tested worked, needs to be modified or discarded.

After the Ministry of Health taking up SMC as an HIV combination prevention strategy, it developed quality standards which must be adhered to by all partners across Uganda for better service delivery and acceptable clinical outcomes one of which was keep SMC related adverse events within the least minimal levels.

Understanding adverse events

Adverse events are expected or un-expected side effects that may occur during, immediately after, and days or months post SMC procedure. Most of them take a mild form but may need further attention when they progress to moderate and severe forms. According to the MoH's adverse events grading scale, the most common adverse events from SMC include pain, excessive bleeding, swelling, anaesthesia-related events, excessive skin removal, infection, and damage to the penis. The Uganda MoH, World Health Organization (WHO), and Joint United Nations Programme on HIV/AIDS (UNAIDS) advise that moderate to severe adverse events should be limited to an average range of 0-2% of all circumcision procedures. If not handled well, adverse events can scare away probable clients for SMC, lead to poor cosmetic outcomes, anatomical abnormalities, and in the worst case, death.

Mobile van improvement team members

Masaba Peter (*team leader*)
Nanyonga Joselyn
Kizindo Clement
Kikooba Jim

JUNE 2014

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Documentation of all adverse events is very important if they are to be kept in check and stimulate action when they occur.

Start-up of improvement activities

The mobile van is a state-of-the-art clinic operating in Kayunga [home station], Mukono, Buikwe and Buvuma districts providing mobile SMC services supported by the Makerere University Walter Reed Project (MUWRP) with PEPFAR funding through the Department of Defense. The site was first visited by USAID ASSIST in March 2013 for a baseline assessment, and though the site met most of the national SMC quality standards, they had no quality improvement systems in place. That is, they had no improvement team, improvement team meetings were not being held, and available data were not being used to monitor the quality of SMC care provided. This meant that the site had no means to identify, investigate, and deal with any quality flaws, like the rising number of adverse events that was noted.

“We thought everything was Okay”

“We thought we were doing well in all aspects of SMC but when USAID ASSIST came and explained the need and functions of a quality improvement (QI) team, it’s when I realised that we were missing out something.”

--Masaba Peter, SMC team leader
mobile van clinic (Makerere University Walter Reed Project)

A USAID ASSIST improvement coach, together with MUWRP and district health representatives, worked with the site to build their skills and capacity to identify quality gaps and come up with aims for improvement of SMC care in the mobile van through:

- Formation of a quality improvement team
- Training the team in quality improvement
- Mentoring the team to start analyzing available data for on service quality through tracking performance indicators and filling in the documentation journal
- Monthly coaching and mentorship visits to handle any quality issues and support the site to define action plans to address issues and gaps

Identifying the “adverse events” problem

To identify quality gaps, improvement teams review and discuss their data, study quality performance trends, and go on to investigate the likely causes of the problems using known improvement methods and tools. “After the quality improvement training, we held a meeting and agreed to start tracking all performance indicators using the documentation journal [a QI tool used to detect changes in performance] and with this, one important aspect that stood out was the adverse events. Before using the documentation journal, we didn’t know that the number of moderate to severe adverse events was on the rise and in a special age group. But after filling it in for some time, we realised that this was happening. At one time it peaked at 5.47%, which was alarming,” reported Masaba Peter, SMC improvement team leader at the mobile van clinic.

A new perspective on tracking data

““I really want to thank USAID ASSIST because we really did not think this was a challenge until we started tracking the data. This is not only helping us in dealing with adverse events but also with other indicators like follow up and partner involvement.”

-- Abiriga Idi, SMC counsellor

Problem analysis

Team members met to discuss the likely causes of the rise in the number of adverse events. Root cause analysis ruled out the issue of infection prevention being the cause. As they brainstormed, the following issues were noted:

- Most of the clients with adverse events were children between the ages of 13 and 15 years.
- One of the counsellors noted that when the guardians for most children came, they would just consent for their children to undergo circumcision and they go back home, leaving the children alone at the van without listening to post-operative instructions.
- The nature of adverse events that were presenting showed a relationship with poor

comprehension of post-operative instructions as most of them came back with infection secondary to not keeping the wound dry.

Dealing with the problem: Testing changes

To address this issue, the team made several changes. First, before any group education session, the team would start by explaining the importance of parents/guardians keeping around when their children are circumcised. Challenges of children comprehending the post-operative instructions would also be discussed. The team agreed not to circumcise any children whose guardians would not wait for their children. Though this was a challenge, it paid off in the long run.

Next, information given during post-operation instructions was repackaged so that it could be easier for the children to remember. For example, more demonstrations than talking were done. Finally, team members agreed to meet weekly to review data on adverse events.

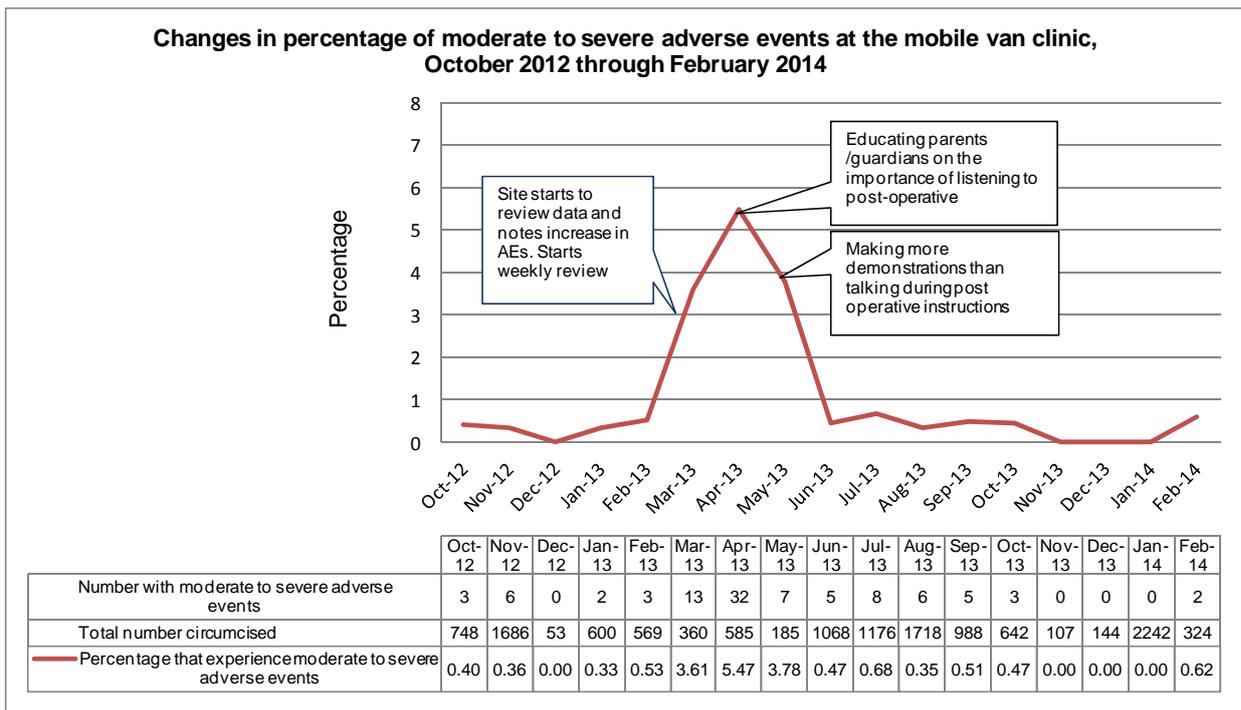
The way forward

“I cannot say that right now we are there, I know that quality improvement is a continuous process so we shall continue to test these changes and other new innovations. I know USAID ASSIST will be with us.”

--Masaba Peter, SMC team leader, mobile van clinic

Results

With continuous implementation and testing of the above changes, adverse events were reduced from the peak of 5.47% in April 2013 to 0.62% in February 2014 which is within manageable levels. The graph below shows the changes the team tested and their impact on the number of adverse events seen at the facility.



Conclusion

The experience of the mobile van clinic demonstrates that a fully constituted and functional improvement team is one that meets to identify quality gaps, innovates ideas (changes) for testing, collects data to track performance, and meets regularly to discuss findings from improvement activities. All these play an important role in maintaining good quality care. With orientation to improvement methods and modest coaching support, this team was able to identify and deal with its quality challenge (adverse events) and will be able to handle any new challenges that come up going forward.

USAID ASSIST will continue to support the site through monthly coaching visits, mentorships, and technical support and review meetings (learning sessions) to help them achieve their improvement objectives. USAID ASSIST will also scale up the learnt best practices to other health facilities where SMC quality improvement is still a challenge.



The mobile van clinic setup during an outreach in Baale sub county in January 2014. Photo by Ssensamba Jude T, URC.

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USAID ASSIST is providing phased support, starting with intensive support to the 30 sites involving direct activities with these sites and their partners to understand what needs to change to see measurable improvement in the quality of SMC services. Concurrently, light support is provided to the rest of the partner sites to guide duplication of activities at the 30 intensive sites. In 2014, USAID ASSIST will scale up intense support to 20 new sites and support the MoH and partners to spread the SMC improvement lessons learnt at the first 30 sites to an additional 150 sites.

Appendix 3: Quality Improvement Tools

Appendix 3: Quality Improvement Tools

Tools for Analyzing a System or Process

The following tools can facilitate the work of improvement teams in identifying and analyzing problems as well as solutions to those problems: Flowcharts, System Modeling, and Cause-and-Effect Analysis.

Flowcharts

A flowchart is a graphic representation of how a process works, showing, at a minimum, the sequence of steps. Several types of flowcharts exist: the most simple (*high level*), a detailed version (*detailed*), and one that also indicates the people involved in the steps (*deployment* or “*swim lane*” matrix).

When to Use a Flowchart

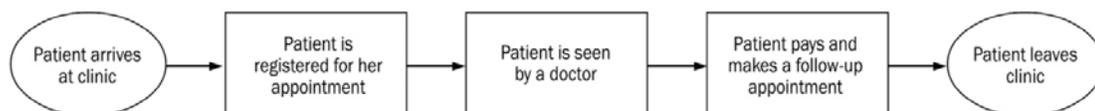
A flowchart helps to clarify how things are currently working and how they could be improved. It also helps in understanding the key elements of a process and where one process ends and the next one starts. Developing a flowchart stimulates communication among participants and establishes a common understanding about the process.

Flowcharts can also reveal steps that are redundant or misplaced. In addition, flowcharts can be used to identify appropriate team members, to identify who provides inputs or resources to whom, to establish important areas for monitoring or data collection, to identify areas for improvement or increased efficiency, and to generate hypotheses about causes. Flowcharts can also be used to examine processes for the flow of patients, information, materials, clinical care, or combinations of these processes. It is recommended that flowcharts be created through group discussion, as individuals rarely know the entire process and the communication contributes to improvement.

High-Level Flowchart

A high-level (also called *first-level* or *top-down*) flowchart shows the major steps in a process. It illustrates a “birds-eye view” of a process, such as the example in the figure entitled “High-Level Flowchart of Prenatal Care” that shows the major steps that occur from the time a patient arrives at a clinic, until she leaves. It can also include the intermediate outputs of each step (the product or service produced), and the sub-steps involved. Such a flowchart offers a basic picture of the process and identifies the changes taking place within the process. It is significantly useful for identifying appropriate team members (those who are involved in the process) and for developing indicators for monitoring the process because of its focus on intermediate outputs.

High-Level Flowchart of Prenatal Care



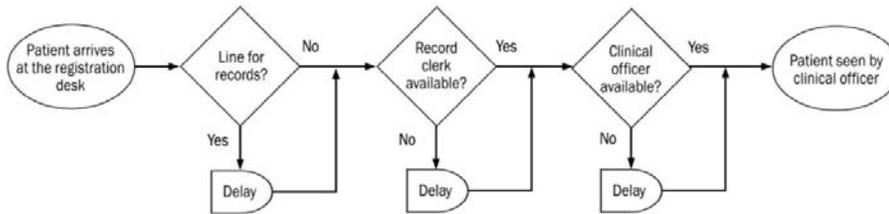
Most processes can be adequately portrayed in four or five boxes that represent the major steps or activities of the process. In fact, it is a good idea to use only a few boxes, because

doing so forces one to consider the most important steps. Other steps are usually sub-steps of the more important ones.

Detailed Flowchart

The detailed flowchart provides a detailed picture of a process by mapping all of the steps and activities that occur in the process. This type of flowchart indicates the steps or activities of a process and includes such things as decision points, waiting periods, tasks that frequently must be redone (rework), and feedback loops. This type of flowchart is useful for examining areas of the process in detail and for looking for problems or areas of inefficiency. For example, the “Detailed Flowchart of Patient Registration” reveals the delays that result when the record clerk and clinical officer are not available to assist clients.

Detailed Flowchart of Patient Registration



Deployment or “Swim Lane” Flowchart

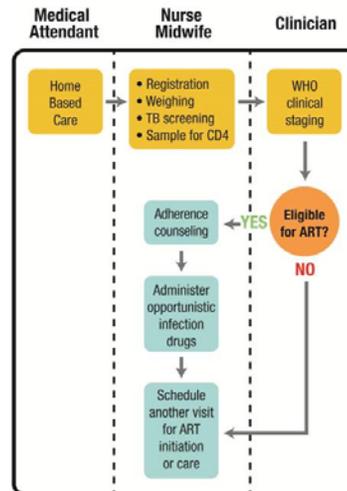
A deployment flowchart maps out the process in terms of *who* is doing the steps. It is in the form of a matrix, showing the various participants and the flow of steps among these participants. It is mainly useful in identifying who is providing inputs or services to whom, as well as areas where different people may be needlessly doing the same task.

In this example, the tasks in seeing HIV patients at a health center are described for three different staff members at the facility: the medical attendant, the nurse midwife, and the clinician.

When to Use Which Flowchart

Each type of flowchart has its strengths and weaknesses. The high-level flowchart addressing major steps is the easiest to construct but may not provide sufficient detail for some purposes. Detailed flowcharts include steps and activities and as well as decision points. Deployment flowcharts show persons involved in specific steps and activities.

In choosing which type of flowchart to use, the improvement team should be clear on their purpose for flowcharting. The table below shows which type of flowchart is indicated for which type of purpose. If you are unsure which flowchart to use, start with the high-level one and move on to detailed and deployment. Note that creating detailed and deployment flowcharts can be time-consuming.



Type of Flowchart Indicated for Various Purposes

Purpose	High Level	Detailed	Deployment
To understand the process and determine team membership	+++		++
To gain group consensus about the process	+++	+++	+++
To develop areas or indicators to be monitored for process information	+++	++	
To find areas where efficiencies can be gained		+++	++
To identify who provides what to whom	++	++	+++
To search for specific problem areas or steps that must often be redone	+	+++	++
To allocate tasks			+++

+++ Very useful ++ Often useful + Sometimes useful

How to Use a Flowchart

Regardless of which the type of flowchart you decide to use, there are several basic steps to its construction.

Step 1. Agree on the purpose of the flowchart and which format is most appropriate for the process you are analyzing.

Step 2. Determine and agree on the beginning and end points of the process to be flowcharted.

- What signals the beginning of this process? What are the inputs?
- What signals the end of the process? What is/are the final output(s)?

Step 3. Draw the flowchart for the process

List out the steps involved in the process in the first column of this table. Describe what happens at each step and what outcomes it leads to, and what next step must be taken as a result. Once all of your steps are listed, you can draw a simple flowchart using the key of shapes provided.

An example of the steps for a flowchart to analyze the labor and delivery process at a health center that addresses post-partum hemorrhage is provided below.

Basic Symbols for Any Type of Flowchart

 Step or activity

Symbols for Detailed Flowcharts

 Decision or branch point

 Documentation (or written information about the process)

 Information into database

 Wait/bottleneck

 Connector to another process

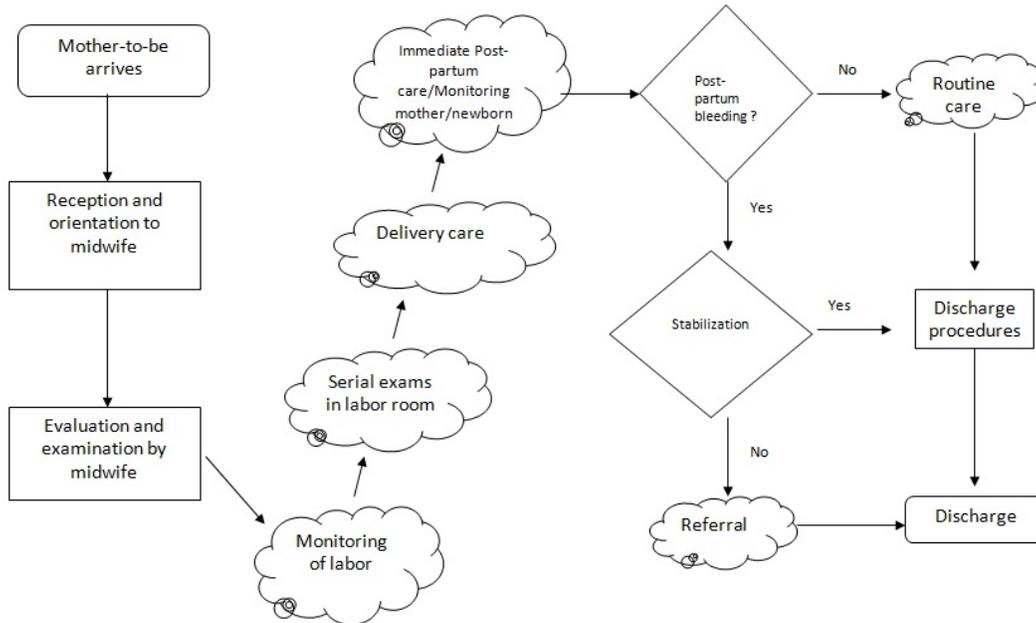
Steps for a flowchart on labor and delivery at a health center

What are the steps?	What happens at this step? This may be clinical content, a management decision, a community action, or other.	What are the possible outcomes from this step? It may be a simple yes or no, it may be multiple possibilities, or it may be uncertain.
Reception and orientation	The mother-to-be is registered and introduced to the midwife	Proceeds to the next step

What are the steps?	What happens at this step? This may be clinical content, a management decision, a community action, or other.	What are the possible outcomes from this step? It may be a simple yes or no, it may be multiple possibilities, or it may be uncertain.
Evaluation and examination	Initial examination before going into the delivery room	Proceeds to the next step
Labor / delivery care	The mother-to-be is monitored, the delivery is attended, and the woman given care as needed if any complications arise	If post-partum bleeding occurs, then treatment is needed; otherwise, routine care is provided
Stabilization	Woman with post-partum hemorrhage is treated	Either she is stabilized or referred to the hospital
Routine care procedures and discharge	Routine care is provided to the woman and newborn	Woman and newborn are discharged from the clinic

Step 4. Review the first draft of the flowchart to see whether the steps are in their logical order. Areas that are unclear can be represented with a cloud symbol, to be clarified later.

Below is a flowchart depicting the steps in the labor and delivery example shown in the table above:



Step 5. After a day or two, review the flowchart with the group to see if everyone is satisfied with the result. Ask others involved in the process if they feel it reflects what they do.

Hints for Constructing Flowcharts

Try to develop a first draft in one sitting, going back later to make refinements. Use the "five-minute rule": do not let five minutes go by without putting up a symbol or box; if the decision

of which symbol or box should be used is unclear, use a cloud symbol or a note and move on.

To avoid having to erase and cross out as ideas develop, cut out shapes for the various symbols beforehand and place them on the table. This way, changes can easily be made by moving things around while the group clarifies the process.

Decision symbols are appropriate when those working in the process make a decision that will affect how the process will proceed. For example, when the outcome of the decision or question is YES, the person would follow one set of steps, and if the outcome is NO, the person would do another set of steps. Be sure the text in the decision symbol would generate a YES or NO response, so that the flow of the diagram is logical.

In deciding how much detail to put in the flowchart (i.e., how much to break down each general step), remember the purpose of the flowchart. For example, a flowchart to better understand the problem of long waiting times would need to break down in detail only those steps that could have an effect on waiting times. Steps that do not affect waiting times can be left without much detail.

Keep in mind that a flowchart may not need to include all the possible symbols. For example, the wait/bottleneck symbol may not be needed if the flowchart is not related to waiting times.

Analyzing a Detailed Flowchart to Identify Problem Areas

Once the flowchart has been constructed to represent how the process actually works, examine potential problem areas or areas for improvement using one or more of the following techniques.

- Examine each decision symbol: Does it represent an activity to see if everything is going well? Is it effective? Is it redundant?
- Examine each step or activity symbol: Is this step redundant? Does it add value to the product or service? Is it problematic? Could errors be prevented in this activity?
- Examine each documentation or database symbol: Is this necessary? Is it up to date? Is there a single source for the information? Could this information be used for monitoring performance and improving the process?
- Examine each wait symbol: What complexities or additional problems does this wait cause? How long is the wait? Could it be reduced?
- Examine each transition where one person finishes his or her part of the process and another person picks it up: Who is involved? What could go wrong? Is the intermediate product or service meeting the needs of the next person in the process?
- Examine the overall process: Is the flow logical? Are there unclear areas or places where the process leads nowhere? Are there parallel tracks? Is there a rationale for those?

Points to Remember

Flowcharts for problem analysis should always reflect the actual process, not the ideal process.

Involve people who know the process, either while developing the flowchart or as reviewers when the chart has been completed.

Be sure that the flowchart really focuses on the identified problem or process.

System Modeling

System modeling shows how the system should be working. Use this technique to examine how various components work together to produce a particular outcome. These components make up a system, which is comprised of resources processed in various ways (counseling, diagnosis, treatment) to generate direct outputs (products or services), which in turn can produce both direct effects (e.g., immunity, rehydration) on those using them and longer term, more indirect results (e.g., reduced measles prevalence or reduced mortality rates) on users and the community at large.

When to Use System Modeling

By diagramming the linkages between each system activity, system modeling makes it easier to understand the relationships among various activities and the impact of each on the others. It shows the processes as part of a larger system whose objective is to serve a specific client need. System modeling is valuable when an overall picture is needed. System modeling shows how direct and support services interact, where critical inputs come from, and how products or services are expected to meet the needs in the community.

When improvement teams do not know where to start analyzing the problem they are facing, system modeling can help by showing the various parts of the system and the linkages among those parts. It can pinpoint other potential problem areas. System modeling can also reveal data collection needs: indicators of inputs, process, and outcomes (direct outputs, effects on clients, and/or impacts). Finally, system modeling can be helpful in monitoring performance.

Elements of System Modeling

System modeling uses three elements: inputs, processes, and outcomes.

Inputs are the resources used to carry out the activities (processes). Inputs can be raw materials, or products or services produced by other parts of the system. For example, in the malaria treatment system, inputs include anti-malarial drugs and skilled health workers. Other parts of the system provide both of these inputs: the drugs by the logistics subsystem and the skilled human resources by the training subsystem.

Processes are the activities and tasks that turn the inputs into products and services. For malaria treatment, this process would include the tasks of taking a history and conducting a physical examination of patients complaining of fever, making a diagnosis, providing treatment, and counseling the patient.

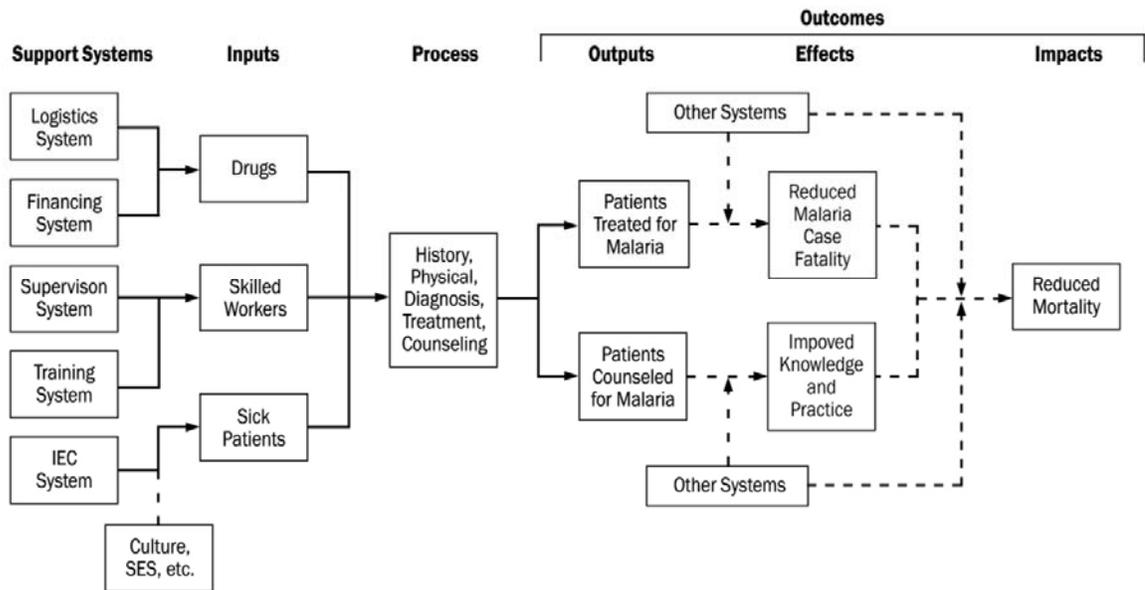
Outcomes are the results of processes. Outcomes generally refer to the direct *outputs* generated by a process, and may sometimes refer to the more indirect *effects* on the clients themselves and the still more indirect *impacts* on the wider community.

- *Outputs* are the direct products or services produced by the process. The outputs of the malaria treatment system are patients receiving therapy and counseling.
- *Effects* are the changes in client knowledge, attitude, behavior, and/or physiology that result from the outputs. For the malaria treatment system, this would be reduced case fatality from malaria (patients getting better) and patients or caretakers who know what to do if the fever returns. These are indirect results of the process because other factors may intervene between the output (e.g., correct treatment with an anti-malarial) and the effect (e.g., the patient's recovery).

- *Impacts* are the long-term and still more indirect effects of the outputs on users and the community at large. For malaria treatment, the impacts would be improved health status in the community and reduced infant and child mortality rates.

Here is a system model for malaria treatment:

System Model for Malaria Treatment



How to Use System Modeling

Step 1. Identify the major process or “system” to be modeled and the need that system should be serving (desired impact). This can be done by starting with the PROCESS or IMPACT.

If starting with the PROCESS of interest, identify the part of the system to be modeled: a health care intervention (such as immunizations, malaria treatment, or hospital emergency services). It is also possible to focus system modeling on a support service, such as supervision or logistics. Next, identify the client needs that this PROCESS should be addressing (remember that support services meet the needs of internal clients).

If starting with the IMPACT, identify what the system is supposed to affect, e.g., what need in the community should the system meet? Then, identify what PROCESS is carried out to create the services or products (OUTPUTS) that would be expected to have appropriate EFFECTS on clients, which could in turn be expected to result in the desired IMPACT (meet that need).

Step 2. Draw and label the IMPACT and the PROCESS boxes.

Step 3. Work backwards through the OUTCOMES, beginning with the need (IMPACT), and determine what EFFECTS the product or services (OUTPUTS) must produce in the clients to achieve that desired IMPACT. Think about the various groups affected by the products and services. Draw and label the OUTCOMES box.

Step 4. Identify other factors that can affect the IMPACT: e.g., the economy or cultural factors, and add them to the model. No system operates in a vacuum, and the IMPACT will always be influenced by factors outside the system.

Step 5. Identify the specific OUTPUTS produced by the process that lead to the OUTCOMES just identified. In many instances, there will be more than one kind of OUTPUT. For example, a vaccination system should produce vaccinated children and informed mothers.

Step 6. Identify the major task categories in the PROCESS: e.g., taking the history, giving the physical, making a diagnosis, giving a treatment, and counseling. Write these in the PROCESS box. Review the OUTPUTS (e.g., patients treated for malaria, patients counseled) and make sure that there is an OUTPUT identified for each beneficiary of the major tasks.

Step 7. Identify the various INPUTS needed to carry out the process. These INPUTS should include workforce, materials, information, and financial resources. Draw boxes for the various INPUTS and label them. Determine which support systems (such as logistics, training, supervision) produce each of these INPUTS and write the sources in the boxes.

Using the System Model for Problem Analysis

Review the various elements of the system. Determine what data are needed to know whether the system is sufficiently productive or adequately functioning to achieve the outcome and impact desired. Use these data to assess whether the system is performing the way it should be according to the system model you have drawn. Identify weak or missing components of the system by seeing where in the process quality falls short.

Points to Remember

- Involve people who know the system being modeled, either while developing the model or as reviewers after it has been drafted.
- Be sure that the system model really addresses the identified problem.

Cause-and-Effect Analysis

A *cause-and-effect analysis* generates and sorts hypotheses about possible causes of problems within a process by asking participants to list all of the possible causes and effects for the identified problem. This type of analysis is often conducted by drawing cause-and-effect diagrams, which organize a large amount of information by showing links between events and their potential or actual causes and provide a means of generating ideas about why the problem is occurring and possible effects of that cause. Cause-and-effect analysis allows problem solvers to broaden their thinking and look at the overall picture of a problem. Cause-and-effect diagrams can reflect either causes that block the way to the desired state or helpful factors needed to reach the desired state.

When to Use Cause-and-Effect Analysis

As a graphic presentation with major branches reflecting categories of causes, a cause-and-effect analysis stimulates and broadens thinking about potential or real causes and facilitates further examination of individual causes. Because everyone's ideas can find a place on the

diagram, a cause-and-effect analysis helps to generate consensus about causes. It can help to focus attention on the process where a problem is occurring and to allow for constructive use of facts revealed by reported events.

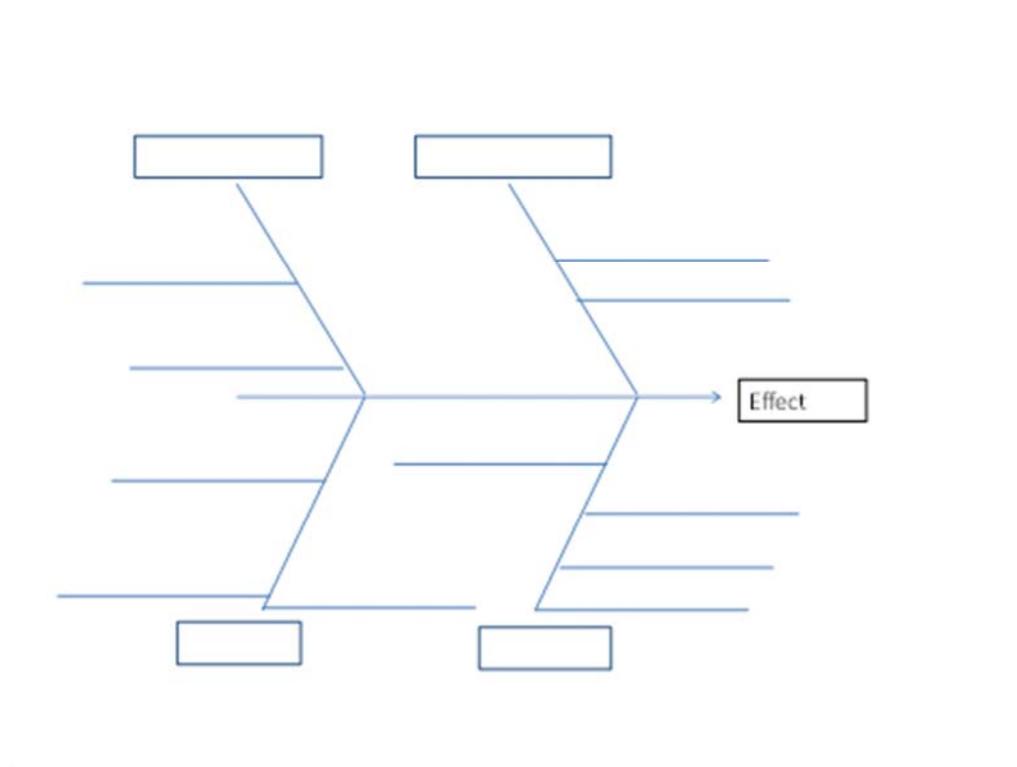
However, it is important to remember that a cause-and-effect diagram is a structured way of expressing *hypotheses* about the causes of a problem or about why something is not happening as desired. It cannot replace empirical testing of these hypotheses: it does not tell which the root cause, but rather possible causes is.

There are two ways to graphically organize ideas for a cause-and-effect analysis. They vary in how potential causes are organized: (a) by category: called a *fishbone diagram* (for its shape) or *Ishikawa diagram* (for the man who invented it), and (b) as a chain of causes: called a *tree diagram*.

The choice of method depends on the team's need. A *fishbone diagram*, organized around categories of cause, will help the team think about groups of causes, such as those that are staffing-related, resource-related, facility-related, etc. A *tree diagram*, however, will encourage team members to explore the chain of events or causes.

Causes by Categories (Fishbone Diagram)

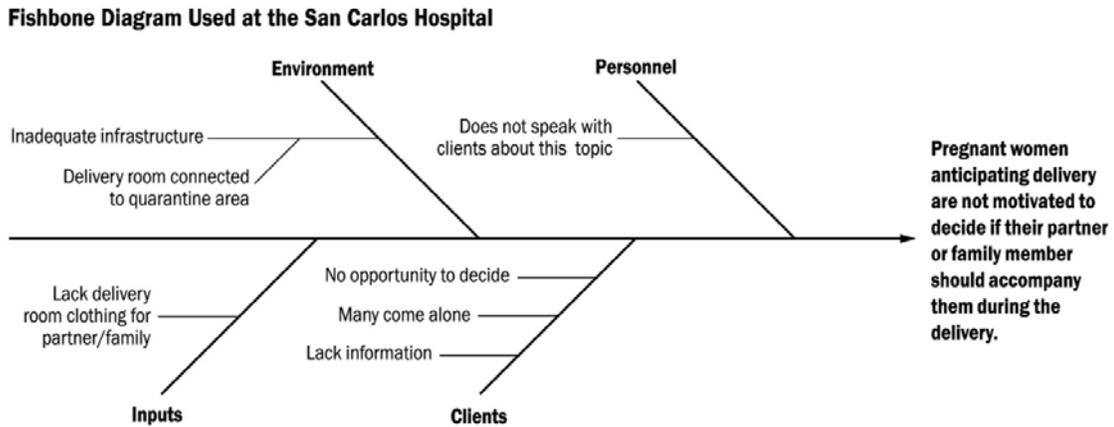
The fishbone diagram (called so for its shape) helps teams to brainstorm about possible causes of a problem, accumulate existing knowledge about the causal system surrounding that problem, and group causes into general categories. The branches (labelled by the boxes at the top and bottom) represent main categories of potential causes that contribute to the origin or maintenance of the problem (labelled "Effect" at the head of the fishbone), such as issues that are staffing-related, patient-related, resource-related, facility-related, etc. The smaller lines coming off the main branches represent subcategories or specific causes within the category.



When using a fishbone diagram, several categories of cause can be applied. Some often-used categories are:

- Human resources, methods, materials, measurements, and equipment
- Clients, workers, supplies, environment, and procedures

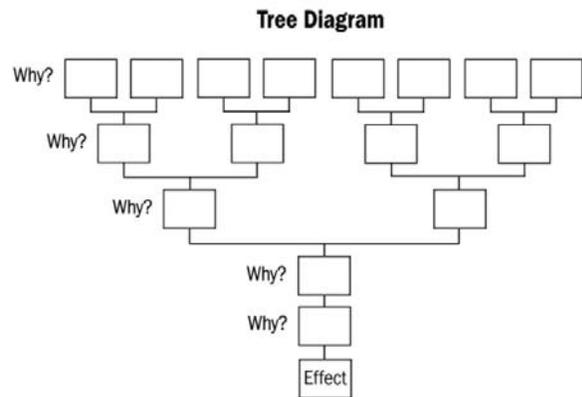
Categories for this type of cause-and-effect diagram vary widely, depending on the context. The group should choose those categories that are most relevant to them and feel free to add or drop categories as needed. A quality improvement team at a hospital in Bolivia developed the following fishbone diagram to improve prenatal and delivery care:



A Chain of Causes (Tree Diagram) and the Five Why's

A second type of cause-and-effect analysis is a *tree diagram*, which highlights the chain of causes. It starts with the effect and the major groups of causes and then asks for each branch, "Why is this happening? What is causing this?"

The tree diagram is a graphic display of a simpler method known as the *Five Why's*. It displays the layers of causes, looking in-depth for the *root* cause. The Five Why's can be used alone or with any cause-and-effect diagram.



Example of Applying the Five Why's to Analyze the Root Cause of Incorrect Treatment

Effect: The patient received the wrong medication.

Question 1: Why did the patient get the incorrect medicine?

Answer 1: Because the prescription was wrong.

Question 2: Why was the prescription wrong?

Answer 2: Because the doctor made the wrong decision.

Question 3: Why did the doctor make the wrong decision?

Answer 3: Because he did not have complete information in the patient's chart.

Question 4: Why wasn't the patient's chart complete?

Answer 4: Because the doctor's assistant had not entered the latest laboratory report.

Question 5: Why hadn't the doctor's assistant charted the latest laboratory report?

Answer 5: Because the lab technician telephoned the results to the receptionist, who forgot to tell the assistant.

Solution: Develop a system for tracking lab reports.

How to Use Cause-and-Effect Analysis

Although several ways to construct a cause-and-effect diagram exist, the steps of construction are essentially the same.

Step 1. Agree on the problem or the desired state and write it in the *Effect* box. Try to be specific. Problems that are too large or too vague can make it hard for the team to move forward.

Step 2. If using a tree or fishbone diagram, define six to eight major categories of causes. Or the team can **brainstorm** first about likely causes and then sort them into major branches. The team should add or drop categories as needed when generating causes. Each category should be written into a box.

Step 3. Identify specific causes and fill them in on the correct branches or sub-branches. Use simple brainstorming to generate a list of ideas before classifying them on the diagram, or use the development of the branches of the diagram first to help stimulate ideas. Either way will achieve the same end: use the method that feels most comfortable for the group. If an idea fits on more than one branch, place it on both. Be sure that the causes as phrased have a direct, logical relationship to the problem or effect stated at the head of the fishbone.

Each major branch (category or step) should include three or four possible causes. If a branch has fewer, lead the group in finding some way to explain this lack, or ask others who have some knowledge in that area to help.

Step 4. Keep asking "Why?" and "Why else?" for each cause until a potential root cause has been identified. A *root cause* is one that: (a) can explain the "effect," either directly or through a series of events, and (b) if removed, would eliminate or reduce the problem. Try to ensure that the answers to the "Why" questions are plausible explanations and that, if possible, they are amenable to action.

Check the logic of the chain of causes: read the diagram from the root cause to the effect to see if the flow is logical. Make needed changes.

Step 5. Have the team choose several areas they feel are most likely causes. These choices can be made by **voting** to capture the team's best collective judgment.

Use the reduced list of likely causes to develop simple data collection tools to prove the group's theory. If the data confirm none of the likely causes, go back to the cause-and-effect diagram and choose other causes for testing.

Points to Remember

Remember that cause-and-effect diagrams represent hypotheses about causes, not facts. Failure to test these hypotheses—treating them as if they were facts—often leads to implementing the wrong solutions and wasting time.

To determine the root cause(s), the team must collect data to test these hypotheses. The "effect" or problem should be clearly articulated to produce the most relevant hypotheses about cause. If the "effect" or problem is too general or ill defined, the team will have difficulty focusing on the effect, and the diagram will be large and complex.

It is best to develop as many hypotheses as possible so that no potentially important root cause is overlooked.

Be sure to develop each branch fully. If this is not possible, then the team may need more information or help from others for full development of all the branches.

**Appendix 4:
Sample Action Plan for Addressing
Assessment Findings**

Appendix 4: Sample Action Plan for Addressing Assessment Findings

Performance Gaps Identified	Intervention Selected to Fill the Gap	Responsible Person or Body	Internal and External Support Needs	Time Line
<p>Missing the following key documents and staff not aware of them</p> <ul style="list-style-type: none"> • SMC Policy • HTC guideline • Minimum standards of procedure for SMC • Quality improvement framework and strategy 	<p>NU-HITES to get in touch with ACP for copies ASSIST will provide the Quality improvement framework and strategy</p>	<p>Leonard (NU-HITES) John (ASSIST)</p>	<p>The capacity of the DHO's office should be built to continuously provide all MoH documents</p>	
No work plan for SMC	Discussed with team the importance of work plan Team to get a work plan	Fredrick Odongo (head of SMC at Anaka)	To work with Medical Superintendent and NU-HITES	
Staff do not have written roles	Team to write the individual roles	Fredrick	Med Sup	
Staff not trained in SMC. Only 2 members are trained (Assistant and counselor)	NU-HITES to take lead on this. ASSIST will complement the efforts of NU-HITES	Leonard	ASSIST	
Staff have never received any mentorship/refresher ever since they were trained	Team needs to have regular mentorships. ASSIST and NUHITES to provide this	John and Leonard		Ongoing monthly
No client flow chart	Team to develop one. Draft was discussed	Fredrick Odongo		2 weeks' time
No Quality Improvement team	Team formed	Fredrick and John		
Team not trained in QI	ASSIST to train team in QI	John		
Clients not informed to come back for follow up	Discussed importance of F/U at 48hr, 7days and 6weeks. Team will start telling clients to come back for F/U	Fredrick Odongo		Immediate
No IEC materials at the waiting area	NU-HITES should provide the IEC materials	Leonard		

Performance Gaps Identified	Intervention Selected to Fill the Gap	Responsible Person or Body	Internal and External Support Needs	Time Line
Physical exam conducted while client is standing	Examination bed identified. Team to approach hospital admin for mattress	Fredrick Odongo		immediate
No running water in theatre	Need to harvest rain water	Hospital admin	NU-HITES	
No emergency protocols/guidelines in operating room	Team to type and pin up protocols and orient staff on the protocols	Fredrick and Night	NU-HITES needs to support the orientation of staff on management of emergencies	immediate
No emergency kit. However some equipment are available but not readily accessed in case of an emergency	Team to prepare emergency kit and put the few available supplies and equipment on the tray within the operating room	Night (theatre assistant)	NU-HITES should consider supplying missing equipment/supplies for emergencies	immediate
No color coded bin liners	Hospital to request for the bin liners from NMS	Fredrick		At the time of making the next order to NMS
Waste mixed up (noninfectious, infectious and highly infectious) due to lack of enough waste bin	Need to separate waste at the point of generation. Site will improvise bins. Staff need ongoing support on waste management	Hospital management ASSIST will provide ongoing support	If possible NU-HITES should provide bins	immediate
Incomplete client records	Team to completely fill out all sections of client record. Team requires ongoing support in QI	Fredrick	ASSIST to train team in QI	immediate
Lack of HCT registers and HCT client forms	In mean time, site to use a note book	NU-HITES to approach ACP for HCT tools Leonard	Hospital should also approach district office for tools	Immediate
Difficulty in printing client forms due to lack of stationery	NU-HITES should support the hospital to print client forms	Leonard		Immediate
No monthly summaries of performance data	ASSIST and NU-HITES to jointly develop monthly summary forms and avail them to team	John and Leonard	Hospital admin	

**Appendix 5:
Roles and Responsibilities of Health Unit
Quality Improvement Teams as Stipulated in
the National Quality Improvement Framework
and Strategic Plan**

Appendix 5: Roles and Responsibilities of Health Unit Quality Improvement Teams as Stipulated in the National Quality Improvement Framework and Strategic Plan

The *Health Sector Quality Improvement Framework and Strategic Plan 2010/11 – 2014/15* published by the Ministry of Health in December 2011 describes the QI coordination structure has been created within the Ministry of Health system to support QI activities. The following excerpt from the Framework describes how QI teams should be formed in hospital departments and in smaller, lower level health facilities.

Hospital Departmental QI Teams

Departmental QI Teams should be established in major departments (Surgery, Medical, Paediatrics, Obstetrics and Gynaecology, Outpatient Department (Casualty, Pharmacy & Stores, Laboratory), Community, etc. Department QI Team will report to the Hospital QI Focal Person activities and plans executed in departments. The Departmental QI Teams will be about 3 - 5 in number per given hospital.

Specific responsibilities of Departmental QI Teams include:

- Testing and introducing improvement changes in departments
- Monitoring and evaluating QI results in the departments
- Identifying quality issues at department level
- Developing improvement objectives that are priority to the department and facility

Composition:

The Departmental QI team shall have a membership which shall include:

- The Head of Department will serve as a Chairperson
- The Departmental QI Focal Person will be the Secretary
- Members of the department involved in QI activities
- Representatives from other departments closely linked/closely related to the department

Lower Level Facility QI Teams

The lower level facility QI Teams bring together player to participate in specific QI interventions at the various levels. This can be at national, sub-national and health facility or institutional level. The lower level Facility QI Teams shall bring together managers, QI focal persons, service providers and consumer representatives at a specific facility. The lower level Facility QI Team will report to the relevant QI Committee (national level QI Team reports to the National QI Coordination Committee, Regional QI team to the Regional Committee, district based team to the District QI Committee, general hospital QI team to Hospital Committee and Lower Level health facility teams to the HSD Committee) any plans and decisions regarding implementation of specific QI interventions within the health facility/institution.

Responsibilities for the Lower Level Facility QI Team:

- Developing health facility QI intervention plan and budget
- Leadership support for specific QI interventions

- Developing team-based QI projects
- Supervising, coaching and mentoring specific QI activities
- Staff involvement in QI interventions
- Collecting and reporting and submitting facility data
- Use of data for QI
- Organising QI team meetings
- Patient involvement in QI

Composition:

The Lower level Facility QI Team shall have a membership which shall include:

- The Facility Manager as Chairperson
- QI Focal Person as Secretary
- Representatives of service delivery areas
- Records Assistant
- Representative from Health Development Partners supporting implementation of a specific QI intervention in the facility
- Representatives from CSOs implementing the specific QI in the area
- Community/Patient Representatives (one male, one female)

The Health Facility Team shall select a Health Facility Focal Person from its members and the committee shall meet monthly.

Roles and Responsibilities of the Health Facility QI Focal Person:

The Health Facility QI Focal person will report to the Health Facility Manager and the Health facility QI Committee any plans and decisions, to maintain and improve the quality of care within the facility.

- Ensuring availability and adherence to the national QI guidelines and standards.
- Facilitating networking with Facility QI team in identifying problems and solutions/testing changes at facility/ departmental levels.
- Participating in building capacity of the Health Facility personnel in the implementation of QI activities.
- Participating in internal supervision/coaching/mentorship within the health facility.
- Preparing health facility QI work plans.
- Organising Health Facility QI team meetings in consultation with the Chairperson.

Appendix 6: MoH SMC Standards Assessment Scorecard

Appendix 6: MoH SMC Standards Assessment Scorecard

Site Name & District: _____	IP Supporting Site: _____	Date: _____
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Instructions: Add an “X” in the appropriate column for each element scored

3- Meets basic expectations $\geq 80\%$; **2-** Needs improvement $80 \leq 50\%$; **1-** Needs urgent remediation $<50\%$

Standards	3 $\geq 80\%$	2 $80 \leq 50\%$	1 $< 50\%$	Comments
Management Systems				
Supplies, Equipment and Environment				
Registration, Group Education and IEC				
Individual Counselling and HIV Testing for MC Clients				
Male Circumcision Surgical Procedure				
Monitoring and Evaluation				
Infection Prevention				

**Appendix 7:
Detailed How-to Guide for Improving SMC
Standards**

Appendix 7: Detailed How-to Guide for Improving SMC Standards

Improving Management Systems

Quality standard	Gaps identified	Action taken to address content gaps	Changes tested	How-to guide
1. Relevant SMC policies, guidelines and standards are available and staff are aware of them	Missing key documents e.g., SMC policy, Quality Improvement Framework and strategic plan, STI diagnosis guidelines, HCT guidelines	Obtained missing documents and kept them in a secure, but easily accessible place for the team. Teams requested for the missing documents from the District Health Offices, Implementing Partners and USAID ASSIST Held a Continuous Medical Education session to discuss important policy documents. Oriented staff on the relevant SMC documents	Not applicable	Identify the missing documents using the checklist in the assessment tools. Share the list with the health unit in-charge to cross check that the documents are not available at the health unit. If unavailable, approach the IP, district health office to avail the missing documents. Once obtained, the team identifies an accessible but secure place to keep the documents where all staff can easily access them. The teams developed a schedule for the CME in which a particular section of the relevant document would be discussed.
2. The site has a written plan for SMC services	No SMC work plan in place	The team agreed upon the activities they are able to perform, put them into an SMC work plan for the year and shared it with the implementing partner (IP) and health unit administration for their input	Not applicable	Develop activities in line with the district priorities and SMC targets for the year Budget for the various activities and include the responsible person per activity. Share the plan with all key stakeholders to have a common plan. The content of the work plan is in the assessment tool.
3. The SMC clinic is able to meet demand for services	Inability to meet demand of clients for SMC services		Assign roles and responsibilities to staff so that there are staff available to provide SMC services even when others go for outreach services Hold outreaches	Lobbied IPs to support the sites in offering SMC services to meet demand for services. Approach the implementing partners to support outreaches for SMC activities

Quality standard	Gaps identified	Action taken to address content gaps	Changes tested	How-to guide
			and camps to meet the target	
4. The SMC clinic or health unit has clearly defined roles and responsibilities	No written/ clearly defined staff roles and responsibilities	Staff roles agreed upon and defined		Hold a team meeting to discuss and understand everyone's roles and responsibilities, Write these roles down and display them
5. The SMC clinic or health unit has the human resources available according to the SMC service delivery plan	Few staff trained in SMC procedure	Lobbied implementing partners to train staff in SMC Conducted on-job staff training		Approach the supporting IP to train staff in SMC; Identify training needs and jointly develop a training plan with the IP Skilled, trained staff work and supervise untrained staff on the job
6. SMC staff receive mentorship and support	No periodic support and mentorship for SMC	On-going support and mentorship provided by the IP and USAID ASSIST		Approach the IP and district health office to provide regular mentorship
7. Client flow chart is available in the health unit	No client flow chart	Team developed and displayed client flow chart; visible to clients and staff (see Appendix 8)	Not applicable	Hold a team meeting to discuss how clients should move from one process to another. Draw the client flow and display it in an area where it is visible to both clients and staff
	No documentation of linkage to other services	Started recording clients linked to other services (STI treatment, HIV chronic care) in the registers Phone calls to sites/ stations that are receiving referred clients for other services to ensure complete documentation		Get a notebook to register the clients who attend SMC education or add a column in the existing register to indicate clients referred for other services (see Appendix 9) Request IP to provide a phone
8. Monitoring service delivery data are used for planning and	No written minutes of meetings	A program for monthly review meetings was developed for the		Appoint a meeting coordinator and set dates for each meeting Remind team members about the meeting a

Quality standard	Gaps identified	Action taken to address content gaps	Changes tested	How-to guide
improvement of service delivery		whole year and implemented		day prior to the meeting to ensure they attend
	No quality improvement team	Formed a QI team which holds regular meetings to review performance, data accuracy and completeness	Not applicable	Request the district health office and IP to train staff in QI if they are not already trained Select members to form the QI team ensuring that all sections of the SMC like registration, infection prevention, surgical procedure, records management are represented Develop a schedule for team meetings
	No staff trained in quality improvement	Staff trained in QI by USAID ASSIST in conjunction with the IP		Work with the IPs and district health office and other stakeholders to solicit for support in QI training
	No systematic client feedback mechanism	Use of the SMC champions to obtain client feedback Created a client feedback corner at the health unit where feedback is received Developed a client satisfaction tool	Identify key areas on which feedback is required and develop a questionnaire to administered to the clients	Identify clients who have been trained in components of SMC (SMC champions/satisfied clients) to go to the community and conduct client interviews on the satisfaction of SMC Identify a corner at the health unit where clients are free to take feedback on the quality of services they are receiving. Educate clients on how to use this feedback corner
9. Moderate and severe adverse events or complications are reviewed	No system for investigating moderate to severe adverse events	Conducted CME on adverse events grading of adverse events and management Set up a system to identify, grade document adverse events. QI team reviews and investigates adverse events		Call a meeting to review the grading of adverse events and their identification. Obtain the grading scale, (where possible laminate) and display it in the procedure and examination rooms (see Appendix 10) Conduct a review meeting to learn from the adverse events so as to prevent recurrence
	Client follow-up not according to standards/		Site teams repackaged the	Ask clients to come back for removal of dressing and review

Quality standard	Gaps identified	Action taken to address content gaps	Changes tested	How-to guide
	no client follow-up		information on follow-up, from telling clients <i>'to come back for follow-up when they have problems</i> to telling all clients to <i>come back for follow-up at 48 hours, 7 days, and 6 weeks</i> Allocated a focal person for follow-up of clients	Give clients a clear message on the importance of follow-up Use a checklist to ensure that all staff are giving the same message to clients. Discuss the importance of client FU during counselling and testing for HIV and group education sessions and postoperative education Assign a staff member the task of attending to clients who return for FU and indicate this on the duty roster
10. The health unit/SMC clinic has a functional supply and equipment ordering system.	No supplies management system in place	Supply system in place including tracking stock level of SMC commodities using stock cards		Select members who should take control of the stock cards by updating them and making timely orders of medicines and supplies. Selected team members support the store keeper who is able to get stock cards and also manage them. Photocopy stock cards for a sufficient supply. Where the supply management system is electronic, SMC commodities should be included in the system
	No integration of SMC supplies with National Medical Stores (NMS)	Incorporated requests for SMC supplies into NMS supply orders for the health unit		Develop a list of required items and estimate amounts required- in-charge of the drug store should be involved in the process Add these items to the health unit's order to NMS so that they are delivered through the system

Improving Supplies, Equipment and Environment

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
1. The physical facilities are	Physical facilities inappropriate for SMC service	Obtained partitioning screens for privacy		Request the implementing partner and health unit administration to provide

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
appropriate for SMC service provision	provision/ lack of adequate space	<p>Improvised space for pre-operative assessment</p> <p>Lobbied IPs to renovate SMC theatre</p> <p>Requested the IP to avail a tent for group education</p>		<p>screens to ensure clients' privacy during the surgical procedure in operating rooms with more than one operating table.</p> <p>Bring to the attention of the IP and district health office the repairs that need to be done. Work with the health unit in-charge to lobby for the renovations</p> <p>Identify space for pre-operative assessment; this may be done through clinic re-organisation or use of tents</p> <p>Request the IP to avail an all-weather shelter for group education</p>
	Pre-operative assessment done on the operating table	Identified a room at the health unit for pre-operative examination and obtained an examination couch from the health unit administration		Meet with the in-charge of the health unit to discuss availability of space and examination couch Identify space for preoperative assessment
	Lack of running water in the theatre	Used a portable hand washing health unit Improvised with buckets that have been fitted with taps		Request the health unit management for a portable hand washing health unit
2. The necessary equipment are available for performing SMC surgeries	Insufficient SMC kits for the surgical procedure	Requested IP to provide disposable SMC kits		Ask the IP to provide adequate quantity of disposable kits for SMC based on the client target for the site
3. The necessary commodities are available for performing surgeries	No SMC commodities like Bupivacaine, Acyclovir, Cefixime	Requisitioned for SMC commodities from NMS and implementing partners		Generate a list of supplies, share it with the health unit in-charge for inclusion in the order list to NMS
	No protective materials (shoes, eye wear, gowns) for staff	Made requisition for the protective materials to the health unit management and the		Generate requests for missing protective materials and submit it to the hospital

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
		implementing partners		management and implementing partners
	Lack of client gowns	Improvised client gowns with the available materials of linen		Request for linen from NMS and work with health unit management to make client gowns Approach the IP for support in availing the client gowns
	No petroleum impregnated gauze	Made requisition for the petroleum impregnated gauze from the implementing partner Make petroleum gauze at the health unit		Request for the petroleum gauze from NMS and also approach the IP to support the procurement of the gauze Get ordinary gauze and cut it into the required size. Put the gauze in a tin of petroleum jelly then autoclave using steam
	No colour-coded bin liners	Requested bin liners from other health units within the district, NMS and IPs		Identify the needs and incorporate them into the health unit's requisitions to NMS
	No mackintosh on theatre beds	Requisitioned for supply from IPs		Make requests for the protective covering of the operating tables to the IPs and NMS
4. Adequate supplies of medicines and commodities	Inadequate testing kits/ stock out of STI drugs	Made timely orders (within the NMS schedule) that were followed up by the team leader Quantified medicine requirements for SMC using quantities consumed in the previous month or number of clients seen in previous month Requesting for HIV test kits from other health facilities when there is low or no stock Approach the District Health Office for support Integrated the missing SMC commodities in the		Establish minimum stock level of all key supplies and assign a staff member to track them and make order within the prescribed NMS timelines Request for supplies that are at a minimum stock level before they are run out of stock Keep the district health office aware through regular reports on performance and stock levels of essential items like HIV test kits, condoms and drugs for STI management Ask clients to buy the drugs Approach the IP with required quantities and request them to supply

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
		hospital budget for purchase Encourage clients to buy STI needs/drugs(this was more so in the private not-for-profit health facilities)		
	Lack of condoms	Requisitioned for condoms from the District Health Office and implementing partners		Establish minimum stock levels and regularly track the stock level Request for more condoms before they run out of stock
5. An emergency resuscitation system exists and medications/ supplies are available with immediate access	No emergency resuscitation system/ equipment	Emergency drugs and equipment were requested and supplied by the IPs and NMS		Identify the required drugs based on the checklist in the assessment tool Determine the missing drugs after consultations with stores Place request to NMS and also request the IP to support if possible
	No emergency resuscitation protocols in place in the procedure rooms	Developed emergency resuscitation protocols and displayed them in the procedure rooms		Discuss the management of emergencies and develop protocols as a team Request the anaesthetist to give a talk to team members and help in development of protocols
	Having expired emergency drugs on the emergency trolley	Removal of expired drugs and routine check of the emergency drugs for potency and expiry dates	Use a checklist to track the expiry dates before each day of surgery	Assign a team member the responsibility of ensuring that drugs are available and are not expired by routinely using the checklist prior to surgery
6. Adequate measures are in place for management moderate to severe complications and adverse events	Staff lack skills and knowledge on handling AEs	Held a session to orient staff on the importance of documenting AEs		Ask experienced hospital anaesthetist to prepare and share a presentation on adverse events Conduct a CME on the basics of managing AEs and the importance of documenting them Organise for a session in which staff who are trained in management of AE pass on information to the rest of the team, through a debriefing meeting

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
		Had a session on how to use an AE grading scale to detect AEs and manage clients better.		Take advantage of the QI coaching visits to orient/ re-orient all SMC team members on the AE grading scale. Take all members through the whole grading scale and how to identify, classify, grade and manage AEs.
		Reinforcing good self-management during health education sessions, in theatre, after surgery; the importance of returning in case of AEs and the need to return for follow up.	Use of a health education checklist with information on AEs and the importance of follow-up	Ask counsellors to spend a little more time to deliver health education sessions and use standard IEC materials to demonstrate self-management to clients. Design a health education checklist with information on signs and symptoms of AEs to look out for and importance of returning for follow up. This can be used by health educators.
	Staff not trained on standard techniques for SMC procedures	Training of staff on standard techniques for SMC procedures		Request IP to train staff in SMC procedures. Provide ongoing support through mentoring of staff on the techniques for the dorsal slit method of circumcision with guidance of the minimum standards of procedure document
	Poor communication with circumcised clients	A phone line was put in place specifically for clients to call in case they had an AE		Lobby the IP to provide a telephone line on which clients can call the health unit and report AE. The SMC team leader can do this, and explain the importance of the phone in increasing identification of AEs Maintain a log of all the clients that call in using a counter book.
	Guardians and parents of minors not attending education sessions	Emphasized the need for guardians/parents to attend education sessions and listen to post-operative instructions when they bring their children for SMC		Ask parents/ guardians to come with their children during mobilization Emphasise the importance of having guardians and parents bring their children to the health unit. Tailor education sessions that target guardians and parents on their role in preventing AEs.

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
	Tight fitting underpants not used	Informing clients to come with tight fitting underpants during the mobilisation drives to reduce the incidence of haematomas.		Use the VHT and mobilisers to remind clients to bring tight-fitting underpants Orient the VHTs and mobilisers on what messages to pass on before they do mobilization; including asking clients to come with tight-fitting underpants.
	Poor documentation of AEs at the facilities		Introduced an AE log at OPD to capture any clients that could return with AEs but could not be captured in the SMC register (for instance clients who come at night when the SMC register is locked in the SMC clinic)	Put an AE log at OPD to capture any clients who return with AEs but are not captured in the SMC register because the SMC register is not accessible at certain times.
	Lack of AE grading scale	Team got an AE grading scale from IPs or district health office		Request the IP to provide a copy of the AE grading scale (Appendix 10) Print out and make copies, laminate these copies and pin them up at all important points (procedure room examination rooms and OPD)
	Clients getting heatomas after surgery	For clients who had no tight pants strap the penis on the abdomen using adhesive tape. Provided free underpants to prisoners as the team realised prisoners had not tight underpants		Obtain adhesive tape and provide them to clients who do not have tight-fitting underpants SMC assistant finds out if the client has tight underpants and if they do not, strap the penis to the abdomen using adhesive tape. Inform the client about the need to keep the bandage clean to prevent infections Ask team members if they are willing to contribute towards the purchase of underpants for some few prisoners who may not have.

Quality standard	Gaps identified	Action taken to address gaps identified	Changes tested	How-to guide
				Request the IP to supply the underpants
	Soiling of the dressing during bathing and passing urine	Provide polythene bags and toilet paper to clients to keep their wounds dry while bathing and urinating		Request the IP to provide polythene paper and toilet paper. Give each client pre-packed polythene bags and toilet paper in the post-operative area.

Improving Registration, Group Education and IEC

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
1. The client is correctly recorded in the register and given a serial number	Clients' data incomplete and inaccurate	CME for staff on correct recording of client data in the register and giving a client a serial ID number		Hold a team meeting and orient all staff on proper documentation of client details
	No register/ record for group education		Introduced a new register to capture all clients who come for SMC services	Improvise with a counter book. In this book record the client's names, address, sex, age and other details as required by the team Leave a column for comments/remarks
	No client SMC forms	Requisitioned the forms from IPs		Contact the IP and district for the missing items, keep track of the available stock, and order before running out of stock
	Clients not registered and client forms not filled before entering the procedure room		Introduction of someone to handle registration of clients	Identify a person from the SMC team and give them the task of carrying out client registration Identify a registration point and include it in the client flow chart.
2. The health unit has appropriate information and educational materials on SMC and reproductive health	Lack of take-home information, education, and communication (IEC) materials for clients	Requisition for IEC materials from the IP and MoH Made photocopies of take home IEC materials		Identify all the IEC materials required for clients and partners Determine amounts required per month and request for them from the district health office or IP

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
3. Group education delivered with correct information	Group education not being done	Group education included as part of the SMC process	A list of talking points was generated and shared with people in charge of group education	<p>Generate a list of talking points for group education</p> <p>Acquire all the job aids required for the session</p> <p>Identify a specific person(s) to conduct the session</p> <p>Have a plan for clients who arrive after the main session has ended/started to ensure they receive the same information as individuals who attended session</p>
	Inadequate information given to clients during group education	Counsellors oriented on the content of information given during SMC group education		Generate a list of talking points from the standards tool and ensure all counsellors use the checklist
	No separation of clients according to age groups	Counsellors were oriented on the importance of separating clients and resolved to separate children from adults during group education		<p>At registration separate clients according to age</p> <p>Ensure there is a competent counsellor to provide information to the adults and minors</p>
4. Group education delivered with appropriate techniques	No use of appropriate group education techniques	CME held on group education techniques		<p>Convene a meeting for all service providers and get an experienced counsellor or health educator to orient all staff on how to conduct group education</p> <p>Review the guidance given in the assessment tool as a team to have a common understanding</p> <p>If need be, seek support from the IP and district</p>

Improving Counselling and HIV Testing

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
1. The counsellor provides appropriate	No privacy during HCT	Acquired a tent for HCT services to provide more space and ensure privacy		Work with the health unit administration to identify a room that can be used for counselling

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
individual counselling on SMC				If this is not available, work with the IP to procure a tent that be portioned and used for many services including counselling
	No HCT register	Requested HCT registers from District Health Office, Implementing Partners		Identify the missing registers and make requests for them from the District Health Office and IPs
	No individual and couple counselling & testing for HIV during SMC	Incorporated individual and couple counselling and testing for HIV in SMC		Orient counsellors on the importance of conducting individual and couple HIV counselling and testing during SMC Identify the required resources such as the personnel to do it, the space, and other supplies Include HIV counselling and testing in the client flow chart
	Elements of SMC not discussed during individual counselling and testing for HIV	CME on individual and couple counselling for SMC conducted		Develop a list of key talking points for HTC using guidance in the assessment tools and go through them with the entire team to have a common understanding Ensure a copy of these points is available at all counselling points
2. The provider provides routine HIV testing for every client	No HIV test kits	Made prompt requisitions for testing kits from District Health Office, lower health units, and IPs		Assign a staff member to track stock levels of the required supplies and monitor them using a stock card Request for more supplies when stock reaches the minimum stock levels
3. The provider is properly giving results and post-test counselling	Poor referrals and linkage systems for HIV clients	Staff members were sensitised on proper referrals and linkages of HIV clients to ART clinic for comprehensive services		Sensitise staff on the importance of linkage with other HIV prevention, treatment and care services Develop a system to document and track the linkage with other treatment centres
4. The provider uses appropriate counselling skills	Clients do not understand the content of group education and		Crosscheck for understanding of information provided	Crosscheck the client's understanding of the information given to the them to repeat the information

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
throughout the session	counselling sessions			
5. All clients receive condoms along with appropriate counselling and instructions on their use	Lack of Condoms Condoms not offered to clients. No demonstration of condom use	Requisition for condoms from the IP Prepared a dildo (model penis) for demonstration of condom use during counselling ABC strategy has been made part of the SMC individual counselling	Distribute condom at each visit (including follow-up visits)	Assign staff member to track stock levels of condoms Orient staff on the importance of condoms in HIV prevention Conduct refresher training on proper use of condoms Add use of condoms to the counselling checklist for the sexually active
6. The provider obtains informed consent from clients	Informed consent not obtained	Oriented all staff on the importance of obtaining consent from the clients prior to the procedure		Hold a staff meeting to reinforce the importance of obtaining informed consent prior to circumcision Develop an SOP for obtaining consent; the SOP should include discussion on benefits and risks of circumcision and crosschecking the understanding of the information given to the clients
	Some guardians do not come with their children for SMC	Reinforced the importance of guardian/parent consent for their children during group education sessions		Have VHTs and SMC champions inform clients in the community on the importance of guardians/parents coming to health unit with their children to provide informed consent

Improving Male Circumcision Surgical Procedure

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
1. The provider correctly takes history	Incomplete/ or no history taking and physical examination	Increasing the number of staff at the history taking point Allocate a room for history taking and physical examination Show STI assessment as a	Use reminders to ensure that STI assessment has been conducted and treatment	Project the number of expected clients each day and ensure that there are enough staff to meet the needs of the clients. Source for additional staff from nearby health facilities during camp activities to ensure there are enough staff to carry out the work Identify appropriate and available room and convert it

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
		<p>specific point in the client flow chart</p> <p>Ensure staff are trained on STI assessment; provide manual on STI diagnosis</p>		<p>into a physical examination room; assign a staff member to conduct physical assessment of clients</p> <p>Evaluate client flow and develop a flow chart to map out the various steps in SMC services, including STI assessment</p> <p>Conduct a CME and provide manuals on STI diagnosis and treatment (This can be supported by IP)</p> <p>Mentor staff on importance of STI assessment and documentation by the in-charge</p> <p>Have staff at various service points verify that STI assessment was done for each client</p> <p>Post reminders on the wall in the examination rooms</p>
	Providers do not document clients diagnosed with STIs	Ensure proper documentation of STI assessment	Use the column for comments /remarks in the group education register to document the diagnosed STI cases and for following the treatment outcome of the clients diagnosed with STI	Clinician document the STIs in the comments column of the register and the duty nurse documents the treatment outcome at follow-up visits
2. The provider correctly performs pre-operation examination	No head-to-toe medical examination of clients pre-operatively.	Re-orientation of circumcisers and assistants to carry out complete head-to-toe medical examination to rule out anatomical abnormalities or signs of STI		Convene a meeting with the circumcisers to discuss the process of carrying out general medical examination of clients pre-operatively
3. The provider prepares the	No verification of client		Put in place a reminder on the wall for all staff to check and	Place reminders in the theatre for circumcisers to cross check

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
client for surgery	consent pre-operatively		verify client consent pre-operatively	if consent has been obtained prior to surgery
	Protective clothing (aprons, gowns) not used by surgical team during the surgical procedure	Use of the disposable aprons provided in the kits Requisition for protective clothing from the implementing partners		Orient staff on importance of infection prevention Avail personal protective gear to staff Assign staff member to spear head infection prevention
4. The provider administers anaesthetic and performs dorsal slit correctly	Lack of forceps for checking for whether anaesthesia has been achieved	Health unit purchased reusable SMC kits that have forceps		Cross check all reusable surgical kit to ensure they are complete Identify any missing instruments and work with the health unit administration and IP to avail the missing equipment
	Infiltration of local anaesthesia not done at the right position	Re-oriented the surgical team on the surgical procedure techniques and administration of anaesthesia using the minimum standards of procedure guideline for dorsal slit		Convene a meeting with the surgical team and review the entire surgical procedure to ensure all service providers are performing the acceptable service If need be, contact the IP to avail an external team to provide a refresher training for the team
5. The provider achieves haemostasis, sutures the wound and applies the dressing correctly	No gap identified			
6. Provider is able to respond appropriately to an emergency situation	Inability to appropriately respond to emergencies	Organized a training for emergency response and management for all staff involved in SMC		Work with the IP to organize training for the staff in emergency response and management If this is not possible, work with the health unit anaesthetist to

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
				go through the management of emergencies
7. The provider completes the procedure and assists the client to the post-operative area	No strapping of the penis to the lower abdomen	Introduced regular mentorship and peer review to ensure that all providers strap the client's penis to the lower abdomen		Conduct regular dry runs for client flow to ensure that staff keep abreast with the expected standard
8. The provider monitors immediate post-operative client	No observation of vital signs post-operatively Clients are not checked for oozing from the site of the operation post-operatively because there is no privacy to do it.	Avail missing equipment such as the BP machine at the postoperative station Post-op staff checking for oozing on the bandage in the immediate post-operative care	Place reminders at postoperative station Assign a specific staff member to conduct the post-operative session Include taking of vital signs on the post-operative checklist	Identify the missing equipment and request it from NMS or approach the IP to provide it Place reminders for staff to give post-operative instructions in the post-operative care room Allocate a staff member on the duty roster to manage postoperative sessions Provide an area with privacy to ensure that the clients can be checked for oozing Include this step on the checklist for post-operative care
9. The provider gives client appropriate post-operative instructions	Post-operative instructions not discussed with clients	Developed a list of post-operative instructions which are discussed with clients by the post-op nurse		Develop and use a post-operative checklist that has instructions as given in the assessment tool
10. Client records are updated and completed prior to discharge	Incomplete client records	All circumcisers to complete the client forms immediately after surgery		Complete client records after each procedure as opposed to completing the records after the end of the day Each section completed on the form should be checked for completeness at the next stage
11. The provider manages initial follow-up (48-hour and 7-day)	No follow-up of clients post-operatively	Sensitisation meetings for staff held to share the importance of follow-up and provision of appointment dates	Repackaged the follow-up message (telling clients to come for removal of the dressing at the health unit at	Develop talking points and clear messages to share with clients so that each team member gives the same clear and consistent message Engage the surgeon or assistant in giving information

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
		<p>for follow-up at 48 hours, 7 days, and 6 weeks post-operatively</p> <p>Facilitate follow-up by lower level facilities and health workers to reach clients in the communities</p> <p>Send a staff to the lower health units/school to conduct and pick up data on 48-hour follow-up for circumcision done at camps/outreach sites</p>	<p>48 hours instead of telling them to come back only if they had problem)</p> <p>Give appointments and write the exact return date on the client card instead of just verbally telling the client to come back after 7 days</p> <p>Make telephone calls and send text messages to clients to remind them to come for review</p> <p>Mobilise Village Health Teams to contact clients and encourage them to return for the follow-up visit</p>	<p>on the importance of follow-up at 48 hours and 7 days during the meeting</p> <p>Acquire client cards from the district health office or IP and use them to indicate actual return dates</p> <p>Provide a counter book to lower level facilities to document clients who go for follow-up</p> <p>Mentor staff at lower level facilities on the information given to SMC clients about follow-up and on the importance of follow-up, including documentation of adverse events</p> <p>Approach the IP to provide a telephone line. Use the phone to give clients reminder calls about coming back for follow up. Don't use the phone the phone to conduct follow-up.</p> <p>Identify VHT members attached to the health units. Sensitise them on the importance of clients coming back for follow up. Regularly give them lists of clients who are due for follow up so that they can remind them to come back for follow up.</p>

Improving Monitoring and Evaluation

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
1. Availability of relevant tools in SMC clinic	Lack of relevant SMC data tools (client cards, forms, adverse events grading scale, SMC register, HCT register	<p>Requisitioned for the SMC tools from the IPs</p> <p>Printed and photocopied the tools; client forms, cards, adverse events grading scale and HMIS 105 form</p>		<p>Estimate the consumption rate of the various materials and request for them through the IP, district health office</p> <p>Keep track of the available stock and ensure that there is enough at all the time</p> <p>Get copies of the required tools. Estimate the amounts required for each and request the health unit management to make copies</p>

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
2. Data are correctly transferred from SMC client records to the SMC registers	No designated person for transferring data to the registers from the client forms		Assigned a records assistant/person to transfer data from the clients form to the register	Bring the health unit records personnel on board Identify a member of the team to work closely with the records team to ensure that SMC data are correctly captured, summarised and reported on timely basis
3. Client records are complete and correspond with the SMC client counselling, testing and follow-up register	Registers and client forms not completely filled (missing weights, blood pressure) due to lack of weighing scale, BP machine and pulse oximeter.	Oriented the team on completing the data tools. Each SMC team member to actively participate in completion of the tools after use. Held meeting and agreed not to circumcise anyone whose form is incomplete until the form is completed Included a records officer on the team to always crosscheck that the register is well completed at the end of each circumcision day. Lobbied for a weighing scale, BP machine and pulse oximeter from the IP	Counsellor allocated the task of obtaining and completing the client's demographics. Circumcisers and assistant to verify the client forms for completeness	Introduce a data quality assessment system within the client flow As the client moves through the various service points, staff at these point cross check the completeness and correctness of data captured at the previous service points. Decision made not to circumcise any client whose form is incomplete Include a records officer on the team and assign them specific roles including crosschecking for completeness of the register. Identify the missing equipment and request the IP to provide them. Develop a list of roles and responsibilities and assign the counsellor the role of obtaining and documenting the client's demographics. The circumciser verifies the completeness of the forms
4. Data are correctly summarised, reported and filed	SMC client forms not well kept and Data not correctly summarised, reported and filed	Got copies of monthly summary forms Acquired box files/folders to keep the client forms The client forms are filed according to follow up, STIs e.g., the ones who come for follow-up, who are diagnosed with STIs		Obtain copies of the monthly summary forms, and fill them at the end of each month. Submit a copy to higher levels Identify the stationery requirements and request from the health unit or IP

Improving Infection Prevention

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
1. The concentration and use of antiseptics are according to the standards	Preparation of chlorine (JIK) solution (disinfectant) was not being done correctly Instruments kept in containers that have JIK	Instructions on preparation of JIK solution written and displayed in the sluice rooms. Staff oriented on preparation of JIK solution Requisitioned for protocol of preparing disinfectant from IPs Orientation of staff on instrument storage		Develop an SOP for preparing chlorine solution and orient all staffs on the SOP Ensure all staff involved in cleaning are aware and familiar with the mixing of chlorine solution Orient staff on the use of antiseptics and storage of instruments
2. The process of cleaning rooms between and after procedures is performed according to standards	Not easy to clean the work environment	Improvise a specific room for SMC theatre		If the floor of theatre is not easy to clean, work with health unit management, IP and district to renovate the floor or change to another room If the team is using a tent, ensure that it has ground cover
3. The preparation of a disinfectant cleaning solution is performed according to standards	Preparation of disinfectant solution is not done correctly; very concentrated or over diluted solutions were being used	Instructions on the preparation of the disinfectant solution were written, shared with staff and displayed on the wall		Develop a guide with instructions on how to prepare disinfectant solutions based on the concentrations. Share this guide in a staff meeting Display this guide on the walls in the rooms where the solutions are prepared
4. The cleaning equipment is decontaminated, cleaned and dried before reuse or storage according to the standards	Cleaning equipment are not decontaminated before storage, they were only cleaned with water and detergent and then stored	Staff were oriented on the standard procedure of handling the cleaning equipment before storage or reuse Staff who do the cleaning were made part of the QI teams		Coach the teams on the standard procedure of decontamination and cleaning of the cleaning equipment before storage or reuse. Inform the in charge to request the staff who do cleaning to join the QI team

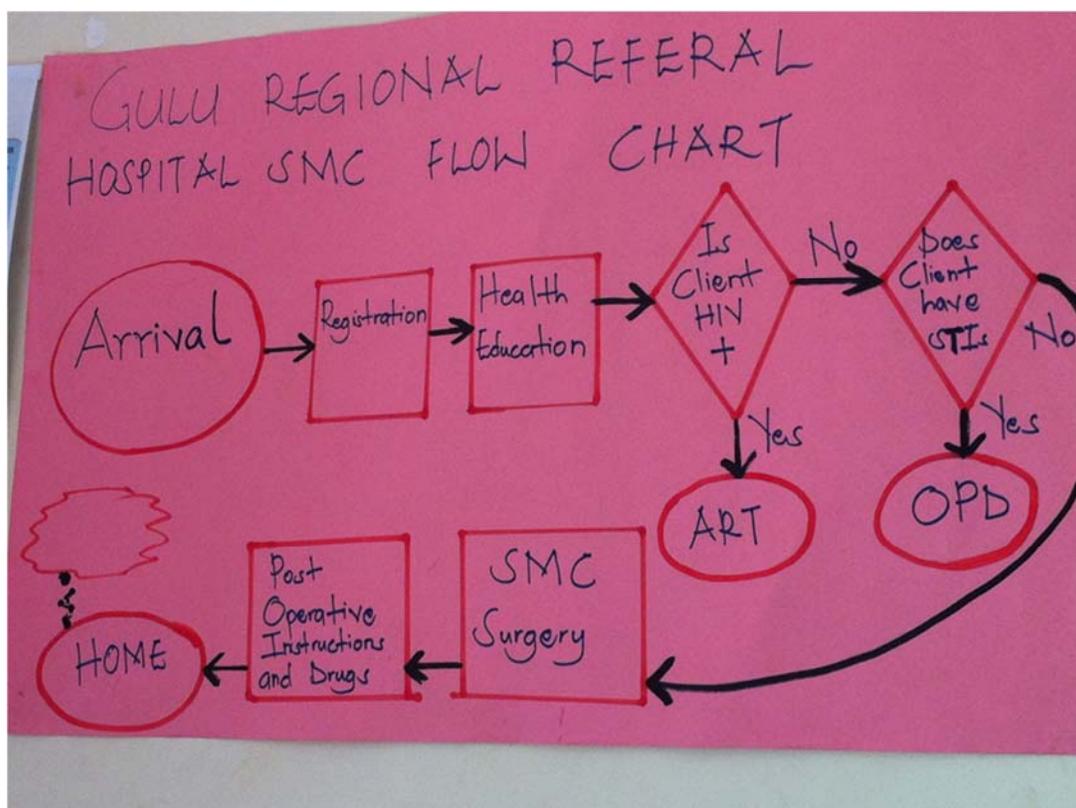
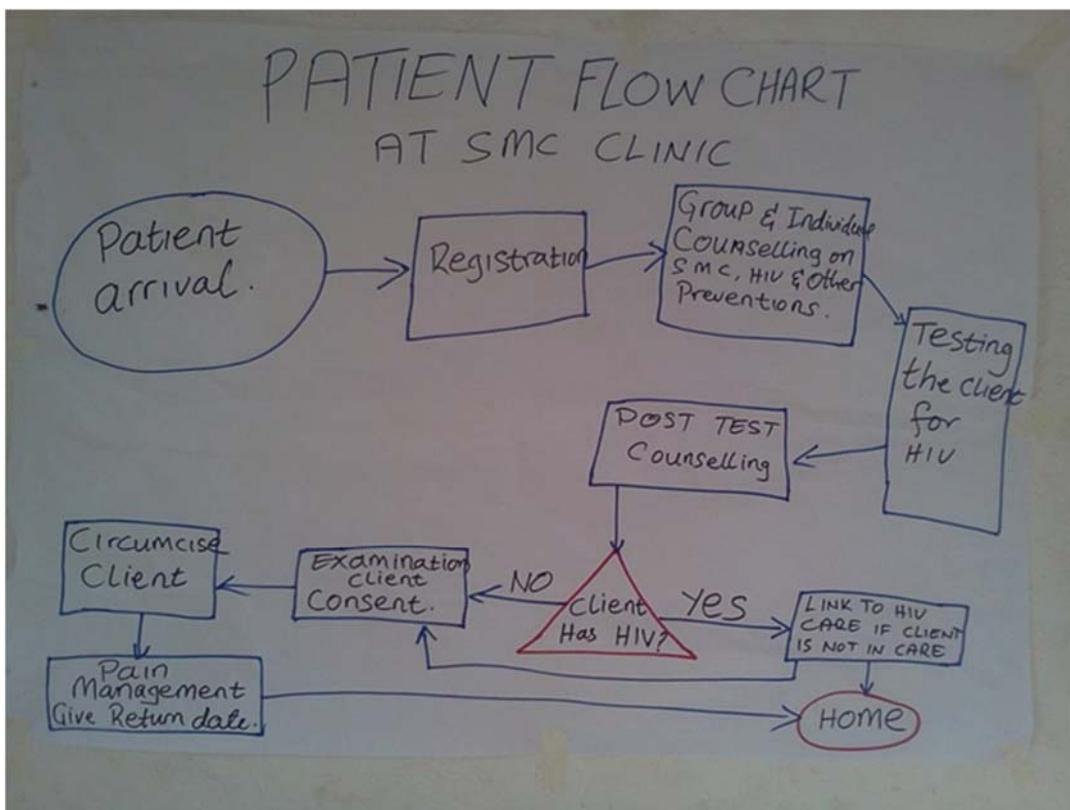
Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
5. The decontamination of instruments and other articles (immediately after use and before cleaning) is performed according to the standards	Used instruments are kept in the chlorine solution for decontamination for hours before they are cleaned and some instruments are not completely submerged in the solution	Orientation of staff who clean instruments on the steps of cleaning and decontamination. Made request for timers from the health unit stores.		Organise a site team meeting to train staff on the standard procedure of decontamination of instruments Make requisitions from the stores for timers which are used to time the decontamination stages.
6. The process of cleaning instruments and other items is performed according to the standards	Instruments kept with antiseptics	Orientation of staff on instrument management (cheatle forceps handling and sterilization)		Orient of staff on the use of antiseptics and storage of instruments
7. The process of packing items for sterilisation is performed according to standards	No wrapping of instruments before sterilisation	Requested wrappers for instruments from the hospital administration		Request for wrappers for instruments from the hospital administration/ IP
	No expiry dates on the sterilised packs of instruments	Marking of expiry dates on all sterile sets		Develop an inventory system for sterilised equipment Put a label on each sterilised set using masking tape and a pen to indicate the dates when the sets were sterilised Use the first sterilised first out rule for use of the sets
8. The process of sterilisation is performed according to standards	Instruments for sterilization packed in closed position	Orientation of the staff involved in sterilization of instruments on the sterilization process		Go through the process of sterilisation with an expert Work with the IP and district health office to identify the expert The expert should orient all the staff on the process of infection prevention
	No sterilization tape	Made requests to NMS for sterilization tape		Place requests for sterilisation tape from NMS

Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
				If not available work with the IP to avail the tape
9. The storage of sterile or high level disinfected items is performed according to the standards	Poor storage of sterile sets of instruments	Secured a cupboard for storage of sterile sets		Identify a specific place for storage of sterilised equipment Preferably get a lockable cupboard and place it in theatre away from dust
10. Waste is disposed of/handled appropriately	No waste segregation	Had CME on waste management and segregation Started segregation of waste using colour-coded bins Requested for waste bins and bin liners from NMS and IPs		Work with the IP to get a technical person to orient the team on waste management and segregation Request for all the required items including appropriate waste bins and their liners from NMS or IP
	Sharps containers are overfilled	Made orders for more safety boxes from the hospital stores and NMS		Obtain adequate number of safety containers from the hospital stores and NMS. Place the safety boxes close to the area of operation. Dispose them off when they are ¾ full (as labelled on the box)
	No disposal of metallic waste	Decontaminate the instruments and store them in a box Requested IPs to identify a company to help with metallic waste disposal		Decontaminate all the metallic waste after each procedure and safely store them in a secure place When the waste has accumulated inform the IP to organise for disposal
	No utility gloves	Requisition for utility gloves from the health unit administration and NMS		Identify the amounts required and place an order to NMS Involve the IP and district health office Put in place an inventory system to track the stock and ensure that minimum stock levels are maintained
	No colour-coded bin liners	Requisitioned for bin liners from the health unit administration		Identify the amounts required and place an order to NMS

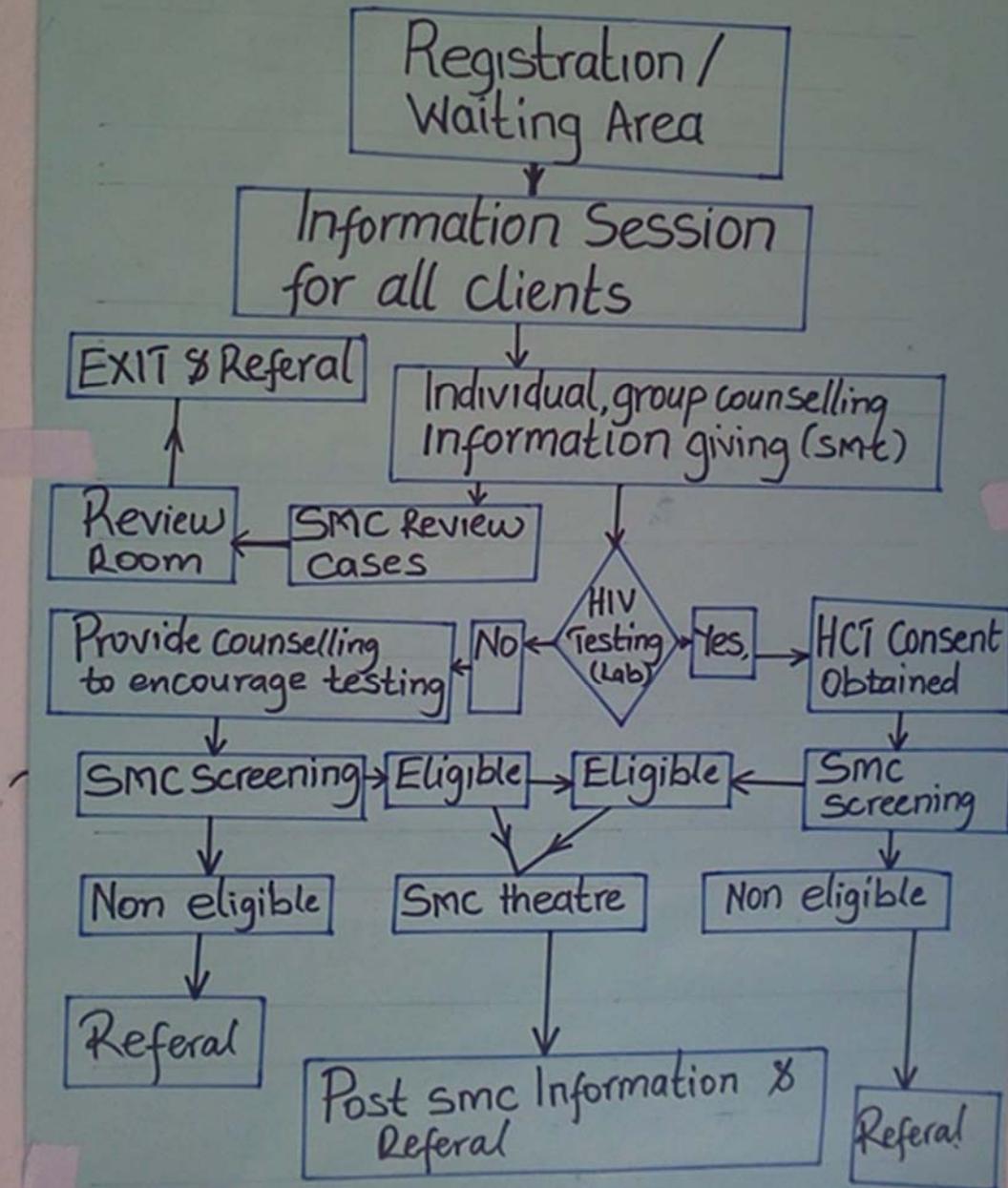
Quality standard	Gaps identified	Actions taken to address the gaps identified	Changes tested	How-to guide
		Requisition for bin liners from NMS and IPs Improvised with labelled buckets and liners of other colours for waste segregation		Involve the IP and district health office Put in place an inventory system to track the stock and ensure that minimum stock levels are maintained Identify the missing waste bins and liners and locally solicit them as you wait to receive the right waste bins and liners from NMS or IP
	Lack of personal protective gear like shoes, masks and eye shield	Purchased personal protective gear Requisition for protective wear from implementing partners		Identify the amounts required and place an order to NMS Involve the IP and district health office Put in place an inventory system to track the stock and ensure that minimum stock levels are maintained
11. The system for interim storage is appropriate	There was no interim storage of waste /interim storage area not appropriate	Obtained bins for interim storage of waste Identified space for interim storage of waste		Inform the IP about the need for interim storage waste bins. Identify a room within the health unit for interim storage of waste with the help of the health unit administration
12. The health unit/SMC clinic ultimately disposes of waste properly	Open pit disposal of waste Use of burning for disposal of waste	Liaised with the hospital administration and the municipality authority to have waste collected and taken for incineration at the municipal incinerator On-going discussion between stakeholders for construction of an incinerator		Inform all the stakeholders (health unit administration, IP and district health office) about the challenges of final waste disposal and together develop a plan to solve the problems

Appendix 8: Sample Client Flow Charts

Appendix 8: Sample Client Flow Charts

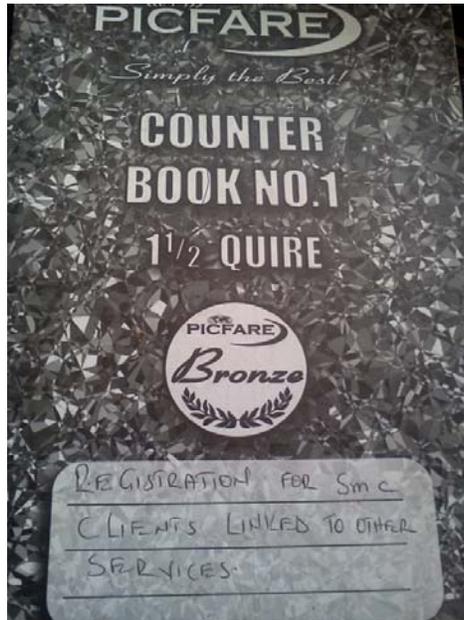


FLOW CHART SMC SITE



Appendix 9: Client Referral Register

Appendix 9: Client Referral Register



Client Name	DOC	Follow-up	2nd Party
WTC	27/10/2013	Clean	
Plidaka	"	Clean	
Vedika	"	Clean	
Gabara	"	Clean	
Gasau	"	"	
Lyanika	"	Mod. Hae-naka	
Krothil	"	Clean	
Nyakakak	"	Mod. Hae-naka	
Gabara	"	Clean	
Gisera	"	felvite	
Gisera	"	Clean	

Date	NAMES	AGE	SEX	HIV/Sm Count Drug	Coupt Count	WAM Count	Genat Count
14/6/13		36	m				✓
		48	m		✓		✓
		43	F		✓		✓
		27	F				✓
		32	F				✓
		45	m	✓			✓
		14	m	✓			✓
							✓
							✓
24/06/13		30	m	✓	✓		✓
		27	F	✓	✓		✓
							✓
26/6/13		29	m	✓			✓
		22	F	✓			✓
		24	F				✓
		40	F				✓
		23	F				✓
		40	m				✓
							✓
01/7/13		12	m	✓			✓
		34	F				✓
		20	F				✓
		23	m	✓			✓
							✓
08/7/13		22	m	✓			✓

**Appendix 10:
Ministry of Health
Adverse Events Grading Scale**

Appendix 10: MoH Adverse Events Grading Scale



SAFE MALE CIRCUMCISSION PROCEDURE FOR ADVERSE EVENTS GRADING SCALE

CODE	EVENT	DESCRIPTION	Severity of Adverse Events
1	Pain 0-5 Scale	0 or 1 on pain scale	Mild
2.		2 or 3 on pain scale	Moderate
3		4 or 5 on pain scale	Severe
4	Excessive Bleeding	More bleeding than usual, but easily controlled	mild
5		Bleeding that requires pressure dressing to control	Moderate
6		Blood transfusion or transfer to another facility required	severe
7	Swelling/ Haematoma	More swelling than usual, but no significant Discomfort	Mild
8		Significant tenderness and discomfort, but surgical re-exploration not required	Moderate
9		Surgical re-exploration required	Severe
10	Anaesthetic Related Event	Palpitations, vaso-vagal reaction or emesis	Mild
11		Reaction to anaesthetic requiring medical treatment in clinic, but not transfer to another facility	Moderate
12		Anaphylaxis or other reaction requiring transfer to another facility	Severe
13	Excessive skin Removed	Adds time or material needs to the procedure, but does not result in any discernible adverse condition	Mild
14		Skin is tight, but additional operative work not necessary	Moderate
15		Requires re-operation or transfer to another facility to correct the problem	Severe
16	Infection	Erythema more than 1 cm beyond incision line	Mild
17		Purulent discharge from the wound	Moderate
18		Cellulitis or wound necrosis	Severe
19	Damage to the Penis	Mild bruising or abrasion, not requiring treatment	Mild
20		Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery to control	Moderate
21		Part or all of the glans or shaft of the penis severed	Severe
22	Death	Death following SMC surgery	Severe

PAIN SHALL BE CATEGORISED USING THE PALIATIVE CARE MODEL OF 0 – 5 AS SHOWN BELOW

0 no hurt	1 hurts little bit	2 hurts little more	3 hurts even more	4 hurts whole lot	5 hurts worst

NOTE: REPORTING IS REQUIRED FOR MODERATE TO SEVERE ADVERSE EVENTS ONLY

**Appendix 11:
Detailed Change Package for Improving
Client Follow-up beyond 7 Days of
Circumcision**

Appendix 11: Detailed Change Package for Improving Client Follow-up beyond 7 Days of Circumcision

Change concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
Addressing knowledge gaps	Lack of information on the importance of 6 weeks follow up	Re-echoing key messages and adding importance of follow up to health education 3 sites	Site 1: 0% Aug 2013 to 17% Feb 2014 Site 2: 0% Aug 2013 to 33.5% Oct 2013 Site 3: 70% Aug 2013 to 91% April 2014	Hold a QI meeting and write down the post-operative instructions which include key messages on the importance of follow-up like checking wound healing, condom refill etc. Emphasize this information at every service delivery point from group education to post-operative session, at 48hrs and 7 days follow up visit as a reminder for 6 weeks follow up visit. These written instructions are also given to clients to take home (Site 1 & 2) The QI team should inform the health facility administration about the importance of follow up and agree to make a schedule for health education at the waiting area in OPD where most clients go through. During these sessions of group education, emphasis on the importance of follow up at 48hrs, 7 days and 6 weeks is made. (Site 3)
Improving accessibility	Difficulty in returning for follow up for clients who were circumcised at outreach/ camp sites distant to the health facility	Conducting integrated outreaches for circumcision on days coinciding with the dates for 6 weeks follow up 2 sites	Site 4: 56% Mar 2014 to 58% April 2014 Site 1: 17% Feb 2014 to 68.8% April 2014	The integrated SMC outreaches in the community are rescheduled to coincide with the dates for 6 weeks follow up of previously circumcised clients. Present this idea to the facility administration for their approval and facilitation. Clients should then be informed during the group education for circumcision and through the mobilizers that the SMC HCWs will do follow up in the community at the same site where SMC has been done. The HCWs should carry along the client forms of the clients previously circumcised in that area
		Introduction of client cards and writing return dates on the appointment card 3 sites	Site 1: 17% Feb 2014 to 68.8% April 2014 Site 2: 0% Aug 2013 to 33.5% April 2014 Site 4: 56% Mar 2014 to 58% April 2014	Make a request of missing client cards to ministry of health resource center and IPs. Make photocopies to ensure continuity when the original cards run out
		Using fellow clients and health "angels" to trace other clients	Site 4: 0% Mar 2013 to 56% March 2014 Site 1: 17% Feb 2014 to	During registration and group education the counselor would identify clients who come from the same village, encourage them to know each other and discuss with them the importance of supporting each other during the healing process. He/she

Change concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
Creating reminder systems	Low turn up for 6 weeks follow up due to clients forgetting the dates for 6 weeks follow up	2 sites	68.8% April 2014	would encourage the clients to remind each other to come for follow up. During an organized outreach, the client forms of those due for 6weeks follow up in the village of the outreach is carried along in case a client returns for follow up. When client/s returns for follow up they are asked to go and remind fellow clients in the village to come for follow up. (Site 4) The team identified linkage facilitators or mobilizers called "Health angles" from a particular village. Phone calls would then be made to these health angels to remind them to mobilize the clients who are due for follow up at 6weeks within their village and the SMC team would go to the identified outreach or camp site to conduct follow up. (Site 1)
		Use of reminder phone calls 2 sites	Site 1: 17% Feb 2014 to 68.8% April 2014 Site 2: 33.3% Nov 2013 to 100% April 2014	Utilized the facility toll free line to call the mobilizers who were to remind clients due for a follow up to go to the outreach site. Health care workers would then go and review the clients.(Site 1) The QI team had a meeting with the hospital administration emphasizing the importance of 6 weeks follow up. The administration allocated a phone line for calling circumcised clients to remind them of their scheduled follow up visit. A QI team member was assigned the responsibility of making the phone calls.
		Use of partners to remind the clients 1 site	Site 1: 17% Feb 2014 to 68.8% April 2014	During the group education session information about the number of follow up visits and their importance is given and the partners who attend group education with their men are requested to remind their husbands to come back for follow up.
Improving documentation	Poor documentation of follow up due to failure to retrieve client forms	Good filing system to ease retrieval of client charts when they return for follow up thus reduce waiting time	Site 3: Aug 2013 70% to 91% Apr 2014	Client forms are arranged in batches according to the date of circumcision. Follow up dates are written on the separators making retrieval and documentation of the visit easy.

**Appendix 12:
Detailed Change Package for Moderate to
Severe Adverse Events**

Appendix 12: Detailed Change Package for Moderate to Severe Adverse Events

Indicator: Increasing identification of AEs				
Change Concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
Addressing knowledge gaps	Staff lacked skills and knowledge on handling AEs	Held a session to orient staffs on the importance of documenting AEs	Site 13: 0-0.7% (April - May 2013) Site 14: 0-3.7% (March – June) Site 15: 0-0.6% Site 16: 0-4.3% (April – June 2013) Site 17: 0-65% (Aug – Dec 2013) Site 18: 0-15%(Nov 2013 – Dec 2013) Site 11: 0-30% (Jan – April 2014)	Get an experienced staff member to orient staff on the Adverse Events. For one site, an appointment was made a hospital anesthetist that had experience in management of AEs who accepted to prepare a presentation on adverse events. SMC team members were invited for a CME that was conducted in June 2013 at the hospital board room where they were all taken through the basics of AEs and the importance of documenting them. Resources used; The anesthetist who was facilitated by the IP, flip charts were used and models were used for demonstration. For another site, in November 2013, the SMC team was trained by QI experts on the importance of AEs and on return to the facility, the SMC focal person organized a debrief meeting at the clinic and other members were debriefed on the importance of documenting AEs Resources used; SMC focal person, QI specialists, AE grading scale copies.
		Had a mentorship on how to use an AE grading scale to detect AEs and manage clients better.	Site 19: 6.4-1% (May- July 2013) Site 20: 9.7-0% (Feb – May 2014) Site 18: 15-0% (Dec 2013 – Jan 2014) Site 21: 26-0.86% (Aug 2013 – Feb 2014) Site 10: 5.59-1%	In May 2013, one team had an external QI mentorship and it was during this time that the coach introduced the AE grading scale. During this meeting, all SMC team members were taken through the whole grading scale and educated on how to identify, classify, grade and manage AEs. Resources used; Copies of AE grading scale, coach

Indicator: Increasing identification of AEs				
Change Concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
			(June – August 2013) Site 5: 1.3-1% (June 2013 –Sept 2013)	
		Reinforcing good self - management during health education sessions, in theatre, after surgery; the importance of returning in case of AEs and the need to return for follow up.	Site 19: 1 - 0% (July –Oct 2013) Site 13: 1 - 0.4% (June - August 2014) Site 14: 3.7-0% (July- Oct 2013) Site 16: 4.3-3.1 % (June - Aug 2013) Site 5: 0.4-0.3% (Oct 2013 – Feb 2014)	One of the sites realized that AEs were on the rise and noted a gap in health education. Counselors were told to take more time while delivering health education talks and use available flip charts and colored pictures for demonstrations to clients. Resources used; counselors, flip charts, dildos, colored pictures
		Had a CME on infection prevention and also selected a focal person to lead infection prevention initiatives	Site 5: 0.4-0.3% (Oct 2013 – Feb 2014)	Hold an AE management CME at the facility and thereafter assign a focal person to take lead in infection prevention activities. Resources used; Health workers, facility building
		Orientation and mentoring of staff on standard techniques for SMC procedures		The facility administration for one site approached the IP to have staff trained in SMC Holding regular CMEs to orient all staff on the suturing techniques for the dorsal slit method of circumcision with guidance of the minimum standards of procedure document
Linkage systems	Early reporting of AEs	A phone line was put in place specifically for clients to call or beep in case they had an AE	Site 13: 0.7-1% (May – June 2013)	The SMC team leader of site 13 called the IP and explained to them the importance of the phone in increasing identification of AEs and a log to record clients that called. In May 2013 the IP provided the team with the phone,

Indicator: Increasing identification of AEs				
Change Concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
				airtime and counter book to the facility. Resources used; Team leader, Phone, IP, airtime, counter book.
Preventing AE occurrence	Poor comprehension of post-operative instructions	Emphasized the need for guardians/parents to attend group education and listen to post-operative instructions when they bring their children for SMC	Site 22: 5.3-0% (Aug 2013 – Jan 2014)	The QI team for site 22 met and realized that most AEs were occurring amongst children who did not come with their children. It was resolved that during mobilization, parents should be reminded to come with their children and during health education, the role of guardians being around was emphasized. Resources needed; Public address system, health workers, Finances.
	Many clients returning with hematomas	Informing clients to come with tight fitting pants during the mobilization drives. This dealt with hematomas.	Site 19: 2.3% - 1.5% (March-April 2014)	On realizing that many clients were getting hematomas, during one of the meetings at the facility, site 19 SMC team agreed to use VHTs and mobilisers to remind clients to come with tight fitting pants during. Further during mobilization drives, clients were reminded to come with tight fitting pants. To achieve this, all VHTs and mobilisers were oriented on what to say before going for mobilization of which included coming with tight pants. For the mobilization drives, the person using the microphone was briefed on what to say during the drive. Resources used; VHTs, Mobilisers, finances for public address system.
Proper documentation	Poor documentation of AEs at facilities.	Introduced an AE log at OPD to capture any clients that could return with AEs but could not be	Site 16: 0 -4.3 % (April – June 2013)	Site 16 SMC team leader lobbied for a counter book that was provide by the IP and in liaison with the who facility, it was agreed during a meeting that; whoever would be in the OPD would update any clients that return for

Indicator: Increasing identification of AEs				
Change Concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
		captured in the SMC register		follow up visits when the SMC clinic is nonfunctional. Resources used: IP, team leader, counter book
		Team got an AE grading scale from USAID ASSIST	<p>Site 14: 0 – 3.7% (June – July 2013)</p> <p>Site 15: 0.6 - 0.82%</p> <p>Site 16: 0-4.3% (April – June 2013)</p> <p>Site 13: 0-0.7% (May 2013 – June 2013)</p> <p>Site 23: 3.4-0% (April – May 2014)</p> <p>Site 1: 3.2-0%(Oct 2013 – April 2014)</p> <p>Site 10: 5.59-1%(June – August 2013)</p>	Sites informed their respective IPs to provide hard copies of the AE grading scale which were then photocopied and pinned up at various points in the clinic.
Infection prevention	Clients getting infections after surgery	Provided free underpants to prisoners	Site 14: (Maintained 0%)(July 2013 – Feb 2014)	In July 2013, the whole SMC team for the site that implemented this change realized that the mobilized prisoners had no tight underpants. As a team each member made a contribution and pants were bought and given to each prisoner that was circumcised. Resources used; team members, money
		Liaised with the IP to get staff and client theatre gowns	Site 16: 3.1-0% (Aug – Oct 2013)	
		Bought and gave out free	Site 4: 3.3 – 0%	After noting that many clients were getting infections, In

Indicator: Increasing identification of AEs				
Change Concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
		small A4 sized white polythene bags and toilet paper to clients to keep their wounds dry while bathing and urinating	October 2013 – June 2014	October 2013, the facility SMC team members agreed in a meeting to contribute some money towards buying clients' polythene bags and toilet paper to keep their wounds dry thus avert infection. Pre packed polythene papers and toilet paper were given to each client in the post-operative area. Resources used; finances, health workers, toilet paper, polythene bags.
		For clients who had no tight pants, strapping was provided to keep the penis on the abdomen	Site 7: 2.5% - 0.6%(April – June 2013)	For this site, one of the issues that came up during the QI meeting was the rising number of hematomas and analysis showed that most clients lacked tight fitting pants. An innovation of strapping for those with no tight pants was tabled and accepted as an alternative. It is the role of the SMC assistant to find out whether the client has a tight pant and if no, strapping is given on top of emphasizing the need for keeping it clean. Resources used; strapping, scissors, staffs, SMC assistant

**Appendix 13:
Detailed Change Package to Improve Gender
Integration**

Appendix 13: Detailed Change Package to Improve Gender Integration

Indicator: Partner Involvement				
Change concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
Improving documentation	No documentation or register capturing partner involvement at the sites	Introduction of group education register	Before there was no documentation of partner involvement in SMC even for the few who came. With the introduction of the group education register, sites are able to capture partner involvement in group education	The facilities which implemented this change made a requisition for the counter book to be used as the group education register. In some of the sites, the team members contributed towards the purchase of the register from their own allowances. The registers are placed in the group education area on the day the clinic runs. At the end of the clinic day the register is reviewed and a summary is made. Resources: Counter book
Addressing the knowledge gap	Lack of information about the need for partner involvement	Re-Orienting health workers and SMC mobilisers about the importance of partner involvement in SMC	Site 5: 20% Oct to 53% Dec 2013 Site 6: 0% Nov 2013 to 5% Apr 2014 Site 8: 7.1% July to 16% Aug 2013 Site 7: 0% Aug to 44% Oct 2013	The SMC coordinator and BCC focal person organize a CME for the staff to standardize the message on importance of partner involvement and its benefits. The SMC clinic staff then orient the VHTs and other mobilizers during the monthly VHT meetings about the importance of partner involvement and the message to deliver to the community encouraging SMC clients to come with their partners Resources: Funds to mobilize VHTs; IEC materials

Indicator: Partner Involvement				
Change concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
Creating awareness	Mobilization does not include messages about importance of partner involvement	Doing pre-activity mobilization in the community by the healthcare workers with messages on importance and benefits of partner involvement 2 sites	Site 5: 53% Aug 2013 to 59% Feb 2014 Site 6: 3% Jan to 5% April 2014	Part of the SMC team goes to the community a week before the activity is scheduled and talk to the community members about the benefits and importance of partner involvement and answer their questions so that they are able to come for SMC with their partners Resources: IEC materials, transport, time, human resources
		Use of model couples to share their experience to encourage other clients to come as partners	Site 9: 18.8% Sept to 31.2% Nov 2013	Male champions (those who always come with their partners to the facility, even for services beyond SMC) are selected and given messages to share with other couples about the benefit of partner involvement in SMC
Creating an incentive system	Clients who come with their partners were made to wait for a long time	Giving couples priority at the health facility	Site 5: 59% Feb to 78% April 2014 Site 8: 26% Nov to 30.3% Dec 2013	Allocate a specific counselor to handle couples and the others to handle the rest of the clients to reduce the waiting time for couples Make an announcement to the clients that those who came with their partners shall be considered first During group education couples are considered first for registration After education the couples go to see the specific counsellor assigned on that day Resources: Human resources, stationery, space
	No clear services were being offered to females who would escort their	Scheduling SMC days with other women friendly services e.g. FP, ANC, cancer screening	Site 10: 0% May to 12% Aug 2013 Site 8: 30% Jan to 32% Feb 2014	Inform the management of the facility about the proposed change. Talk to the in-charges of the different departments about the change and ask them to

Indicator: Partner Involvement				
Change concept	Specific problem being addressed	Change tested and number of sites which tested the change	Change successful? Yes/No? Evidence of successful change	How exactly was change tested/ implemented (where, who, how, when, resources required, etc.)?
	husbands for SMC			<p>allocate staff from the respective departments (e.g. the lab, MCH, etc.) to provide these services to the women as the males are undergoing the SMC procedure</p> <p>Static SMC is held on the same day as ANC, YCC</p> <p>Liaise with IPs (Marie Stopes) to provide services on the same day as the SMC clinic or SMC camp</p> <p>Inform clients during the mobilization sessions that the women will be getting free additional services when they come with their partners</p> <p>During the camps, all the female-friendly services are provided.</p> <p>Resources: Time, transport, facilitation for the outreaches, additional staff</p>
Improving accessibility		Taking services closer to people through an outreach to encourage and make it easy for partners to attend	Site 1: 0% Feb 2014 to 20% Mar 2014	<p>Draw a work plan for the outreaches and camps each quarter especially at the lower health facilities</p> <p>Assign staff who will go for the outreach, sit with these staff and discuss their roles and responsibilities during the outreach.</p> <p>Meet with or call the mobilisers and inform them about the outreach to inform the community before the outreach.</p>

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