

Assessment of Post-Campaign Communication in the Hawlwadag & Daynile Districts, Somalia

Saad Ahmed Abdiwali^{1,*}, Abdirahman Mohamed Abdille¹, Abdikani Ahmed¹

¹Health Sciences, Gollis University, Hargeisa, Somaliland

Abstract

Introduction: Two rounds of polio vaccination campaigns have been scheduled as part of the response to the current polio outbreak in South Central Somalia after the suspension of campaigns following the COVID 19 pandemic was lifted. The first round of the polio campaign was held from September 20 to 23, 2020, with the second round taking place from October 25 to 28, 2020. The recent additional notifications of multiple VDPV2 human cases in Banadir, Lower Jubba, and SWS samples demonstrate that more work is still needed to limit the virus and stop the spread. Currently, 14 human cases and 26 environmental samples in Somalia have tested positive for cVDPV, indicating a severe and ongoing polio outbreak in SC Somalia. The most recent cVDPV2 outbreak occurred between December 20th and December 23rd, 2020.

Objectives: The purpose of this post evaluation Assessment is to find out the major source of information used during polio vaccination communication, Knowledge, perceptions and as well to identify the reasons for missed out on vaccination and to provide guidance to address gaps on polio vaccine communication and on how to respond to poliovirus outbreak or event in a timely and effective manner.

Methods: From the 9th to the 10th of October 2021, 494 people took part in a post -campaign communication polio assessment in Somalia's Hawlwadag and Daynile districts. To draw a sample of residents from each district, a multistage sampling procedure was used. The data was collected from selected participants using an electronic questionnaire that was uploaded to a smart phone.

Findings: The results were expressed using descriptive analyses. According to the findings, vast majority (95%) of mothers and/or care takers knew child immunization. Overwhelming (87%) majority knew about last campaign in which most of them (47%) learnt from community mobilizer community mobilizers and they reported that these mobilizers are most trusted source of information (43%) followed by health center staff (31%). There were 1237 under five children who lived in the interviewed household (671 for Hawlawdag and 566 for Daynile). 1094 of these children which represent 94% were vaccinated while 143 children (12%) were not vaccinated.

Conclusion: Community studied have good knowledge about polio and current campaigns, vaccination coverage among under five children lived in the studied

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Corresponding author:

Saad Ahmed Abdiwali, Health Sciences,
Gollis University, Hargeisa, Somaliland

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Introduction

Executive Summary

Polio is a highly contagious and sometimes lethal viral infection that causes paralysis. Although there is no cure, there are safe and effective vaccines available [1, 2, 3, 4, 5, 6,7, 8]. Polio eradication is a significant goal for world health. As a result, the plan for eradicating polio is to prevent infection by immunizing every child until transmission ceases and the globe is free of the disease [9, 10, 11, 12].

The polio eradication endeavor necessitates a communication strategy that takes into account the country's unique circumstances and allows populations to be properly informed and actively participate in immunization programs [13]. Polio has not been eradicated in Somalia, despite the efforts of national and international organizations. In the global context, Somalia's polio frequency is not unusual [14, 15, 16, 17, 18].

In Somalia, the Central, South West, and Juba land regions have all recently been hit by polio [19]. This survey was conducted to determine the degree of knowledge, information sources, attitudes, and views of parents and caregivers about polio immunization among people of Somalia's Hawlwadag and Daynile districts.

From the 9th to the 10th of October 2021, 494 people took part in a post-campaign communication polio assessment in Somalia's Hawlwadag and Daynile districts. To draw a sample of residents from each district, a multistage sampling procedure was used. The data was collected from selected participants using an electronic questionnaire that was uploaded to a smart phone.

The results were expressed using descriptive analyses. According to the findings, vast majority (95%) of mothers and/or care takers knew child immunization. Overwhelming (87%) majority knew about last campaign in which most of them (47%) learnt from community mobilizer community mobilizers and they reported that these mobilizers are most trusted source of information (43%) followed by health center staff (31%). There were 1237 under five children who lived in the interviewed household (671 for Hawlwadag and 566 for Daynile). 1094 of these children which represent 94% were vaccinated while 143 children (12%) were not vaccinated. The most common reason for unvaccinated children was either parents or child was absent at the time of vaccination. Greater majority (86%) of the respondents correctly cited that this vaccine was for polio. Majority of the interviewee had a favorable attitude towards polio vaccine believed that vaccine is safe (100%), prevent polio (99%) and children should be vaccinated (97%). Regardless of knowing vaccinator, mothers and/or care taker of children were 92% satisfied while less than three quarter (72%) were satisfied with the vaccinators.

Polio vaccination initiatives rely heavily on house-to-house mobilization. These community mobilizers deliver crucial messages on the campaign's dates, immunization categories, and other pertinent information. Community mobilizers are members of the community who usually have access to community resources such as elders and community health workers [20].

Background

Two rounds of polio vaccination campaigns have been scheduled as part of the response to the current polio outbreak in South Central Somalia after the suspension of campaigns following the COVID 19 pandemic was lifted [21]. The first round of the polio campaign was held from September 20 to 23,

2020, with the second round taking place from October 25 to 28, 2020.

The recent additional notifications of multiple VDPV2 human cases in Banadir, Lower Jubba, and SWS samples demonstrate that more work is still needed to limit the virus and stop the spread. Currently, 14 human cases and 26 environmental samples in Somalia have tested positive for cVDPV, indicating a severe and ongoing polio outbreak in SC Somalia. The most recent cVDPV2 outbreak occurred between December 20th and December 23rd, 2020.

A successful polio campaign, among other things, necessitates extensive community outreach and engagement of key influencers such as religious leaders to ensure active participation of targeted groups. In order to stop the outbreak, families and caregivers must agree to vaccinate all target children and have faith in the vaccine. Following the campaign, a Post Campaign Communication Assessment (PCCA) was required to determine the impact of C4D activities and the remaining gaps that needed to be addressed at the community level.

It is critical to conduct post-campaign communication assessments in high-risk locations in order to expand data and information sources and better assess the impact of communication efforts on campaign execution. In addition to the data obtained through Independent Monitoring and LQAS, this assessment would give additional communication data/indicators to aid the planning and implementation of communication efforts in future campaigns. The Social Action Organization was chosen to perform this communication evaluation in order to ensure a smooth implementation of the assessment and improved data quality.

Purpose

The purpose of this post evaluation Assessment is to find out the major source of information used during polio vaccination communication, Knowledge, perceptions and as well to identify the reasons for missed out on vaccination and to provide guidance to address gaps on polio vaccine communication and on how to respond to poliovirus outbreak or event in a timely and effective manner. This Assessment will help national governments and public health decision-makers, as well as their global, regional, and country-level partners, coordinate responses to poliovirus occurrences and outbreaks.

Specific Objectives

The assessment's goal is to guide polio campaign communication interventions by providing communication and EPI managers with a menu of options from which to choose in their efforts to speed up polio eradication and strengthen routine EPI.

The Assessment aim to establish:

1. Parents' level of awareness before campaign starts;
2. Major sources of information on polio and the campaign;
3. Preferred sources of information for parents;
4. Majors reasons for missed children;
5. Perception of OPV safety;
6. Detail reasons for religious-based refusals;
7. Parents' perception of polio risk;
8. Parents' knowledge of routine immunization.

Methodology and Approach

Electronic questionnaires were designed and uploaded to Android-based smartphones for activities of post-campaign communication assessments. The assessments questionnaire consisted of 28 items, which were divided into six sections, the questions was uploaded for the Open Data Kit (ODK) application. GPS co-ordinates of each household were recorded as part of the questionnaire. Enumerators received two days training in the use of mobile phones for the data collection.

The other issue is the number of enumerators were 22 in Hawlwadag and Daynile districts, Somalia. It was Social Action Organization suggestion to consider the enumerators to be trained. All the 22 Enumerators were trained on the use of Kobo collect for collection of data from the selected Hawlwadag and Daynile districts.

This facilitated to ensure the completion of the data collection within 2 days since 22 enumerators and one supervisor were parallels working in Hawlwadag and Daynile districts.

The assessments questionnaire consisted of 28 items, which were divided into six sections. The first section included 6 questions which explored the background information of the Caretaker. The second section, composed of 3 questions, evaluated the knowledge of participants about Awareness, Source/most trusted source of information about campaign. Third section consist of 4 questions examined the Vaccination status of Polio target children and reasons for missed children. The fourth section observed Objective or subjective perception of immediate AEFI (adverse events following immunization). The fifth section consists of 10 questions, inquires the Knowledge of the POLIO diseases and risk perception about diseases and vaccines. The last section carries 4 questions concerning Perception about vaccinators and community mobilizers deployed during campaigns.

Study Area

Hawlwadag and Daynile districts.

Sampling Method

A probability systematic random sampling was collected for a total of 494 households in 2 designated District Hawlwadag and Daynile districts using systematic random selection. Every six houses were interviewed.

Data Collection and Management

Enumerators used a standardized data collection tool to obtain information from parents/caretakers in households with children under the age of five. The number of children in the family who are eligible for vaccination, the number of children who are vaccinated, and, if not, the reason for their non-vaccination are all collected. During the SIAs, data on the sources of information utilized by parents and caregivers to persuade them to vaccinate their children with the oral poliovirus vaccine (OPV) is also collected.

Ethics Statement

The Enumerator got verbal informed consent from each household for participation in the study. Prior to analysis, all data was anonymized.

Data Screening and Analysis

The data was cleaned and evaluated after it was collected from the field by enumerators for handy findings. With the pooled quantitative data from polio post-campaign communication assessments in the Hawlwadag and Daynile districts, we did a descriptive analysis. Data on the key parental sources of information on polio vaccine, knowledge, perception, most trusted source, and changes in these data

were evaluated at Hawlwadag and Daynile districts. Our research focused on where respondents got their information, including single and numerous sources of information, and how sources of information, income, educational level, social behavior of community mobilizers, and understanding in the polio campaign influenced vaccine coverage.

Patient and Public Involvement

"None" under the sub-heading 'Patient and public involvement'.

Findings

Sociodemographic Characteristics of the Mothers and/or Care Takers

A total of 494 households were interviewed from Hawlwadag and Daynile districts of Banadir region, little over half (56%) were from Hawlwadag district while the rest (44%) were from Daynile district.

Gender

The finding showed that as expected care taker of the under five children were female with 94% while 6% were male. Proportion of female and male were closely similar in the two district, 95% and 93 of the care takers from Daynile and Hawlwadag respectively were female.

Settlement of the Under Five Children Care Taker

74% of the mother's/care takers interviewed were in urban areas while nearly one quarter (24%) were from rural areas and 3% were from IDP. Hawlwadag district had highest proportion of urban respondents with 83% compared to 61% in Daynile district, while Daynile (39%) had a more IDP than Hawlwaag (12%).

Educational Status of Under Five Children Care Taker

Educational status of the respondents was assessed, majority (59%) of under five children care takers were illiterate and never attended school while less 41% of them were literate. Two third (66%) of the Mothers and/or care takers from Daynile were illiterate compared to 53% in Hawlwadag district.

Source of Income

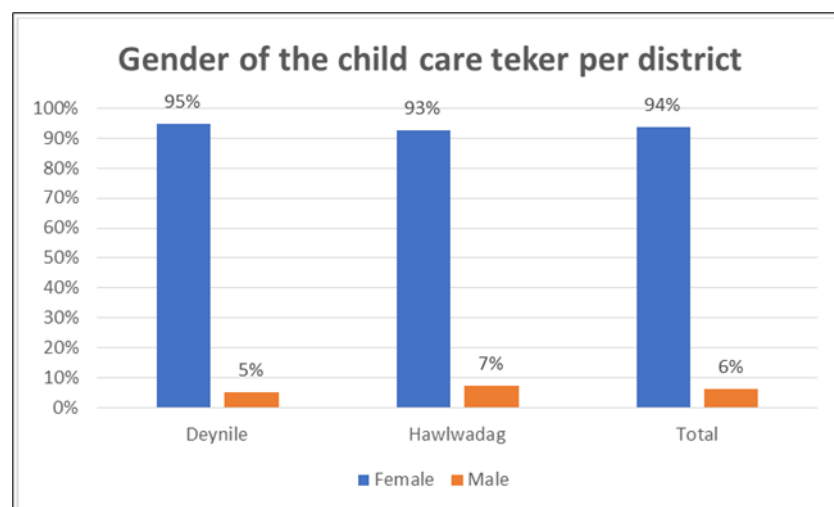


Figure 1. Gender of the care taker.

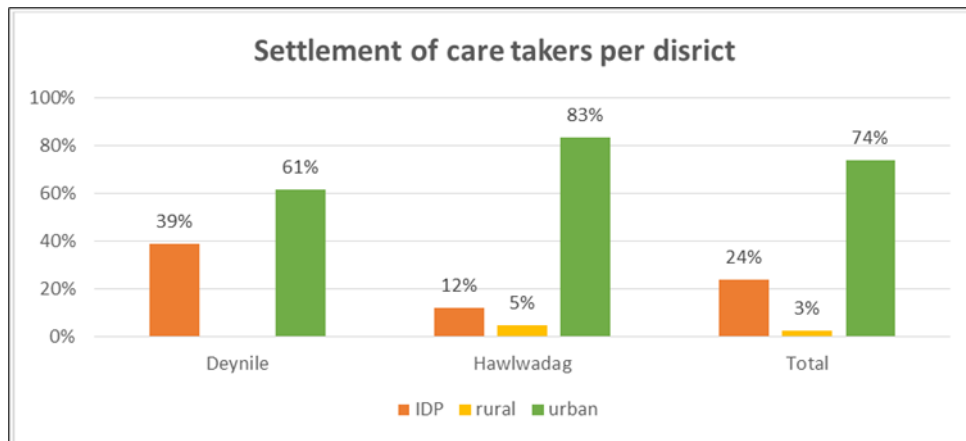


Figure 2. Settlement of the mothers and/or care takers per district.

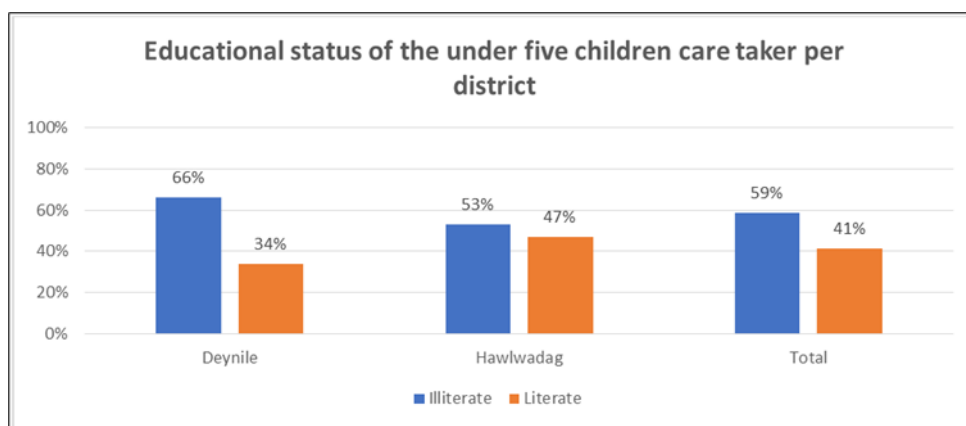


Figure 3. Educational status of the under five children care taker.

Post campaign assessment found nearly two third (62%) of the mothers and/or under five children care takers interviewed were either unemployed or daily laborer across the two districts while 29% reported they have their own small business, this is followed by only 6% of the caretakers who were employed either by government, NGO and/or other employers. 3% of the respondents were farmers.

Knowledge of Child Immunization

Mothers and/or care takers were asked if they heard about child immunization and the findings showed that greater majority (95%) heard about immunization across the districts, the proportion is little higher in Hawlwadag district (96%) compared to Daynile (93%).

Knowledge About Last Campaign Before the Current

More than three quarters (87%) of the mothers and/or care takers of under five children reported that they knew about last campaign while only 13% did not know about it, those who did not knew were more than double in Daynile (20%) compared to Hawlwadag (8%).

The most common source of information about last campaign was found to be community mobilizers, about half (47%) of them heard from community mobilizer while there were several other channels mentioned by smaller respondents such as mounted vehicle (13%), radio (10%) pharmacist (3%) neighbor/friend (6%), television (5%), social media (4%), health center staff (4%), community meeting (4%) and poster, banner leaflet (3%) as indicated in the table below. Majority (60%) of the respondents

from Daynile heard last campaign from community mobilizers compared to only 39% of the respondents from Hawlwadag, interestingly 16% of the respondents from Hawlwadag district got about last campaign information from radio while no one from Daynile heard from it

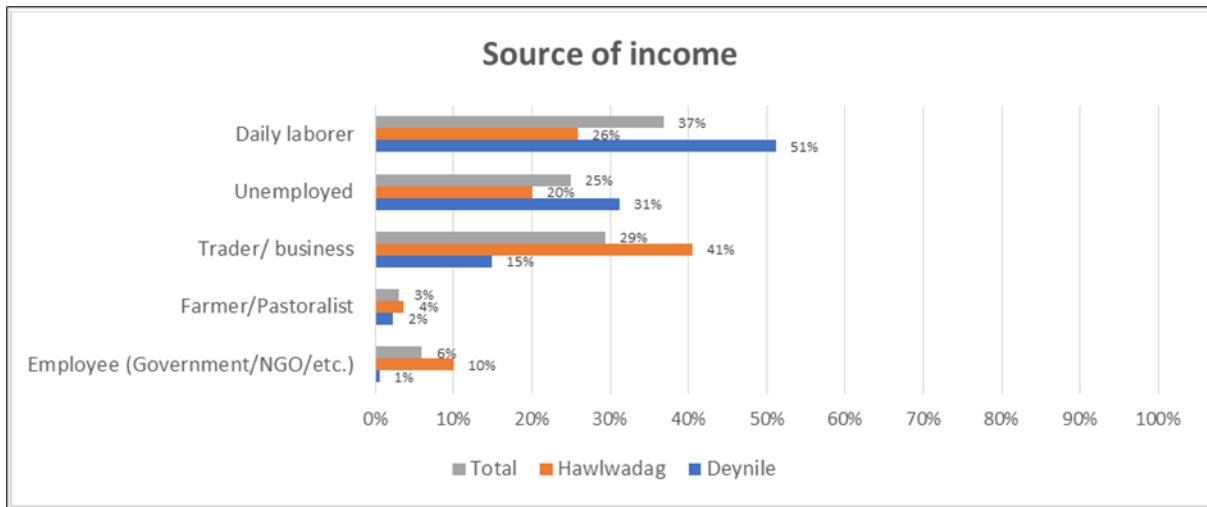


Figure 4. Source of income of under five children care taker per district.

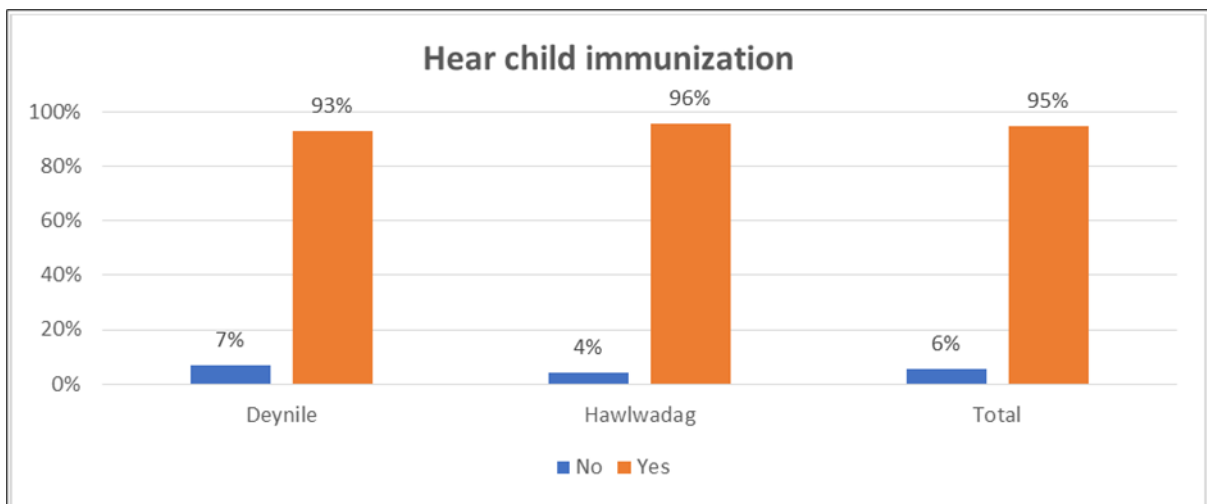


Figure 5. Heard child immunization.

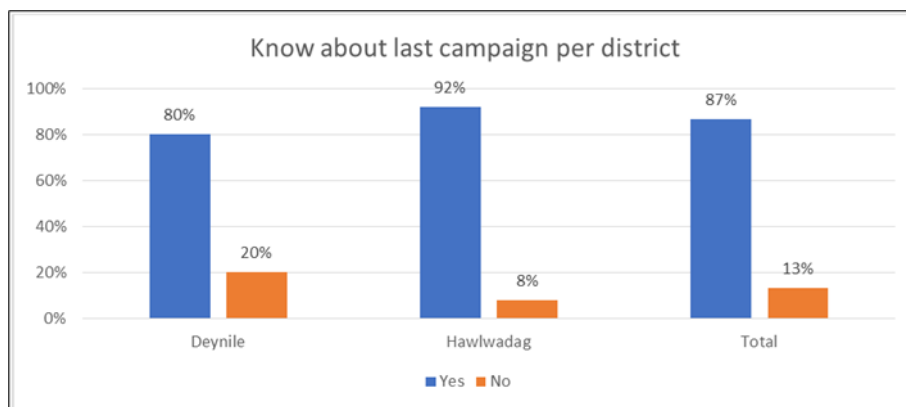


Figure 6. Know about last campaign per district.

Table 1. Source of information about last campaign

Source of information	Daynile		Hawlwadag		Total	
	Number	Percent	Number	Percent	Number	Percent
Community meetings	12	7%	5	2%	17	4%
Community mobilizers	103	60%	99	39%	202	47%
Health Centre/MNCH staff	0	0%	19	7%	19	4%
Mounted vehicle	24	14%	32	12%	56	13%
Neighbors / Friends	0	0%	26	10%	26	6%
Pharmacist	8	5%	5	2%	13	3%
Posters, banner, leaflets	4	2%	10	4%	14	3%
Radio	0	0%	41	16%	41	10%
Social Media	14	8%	5	2%	19	4%
Television	7	4%	15	6%	22	5%
Total	172	100%	257	100%	429	100%

Mothers and/care takers interviewed said that they trust community mobilizers compared to the others channels they receive health information, 43% of the respondents said they trust community mobilizers most, this is followed by health center staff (31%) even though only 4% of the respondents reported that they heard about campaigns from them and radio (12%).

Table 2. Most trusted source of information per district.

Most trusted source of information	Daynile		Hawlwadag		Total	
	Number	Percent	Number	Percent	Number	Percent
Community mobilizer	90	42%	122	44%	212	43%
Health Centre/MNCH staff	46	21%	108	39%	154	31%
Mounted/vehicle	29	14%	7	3%	36	7%
Neighbors / Friends	9	4%	7	3%	16	3%
Radio	29	14%	29	10%	58	12%
Television	12	6%	6	2%	18	4%
Total	215	100%	279	100%	494	100%

Children and Their Vaccination Status

A total of 1,237 under five children live in those Households included in this study in both districts as the interview was administered to the mothers or care takers of these children, Hawlwadag district had more children with 671 compared to Daynile with 566, the average number of children in the households interviewed was 2 children per household for both districts while maximum number of

children in these households was 5 children while the least was 1 child.

Vaccination status of the children were confirmed by asking mothers or cater takers to show child's vaccination card. 1094 under five children who lived in the households interviewed were vaccinated, this means 88% of the children were vaccinated and only 12% were unvaccinated. 91% of under five children in Hawlwadag were vaccinated while 85% of their counterpart in Daynile were vaccinated. There were 143 (84 in Hawlwadag and 59 in Daynile) under five children in the interviewed households who were not vaccinated. 94% of the children vaccinated had not experienced any discomfort after receiving polio vaccine across the district, those who did reported that they had fever.

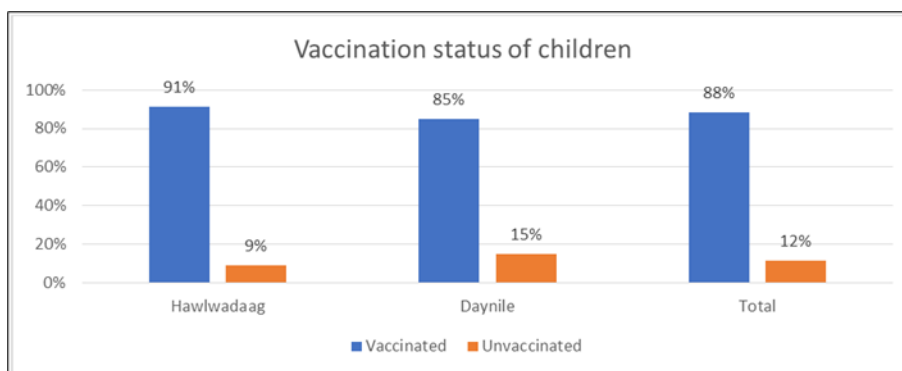


Figure 7. Vaccination status of children per district.

Knowledge About Disease Vaccinated Against

Mothers or care takers interviewed were asked if they knew about disease in which their children were vaccinated in this campaign, more than three quarters (86%) reported that they knew about it, Hawlwadag district had higher proportion of respondents who knew (90%) compared to Daynile (82%).

Table 3. Reason of unvaccinated children per district.

Reason for unvaccinated	Daynile		Hawlwadag		Total	
	Number	Percent	Number	Percent	Number	Percent
Child already vaccinated-RI / EPI	8	19%	1	2%	9	11%
Child was sick	2	5%	1	2%	3	4%
Doesn't trust the vaccinator	2	5%	5	12%	7	8%
Long queue at vaccination site	14	33%	1	2%	15	18%
No faith in vaccine	1	2%	3	7%	4	5%
No vaccinator at the site	1	2%	6	14%	7	8%
Parent or child not at home	0	0%	20	47%	20	24%
Parents didn't know about campaign	3	7%	1	2%	4	5%
Parents thought vaccinators would	1	2%	2	5%	3	4%
Vaccination site too far	4	10%	0	0%	4	5%
Total	36	86%	40	93%	76	100%

Attitude of Mothers and/or Care Takers Towards Polio

Attitude of mothers and/or care takers towards Polio danger and its prevention were assessed. The chart below show that respondents have favorable or positive attitude of polio danger but negative one for its prevention.

Vast majority (92%) of the mothers and/or care takers believed that polio is dangerous disease and risk to the life of the children (94% for Daynile and 91% for Hawlwadag), unfortunately only 18% of the

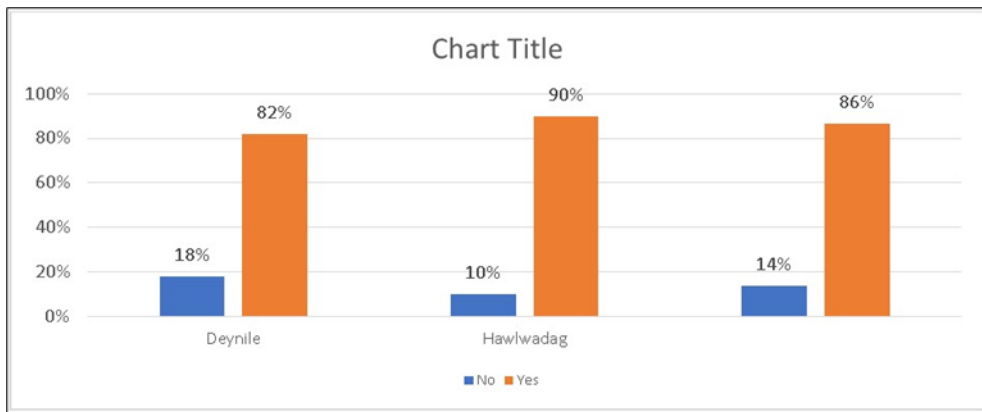


Figure 8. Knowledge about disease for the vaccine per district.

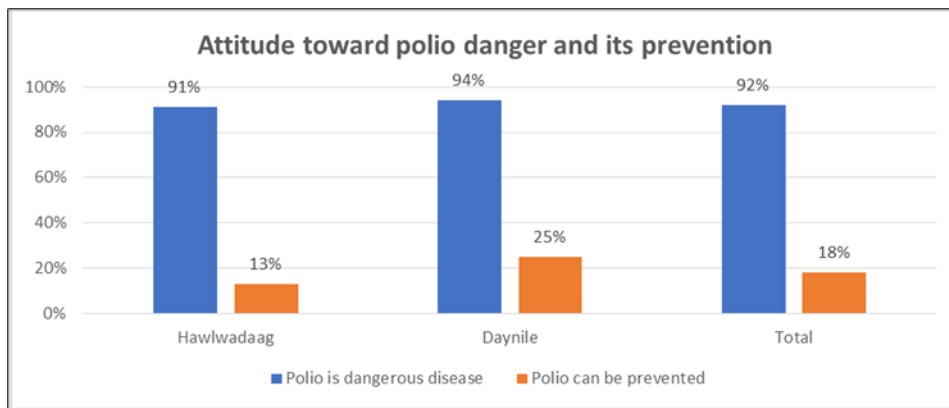


Figure 9. Attitude toward polio danger and its prevention per district.

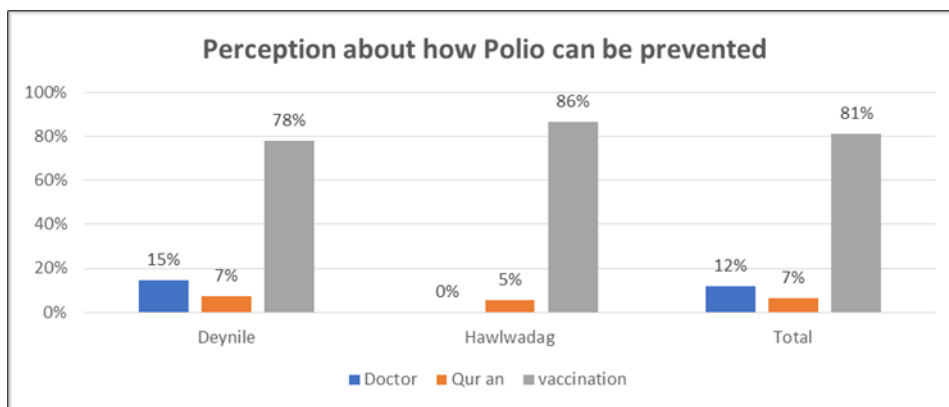


Figure 10. Perception about how Polio can be prevented per district.

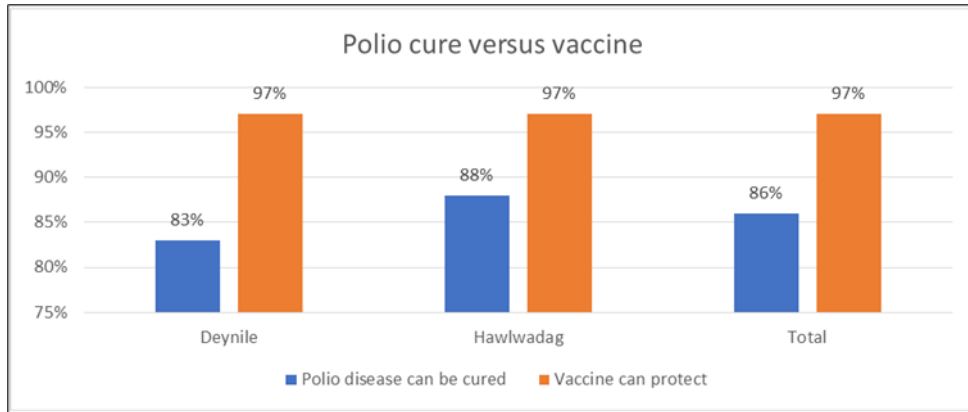


Figure 11. Polio cure versus vaccine per district.

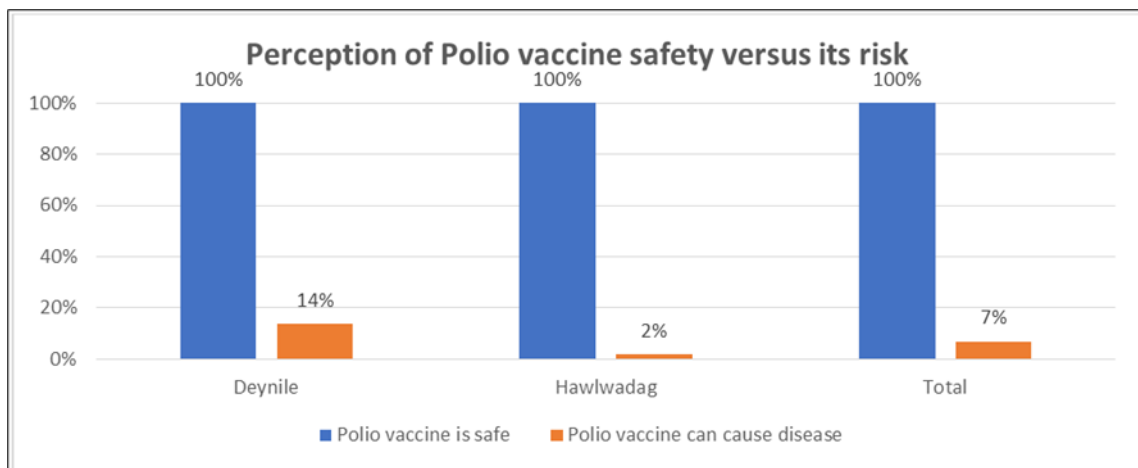


Figure 12. Perception of Polio vaccine safety versus its risk per district.

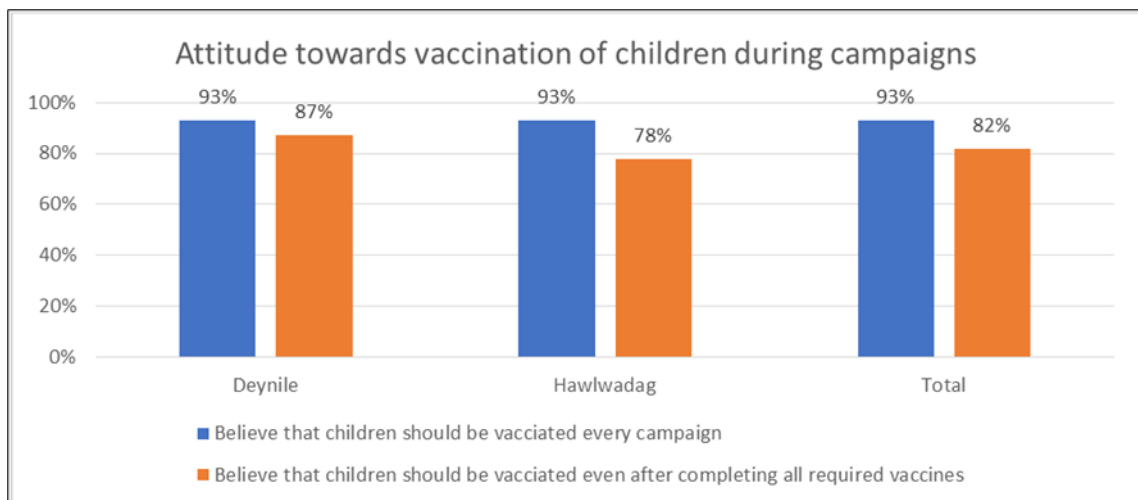


Figure 13. Attitude towards vaccination of children during campaigns per district.

believed that polio is a disease that can be prevented, most of these are from Daynile as 25% of them believed that while only 13% of their counter, part in Hawlwadag do so, those who believed that polio disease can be prevented were asked how, fortunately 81% of them said polio can be prevented through polio vaccine (86% for Hawlwadag and 78% for Daynile).

Overwhelming (97%) majority of respondents in both districts believed that Polio vaccine can protect children against contracting polio disease while 86% believed that it can be cured and they believe that vaccine is the cure of this disease as more than three quarters (77%) in both district reported that vaccine can cure polio disease.

All (100%) of the interviewed mothers and/or care takers in both districts believed that polio vaccine is safe to their children but after further probing and asking if polio vaccine can cause diseases, 7% of the respondents believed that it can cause disease such as fever and measles (14% Daynile and 2% Hawlwadag).

It is worth to note that vast majority (93%) of the mothers and/or care takers interviewed in both district agreed that their children should be vaccinated against polio every time there is a polio campaign, in addition to that they also believed that their children should be vaccinated even after completion of routine immunization and/or previous campaigns.

This study assessed perception of mothers and/or care takers on the importance of child immunization according to the recommended schedules. 92% of the interviewee (94% for Hawlwadag and 89% for Daynile) said that it is important to vaccinate your child as recommended by the childhood/routine vaccination schedule such as at birth – OPV0; at 6 weeks (OPV1, Penta 1); at 10 weeks (OPV2, Penta 2); at 14 weeks (OPV3, Penta 3, IPV); at 9 months' measles, this can be explained that they knew it is importance as they described it as protection against childhood diseases.

Satisfaction Towards Community Mobilizer

Community mobilizer are members of the community selected for this purpose as they and the community are very familiar with each other but still it is possible some members of the community are not familiar with each other and community mobilizer are not exempt from this. This study found that 81% of the mothers and/or care takers reported that they knew community mobilizers who visited them while the rest 19% did not recognize them. Daynile district had slightly higher (84%) respondents who

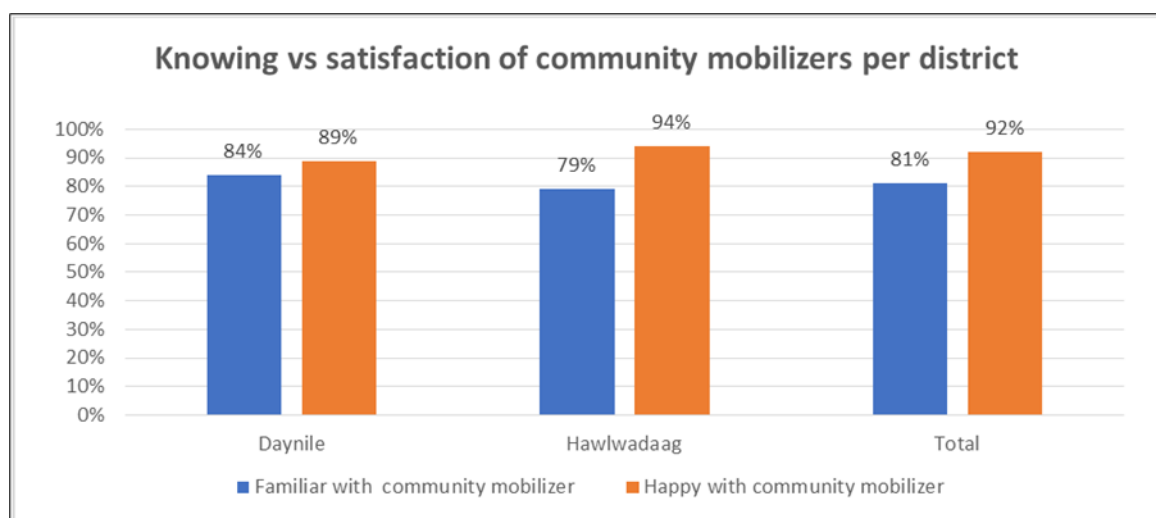


Figure 14. Knowing vs satisfaction of community mobilizer.

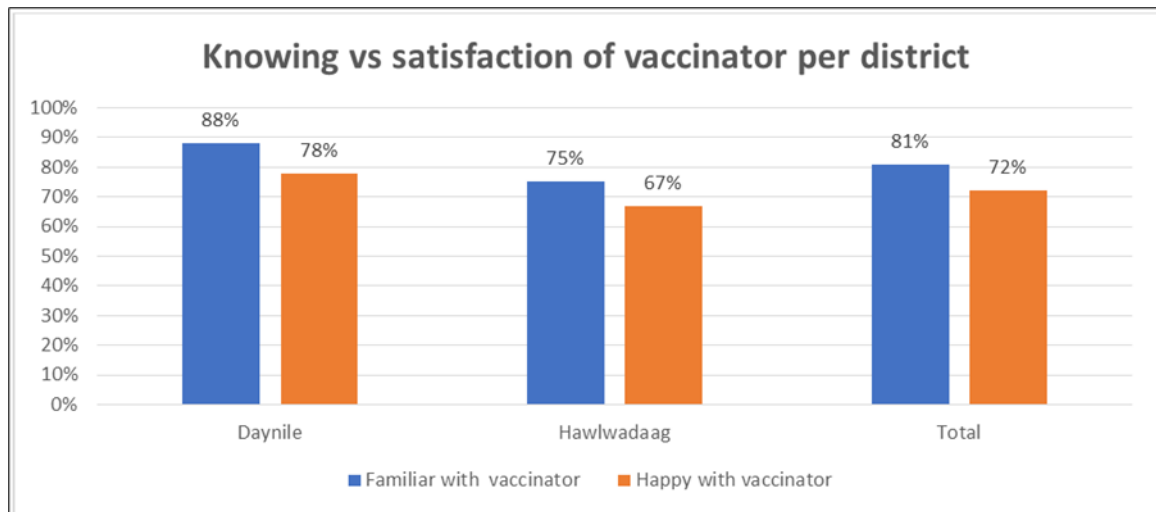


Figure 15. Knowing vs satisfaction of vaccinators.

knew their community mobilizer compared to Hawlwadag (79%). regardless of knowing or recognizing vaccinators who came to the respondents in both district, vast majority (89% for Daynile and 94% for Hawlwadag) were happy with community mobilizer's behavior.

Vaccinator Satisfaction

Vaccinators who visited the interviewed households to give vaccination to their children were found to be known by the community with 81% of the respondents reporting they knew them while 19% did not across the districts. Nearly three quarters (72%) of the mothers and/care takers interviewed were happy and satisfied with the vaccinators who visited them to give vaccine to their children while more than one quarter (28%) of respondent were not happy with them. Satisfaction towards vaccinators was not high as that of community mobilizers. In hawlwadag district one third (33%) were not happy with the vaccinators who came to them which higher than in Daynile district where 22% of the respondents were not happy with the vaccinator.

Conclusion

Community studied have good knowledge about polio and current campaigns, vaccination coverage among under five children lived in the studied households were as high as 88%, this can be attributed community mobilizer did fantastic job as they were source of information which community trust most at the same time they were happy with them.

Recommendation

Community mobilizer should better to inform community in Daynile about upcoming immunization campaigns because only 80% of the respondents from Daynile were aware about last campaign.

- Giving community awareness about health and particularly immunization and/or forth coming campaigns ensure use different channels to communicate.
- Vaccination coverage of the children in Daynile needs to be improved as 85% of the children in the studied households were vaccinated.
- Knowledge of polio vaccine needs to be improved as only 78% of the respondents from Daynile

knew that it prevents the disease.

- d. Vaccinators who are to be sent to the community should come from the community themselves to enable their recognition and acceptance from the community they will serve.

Competing Interests

The authors declare that they have no competing interest.

Authors' Contributions

SAA & AMA collected, analyzed and designed the study, carried out the data analyses, drafted the initial manuscript, and revised the manuscript.

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