

MONDULI DISTRICT COUNCIL



ONE HEALTH SURVEILLANCE CAMPAIGN REPORT

PREPARED BY
District One Health Team
P.O.BOX 1
MONDULI

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SUMMARY

One Health is a collaborative approach that connects health experts from human, animal, and environmental health disciplines at the local, national, regional, and global levels. Its goal is to prevent health threats at the human-animal-environment interface including among others zoonotic diseases, antimicrobial resistance, vector-borne diseases and environmental contamination. This approach is recommended to be used in order to achieve a sustainable reduction of the outbreak of these health threats. It has been used in a surveillance campaign which has been conducted in four communities of Monduli District.

Monduli district Council covers the area of 6419 square kilometers of which 95% is a game controlled area and open area where variety of animals are found. Animals (domesticated or wildlife) and humans often live close together throughout the district. There is therefore a close interaction between human, livestock and wild animal which can result in zoonotic diseases transmission. Furthermore, due to low coverage of toilets in the district and shortage of clean and safe water, there is a risk of outbreak of diarrhea diseases. These have demanded the district one health team to conduct a surveillance campaign aiming at sensitizing the community on the control of diseases outbreak.

A fourteen days surveillance campaign was conducted in Selela, Mbaash, Engaruka and Esilalei where different approaches were used to reach the community and sensitize them on measures to be taken in control of disease outbreaks. The approaches used included, Use of public addressing system; School visit and give health education to school children and staff; Sensitization of Community leaders; and Orientation of extension/field staff on the use of one-health approach in control of outbreaks. About 8791 school children, 12 field officers and 101 community leaders were reached. More than 3500 community members were reached by the use of public addressing system.

During discussions sessions it was noted that the risk behaviors for outbreaks to occur in these communities are high that there is a need to strengthen surveillance in these communities and expand the campaign to the community so as to reduce the risk of occurrence of outbreaks especially diarrhea diseases like cholera and zoonotic disease such like anthrax.

4. ACKNOWLEDGEMENT

This campaign was part of the joint One Health project by Tandia e.V. and Monduli District Medical Office. The two partners have successfully implemented several health projects in the district over the past five years. Without the commitment and technical support from Tandia association and financial support from Hospital Partnerships Initiative, both from Germany, this campaign could not have taken place. The district one health team would like to express special gratitude to Tandia chairperson Regina Meissner for making this surveillance campaign possible.

We acknowledge this great contribution.

INTRODUCTION

Monduli district is one of the seven districts in Arusha Region of Tanzania. It is located in the Northern section of the country. It is approximated to have a projected population of 193,851 in the year 2020. It covers the area of 6419 square kilometers, where as about 95% of the district is a game controlled area and open area where variety of wild animal are found (Source; District Profile). The major economic activities of the district are livestock keeping in a nomadic mode, crop farming and wildlife. This environment now often increases human and animal contact creating significant challenges. There is a close interaction between human, livestock and wildlife which can easily result in an interspecies transmission of zoonotic diseases. Because of this, there has been a frequent anthrax outbreak in the hotspot areas of Monduli district whereby a total 14 cases of anthrax have been recorded in the year 2019 and 21 cases in 2020. Furthermore, due to low coverage of toilets in the district and shortage of clean and safe water, there is a risk of outbreak of diarrhea diseases during rainy season.

These challenges require integrated solutions and call for collaborative leadership. One health approach is recommended as it brings together response capacity from different sectors such like environment, human and animal health. This is a collaborative approach that connects health experts from human, animal, and environmental health disciplines at different levels. Its goal is to prevent health threats at the human-animal-environment interface including zoonotic diseases, vector-borne diseases, environmental contamination, and even chronic diseases. It seeks to promote, improve, and defend the health and well-being of all species by enhancing cooperation and collaboration between physicians, veterinarians, other scientific health and environmental professionals and by promoting strengths in leadership and management to achieve these goals.

This approach has been applied in a surveillance campaign which has been conducted in four communities of Monduli District for the purpose of control of diseases especially Anthrax and cholera. The composition of the campaign team involved veterinary doctor, medical doctor, environmental health officer/epidemiologist, game officer, public health nurse and social welfare officers. These communities were also suggested to use the same approach in solving health issues by utilizing the available professionals at their level.

OBJECTIVES

The general objective of this surveillance campaign was to sensitize the community to avoid the risk behaviors that may cause or contribute to outbreaks of communicable diseases and the use of different sector's capacities in response to outbreaks if they occur. Specifically;

1. To create public awareness on risks factors that may lead to diseases outbreak
2. To sensitize the community on the use of latrines in order to reduce chances for contamination of water sources
3. To orient field staff on the use of one health approach on response and control of diseases outbreak

3. METHODOLOGY

The campaign was targeted to the four communities where there has been a frequent outbreak of anthrax and cholera in the past years. These communities included Mbaash, Engaruka, Esilalei and Selela where a total of 14 and 21 anthrax cases were treated in the years of 2019 and 2020 consecutively. Four main approaches were used to reach the targeted community

- i. Use of public addressing system
- ii. School visit and give health education to school children and staff
- iii. Sensitization of Community leaders
- iv. Orientation of extension/field staff

3.1: Use of Public addressing system

This approach was used to reach a large number of people at a time, and it was use in the three market places (Esilalei, Engaruka and Selela). It was used as it is important that the general public is sensitized and made aware on the danger of diseases outbreak and its consequences, and the activities designed for the control of disease outbreak in their community. It was a *three days* campaign where approximately 3500 people were reached.



Picture 1: One the surveillance team member addressing the community on risk behaviors of diseases outbreak at Esilalei market



Picture 2: People listening to the addressing system at Engaruka market

3.2: School visit

Schools are the major places to provide instructions that prepare young people for their roles as healthy productive adults. They also a place where if diseases risk factors are not avoided could lead to major outbreaks in a district. For this reason, visits were conducted to 13 schools of Esilalei, Engaruka and Selela during this surveillance campaign. They were provided with health education focusing on environmental sanitation, proper uses of toilets, hand washing and eating habits. They were also instructed on proper hand washing techniques with running water and about 8791 school pupils were reached. To every school visited hand washing items, which are, one bucket and one gallon of 5 liters and half a liter of hand washing soap were provided. This was a *four days* campaign where at least 3 schools were visited per day.



Picture 3: One of pupils explaining hand washing technique at Engaruka Juu Primary school in Monduli, 2020



Picture 4: Oldonyo Lengai Secondary school 's headmistress cementing the message given by the surveillance team after the session, Monduli, 2020



Picture 5: Field epidemiologist explaining hand washing technique to pupils and staff of Losirwa Primary school of Esilalei in Monduli, 2020



Picture 6: Engaruka Juu Primary school teacher receiving hand washing soap and bucket for one of the surveillance team member



Picture 7: District Veterinary Officer giving health education at Oltinga Secondary school in Monduli 2020

3.3 Sensitization of community leaders

Village meetings that included all influential and respected leaders, religious leaders, politicians, ward/village executive officers and chairpersons of villages and sub-villages were conducted where they were sensitized on their roles on control of diseases outbreak. Some of these roles included sensitizing their community on prevention of diseases, reinforcement of environmental health and sanitation by-laws, vaccination of their livestock etc. A total of 101 leaders were reached in 5 days campaign.



Picture 8 & 9: Community sensitization on control of diseases outbreak at Engaruka and Mungere in Monduli District, 2020

3.4 Orientation of field staff

About twelve field staffs (4 from each of the three communities of Esilalei, Selela and Engaruka) were oriented for two days on use one health approach on diseases surveillance.

These staff included,

- Ward health officer
- Ward livestock officer
- Ward Community development officer
- Game officer (Selela ward only)
- Ward/village Executive officers



Picture 10: Orientation of Engaruka and Selela field officer at Selela hall in Monduli, 2020

4. CHALLENGES

- ✓ During the discussion in the community meetings, it was identified that;
 1. There is inadequate knowledge on importance of meat inspection
 2. Most of the animal keepers collect and slaughter the animals when the cases become ill and hopeless
 3. Even when the animal dies of suspected anthrax they do not destroy the carcass and so such animals often are slaughtered for human consumption
 4. In addition animals may be under treatment up to until just prior to the slaughter time. This practices do not only endanger zoonotic diseases but also drug residuals and hence drug resistance in human
 5. There is low coverage of toilet in these communities
- ✓ We had no leaflets/ posters for mass education that could reach the larger community

5. WAY FORWARD/RECOMMENDATIONS

1. The district/ward one health teams need to strengthen surveillance in these communities
2. Public awareness is also required in the area of meat inspection
3. Animal owners need to be sensitized on their responsibilities to protect the consumers by having good treatment schedule and use of available trained staff on the treatment of their animal

4. The district team to conduct community sensitization to the general public using different approaches like radio programmes to reach people in the villages to ensure maximum reach of rural communities
5. Other dissemination techniques such as posters and leaflets need to be used especially in schools
6. To conduct other campaigns in different communities of the district
7. Enforcement of by-laws at the lower level to ensure that the community abide to the rules and regulations such like use of toilets, general environmental sanitation and vaccination of animals

6. PARTICIPANTS OF THE CAMPAIGN

SN	NAME	TITLE
1	DR EDWAR LENGAI	DISTICT MEDICAL OFFICER
2	HAPPY SAIGURAN	ENVIRONMENTAL HEALTH OFFICER / EPIDEMIOLOGIST
3	CONSTANTIONO RAHHI	SOCIAL WELFARE OFFICER
4	SERAPHINO BICHABICHA MAWANJA	GAME OFFICER
5	DR. YONDU MARMO	DISTRICT VETENARY OFFICER
6	THERESIA LUKUMAY	COMMUNITY HEALTH AND PROMOTION FOCAL PERSON/ NURSE
7	JOYCE SHANGAI	CLINICAL OFFICER
8	FANUEL ELISHWARIA	DRIVER

ATTAMENTS: Invoices and payment vouchers of the items used in a surveillance campaign

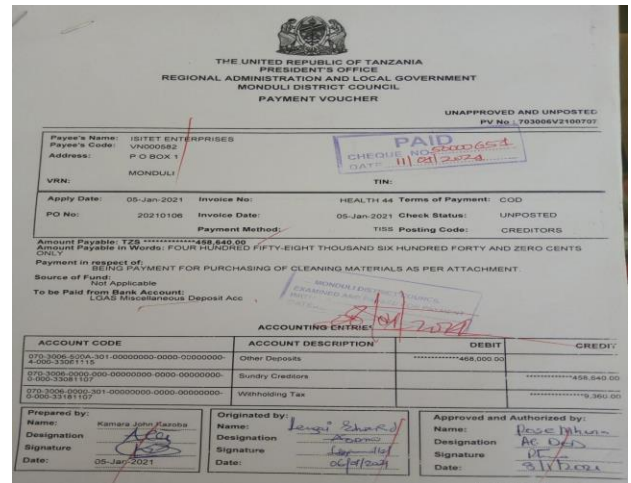
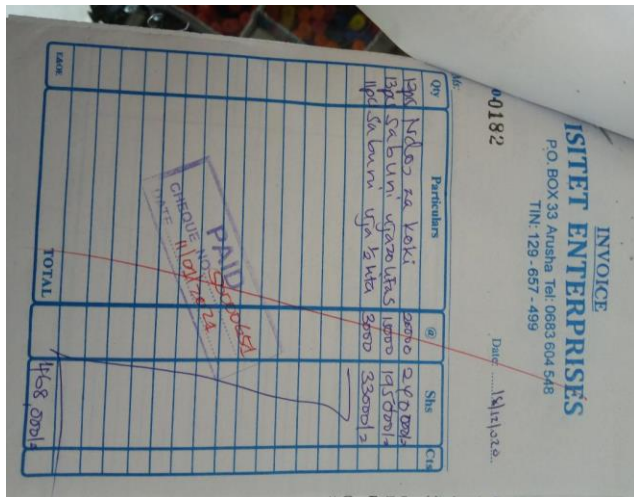


Figure 1 and 2: Invoice and payment voucher for hand washing soap and buckets

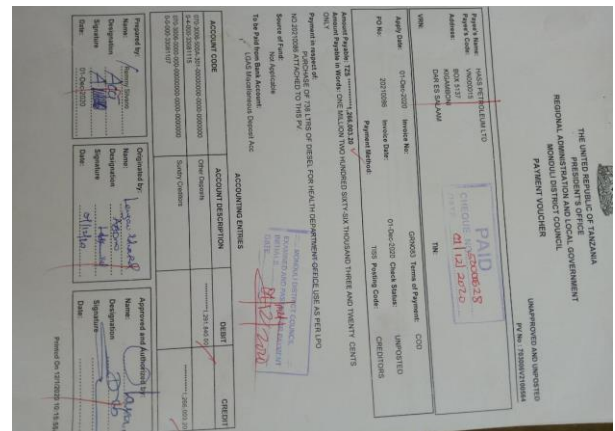
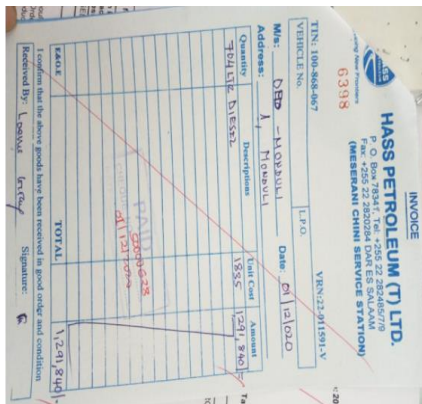


Figure 3&4: Invoice and payment voucher for fuel used in a surveillance campaign

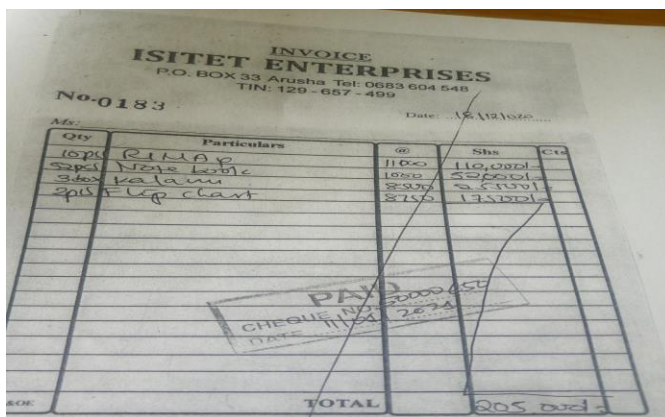


Figure 5&6: Invoice and payment voucher for stationeries used in a surveillance campaign

A total of TShs 1,955,480 was used for procurement of fuel, stationary and hand washing facilities and 6,040,000 for payment of allowances to the one health team and participants of the training sessions conducted toward extension workers. Also 25 community leaders of Engaruka, Selela, Mbaash and Esilalei were given communication allowance of Tshs 15,000 each for organizing the meetings conducted.