

Ntungamo District Community Knowledge and Practices LQAS Survey Report

Management Sciences for Health (STAR-E)

April 2011

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Strengthening TB and HIV & AIDS Responses in Eastern Uganda (STAR-E)
Management Sciences for Health
784 Memorial Drive
Cambridge, MA 02139
Telephone: (617) 250-9500
www.msh.org



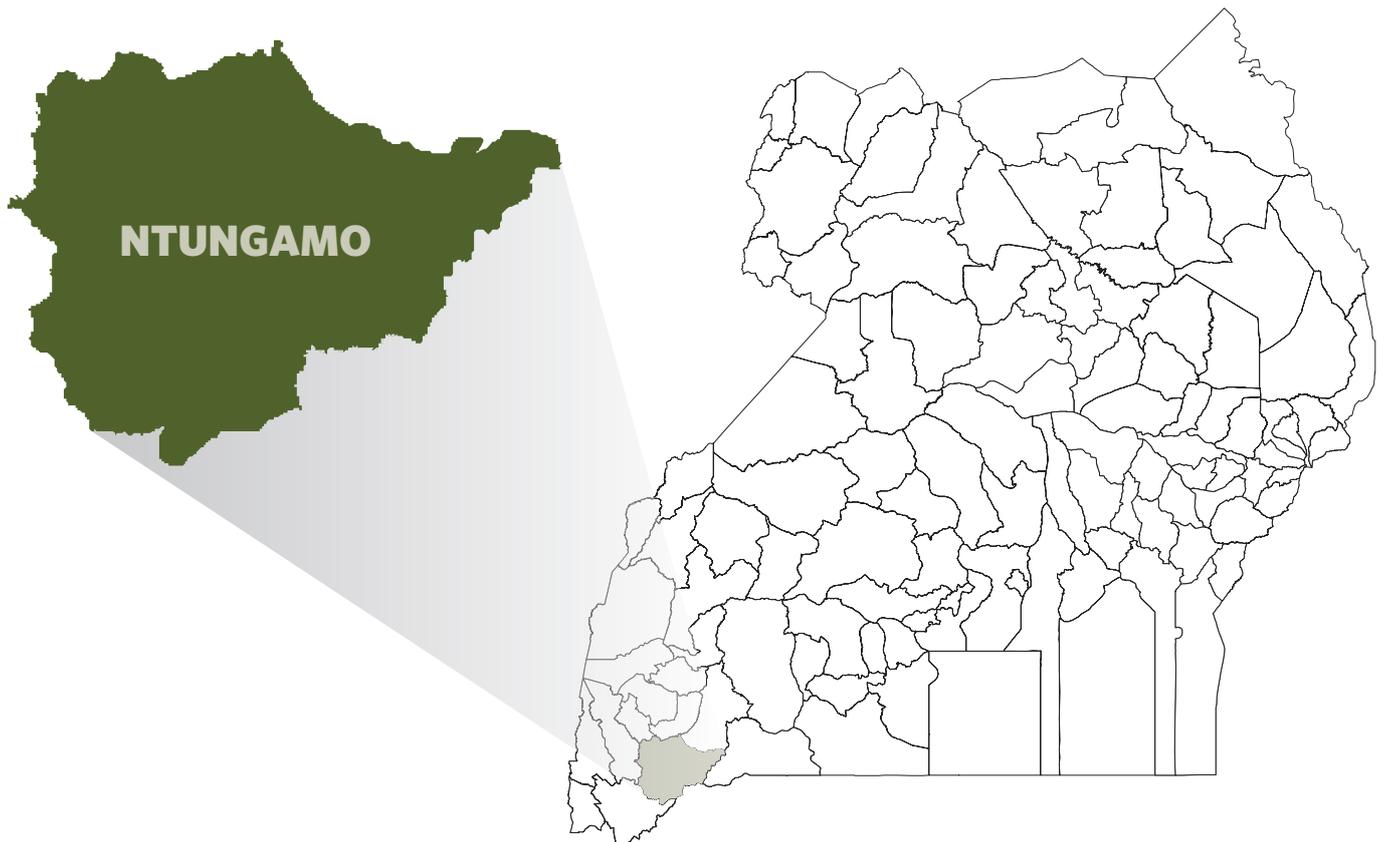
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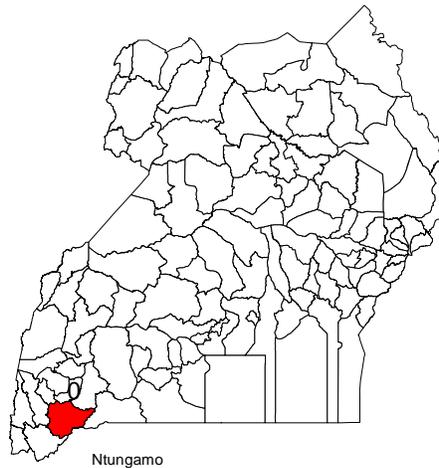


NTUNGAMO DISTRICT

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APRIL 2011

Prepared by STAR- E LQAS



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Contacts: Stephen K. Lwanga (Slwanga@msh.org) and Edward Bitarakwate (ebitarakwate@pedaids.org)

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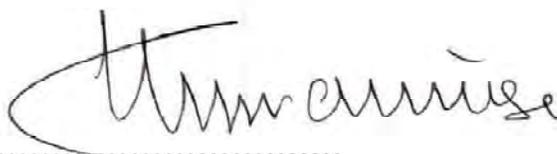
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Message from the Chief Administrative Officer

As a District Local Government we appreciate the efforts of USAID in supplementing our efforts towards sustainable delivery of quality services particularly in the Health Sector. The intervention comes at a time when we are struggling to meet the Millennium Development Goal in the Health Sector come 2015.

I welcome the initiative taken by USAID in collaboration with the Government to support the strengthening of (Monitoring and Evaluation) system of Ntungamo District , and training our people in the application of rapid community surveys. When the first community survey was done in Ntungamo District, we were able to obtain preliminary information on key health indicators. This report , giving the District definitive information on the level of delivery of social services in the Counties and sub-counties in Ntungamo District , will guide us in directing the district resources towards improving the services in those poor performing areas in the district. We look forward to the next round of surveys and we commit ourselves to supporting them.



.....
KAYISE CHRIZESTOM
CHIEF ADMINISTRATIVE OFFICER / NTUNGAMO.



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Abbreviations

ACT	Artemisinin-based combination therapy
AIDS	acquired immunodeficiency syndrome
ANC	antenatal care
CI	confidence interval
DHS	Demographic Health Survey
FP	family planning
HCT	HIV counseling and testing
HIV	human immunodeficiency virus
IPT	intermittent preventive treatment [for malaria]
IPTp	intermittent preventive treatment during pregnancy [for malaria]
ITN	insecticide-treated net
KPB	Knowledge, practices, and behavior
LC	Local Council
LQAS	lot-quality assurance sampling
MSH	Management Sciences for Health
MTCT	mother-to-child transmission [of HIV]
NA	not applicable
PMTCT	prevention of mother-to-child transmission [of HIV]
RH	reproductive health
SA	supervision area
STAR-E	Strengthening TB and AIDS Response in the Eastern Region [project]
STAR-SW	Strengthening TB and AIDS Response in the South Western Region [project]
STI	sexually transmitted infection
UBOS	Uganda Bureau of Statistics
USAID	US Agency for International Development

1. Introduction

Ntungamo district in South Western Uganda is bordered by the Republic of Rwanda to the south, Isingiro District to the east, Mbarara District to the northeast, Bushenyi District to the north, Rukungiri District to the northwest and Kabale District to the southwest. The district is made up of sixteen sub-counties of Rubaare, Rugarama, Kayonza, Ngoma, Ihunga, Bwomgyera, Nyabihoko, Kibasi, Ruhaama, Rweikinire, Rukoni East, Rukoni West, Itojo, Ntungamo Nyakera, together with Ntungamo Municipality. The district covers 2,056 square kilometres (794 sq miles) of which approximately 0.2% is open water, 3.4% is wetland and about 0.01% is forest. The eastern and central part of the district is a low-lying plateau with undulating hills. The rest of the district is hilly with sharp valleys and craters.

Ntungamo has a cool climate and receives 1500-2000mm of rainfall annually. Average temperatures are about 12.5 °C to about 30 °C.

The 2002 national census estimated the population of Ntungamo district at 386,800, with an annual population growth rate of 3%. In 2010 the population was estimated at 490,000 with a population density of 247.2 people per km² (640.2 people per square mile).

2. Background to the survey

Ntungamo district carried out a community-based LQAS survey to assess the level of delivery of services for HIV/AIDS, TB, child health, reproductive health and malaria. The survey was conducted in November 2010 by the USAID funded STAR-SW project with technical support from the STAR-E project. The indicators assessed were selected in consultation with district managers as well as national programme managers. The survey targeted orphans (5-17 years), the youth (15-24 years), women (15-49 years), men (15-54 years), mothers of babies under one year of age and mothers with babies between 12 and 23 months. The survey did not target pregnant women. Appendix 1 presents the list of indicators assessed by the survey.

Questionnaires were developed for each target group in consultation with various stakeholders at national and district levels to ensure conformity with national surveys such as the Demographic and Health Survey (DHS) and international survey requirements. Key terms and phrases in the questionnaires were translated into Rukiga and Runyankole language to allow uniform translation to, and understanding of, the local language phrases during face-to-face interviews in the communities.

This report presents district results based on “cleaned” data sets on those indicators that could not be reliably reported on using the hand tabulation process. Preliminary results were available to the district within a week of the end of the data collection exercise. Those results were obtained through hand tabulation by the district workers who had collected the data.

3. Selection of Interview Villages

The UBOS 2009 list of villages with corresponding number of households was used as a sampling frame. The district was partitioned by the district managers into seven supervision areas (SAs) with STAR-E LQAS' guidance. The SAs were non-overlapping and had a programmatic link to supervisory roles in the district.

A random sample of 19 villages was selected from each SA using the probability proportional to size (PPS) sampling technique. The randomly selected villages were verified by the district to confirm their existence and correcting the misspellings of village names.

4. Selection of Households and Respondents

A starting household for conducting the interview was randomly selected using, as far as possible, up-to-date LC1 household registers. In situations where it was not possible to establish such a list of households, community maps were used to partition the village into small sections with evenly distributed known household sizes, with one section, then randomly selected and a household list developed for the selected village section. This list would form a sampling frame from which a starting household would be identified at random.

A randomly selected starting household was used to minimize sampling errors. Movement from household to household followed specific instructions. Households were judged as nearest to each other by the distance *walked* from door to door.

Eligible respondents for the six target groups in a household were listed and one randomly selected. If the selected respondent qualified for more than one category, he/she was randomly assigned to one target group for interview. *Only one interview was conducted in any household.* Identification of other eligible respondents would continue in the households nearest to the front door of the previous interview until all the six categories of respondents were interviewed in each sampled village.

5. Data Collection

The data collection exercise was carried out in one week in November 2010 immediately after a week's training in the LQAS methodology and data collection tools. Each SA had a team of two data collectors and one supervisor. Community leaders supported data collectors in locating the villages and households. Data were collected from 19 respondents for each target population in each supervision area. One hundred and thirty three respondents were interviewed from each target group for the entire district. Apart from the orphans aged 5-12 years where caregivers were interviewed, the rest of the questionnaires were administered directly to the respondents.

6. Findings

Ntungamo district is comprised of six supervision areas of: Rugarama; Rubaare; Itojo; Rwekiniro; Nyakyera; and Bwongyero. Since Ntungamo district had not set any targets for the assessed

indicators, decisions on the level of delivery of services in the SAs were based on district average coverage for each indicator. The table in Appendix 2 was, therefore, used to determine the thresholds for each indicator.

The *thresholds* are based on the sample size (in this case 19 for each target group in each SA), the district average for the indicator estimate (20%, 30%, etc.) and a precision of the indicator estimate of 92%. Each district indicator average is given with a 95% confidence interval (CI).

The LQAS survey enables identification of SA that may be below the benchmark (in this case the district average) which are “red flagged” for special attention. Rugarama was the most flagged supervision area while Ntungamo Municipality was not flagged for any indicator as shown in Table 1.

Table 1: Number of indicators below threshold by service and supervision areas*

Service areas	Supervision areas						Indicators		
	Rugarama	Rubaare	Rwekin iro	Itojo	Bwong yero	Nyakyera	Flagged	Total	Percent flagged
HIV counseling and Testing (HCT)	0	7	0	0	4	0	11	196	5.6
Prevention of Mother to Child Transmission of HIV (PMTCT)	0	3	0	0	6	5	14	105	13.3
HIV Knowledge and Sexual Behavior	0	4	7	3	3	2	19	161	11.8
Sexually Transmitted Infections (STI)	0	9	0	0	15	2	26	140	18.6
Tuberculosis	0	9	1	0	10	0	20	105	19.0
Malaria Prevention and Treatment	1	3	1	2	1	0	8	56	14.3
Reproductive Health and Family planning	1	0	3	0	0	0	4	28	14.3
Child Health	1	1	0	1	0	1	4	14	28.6
Sanitation	4	1	0	0	0	4	9	35	25.7
Total number of red flags	7	37	12	16	39	14	125	840	14.9

*Counts are pooled for the target group

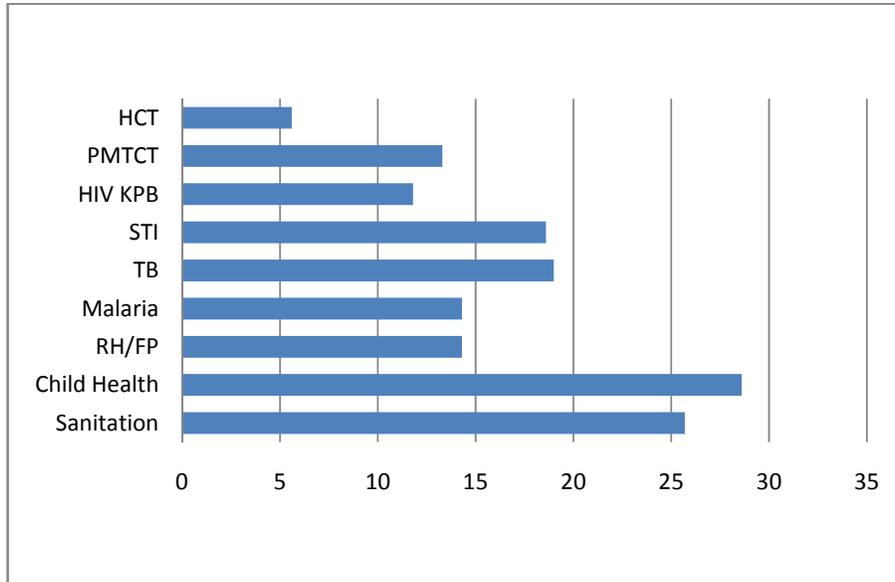


Figure 1: Percent of indicators below threshold out of the total indicators for the service area

In the following results tables, supervision areas with indicators below thresholds are marked by an asterisk (*). Thresholds of indicators with a district survey target population average below 20% are marked as “not applicable” (NA).

6.1. HIV counseling and Testing (HCT)

Tables 2 – 10 give the results of knowledge and practices in HIV Counseling and Testing in the district.

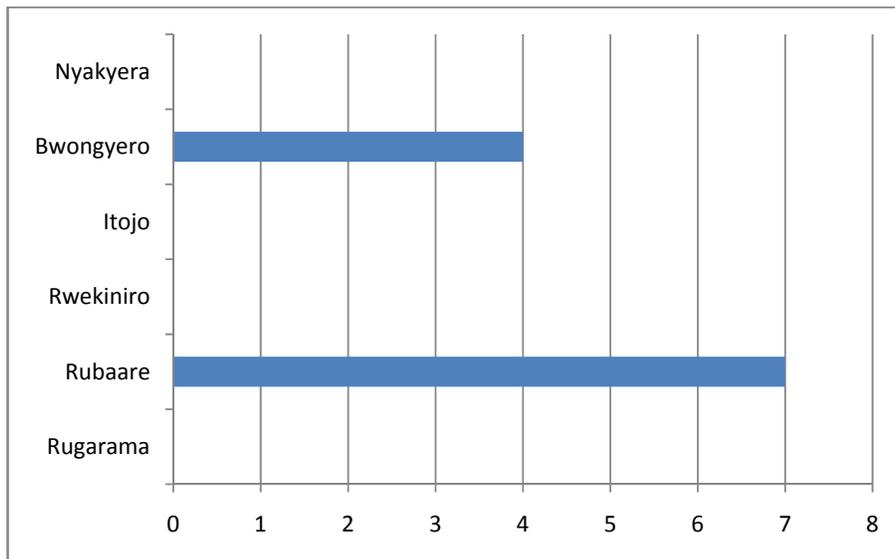


Figure 2: Number of indicators below thresholds for HCT

Table 2: Individuals who know where they can be tested for HIV

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0- 11 months)	Mothers of children (12- 23 months)
Rugarama	17	18	18	17	18
Rubaare	17	16	17	16	17
Rwekiniro	16	18	18	19	17
Itojo	17	17	19	19	19
Bwongyero	17	18	17	19	19
Nyakyera	16	19	19	19	19
Average coverage (95% CI)	87.7 (81.6-93.8)	93 (88.2-97.7)	94.7 (90.6-98.9)	95.6 (91.8-99.4)	95.6 (91.8-99.4)
Threshold	15	15	16	16	16
Number of SAs below threshold	0	0	0	0	0

Knowledge of where HIV counseling and testing services can be found was generally high throughout the district. All the target groups know where the services are given.

Table 3: Individuals who know two or more benefits of HCT

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0- 11 months)	Mothers of children (12- 23 months)
Rugarama	13	14	15	16	15
Rubaare	6*	4*	10*	7*	7*
Rwekiniro	13	13	16	14	14
Itojo	16	16	18	18	16
Bwongyero	9	8*	9*	12	8*
Nyakyera	10	14	13	17	16
Average coverage (95% CI)	58.8 (49.6-67.9)	60.5 (51.4-69.6)	71.1 (62.6-79.5)	73.7 (65.5-81.9)	66.7 (57.9-75.5)
Threshold	9	10	12	12	11
Number of SAs below threshold	1	2	2	1	2

There were varied levels of knowledge of HCT benefits among the supervision areas. Rubaare had the lowest level as evident by low knowledge across all the target groups. In Bwongyero, low level of knowledge was prominent among men, women and mothers of children aged 12 to 23 months.

Table 4: Individuals who have ever been counseled and tested for HIV

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	10	10	11
Rubaare	5	7	10
Rwekiniro	5	7	14
Itojo	7	13	13
Bwongyero	9	7	12
Nyakyera	6	6	10
Average coverage (95% CI)	36.8 (27.9-45.8)	43.9 (34.6-53.1)	61.4 (52.3-70.5)
Threshold	5	6	10
Number of SAs below threshold	0	0	0

Table 5: Individuals who have ever been counseled, tested and received their HIV test results

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	8	9	11
Rubaare	4	7	9
Rwekiniro	5	6	11
Itojo	7	12	13
Bwongyero	8	6	12
Nyakyera	6	6	10
Average coverage (95% CI)	33.3 (24.5-42.1)	40.4 (31.2-49.5)	57.9 (48.7-67.1)
Threshold	4	6	9
Number of SAs below threshold	0	0	0

There was generally low coverage on the indicator of Counseling, testing and receipt of results. However, this practice was found to be high among women at 57.9%.

Table 6: Individuals who were counseled and tested for HIV in the past 12 months

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	6	7	9
Rubaare	2	5	4
Rwekiniro	4	5	9
Itojo	3	5	5
Bwongyero	5	2	6
Nyakyera	4	4	6
Average coverage (95% CI)	21.1 (13.4-28.7)	24.6 (16.5-32.6)	34.2 (25.4-43.1)
Threshold	2	2	4
Number of SAs below threshold	0	0	0

Although coverage was low, no supervision area fell below the threshold levels.

Table 7: Individuals who were counseled and tested for HIV in the past 12 months and know their HIV results

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	5	7	9
Rubaare	2	5	3*
Rwekiniro	4	5	9
Itojo	2	5	4
Bwongyero	5	5	6
Nyakyera	4	4	5
Average coverage (95% CI)	19.3 (11.9-26.7)	24.6 (16.5-32.6)	31.6 (22.9-40.2)
Threshold	1	2	4
Number of SAs below threshold	0	0	1

The results in Table 7 show a higher coverage of completion of the HIV counseling, testing and informing the clients of their results. Other than the SA of Rubaare where practice among the women category raised concerned, no red flag was raised on other SAs and the target groups of youth and men on which the indicator was assessed.

Table 8: Mothers who were counseled and received an HIV test during the last pregnancy and know their results

Supervision Areas	Mothers of children (0-11 months)
Rugarama	16
Rubaare	12*
Rwekiniro	17
Itojo	17
Bwongyero	18
Nyakyera	15
Average coverage (95% CI)	83.3 (76.3-90.3)
Threshold	14
Number of SAs below threshold	1

The survey showed that expecting mothers in Ntungamo district are counseled and tested for HIV and know their test results as shown in Table 8 with an average coverage of 83.3%. However, in Rubaare, the number of mothers who were counseled and tested fell below the threshold.

Table 9: Individuals who have ever tested for HIV and received their results as a couple

Supervision Areas	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	5	7
Rubaare	3	1
Rwekiniro	5	3
Itojo	2	1
Bwongyero	1	1
Nyakyera	2	3
Average coverage (95% CI)	15.8 (8.9-22.6)	14 (7.6-20.5)
Threshold	1	NA
Number of SAs below threshold	0	NA

The good delivery of HCT services to pregnant women is not extended to the general public in any of the supervision areas of the district as shown by very low coverage across the two target groups.

Table 10: Individuals who were tested for HIV and received their results and disclosed to their spouse/partner

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	9	10	12
Rubaare	5	6	7
Rwekiniro	5	8	7
Itojo	7	13	11
Bwongyero	6	5*	9
Nyakyera	5	7	9
Average coverage (95% CI)	32.5 (23.7-41.2)	43 (33.8-52.2)	48.2 (38.9-57.6)
Threshold	4	6	7
Number of SAs below threshold	0	1	0

Although Bwonyero was the only SA where the indicator was below threshold among men, Ntungamo district has low coverage among all target groups for disclosure of HIV test results to spouses or partners as shown in Table 10.

6.2. PMTCT knowledge and practices

Tables 11 – 14 give the details of the results for PMTCT knowledge and practices in Ntungamo district. Figure 2 shows that three supervision areas of Nyakyera, Bwongyero and Rubaare are marked for attention for indicators that were below the threshold.

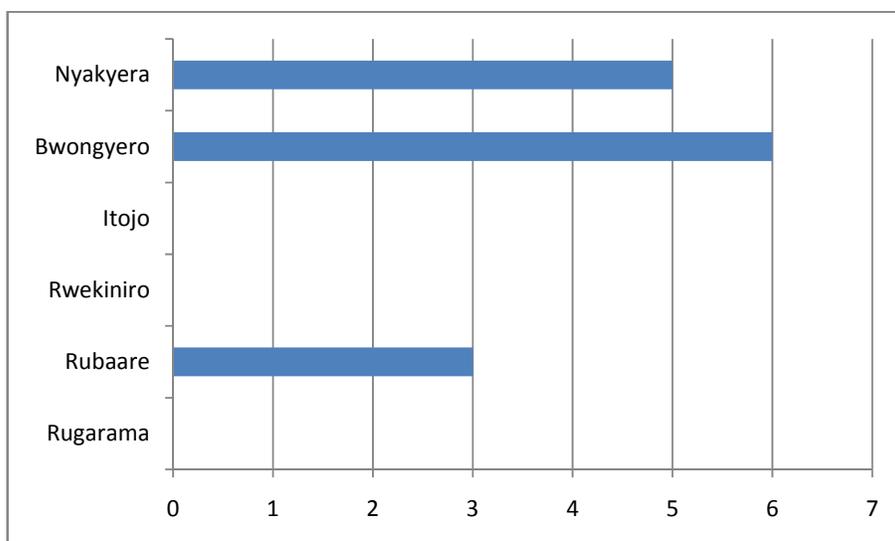


Figure 3: SAs flagged for PMTCT knowledge and practices

Table 11: Individuals who know all 3 ways when HIV transmission occurs from an infected mother to child

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	3	1	1	1	1
Rubaare	1	0	1	0	1
Rwekinyiro	8	9	7	9	7
Itojo	4	2	1	3	2
Bwongyero	0	0	0	0	0
Nyakyera	0	0	1	2	0
Average coverage (95% CI)	14.03 (7.5-20.5)	10.5 (4.8-16.2)	9.6 (4.1-15.2)	13.2 (6.8-19.6)	9.6 (4.1-15.2)
Threshold	NA	NA	NA	NA	NA
Number of SAs below threshold	NA	NA	NA	NA	NA

There were too low levels of knowledge of all three ways when HIV transmission occurs from an infected mother to child in all target populations. This is evident when the low coverage level could not be used to generate a threshold level for tracking performance according to the supervision area.

Table 12: Individuals who know at least two key actions that reduce MTCT of HIV

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	14	16	14	17	16
Rubaare	6*	6*	12	8*	14
Rwekinyiro	13	12	12	15	15
Itojo	15	14	16	17	19
Bwongyero	6*	5*	3*	5*	5*
Nyakyera	5*	3*	2*	5*	6*

Average coverage (95% CI)	51.8 (42.4-61.1)	49.1 (39.8-58.4)	51.8 (42.4-61.1)	58.8 (49.6-67.9)	65.8 (56.9-74.6)
Threshold	8	7	8	9	11
Number of SAs below threshold	3	3	2	3	2

Knowledge on how HIV transmission from mother to child can be reduced was low in Rubaare, Bwongyero and Nyakyera among all target groups. Men had the lowest coverage at 49.1% compared to the leading category of mother of children (12-23 months) at 65.8%.

Table 13: Individuals who know where they can get information and services to reduce the risk of HIV MTCT

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	17	17	16	16	17
Rubaare	14	14	14	17	18
Rwekiniro	14	15	17	19	18
Itojo	18	17	17	19	19
Bwongyero	13	16	15	18	18
Nyakyera	15	16	15	17	18
Average coverage (95% CI)	79.8 (72.3-87.3)	83.3 (76.4-90.3)	82.5 (75.4-89.5)	93 (88.2-97.7)	94.7 (90.6-98.9)
Threshold	13	14	14	16	16
Number of SAs below threshold	0	0	0	0	0

The results in Table 13 show that the people in Ntungamo district know where information on reduction of HIV MTCT can be obtained with no target group falling below the threshold in all the Supervision areas.

Table 14: Mothers of children (0-11 months) who were counseled for PMTCT services during last pregnancy

Supervision Areas	Mothers of children (0-11 months)
Rugarama	17
Rubaare	14
Rwekiniro	16
Itojo	18
Bwongyero	11*
Nyakyera	14
Average coverage (95% CI)	78.9 (71.3-86.5)
Threshold	13
Number of SAs below threshold	1

Knowledge of ways when HIV transmission occurs from an infected mother to child is extremely low in Ntungamo across all survey target groups and in all supervision areas. Similarly, survey participants could not identify the key actions to take in reducing the risk of remitting HIV from mother to the child. Individuals, however, knew where they can find information on PMTCT and this was consistent across all the survey target groups.

6.3. HIV/AIDS knowledge and sexual behavior

Tables 16 - 22 show details of the results for HIV/AIDS knowledge and sexual behavior. Figure 3 shows that all SA, apart from Rugarama, had a red flag on this service area for at least one target group.

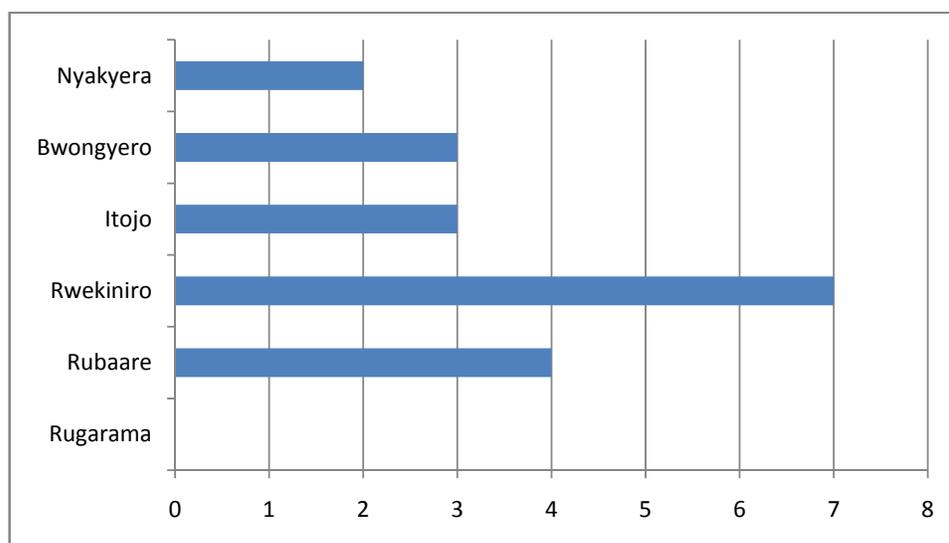


Figure 4: SAs flagged for HIV/AIDS knowledge and sexual behavior

Table 15: Individuals who both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	16	15	16	17	14
Rubaare	14	17	14	14	16
Rwekinyiro	9*	10*	9*	9*	7*
Itojo	10*	10*	14	10*	13
Bwongyero	17	15	16	17	16
Nyakyera	18	16	18	19	18
Average coverage (95% CI)	73.7 (65.5-81.9)	72.8 (64.5-81.1)	76.3 (68.3-84.2)	75.4 (67.4-83.4)	73.7 (65.5-81.9)
Threshold	12	12	13	13	12
Number of SAs below threshold	2	2	1	2	1

The survey population in Ntungamo district demonstrated fairly high knowledge of ways of preventing the sexual transmission of HIV and on average over 70% rejected all the major misconception cross all the target groups. However, critical attention needs to be paid to all target

groups in Rwekinyiro supervision and among the youth, men and women with babies under 1 year of age..

Table 16: Individuals who know at least two ways of preventing sexual transmission of HIV

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0- 11 months)	Mothers of children (12- 23 months)
Rugarama	12	11	11	11	11
Rubaare	9	4*	7	6*	7*
Rwekinyiro	14	10	12	12	14
Itojo	16	16	10	15	14
Bwongyero	3*	7	7	5*	6*
Nyakyera	8	9	4*	7	8
Average coverage (95% CI)	54.4 (45.1-63.7)	50 (40.7-59.3)	44.7 (35.5-54)	49.1 (39.8-58.4)	52.6 (43.3-61.9)
Threshold	8	7	6	7	8
Number of SAs below threshold	1	1	1	2	2

In the target groups of men and women, coverage on knowledge on the ways of preventing sexual transmission of HIV was below 50%. Knowledge levels varied marginally across supervision areas and target groups. Performance was however, better in Rugarama and Itojo supervision areas since no target group was below the threshold.

Table 17: Individuals who have ever used a condom when having sexual intercourse

Supervision Areas	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)
Rugarama	4	1	4
Rubaare	2*	0	2
Rwekinyiro	3*	3	2
Itojo	7	5	3
Bwongyero	9	2	3
Nyakyera	7	2	1
Average coverage (95% CI)	30.5 (21.5-39.4)	12.5 (6-18.9)	13.2 (6.8-19.5)
Threshold	4	NA	NA
Number of SAs below threshold	2	NA	NA

Condom use is extremely low in Ntungamo district as shown in Table 17. Authorities need to identify reasons for the low condom use since this is a core HIV prevention strategy. More attention should also be paid to Rubaare and Rwekinyiro

Table 18: Individuals who had sex with more than one sexual partner in the last 12 month

Supervision Areas	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	3	1
Rubaare	7	0
Rwekiniro	1*	0
Itojo	4	2
Bwongyero	2	2
Nyakyera	10	11
Average coverage (95% CI)	23.7 (15.8-31.6)	14 (7.5-20.5)
Threshold	2	NA
Number of SAs below threshold	1	NA

Table 19: Individuals who have had sex with one sexual partner in last 12 months and report using a condom at last sexual intercourse

Supervision Areas	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	1	0
Rubaare	3	0
Rwekiniro	0	0
Itojo	2	1
Bwongyero	1	0
Nyakyera	1	1
Average coverage (95% CI)	8.3 (2.7-13.9)	2.5 (-0.9-5.9)
Threshold	NA	NA
Number of SAs below threshold	NA	NA

The very low averages of declared sexual behavior should be taken with a pinch of salt.

Table 20: Individuals who perceive low or no risk of getting HIV/AIDS infection

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	6	3	2
Rubaare	5	0	2
Rwekiniro	9	1	1
Itojo	8	5	3
Bwongyero	4	4	0
Nyakyera	2*	1	0
Average coverage (95% CI)	29.8 (21.3-38.4)	12.3 (6.2-18.4)	7 (2.2-11.8)
Threshold	3	NA	NA
Number of SAs below threshold	1	NA	NA

Table 21: Sexual behavior and circumcision among the youth

Supervision Areas	Youth (15-24 yrs) who		
	initiated intercourse before 15yrs	know at least three correct steps on how to use a condom	are circumcised
Rugarama	0	8	0
Rubaare	0	0	0
Rwekiniro	1	4	1
Itojo	0	5	0
Bwongyero	0	3	0
Nyakyera	1	1	1
Average coverage (95% CI)	1.7 (-0.6-4.2)	18.4 (11.2-25.6)	1.7 (-0.6-4.2)
Threshold	NA	NA	NA
Number of SAs below threshold	NA	NA	NA

The district authorities need to reinforce condom use strategies among all population groups.

6.4. Sexually Transmitted Infections (STI) knowledge

Tables 22 – 25 show results of knowledge of sexually transmitted infections (STI). Figure 4 shows that three SAs: Itojo, Rwekiniro and Rugarama did not have any study group red flagged for knowledge of sexually transmitted infections.

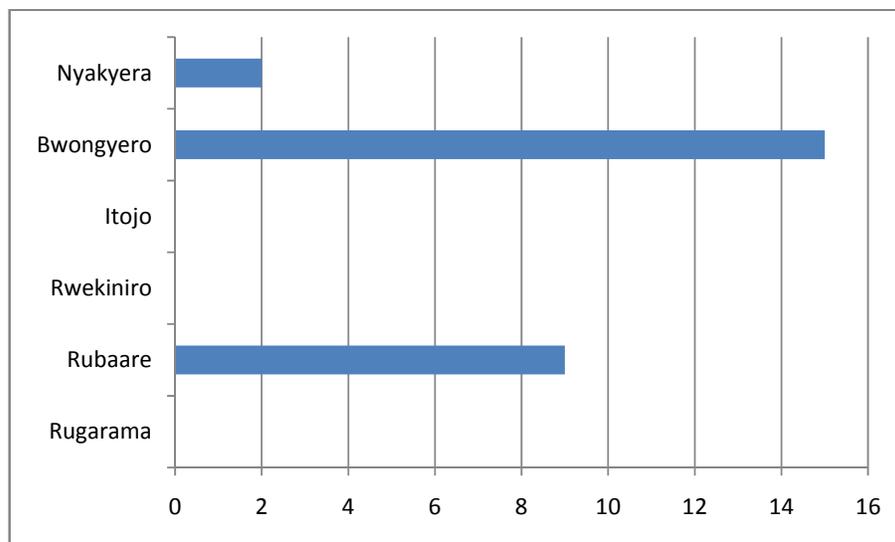


Figure 5: SAs flagged for STI knowledge

Table 22: Individuals who correctly identify at least two common symptoms of STIs in men

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	10	13	10	8	9
Rubaare	7*	14	8	5*	5*
Rwekiniro	14	16	11	12	16

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Itojo	15	15	14	16	12
Bwongyero	6*	10*	2*	2*	3*
Nyakyera	8	14	7	9	11
Average coverage (95% CI)	52.6 (43.3-61.9)	71.9 (63.6-80.3)	45.6 (36.3-54.9)	45.6 (36.3-54.9)	49.1 (39.8-58.4)
Threshold	8	12	7	7	7
Number of SAs below threshold	2	1	1	2	2

Table 23: Individuals who correctly identify at least two common symptoms of STIs in women

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	8	12	13	14	15
Rubaare	3*	9	12	11*	9*
Rwekiniro	12	13	16	13	18
Itojo	13	11	15	17	18
Bwongyero	4*	3*	6*	10*	8*
Nyakyera	5	9	12	15	14
Average coverage (95% CI)	39.5 (30.4-48.6)	50 (40.7-59.3)	64.9 (56-73.8)	70.2 (61.6-78.7)	71.9 (63.6-80.3)
Threshold	5	7	10	12	12
Number of SAs below threshold	2	1	1	2	2

The supervision areas of Rubaare and Bwongyero had red flags for identification of at least two common symptoms of STIs among men and women. This knowledge was lowest among the youth at only 39.5%.

Table 24: Individuals who know three or more actions to take when she/he has a sexually transmitted infection

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	9	9	5	8	7
Rubaare	0*	1*	0*	3	3
Rwekiniro	10	11	11	9	9
Itojo	9	9	8	9	10
Bwongyero	3*	1*	1*	1*	1*
Nyakyera	4	3	6	2*	1*
Average coverage (95% CI)	30.7 (22.1-39.3)	29.8 (21.3-38.6)	27.2 (18.9-35.5)	28.1 (19.7-36.4)	27.2 (18.9-35.5)
Threshold	4	3	3	3	3
Number of SAs below threshold	2	2	2	2	2

The LQAS community survey in Ntungamo highlighted the need for educating the population, men and women, on sexually transmitted infections. People do not know the common symptoms and consequently do not know what to do if they have a sexually transmitted infection. Rubaare, Bwongyero and to a lesser extent Nyakyera performed poorest in identifying corrective actions on the individuals when they had an STI.

Table 25: Individuals who know a health facility where they can receive STI treatment

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	16	18	18	19	18
Rubaare	19	17	19	18	19
Rwekiniro	17	19	19	19	17
Itojo	19	19	19	18	19
Bwongyero	15*	16	18	18	17
Nyakyera	18	19	18	19	19
Average coverage (95% CI)	91.2 (85.9-96.5)	94.7 (90.6-98.9)	97.4 (94.4-100)	97.4 (94.4-100)	95.6 (91.8-99.4)
Threshold	16	16	16	16	16
Number of SAs below threshold	1	0	0	0	0

6.5. Knowledge on Tuberculosis

Figure 6 shows there are TB-related issues that need to be addressed in all supervision areas except Rugarama, Nyakyera and Itojo. Tables 26 -30 provide details of population groups that need action for specific indicators

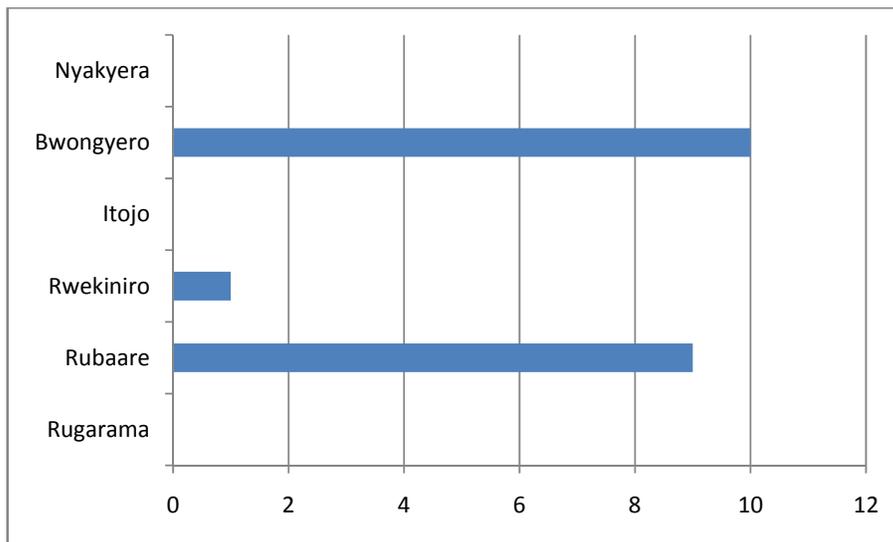


Figure 6: SAs red flagged for TB knowledge

Table 26: Individuals who know that TB is a curable disease

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	17	19	19
Rubaare	15	14*	15
Rwekiniro	15	16	17
Itojo	16	19	18
Bwongyero	10*	15	12*
Nyakyera	15	18	18
Average coverage (95% CI)	77.2 (69.4-85)	89.6 (82.7-94.5)	86.8 (80.5-93.1)
Threshold	13	15	15
Number of SAs below threshold	1	1	1

While there is high knowledge among the population that TB is a curable disease, there are still pockets of low knowledge among the youth in Bwongyero, men in Rubaare and women in Bwongyero supervision areas.

Table 27: Individuals who know at least two signs and symptoms of TB

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	15	14	14
Rubaare	3*	10	6*
Rwekiniro	15	14	14
Itojo	12	13	10
Bwongyero	2*	5*	2*
Nyakyera	9	14	13
Average coverage (95% CI)	49.1 (39.8-58.4)	61.4 (52.3-70.5)	51.7 (42.4-61)
Threshold	7	10	8
Number of SAs below threshold	2	1	2

Knowledge on TB signs and mode of transmission ranged between 63.2% and 73% (Table 27: Individuals who know at least two signs and symptoms of TB) but there are supervision areas with below district average knowledge such as Rubaare, Rwekiniro and Bwongyero.

Table 28: Individuals who know how TB is transmitted

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
5.3 Individuals who know how TB is transmitted			
Rugarama	19	19	19
Rubaare	8*	9*	9*
Rwekiniro	13	11*	14
Itojo	17	15	10
Bwongyero	10*	14	8*
Nyakyera	13	15	12
Average coverage (95% CI)	70.2 (61.6-78.7)	72.8 (64.5-81.1)	63.2 (54.2-72.1)
Threshold	12	12	10
Number of SAs below threshold	2	2	2

Table 29: Individuals who know the risk of not completing TB treatment

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	14	18	16
Rubaare	6*	8*	7*
Rwekiniro	18	18	18
Itojo	15	18	16
Bwongyero	7*	11*	6*
Nyakyera	12	17	17
Average coverage (95% CI)	63.2 (54.2-72.1)	78.9 (71.3-86.5)	70.2 (61.6-78.7)
Threshold	10	13	12
Number of SAs below threshold	2	2	2

Knowledge of the risks associated with not completing TB treatment was generally high across the three target groups of the youth, men and women. There were, however, below threshold results in all target groups in Rubaare and Bwongyero SAs as shown in Table 29.

Table 30: Individuals who know the nearest place to receive TB treatment

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)
Rugarama	19	19	19
Rubaare	18	19	17
Rwekiniro	18	19	19
Itojo	19	19	19
Bwongyero	17	18	19
Nyakyera	18	19	19
Average coverage (95% CI)	95.6 (91.8-99.4)	99.1 (97.4-100)	98.2 (95.8-100)
Threshold	16	16	16
Number of SAs below threshold	0	0	0

6.6. Knowledge and practices of Malaria prevention and treatment among mothers of children (0-11 months)

Figure 7 shows that Rubaare performed poorly in comparison with other SAs for most malaria knowledge and prevention practices indicators. It was closely followed by Itojo.

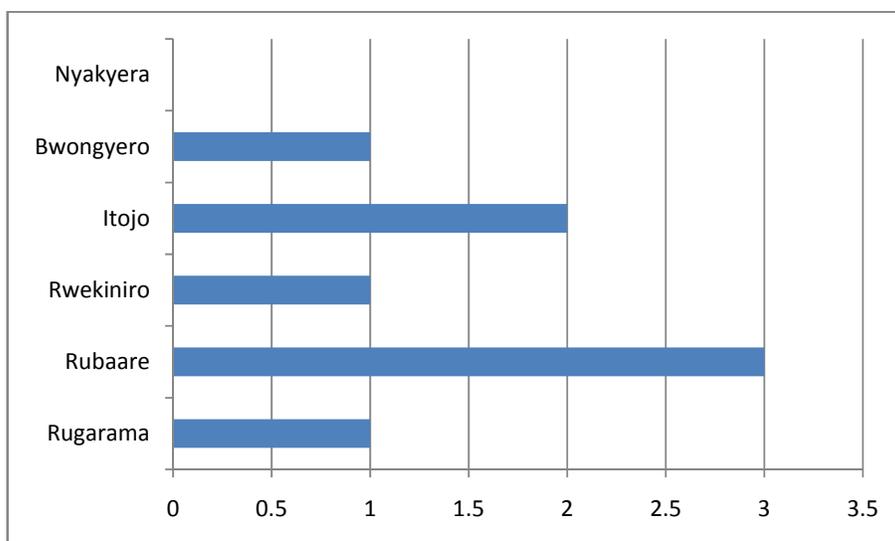


Figure 7: SAs flagged in knowledge and practices of malaria prevention and treatment among mothers of children (0–11 months)

Table 31: Details of the results for malaria treatment and practices among mothers of children (0-11 months)

Supervision Areas	Malaria treatment and prevention among mothers of children 0 – 11 months			
	Children who had fever in the two weeks preceding the survey and received treatment with ACTs within 24 hours of onset of fever	Mothers who received two or more doses of IPT during their last pregnancy in the last two years	Children who slept under a ITN the night preceding survey	Mothers who always slept under an ITN during last pregnancy
Rugarama	0	4*	13	13
Rubaare	3	6*	18	6*
Rwekiniro	4	14	19	19
Itojo	2	7	12*	11
Bwongyero	4	11	14	14
Nyakyera	0	13	19	14
Average coverage (95% CI)	11.4 (5.5-17.3)	48.2 (38.9-57.6)	83.3 (76.4-90.3)	67.5 (58.8-76.3)
Threshold	NA	7	14	11
Number of SAs below threshold	NA	2	1	1

Table 32: Details of the results for knowledge of malaria prevention among mothers of children (0-11 months)

Supervision Areas	Malaria treatment and prevention among mothers of children 0 – 11 months			
	Mothers who know two or more ways to prevent malaria	Mothers who know two or more signs and symptoms of malaria	Mothers who know how malaria is transmitted	Households with at least 1 ITN
Rugarama	9	10	19	15
Rubaare	0*	13	17	19
Rwekiniro	2*	14	18	19
Itojo	12	14	19	13*
Bwongyero	4	8*	16	17
Nyakyera	3	9	19	19
Average coverage (95% CI)	26.3 (18.1-34.5)	59.6 (50.5-68.8)	94.7 (90.6-98.9)	89.5 (83.8-95.2)
Threshold	3	9	16	15
Number of SAs below threshold	2	1	0	1

SAs flagged in knowledge and practices of malaria prevention and treatment among mothers of children (0–11 months)

Table 31 shows that treatment for malaria among children is very low in the district as slightly is IPT use to the minimum recommended dosage during the previous pregnancy. Although there was generally good levels of knowledge about how malaria is transmitted (Table 32), the knowledge on the ways of prevention, signs and symptom was low across all supervision areas.

6.7. Reproductive Health and Family planning

Most mothers did not attend the minimum required ANC visits during their previous pregnancy (see Table 33). The performance was lowest in Rwekiniro SA. Most deliveries though took place in a health facility but with Rwekiniro performing below average. In most deliveries (74.6%), a health worker was involved. Improvement however needs to be targeted at Rwekiniro and Rugarama SA.

Table 33: Details of the results for reproductive health and family planning knowledge and practices among women

Supervision Areas	Mothers of children 0 – 11 months who			Women (15-49 yrs) who
	attended ANC at least 4 times during last pregnancy	delivered their last baby in a health facility	were assisted by a skilled health worker during last delivery	desire to use a family planning method but cannot access it
Rugarama	6*	13	14	1
Rubaare	10	14	15	2
Rwekiniro	4*	10*	11*	5
Itojo	9	15	14	4
Bwongyero	14	16	16	3
Nyakyera	9	12	15	0
Average coverage (95% CI)	45.6 (36.3-54.9)	70.2 (61.6-78.7)	74.6 (66.4-82.7)	13.2 (6.9-19.5)
Threshold	7	12	12	NA
Number of SAs below	2	1	1	NA

Supervision Areas	Mothers of children 0 – 11 months who			Women (15-49 yrs) who
	attended ANC at least 4 times during last pregnancy	delivered their last baby in a health facility	were assisted by a skilled health worker during last delivery	desire to use a family planning method but cannot access it
threshold				

6.8. Child survival

Table 34 and 35 show details of the results for Child Survival practices among women with 12-23 months old children. Rugarama and Itojo poor results for children fully immunized, as shown in Table 34.

Table 34: Children who are fully vaccinated

Supervision Areas	Mother (12-23 months)
Rugarama	10*
Rubaare	16
Rwekiniro	19
Itojo	10*
Bwongyero	19
Nyakyera	17
Average coverage (95% CI)	79.8 (72.3-87.3)
Threshold	13
Number of SAs below threshold	2

Table 35: Children with any of fever, diarrhea or pneumonia seeking care from health workers within 24 hours of illness

Supervision Areas	Mother (12-23 months)
Rugarama	8
Rubaare	5*
Rwekiniro	9
Itojo	9
Bwongyero	13
Nyakyera	4*
Average coverage (95% CI)	42.1 (32.9-51.3)
Threshold	6
Number of SAs below threshold	2

Health care seeking behavior among women with children with children between 1 and 2 years of age was poor in Rubaare and Nyakyera supervision areas.

6.9. Sanitation

Table 36 shows that hand washing with soap after visiting a toilet is poor across most population groups surveyed in Rugarama and Nyakyera SAs. Rubaare SA registered low performance only in the youth category.

Table 36: Individuals who wash their hands with soap after visiting the toilet

Supervision Areas	Youth (15-24 yrs)	Men (15-54 yrs)	Women (15-49 yrs)	Mothers of children (0-11 months)	Mothers of children (12-23 months)
Rugarama	11	10*	10*	10*	10*
Rubaare	7*	16	17	13	18
Rwekiniro	19	18	18	18	18
Itojo	17	18	18	19	17
Bwonyero	9	19	19	17	18
Nyakyera	5*	9*	9*	14	12*
Average coverage (95% CI)	59.6 (50.5-68.8)	78.9 (71.3-86.5)	79.8 (72.3-87.3)	79.8 (72.3-87.3)	81.6 (74.4-88.8)
Threshold	9	13	13	13	14
Number of SAs below threshold	2	2	2	1	2

7. Conclusion

The LQAS survey results show that performance improvement effort is most required in the supervision areas of Rubaare, Bwonyero and Nyakera. The district should investigate the reasons for pockets of poor performance in the identified areas. Rugarama could provide information on interventions for improved health practices.

8. Appendix 1: List of indicators

SN	Indicator	Status
1	HIV counseling and Testing (HCT)	
1.1	% of Individuals who know where they can be tested for HIV	Assessed
1.2	% of Individuals who know two or more benefits of HCT	Assessed
1.3	% of Individuals who have ever been counseled and tested for HIV	Assessed
1.4	% of Individuals who have ever been counseled, tested and received their HIV test results	Assessed
1.5	% of Individuals who were counseled and tested for HIV in the past 12 months	Assessed
1.6	% of Individuals who were counseled and tested for HIV in the past 12 months and know their HIV results	Assessed
1.7	% of Individuals who were counseled and received an HIV test during the last pregnancy and know their results	Assessed
1.8	% of Individuals who have ever tested for HIV and received their results as a couple	Assessed
1.9	% of Individuals who were tested for HIV and received their results as and disclosed to their spouse/partner	Assessed
2	Prevention of Mother to Child Transmission of HIV (PMTCT)	
2.1	% of Individuals who know how HIV transmission occurs from an infected mother to child	Assessed
2.2	% of Individuals who know two (2) key actions that reduce MTCT of HIV	Assessed
2.3	% of Individuals who know where they can get information and services to reduce the risk of MTCT of HIV	Assessed
2.4	% of Mothers of children (0-11 months) who were counseled for PMTCT services during last pregnancy	Assessed
3	HIV Knowledge and Behavior Change	
3.1	% of Individuals who both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission	Assessed
3.2	% of Individuals who know at least two ways of preventing sexual transmission of HIV	Assessed
3.3	% of Individuals who have ever used a condom when having sexual intercourse	Assessed
3.4	Percentage of individuals who had sex with more than one sexual partner in the last 12 months	Assessed
3.5	Percentage of individuals who have had sex with more than one sexual partner in last 12 months and report using a condom at last sexual intercourse	Assessed
3.6	Percentage of individuals who had sexual intercourse with a non marital or non cohabiting sexual partner in the last 12 months.	Not Assessed
3.7	Percentage of individuals who had sexual intercourse with a non marital or non cohabiting sexual partner in last 12 months and used a condom at last higher risk sex	Not Assessed
3.8	Percentage of individuals who ALWAYS used a condom when they had sexual intercourse with a non marital or non cohabiting sexual partner in the last 12 months	Not Assessed
3.9	% of Individuals who perceive low or no risk of getting HIV/AIDS infection	Assessed
3.10	Percentage of never-married Youth who have ever had sexual intercourse	Not Assessed
3.11	Percentage of Youth who have had sexual intercourse before the age of 15	Assessed
3.12	Percentage of Youth who know at least three correct steps on how to use a condom	Assessed
3.13	Percentage of Youth who report the use of a condom the first time they had sexual intercourse	Not Assessed
3.14	Percentage of males who are circumcised	Assessed
3.15	Percentage of Young Males who were circumcised at a health facility	Not Assessed
3.16	Percentage of the general population aged 15+ years who know at least three benefits of ART	Not Assessed
4	Sexually Transmitted Infections (STI)	

SN	Indicator	Status
4.1a	% of Individuals who correctly identify at least two common symptoms of STIs in men	Assessed
4.1b	% of Individuals who correctly identify at least two common symptoms of STIs in women	Assessed
4.2	% of Individuals who know three or more actions to take when she/he has a sexually transmitted infection	Assessed
4.3	% of Individuals who know a health facility where they can receive STI treatment	Assessed
5	Tuberculosis	
5.1	Percentage of individuals who know that TB is a curable disease	Assessed
5.2	Percentage of individuals who know at least two signs and symptoms of TB	Assessed
5.3	Percentage of individuals who know how TB is transmitted	Assessed
5.4	Percentage of individuals who know the risk of not completing TB treatment.	Assessed
5.5	Percentage of individuals who know the nearest place to receive TB treatment.	Assessed
6	Malaria Prevention and Treatment	
6.1	% of Children 0-11 months who had fever in the two weeks preceding the survey and received treatment with ACTs within 24 hours of onset of fever	Assessed
6.2	% of mothers of children 0-11 months who received two or more doses of IPTp during their last pregnancy in the last two years	Assessed
6.3	% of Children 0-11 months who slept under a ITN the previous night	Assessed
6.4	% of mothers of children 0-11 months who always slept under an ITN during last pregnancy	Assessed
6.5	% of Individuals who know two or more ways to prevent malaria	Assessed
6.6	% of Individuals who know 2 or more signs and symptoms of malaria	Assessed
6.7	% of Individuals who know how malaria is transmitted	Assessed
6.8	% of households with at least 1 ITN	Assessed
7	Reproductive Health and Family planning	
7.1	Percentage of currently married women aged 15-49 years who are using any family planning method.	Not Assessed
7.2	Percentage of sexually active women age women 15-49 years who are using any modern method of family planning.	Not Assessed
7.3	Percentage of Individuals who attended ANC at least 4 times during last pregnancy	Assessed
7.4	Percentage of Individuals who delivered their last baby in a health facility	Assessed
7.5	Percentage of Individuals who were assisted by a skilled health worker during last delivery	Assessed
7.6	Percentage of women 15-49 years who desire to use a family planning method but cannot access it.	Assessed
8	Child survival indicators	
8.1	Percentage of children 12-23 months who are fully vaccinated	Assessed
8.2	Percentage of children under 5 years with diarrhea in the last two weeks receiving ORT	Not Assessed
8.3	Percentage of children under 5 years with any of fever, diarrhea or pneumonia seeking care from health workers within 24 hours of illness	Assessed
8.4	Percentage of individuals who wash their hands with soap after visiting the toilet	Assessed

9. Tally of assessed indicators

Service area	Number of assessed indicators	Total number of indicators
HIV counseling and Testing (HCT)	9	9
Prevention of Mother to Child Transmission of HIV (PMTCT)	4	4
HIV Knowledge and Sexual Behavior	9	16
Sexually Transmitted Infections (STI)	4	4
Tuberculosis	5	5
Malaria Prevention and Treatment	8	8
Reproductive Health and Family planning	4	6
Child Health	2	3
Sanitation	1	1
Total	46	56

10. Appendix 2: LQAS Decision Rule table

Sample Size*	LQAS Table: Decision Rules for Sample Sizes of 12-30 and Coverage Targets/Average of 10%-95%																									
	Average Coverage (Baselines) / Annual Coverage Target (Monitoring and Evaluation)																									
	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%								
12	N/A	N/A	1	1	2	2	3	4	5	5	6	7	7	8	8	9	9	10	11							
13	N/A	N/A	1	1	2	2	3	4	5	6	6	7	8	8	9	10	11	11	11							
14	N/A	N/A	1	1	2	2	3	4	5	6	7	8	8	9	10	11	11	11	12							
15	N/A	N/A	1	2	2	3	4	5	6	6	7	8	9	10	10	11	12	12	13							
16	N/A	N/A	1	2	2	3	4	5	6	7	8	9	9	10	11	12	13	13	14							
17	N/A	N/A	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14	14	15							
18	N/A	N/A	1	2	2	3	5	6	7	8	9	10	11	11	12	13	14	14	16							
19	N/A	N/A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15	16							
20	N/A	N/A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17							
21	N/A	N/A	1	2	3	4	5	6	8	9	10	11	12	13	14	16	17	18	18							
22	N/A	N/A	1	2	3	4	5	7	8	9	10	12	13	14	15	16	18	19	19							
23	N/A	N/A	1	2	3	4	6	7	8	10	11	12	13	14	16	17	18	18	20							
24	N/A	N/A	1	2	3	4	6	7	9	10	11	13	14	15	16	18	19	19	21							
25	N/A	N/A	1	2	4	5	6	8	9	10	12	13	14	16	17	18	20	21	21							
26	N/A	N/A	1	2	3	4	5	6	8	9	11	12	14	15	16	18	19	21	22							
27	N/A	N/A	1	2	3	4	5	7	8	10	11	13	14	15	17	18	20	21	23							
28	N/A	N/A	1	2	3	4	5	7	8	10	12	13	15	16	18	19	21	22	24							
29	N/A	N/A	1	2	3	4	5	7	9	10	12	13	15	17	18	20	21	23	25							
30	N/A	N/A	1	2	3	4	5	7	9	11	12	14	16	17	19	20	22	24	26							

N/A: *Not Applicable*, meaning LQAS cannot be used in this assessment because the coverage is either too low or too high to assess an SA. This table assumes the lower threshold is 30 percentage points below the upper threshold.

light-shaded cells indicate where *alpha* or *beta* errors are greater than or equal to 10%.

dark-shaded cells indicate where *alpha* or *beta* errors are greater than 15%.

STRENGTHENING DISTRICT MONITORING & EVALUATION SYSTEMS

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