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IDRC GRANT / SUBVENTION DU CRDI : - TRANSFORMING THE VACCINE DELIVERY SYSTEM FOR CHICKENS AND GOATS IN GHANA: WHAT APPROACHES AND WHAT BENEFITS FOR WOMEN?

COWTRIBE TECHNOLOGY LIMITED

VORMIS Pre-service Training Manual

Effective Vaccination and Outbreak Management using VORMIS.

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PRE-SERVICE TRAINING OVERVIEW

Welcome to the VORMIS (Vaccination and Outbreak Response Management Information System) Training Manual. This guide aims to help users understand and effectively utilize the VORMIS platform, a revolutionary tool designed to streamline livestock health management and respond more efficiently to disease outbreaks.

VORMIS is an open-source mobile application system that is freely accessible to all tiers of national veterinary health systems, enhancing the planning, execution, and monitoring of livestock vaccination and disease response initiatives. This system is equipped to manage complex challenges in the field of veterinary health, bringing a significant improvement in the health and productivity of livestock, which in turn bolsters food security and economic development.

VORMIS is more than just a tool; it's a comprehensive system designed to revolutionize livestock health management. By integrating vaccination management, outbreak response, real-time disease surveillance, and data analysis into one platform, VORMIS provides a powerful solution for addressing veterinary health challenges.

The VORMIS system aids in mapping vaccination sites, allocating healthcare providers, registering livestock and their owners, and linking farmers to vaccinators. It accumulates vaccination demand data per location, launches vaccination campaigns considering various factors, manages field resources, and tracks vaccination progress in real-time.

In addition, the system helps mount a rapid response in the event of a disease outbreak, initiating control measures such as quarantines, culling, and vaccination drives. It continually monitors outbreak control activities, allowing users to evaluate the effectiveness of response measures.

VORMIS also boasts robust data analytics capabilities, helping to review and optimize vaccination and outbreak response strategies continually. The data generated supports the development of evidence-based policies and strategies, guides training programs, and enhances the overall effectiveness of veterinary services.

The use of VORMIS extends to all stakeholders involved in livestock health management. Policymakers can utilize it to access real-time data on disease prevalence and the effectiveness of control measures, thereby informing policy decisions and resource allocation. Farmers, on the other hand, can benefit by receiving timely information about vaccination schedules and disease outbreaks, enabling them to take appropriate measures to protect their livestock.

This training manual aims to equip all users with the skills and knowledge to effectively use VORMIS for maximum impact. The guide will provide a step-by-step process of how to use each of the features of VORMIS, with examples and images to make it easier to understand. Through this guide, we hope to empower each of you to take an active role in improving the health of our livestock population and ensuring the success of our farming community

Vaccination programmes

The objectives and strategy of a vaccination programme is defined by the Veterinary Authority before the implementation of vaccination, taking into account the epidemiology of the disease, its impact and zoonotic potential, the species affected and their distribution. Veterinary Authorities should liaise, as relevant, with public health authorities when developing and implementing vaccination programmes against zoonoses. Vaccination programmes may include systematic vaccination and emergency vaccination. Systematic vaccination in infected countries aims to reduce the incidence, prevalence or impact of a disease with the objective of prevention, control and possible eradication. In free countries or zones, the objective of systematic vaccination is to prevent the introduction of a disease from an infected neighbouring country or zone, or to limit the impact in the case of the introduction of that disease. Emergency vaccination provides an adjunct to the application of other essential biosecurity and disease control measures and may be applied to control outbreaks. Emergency vaccination may be used in response to:

- an outbreak in a free country or zone;
- an outbreak in a country or zone that applies systematic vaccination, but when revaccination is applied to boost existing immunity;
- an outbreak in a country or zone that applies systematic vaccination, but when the vaccine employed does not provide protection against the strain of the pathogenic agent involved in the outbreak;
- a change in the risk of introduction of a pathogenic agent or emergence of a disease in a free country or zone.

Vaccination programmes should be integrated with other ongoing animal health-related activities involving the target population. This can improve the efficiency of the programme and reduce the cost by optimisation of resources.

Vaccination strategies

- Different vaccination strategies may be applied alone or in combination, taking into account the epidemiological and geographical characteristics of occurrence of the disease. The following strategies may be applied:
- Barrier vaccination means vaccination in an area along the border of an infected country or zone to prevent the spread of infection into or from a neighbouring country or zone.
- Blanket vaccination means vaccination of all susceptible animals in an area or an entire country or zone.
- Ring vaccination means vaccination of all susceptible animals in a delineated area surrounding the location where an outbreak has occurred
- Targeted vaccination means vaccination of a subpopulation of susceptible animals.

Logistics

Backing up field staff with sufficient supplies is basic to their functioning. Field staff who are undersupplied with their necessities will become frustrated and discouraged and will not function. The following issues must be considered:

regular pay and access to food and clothing supplies if the staff are on the official payroll.

transport in the field. Vehicles and motorcycles will require fuel, regular servicing and a supply of spare parts.

protective clothing. There should be a regular issue of overalls and appropriate footwear.

camping equipment should be available, especially for the rainy season.

a plentiful supply of questionnaires, carbon paper (to make duplicate copies), pens, pencils and clipboards is essential.

basic medicine kits with a few essential stock remedies, needles and syringes.

other supplies, such as serum collection tubes, labels, markers, ear-tags, vaccines, cold boxes, and so on, must be readily available at the appropriate times.

Awareness creation among decision makers

Many veterinarians in senior positions are currently not familiar with modern information systems development, and may have false expectations of information systems. They may even be suspicious of them, or simply discount them.

There are those who treat computers with contempt after having had one or two bad experiences with them, or who simply do not understand them. Others, on the other hand, may be over-enthusiastic, and expect too much. Some may think that installing a computer and some database software will create an information avalanche that will enable easy decision-making overnight. The latter group will suffer the most disillusionment when they discover that implementing an information system is a slow and painstaking process, and that the first information to come out of it is untrustworthy.

Having a computer system will not:

Automatically improve information collection or quality. It may provide an impetus in this direction, but will not do so of itself.

Provide instant disease status information within a few days of installation. Getting information into a system is a long process, and upgrading the quality of information to make it reliable, is an even longer process. It will take one to two years or perhaps longer before outputs are intelligible and usable.

Replace a good epidemiologist and common sense.

Having a computer system will:

Take time to plan, install and implement.

Have a lot of teething problems.

Bring about cost savings in some areas. Blanket disease control campaigns are the norm in many countries. Having good disease data will show what diseases are present where, and

what their incidence levels are. Control mechanisms will then be implemented more selectively and only in the areas where needed. It is a fact that, until recently, many African countries were still carrying out huge annual vaccination campaigns against rinderpest unnecessarily, simply because they had not quantified the threat and correctly identified the areas where it existed.

Enable the monitoring of progress with disease control efforts, provided that consistent, accurate reliable data are being collected.

Require a lot more headquarters-field liaison, and giving large quantities of feedback and encouragement.

Cause management staff to appreciate field personnel a lot more and build valuable relationships and esprit de corps.

Make decision making on disease management much easier - once the system is properly running.

Computer-analysed data form part of the information that goes into veterinary decision-making processes, but only a part. All planning must be done against a background of knowledge of staff capabilities, budgetary constraints; cultural values and traditions, and prevailing government policy. Decisions must be holistic and take all of reality into account, and not just the slice of it that comes from a computer.

Getting a system started

Purpose and Goals of the Training

The purpose of this training is to equip veterinary officers with the skills and knowledge needed to effectively use VORMIS in their day-to-day operations. While VORMIS is designed with user-friendliness in mind, mastering its features requires a comprehensive understanding of the system, its functionalities, and its value in livestock health management.

The primary goal of the training is to familiarize participants with VORMIS, its interface, functionalities, and applications in the field. By the end of the training, participants should be proficient in using VORMIS for data collection, management, and analysis. They should be able to use the system to plan and monitor vaccination campaigns and quickly respond to disease outbreaks.

Another vital goal of the training is to instill the significance of accurate and comprehensive data collection. Veterinary officers are the lifeblood of the system, and the reliability of VORMIS is directly tied to the quality of data inputted. Therefore, the training aims to emphasize the critical role of veterinary officers in ensuring the accuracy and reliability of VORMIS data.

Moreover, the training is designed to promote a sense of community among veterinary officers, fostering a collaborative environment where knowledge, experiences, and best practices can be shared. This communal aspect is expected to enhance the adoption and use of VORMIS, ultimately contributing to a stronger, more efficient, and more resilient livestock health management sector.

About the Manual

This manual has been meticulously designed to serve as a comprehensive guide for trainers delivering the VORMIS training course. Its aim is to ensure consistency and comprehensiveness in training, thereby facilitating uniformity in learning outcomes across different sessions and trainers. Each section of the manual corresponds to a different session of the course, with each session broken down into various subsections detailing the session's learning objectives, resources required, participant number, time allocation, facilitators' notes, and proposed activities.

The primary users of the manual are trainers who will facilitate the VORMIS training course. It serves as a roadmap to guide them through the entire course, right from preparation to delivery. However, it is also an excellent resource for program coordinators or managers overseeing the training program.

3. Preparing For The Training Course

Preparation is a cornerstone for the success of any training course. As trainers, you need to ensure that you're fully acquainted with the VORMIS app. This involves downloading the app onto your Android device, exploring all its features, and practicing its usage until you feel confident. Being well-versed with the app allows you to address any queries that participants may have during the training.

Following this, you need to peruse this manual thoroughly to understand the course's structure and content. Gathering all resources listed for each session is also vital. This includes ensuring that each participant has an Android device with the VORMIS app installed and an internet connection for online sessions. For fieldwork assignments, liaise with local farms or vaccination sites to enable participants to apply their learned skills.

Session 1: Getting Started

Instruction Guide

The inaugural session of the VORMIS training course will introduce the participants to the structure of the course, the goals of the training, and an overview of the VORMIS app. Participants will download the VORMIS app onto their Android devices and begin familiarizing themselves with its features.

Promote an open discussion and encourage participants to express their thoughts and questions about the course or the VORMIS app. This session also presents an excellent opportunity to break the ice and facilitate the participants in getting to know each other, thus building a sense of community.

Learning Objectives:

- To understand the course structure and training goals
- To familiarize oneself with the VORMIS app
- To initiate discussions and foster a collaborative learning environment

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 2 hours

Getting a system started

Session 1: Introduction & Basics

I. VORMIS Functionalities

A. Navigating the Dashboard

Learning Objectives:

The aim of this session is to familiarize participants with the VORMIS dashboard, its features, and functionalities. The participants will learn how to navigate through various sections of the dashboard and how to make the best use of the information and tools available.

Resources Required by Participants:

Each participant will need a device (preferably a tablet or a smartphone) with the VORMIS application installed, a stable internet connection, and a notebook for taking notes.

Participant Number:

The session is designed for a group of 15-20 participants to ensure individual attention and support.

Time for the Session:

Approximately 30 Minutes

Instruction Guide:

1. Introduction to the Dashboard: Begin by logging into the VORMIS application and accessing the main dashboard. The dashboard is the nerve center of the VORMIS application, offering a quick overview of various data sets and features.
2. Understanding the Dashboard Layout: The dashboard is divided into various sections, each presenting a different data set. The sections could include livestock vaccination records, farm demographic data, vaccination campaigns, and disease outbreak alerts.
3. Navigation: Use the menu bar to navigate between the different sections of the dashboard. The menu bar is usually located at the top or side of the screen, depending on the device being used.
4. Data Interaction: Learn to interact with the data displayed on the dashboard. This might include sorting, filtering, and searching for specific records.
5. Feature Usage: Understand the functionalities of different features on the dashboard, such as adding new records, updating existing records, generating reports, etc.

B. Identifying and Mapping Vaccination Sites

Learning Objectives:

This session aims to equip participants with skills to use the VORMIS mapping feature effectively. Participants will learn how to identify and mark vaccination sites and use geographical data in planning and monitoring vaccination campaigns.

Resources Required by Participants:

Participants will need a device with the VORMIS app installed, internet connection, and a notebook.

Participant Number:

The session will accommodate 15-20 participants.

Time for the Session:

Approximately 2 hours

Instruction Guide:

Using Geographical Data: Understand how to use geographical data in planning and monitoring vaccination campaigns. This might include identifying areas with high livestock density, tracking the spread of disease outbreaks, etc.

Conclusion: The session should end with hands-on practice of the learned skills, with trainers providing assistance as needed.

Session 2:

Session 2 will delve into the basics of using the VORMIS app. Participants will learn how to capture field data, profile vaccination sites and locations, and how to enter, save, and retrieve this information in the app. As a trainer, you will demonstrate these processes, guiding participants through each step.

Encourage participants to practice on their devices, and ensure that all participants understand these foundational aspects of using VORMIS.

Learning Objectives:

- To learn how to capture field data and profile vaccination sites
- To become proficient in entering, saving, and retrieving information in the VORMIS app

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 2 hours

Cohort II

Session 3: Proficiency Assessment

Instruction Guide

Session 3 serves as a checkpoint to review and provide feedback on the fieldwork assignments that participants completed after the second session. This session ensures that all participants are capable of using VORMIS effectively and correct any mistakes or misunderstandings early on. Emphasize the importance of data accuracy and completeness, and motivate participants to strive for accuracy in their VORMIS usage.

Learning Objectives:

- To assess the proficiency of participants in basic VORMIS usage
- To rectify any mistakes or misunderstandings

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 2 hours

Session 4: Identifying and Enrolling Farmers and Livestock

Instruction Guide

Session 4 will cover the advanced features of the VORMIS app. Participants will learn how to register farmers, enroll livestock, and manage this data within the app. Encourage participants to apply these skills and manage farmer and livestock data. Guide them through each process, demonstrate each step, and allow them to practice on their own devices.

Part A

Learning Objectives:

- To learn how to register farmers and enrol livestock using the VORMIS app
- To effectively manage farmer and livestock data within the app

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 1 hour

Part B. Accessing Livestock and Farmer Information

Learning Objectives:

- Participants will learn how to access, update, and manage information about livestock and their owners. They will also learn how to use this information in planning and monitoring vaccination campaigns.

Resources Required by Participants: Participants will need a device with the VORMIS app installed, an internet connection, and a notebook for notes.

Participant Number: This session will accommodate 15-20 participants.

Time for the Session: Approximately 2 hours

Instruction Guide:

Accessing Information: From the dashboard, navigate to the 'Livestock and Owner Information' section. This section contains detailed records of all registered livestock and their owners.

Searching for Specific Records: Learn to use the search bar to find specific records quickly. Participants can search using various criteria such as owner name, livestock ID, farm location, etc.

Viewing and Editing Records: Once a specific record is selected, participants will learn how to view and edit information.

Using Information for Campaigns: Participants will learn how to use livestock and owner information in planning vaccination campaigns. This includes using demographic data to target specific areas or livestock groups.

Updating Records: Participants will learn how to update records after each vaccination campaign, ensuring that the information remains up-to-date and accurate.

Cohort III

Session 5: Proficiency Assessment

Instruction Guide

Session 5 is another proficiency checkpoint. Trainers will review the fieldwork assignments completed after the fourth session, focusing on the accuracy and completeness of the farmer and livestock enrollments. Ensure that participants comprehend the significance of each step and the importance of the data they are capturing.

Learning Objectives:

- To assess the accuracy and completeness of farmer and livestock enrollments using VORMIS
- To ensure that participants fully understand the data they are capturing

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 2 hours

Session 6: Campaign Planning and Management

Instruction Guide

In this session, participants will learn how to plan and manage vaccination campaigns using VORMIS. Walk participants through the entire process of a vaccination campaign using VORMIS. Let them create a mock campaign, from pre-campaign planning to post-campaign review.

Learning Objectives:

- To understand how to plan and manage vaccination campaigns using VORMIS
- To create a mock vaccination campaign

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 3 hours

Session 7: Proficiency Assessment

Instruction Guide

The final session will assess the proficiency of participants in using VORMIS. Trainers will review the mock campaigns that participants created and ran in their local areas, assessing their planning, execution, and data management skills. Discuss the importance of accurate and complete campaign planning and management, explaining its role in enhancing the effectiveness of vaccination efforts and contributing to healthier livestock populations.

Learning Objectives:

- To evaluate participants' proficiency in planning, executing, and managing vaccination campaigns using VORMIS
- To address any remaining questions or difficulties participants may have

Resources Required by Participants:

- Android device with the VORMIS app installed
- Internet connection

Participant Number: 10-20

Time for the Session: 2 hours

Appendix

This section is reserved for any additional information, resources, or materials that trainers may wish to include to enrich the training course. This can include, but is not limited to, additional reading materials, links to video tutorials, FAQs, troubleshooting guides, and feedback forms.

Conclusion

This manual serves as a roadmap for trainers, detailing the structure and content of the VORMIS training course. By adhering to the instructions provided, trainers will empower veterinary officers to efficiently and accurately record, manage, and analyze field data through the VORMIS app. This will enable better planning and execution of livestock vaccination campaigns, contributing to healthier livestock populations and enhanced food security. The end goal is to develop a skilled pool of veterinary officers equipped to harness the full potential of the VORMIS app for livestock health management.

I hope this manual provides you with a clear path for running successful training sessions on VORMIS. The goal is to improve the efficiency and effectiveness of livestock vaccination campaigns by educating veterinary officers on how to utilize this application to its full potential. With your help, we can contribute to healthier livestock populations and enhanced food security.