

An initiative commissioned by C-Sema and conducted by independent data scientists with funding from UNFPA

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## CONTENTS

Executive summary ..... 6
Evaluation Scope and Methodology ..... 8
Methodology ..... 8
i. Source of information ..... 10
ii. Listenership survey ..... 10
ii. Reflective Review ..... 12
iv. Limitation ..... 13
Evaluation Findings ..... 13
i. Demographic characteristics of the respondents ..... 13
ii. Radio stations Listenership ..... 15
iii. Radio programmes and jingles impact on the calls from October - December 2020 and January - March 2021 ..... 19
Conclusion ..... 20
Appendix ..... 21
i. Household Questionnaire ..... 21
ii. Radio Stations Key Informant Interview Checklist ..... 21
iii. Project Lead Key Informant Interview ..... 21

## LIST OF FIGURES

Figure 1 Age of respondent ..... 13
2 Gender of respondent ..... 14
3 Education of respondent ..... 14
4 Occupation of respondent ..... 15
5 Overall reach by survey location ..... 15
6 Radio Stations reach by ward level ..... 16
1 Radio Listenership by radio station preferences ..... 16
8 Radio Listenership by age ..... 17
9 Radio Listenership by gender ..... 18
10 Correlation Coefficient Between Radio Programmes and Jingles with Number of Calls including GBV/VAC ..... 19
11 Number of Calls ..... 20
LIST OF TABLES
Table 1 Characteristics of targeted Radio Station ..... 8
2 Population Distribution of Survey Loations ..... 11
3 List of Key Informants ..... 12
4 Jingle Impression ..... 18
5 Call/SMS feedbacks received by programmes ..... 19

## ABBREVIATIONS

GBV - Gender Based Violence
VAC - Violence Against Children
FM - Frequency Modulation
SMS - Short Message Service
KII - Key Informant Interview
KPIS - Key Performance Indicators
ODK - Open Data Kit

## EXECUTIVE SUMMARY

Mass media is considered to be a powerful tool in disseminating information to communities. Our assignment as consultants was to employ data science expertise in evaluating specifically how jingles and radio programmes run by C-Sema between October 2020 and March 2021 were effective; by comparing the number of calls received at the helpline from campaign locations in that same period.

We were also commissioned to establish listenership trends using data science in the project area in terms of age, gender, radio preferences and why such preferences exist.

This document intends to share our final data analysis and a comprehensive report to inform future media campaigns.

Some positive impact of the media-based radio programmes and jingles:

1. C-Sema's talk shows were portrayed as unique, radio stations have never hosted a talk show about Gender Based Violence (GBV) before.
2. Jingles were made persuasively to the extent that they drive listeners to request their copy for later enjoyment.
3. Successful talk shows attended by experts educated the community in depth to the extent that listeners remained with no questions or doubt and sent feedbacks of appreciation.
4. Due to the uniqueness of C-Sema's talk shows, radio stations want to broadcast the programmes more than a negotiated period per quarter.
5. Project area neighbouring wards want to be included in the campaign, wondering how they could miss out such great project.

## Recommendation

- To maximise the GBV campaign, C-Sema should increase number of jingles aired per day.
- To increase in programmes (including testimonials-based programmes, field-based programmes). Radio stations could travel to the field where they would host the programmes live from a women's farm, or a women's group and this could trigger more lively discussions on GBV, etc. and boost listenership of the programmes.
- To widen of the project area to reach a diverse Msalala community. Msalala District Council has a total of 18 wards, only 4 wards are covered by the current project.
- C-Sema should plan more field outreach activities in villages with limited access to the radio network, for public meetings are effective here compared to radios.

C-Sema to consider using banners, stickers and videos in community centers such as hospitals, markets to disseminate knowledge to support ongoing radio campaigns.
To engage a language translator Swahili vs Sukuma translator as the local radios do not have a permit to host programmes or jingles in local language. Our findings revealed some cases where listeners miss some campaign due to language barrier.
C-Sema should consider working closely with its radio partners to monitor the media campaign in real time. This can be done through one-way SMS response to monitor and visualize radio programmes feedbacks in real-time.
On the issue of content copyright, C-Sema should consider allowing listeners and like-minded organisations to use these jingles for awareness raising upon requested. Currently, the radio stations do not allow other interested parties to use the campaign materials.
C-Sema should consider posting the campaign materials and developed jingles online where a broad online community can access and use the content for GBV campaigning.

## EVALUATION SCOPE AND METHODOLOGY

The impact evaluation exercise is meant to understand the relationship between the number of calls received at the National Child Helpline and the radio programmes and jingles being communicated to the community
from October to December 2020 and January to March 2021. The purpose of the evaluation is multi-folds:-

1. To evaluate the effectiveness of jingles and radio programmes;
2. Comparing the number of calls received at the helpline between September - October 2020 and January - March 2021 and identify any relation between the radio broadcasting schedule and the number of calls received.
3. To establish listenership trends in the project areas in terms of age, gender, radio preferences and why such preferences exist.

## METHODOLOGY

This impact evaluation analyses the findings of a field survey of GBV and violence against child-related radio programmes (talk shows) and jingles, to assess the association of listenership trend with the number of calls received at the child helpline. The survey monitored two radio stations that aired the aforementioned programmes and jingles, interviewed 6 key informants and involved 20 community members (including students) to fill a closed-ended questionnaire.

Radio stations monitored and evaluated based on their preparation designing skills, hosting time, frequency of airing, radio coverage, audience size, reach, the impression of jingles and radio programmes.
The radio stations were: -

1. Kahama FM
2. Huheso FM
NAME OF RADIO
STATION

## LICENSE

Kahama FM

District coverage radio
90.8

Huheso FM

District coverage radio
104.5


## PROGRAMMES THAT HOSTED TALK SHOWS

## OCTOBER - DECEMBER PROGRAMMES

## OCTOBER - DECEMBER JINGLES

## JANUARY - MARCH PROGRAMMES <br> JANUARY - MARCH JINGLES

## TIME OF PROGRAMMES <br> PROGRAMMES WITH AIRED JINGLES

| 1. | Shinyanga |
| :--- | :--- |
| 2. | Tabora |
| 3. Geita |  |
| 4. Kigoma - Kakonko |  |
| 5. Online portal radio - |  |
| radio.tadio.co.tz/huheso/ |  |

Darajani

NA (total = 17)

NA (total $=42$ )

2

7

> 16:00 pm to $19: 00 \mathrm{pm}$ (talk show for 1 hour in between)

Any programme, 4 times a day (randomly)

Table 1: Characteristics of targeted Radio Station

C-Sema's field coordinator is the key project implementer at the grass-root level of the project. The field coordinator was monitored based on project coverage, designing, collaborations and implementation of the project in the Msalala district.

The project was implemented in partnerships with the government specifically from the district level down to the community. The District Development Officer is in charge of all development related activities including the GBV media campaign at the district level while Ward Executive Officers are accountable for all activities conducted at the ward level. The District Development Officer was was monitored based on radio stations availability in their areas, attentiveness to radio stations, coverage and implementation of the project while Ward Executive Officers were monitored based on coverage of the project, radio stations availability in their areas and attentiveness of radio stations, changing attitude, behavior, knowledge and awareness level of their community member against GBV and VAC.

## Executive officers included:

1. Msalala District Developmental Officer
2. Shilela ward Executive Officer
3. Lunguya ward Executive Officer

School outreach is among key activities performed purposively for building awareness in students especially female students in VAC. Schools were monitored based on student residence coverage, radio stations availability in their areas and attentiveness of teachers and students to radio programmes, changing knowledge, behavior, attitude and awareness of students towards GBV and VAC.

## School level key informant included:

1. Discipline teacher - Segese Secondary School
2. Discipline teacher - Ntobo Secondary School

Community members were selected purposively based on project coverage and their participation in the last 2020 International Day of the Girl Child. 12 students from two schools, 8 community members including teachers and parents were selected to answer a closed-ended questionnaire. The questionnaire asked about the radio stations available in their areas, their attentiveness to radio programmes, changing knowledge, behavior, attitude and awareness towards GBV and VAC.

## SOURCE OF INFORMATION

This impact evaluation exercise relied on several sources of information. The primary source which included data collection through closed-ended questionnaires and interviews with key informants. A listenership survey was used to monitor radio stations and a reflective review survey relied on monitoring key informants.

## LISTENERSHIP SURVEY

The listenership survey was conducted from a sample of the entire population to evaluate the radio programmes and jingles impact and to deepen the understanding of radio listening habits to inform future project plans.

The listenership survey also sought to assess the listenership trend by age, gender and radio preferences and understanding why such trends exist. To this end, the listenership survey adopted two measures that were used to estimate radio audience and effectiveness of radio programmes and jingles (Audience Dialogue, 2012). The measures focused on the following dimensions:-

Reach includes the geographical coverage of listeners with respect to their demographic characteristics specifically age, gender and radio preference of listeners. The reach was estimated using the aided question "which radio stations do you listen to?". Magnification of resident samples to fit an entire population of the survey location is mandatory to understand the behavior of the population.

Awareness explores the percentage of people in the coverage area who knows that the radio station exists. The Awareness percentage as estimated by using the aided question "which radio station do you know?".

Average Frequency explores the average number of times a jingles heard either per day or per week. Radio stations provided detailed information about their jingles airing plan.

Impressions or impacts explore the number of times a jingle was heard. It estimated mathematically by (Audience Dialogue, 2012):1

Impression $=$ Reach $\times$ Average frequency

Actions after listening includes qualitative analysis of feedback received from respondents after listening or participating in radio programmes.

The listenership survey was conducted in four project. Location:- Ntobo, Segese, Shilela and Lunguya wards in Msalala district. Ntobo and Segese were highly prioritized because they host two important schools that are directly involved in the project. The sample size for the listenership survey was calculated based on a confidence level, confidence interval and non-response error of 95, 6 and 10 percent respectively equaling to a survey size of 17 .


Source: National Bureau of Statistics

[^0]The listenership survey tool with developed in Open Data Kit (ODK) in English and transcribe by an enumerator during field visits. A total of 54 questions were formulated and programmed to work on the ODK mobile application so that the enumerator can administer the survey electronically using a portable touchscreen tablet. Upon completion of the field work, all datasets were exported from online server as a comma-separated values file (csv) ready for analysis.

## REFLECTIVE REVIEW

The reflective review applied qualitative research tools to complement the listenership survey findings. The reflective review was conducted in four project locations and one radio station's location.

Table 3:List of Key Informants


## KEY INFORMANT

| 1. | Kahama FM |
| :--- | :--- |
| 2. | Huheso FM |
| 3. | field project coordinator |
| 1. | Msalala District Developmental officer |
| 2. | Discipline mistress - Ntobo Secondary <br> school |
| Students up bringing mistress - Segese |  |
| Secondary School |  |
| Ward Executive Officer |  |
| Ward Executive Officer |  |

A semi-structured key informant interview (KII) was conducted with project participants where two different interview checklists were formulated:; based on the radio station and other project participants, where 18 questions for radio stations and 16 questions for another based on project participants. Seven KIIs were uniquely identified by the field project coordinator and involved in the survey.

The questions guiding KIIs were developed by the enumerator based on all objectives outlined in the term of reference and identified the role of specific project participant. All KIls were recorded for further in-depth analysis.

## LIMITATIONS

The evaluation work acknowledged several limitations. Firstly, the timeline was tight due to some onsetdifficulties in formulating questions; little time was available for testing the ODK platform and some questions had to be spontaneously modified in the first two days of data collection. Secondly. Radio stations lacked important data about their key performance indicator (KPIs) such as radio audience size. reach, share, and advertisement impressions, which gave the evaluators an extra work in estimating the important KPIs of their radio station including designing extra questions based on radio station KPIs analysis. Thirdly, the response rate of the community especially parents was low for the majority of them were very busy with other activities that they do not concentrate on answering questions. This led to the omission of the majority of the community-based sample. Lastly, radio programmes were aired in real-time and very few of them were recorded. This hindered the evaluators to perform a content analysis of aired radio programmes.

## EVALUATION FINDINGS

## DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

As aforementioned above, the survey returned 17 responses across survey locations, 40 percent ( $n=17$ ) of whom were aged less than 18. Probably this is due to majority of project targeted participant was girls at the front line.


Across all four survey locations, 60 percent of respondents were female, 40 percent were male ( $n=17$ ). The evaluation exercise considered more respondents that had either direct or indirect participated in the project implementation, for whom many were female.

GENDER


Figure 2: Gender of respondents
$80 \%$ of respondents have either completed or are in the process of completing secondary education or higher, although the most frequent response (55\%) was secondary education or in the process of finalizing their secondary education. This was relative across two survey locations (Ntobo and Segese) due to the presence of schools.


Figure 3: Education of respondents
Over half (55\%) of respondents were students because the project targeted mostly girls. Also, 25 percent of the respondent were employed, probably this was the group facilitating the spreading of awareness in heir jurisdictions. More than 10 percent of the respondent were self-employed, and apart from students, self-employed individuals may be anticipated as an important project target due to the implication that the majority of women who participate in the development of household income, are highly vulnerable to GBV


Figure 4: Occupation of respondents

## RADIO STATIONS LISTENERSHIP

## Total Reach Trends

All 17 respondents across all survey locations had reported cognizance of radio stations, almost 82 percent had recognized Kahama FM followed by 41 percent who knew of Devine FM while only 18 percent recognized Huheso FM. Kahama FM is known by the majority of people due to its frequency being adequately available in many areas, regardless of the geographical restrictions in areas like Shilela and Lunguya located in the valley.
"Usually, I listen to the radio in the morning before going to work and at night after coming back, I do not have time to go to the highlands to scan for radio frequencies",

A resident of Shilela said.


[^1]Concerning district-based radio stations, Kahama FM remains to be the most listened to radio station in two survey locations (Ntobo and Segese ward) followed by Divine FM (located in Kahama town), while Huheso FM being the first runner up in Segese ward after Kahama FM. In the other two wards (Shilela and Lunguya, both Kahama FM and Huheso FM frequencies seem to be inadequately available compared to other national-based radios such as TBC FM and Clouds FM which are more powerful and reach remote areas in the valley


Figure 6: Radio Stations reach by ward

## Listenership by Radio Preference

Among 17 respondents who reported cognizance of different radio stations, almost 52 percent had listened to Kahama FM while Huheso FM being the third runner up with 11 percent in listeners. Less preference over Huheso FM implies listeners who mostly tune in radio stations early in the morning and/or evening do not prefer to fine tune their radio frequencies. Inadequacy of connectivity to some areas in survey locations probably resulted in a smaller audience for Huheso FM.


[^2]
## Listenership by age

More than 29 percent of respondents aged 18 years and below prefer to listen to Kahama FM, over 35 years of age prefer Radio free Africa while youth from the ages of 18-24 prefer Devine FM. Those aged 25-35 prefer national radios to the regional based radio stations. Huheso Fm remained the first runner up to be listened to by respondents less than 18 years of age.


Figure 8: Radio Listenership by age

Young people prefer listening to music and many old people prefer to interact with the radio speakers (Audience Dialogue, 200g)². The nature of radio programmes determines the target audience, Darajani radio programme from Huheso FM is a talk show mixed with a high proportion of music; only young people like this, and can result in a small audience. Hali Halisi radio programme from Kahama FM has larger segments for talk shows and others for music, which results in capturing the majority of the audience.

Adults prefer Radio Free Africa due to the implication that listeners for local radios do not want to hear only local material. They want to know how their local areas fit in with the rest of the world, thus radio stations with national or international news programmes resonate more with adults

[^3]
## Radio Listenership by Gender

More than 35 percent of female respondent prefer Kahama FM while the majority ( $29.4 \%$ ) of male respondents prefer Devine FM. This is probably beacuse the majority of females do not prefer to listen to the radio and if they do, a radio station with adequate connectivity will be favored.
As stated above, the majority of male respondents prefer Devine FM probably because it hosts extensive music-based programmes especially gospel.


Figure 9: Radio Listenership by gender

## Jingles Impression

The magnification of the total reach of radio stations was estimated based on the respondents of the survey locations that gave their total reach per entire population. Kahama FM had almost 30,931 listeners per day, jingles have been aired at Kahama FM three times per day which reflect an impression of 92.793. This might mean that 30,931 people have heard those jingles three times a day. Similarly, Huheso FM had 6,873 listeners per day. Huheso FM aired jingles four times a day which reflect an impression of 27.494 which is equivalent to 6,873 people heard the jingles four times in a whole day.

Table 4: Jingle Impression

| RADIO STATION | TOTAL REACH <br> BASED ON <br> RESPONDENT OF <br> SURVEY LOCATION | TOTAL REACH <br> BASED ON ENTIRE <br> POPULATION OF <br> SURVEY LOCATION | IMPRESSION | FREQUENCY OF <br> JINGLES AIRING |
| :--- | :--- | :--- | :--- | :--- |
| Kahama FM | 9 | 30,931 | 92.793 | 3 |
| Huheso FM | 2 | 6,873 | 27.494 | 4 |

## Actions after Listening

Radio programmes (Hali Halisi) from Kahama FM had previously (last quarter) received feedback from 40 listeners when the programmes were on the air. Radio programmes from Huheso (Darajani) received 8 listeners feedbacks while programmes are on air. Feedbacks were in form of questions referred to programmes participants mainly experts being invited to the talk shows. This implies a change in awareness, knowledge and attitude of not only commenters but also other inattentive listeners.

Table 5: Call/SMS feedbacks received by programmes

"I participated in one of the radio programmes, people based in Lunguya ward were excited after hearing my voice on the radio talking about Violence Against Children. They are now sharinginformation, and in that way, the message is delivered to even more people who did not listen to the radio programmes".

Lunguya ward executive officer

## RADIO PROGRAMMES AND JINGLES IMPACT ON THE CALLS FROM OCTOBER - DECEMBER 2020 AND JANUARY - MARCH 2021

Radio programmes and jingles have a moderate positive correlation of 0.47 and 0.39 respectively with the number of calls received at the National Child Helpline. Similarly, GBV/VAC based calls also have a moderate positive correlation with radio programmes and jingles. Probably equal distribution of radio programmes and jingles throughout the quarter months could double the number of calls including GBV/VAC calls.


Figure 10: Correlation Coefficient Between Radio Programmes and Jingles with Number of calls received by the National Child Helpline on GBV/VAC

The majority of respondents approved cognizance of the National Child Helpline (116) during the 2020 International day of the girl child held in Segese ward. Msalala district. This implied that according to the reflective review received from field project coordinator and radio programmes facilitators the last year's quarter the radio programmes were aired every day a week before the international day of girl child and jingles were aired 4 times per day in a week as well. Probably the high number of calls received in October at the National Child Helpline was due to consecutive airing of radio programmes and jingles.
"I heard about 176 but I got to understand it better during the International Day of the Girl Child celebration held regional-wise in Segese, Msalala District. C-Sema hosted a bicycle competition for girl students and my students were among those who participated."

Second Master - Ntobo Secondary School

This year's first quarter (January to March 2021) experienced a decrease in the number of calls due to inadequate radio programmes and jingles. When a programme changes suddenly, listeners take longer to adjust (Audience Dialogue, 2009) ${ }^{3}$ especially when not all listeners know about the changes. If the programmes are based on talk shows targeted to capture listeners attention, any changes on hosting time should be broadcasted before the start of the programmes or listeners with an alternative to reach them apart from radio, to prevent delaying important messages that need to being communicated.


Figure 11: Number of Calls

3 Audience Dialogue. (2009, 10 22). Audience Dialogue. Retrieved from findings about radio in general: www.audiencedialogue.net/pmlr3.html

## CONCLUSION

Radio programmes and jingles are directly correlated to the number of calls. These programmes and jingles hence have a positive correlation with the number of calls received in three wards namely; Ntobo, Segese and Lunguya because of the adequate availability of radio stations in those areas. It is important to note that these wards have a good frequency connection while Shilela's valley land-scape affects frequency connectivity, making radio programmes and jingles to have little contribution to the number of calls received specifically in Shilela ward as compared to Ntobo, Segese and Lunguya.

## APPENDIX

## HOUSEHOLD QUESTIONNAIRE

Press below link to access questionnaire
https://ee.kobotoolbox.org/x/gvJvRKTc

## RADIO STATIONS KEY INFORMANT INTERVIEW CHECKLIST

1. Name of respondent?
2. Name of the radio station and frequency?
3. What is the coverage of your radio frequency?
4. What is the name of the programme hosted (funded by C-SEMA)?
5. When was the programme launched, is it continuing
6. What time does the programme live on radio (start time and finishing)?
7. Are you the host of the programme
8. IF NO, what is your role in the programme
9. Can you describe the programme itself shortly?
10.Does the programme have interactive sessions with listeners
10. IF YES, can you estimate how many listerner can call per programme

## ABOUT RADIO JINGLES (FUNDED BY C-SEMA)

1. When was jingles started be live on and when stops?
2. What is the plan for advertisement of jingles?
3. How frequently do you advertise?
4. Can you provide the jingles and programmes sample voice?
5. Which challenges you had encountered?
6. What is you recommendation

## PROJECT LEAD KEY INFORMANT INTERVIEW

1. Name of respondent
2. What is your role in this project?
3. How many wards have you implemented the project?
4. Have you heard of the radio programme
5. From when you have heard, is it up to now IF NO, when did you stop hearing
6. What time was the programme live on
7. Can you rate the programme presenters in scale percent?
8. Have you heard of radio jingles?
9. From when, is it up to now IF NO when did you stop hearing
10.What time does jingles be live on?
10. What means of project delivery your using APART from RADIO JINGLES and programmes
11. What types of audience you targeted?
12. What is the response of targeted audience, rate by percent scale?
13. When comparing from first days of project to date, Is the estimated rating, INCREASING, DESCREASING or REMAIN CONSTANT.
14. Have you met with shout-out from targeted audience about radio programmes or jingles?
16.Can you rate in percent, estimate how many per total audiences have given shout out?


[^0]:    ${ }^{1}$ Audience Dialogue. (2012, 9 4). Participative Marketing for Local Radio, Chapter 2. Retrieved from Audience Dialogue: http ://WWW.audiencedialogue.net/pmlr2-2.html

[^1]:    Figure 5: Overall reach by survey location

[^2]:    Figure 7: Radio Listenership by radio station preferences

[^3]:    2 Audience Dialogue. (2009, 10 22). Audience Dialogue. Retrieved from findings about radio in general:
    www.audiencedialogue.net/pmlr3.html

