

**DETERMINANTS OF EFFECTIVE MONITORING AND EVALUATION  
SYSTEM OF PUBLIC HEALTH PROGRAMS: THE CASE OF NATIONAL  
SCHOOL-BASED DEWORMING PROGRAM IN KWALE COUNTY,  
KENYA.**

**BY**

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THE REQUIREMENTS FOR THE AWARD OF A MASTER OF ARTS DEGREE IN  
PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI.**

**2013**

**DECLARATION**

This research project report is my original work and has not been submitted to any other university or institution for examination.

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**L50/70318/2011.**

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## **DEDICATION**

I sincerely dedicate this work to my loving family for their unwavering support throughout this course.

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## **ABBREVIATION AND ACRONYMS**

|                |  |
|----------------|--|
| <b>DEO</b>     | District education Officer.                                      |
| <b>DMOH</b>    | District Medical Officer of Health.                              |
| <b>Dtw</b>     | Deworm the World.  |
| <b>FRESH</b>   | Focusing Resources on Effective School Health.                   |
| <b>M&amp;E</b> | Monitoring and evaluation.                                       |
| <b>NSHP</b>    | National School Health program.                                  |
| <b>STH</b>     | Soil transmitted Helminthes.                                     |
| <b>UNESCO</b>  | United Nations Educational, Scientific and cultural organization |
| <b>UNICEF</b>  | United Nations children's fund                                   |
| <b>WHO</b>     | World Health organization.                                       |
| <b>US</b>      | United States.   |
| <b>SPSS</b>    | Statistical Package for Social Scientists                        |

## **ABSTRACT**

The purpose of the study was to identify the determinants of Monitoring and Evaluation and how effective was the deworming project that was implemented by Ministries of public Health and sanitation and that of Education was monitored in Kwale County. Monitoring and Evaluation are closely related concepts that are distinct but complementary. Monitoring is a continuous collection of data on specified indicators to facilitate decision making on whether an intervention is being implemented in line with the design while evaluation is the Periodic and systematic collection of data to assess the design, implementation and impact in terms of effectiveness, efficiency, distribution and sustainability of outcomes and impacts. Data for the study was collected using the descriptive method where a questionnaire was administered to managers and supervisors. The data was subsequently analyzed by use of descriptive and inferential statistics. The study findings identified monitoring and evaluation system and compared them with the best practices. The findings indicated that, the Kwale national school-based deworming program has a well-structured and an elaborative monitoring and evaluation system. The study concluded that, Project organization structure with monitoring and evaluation functions, well developed human capacity, robust advocacy and communication strategy, strong project database and elaborative data dissemination plan and use are critical components of any effective monitoring and evaluation system of public Health programs. The study made some recommendations for improvement. It was noted that, there is need to improve on advocacy and communication strategy. The program used brochures (66.4% of the respondents) as the major strategy to promote the deworming program which was only accessed by 4.5 % of the key informant. Use of FM local vernacular radios and television has a potential to reach more audience. According to the study about 20.5 % of the key informants got to know about the deworming program through radio and television. There is a need to provide periodic and regular reports about the deworming program. According to the study 51.3 % of the respondents felt that, the program did not produce periodic and regular reports as required. There is a need to develop an elaborate data dissemination plan. These recommendations needed to be implemented alongside general strengthening of the project systems.

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Monitoring and evaluation (M&E) is an essential part of any program large or small. It can tell us whether a program is making a difference and for whom; it can identify program areas that are on target or aspects of a program that need to be adjusted or replaced. Information gained from M&E can lead to better decisions about program investments. Additionally, it can demonstrate to program implementers and funders that their investments are paying off (Issel, 2009). In the field of public health, additionally, it can demonstrate to program implementers and funders that their investments are paying off (Issel, 2009). Understanding a complex epidemic such as the worm infestation epidemic, and determining the effectiveness and efficiency of the programmatic response requires a sustainable, comprehensive, strategic, multi-method M&E system. In such systems, M&E terms are often used in idiosyncratic ways (La, 2005).

Monitoring is the routine tracking and reporting of priority information about a project or program: its inputs, activities, outputs, outcomes and impacts. Evaluation is the systematic collection of information about the activities, characteristics and outcomes of a specific program to determine its merit or worth. If a program is judged to be of merit, it is also important to determine whether it is worth its cost (Linnan & Steckler, 2002).

Evaluation provides credible information for improving programs, identifying lessons learned, and informing decisions about future resource allocation. Monitoring and evaluation (M&E) in the worm infestation response includes many different components, methods and activities, but in general can be defined as acquiring, analyzing and making use of relevant, accurate, timely and affordable information from multiple sources for the purpose of program improvement (DeLay et al, 2006). M&E is the cornerstone of an evidence-based approach to the decision-making required for designing and implementing effective worm prevention and treatment. Monitoring and evaluation activities are inextricably linked but differ in purpose and design; Monitoring gives information on where a policy, program or project is at any given time. (Kirch, W, 2008).It can provide a “snapshot” of the situation or program status. Evaluation provides information on whether or not specific programs or interventions are “working” (i.e., achieving intended objectives or targets) and why objectives or targets are or are not achieved. (Poister, 2007).

Evaluation complements monitoring when a monitoring system observes that program efforts are off track, and then good evaluative information can help clarify the realities and trends noted (Zall & Rist, 2004). With the advent of the global financial crisis affecting most countries around the world, Monitoring and evaluation (M&E) has become more important than ever before. Determining what programs do or do not work; implementing programs with proven cost-effectiveness; monitoring progress towards achieving targets; and ensuring accountability are objectives which are especially important now in the worm infestation response, as well as in other health and development areas. Thus, it is increasingly important that M&E is better understood, communicated in simplified language, and conducted in a coordinated and sustainable manner that generates information that can be easily used.

Further, it is essential that M&E addresses the needs of and involves all key stakeholders right from the start and that results are made publicly available and utilized strategically in policy-making, planning, and program improvement. (Tulchinsky & Varavikova, 2009).

Globally, monitoring and evaluation of public health programs comprises of several constituents, approaches and actions, but could generally be described as collecting, assessment and using pertinent, correct, apt and inexpensive information from numerous sources with an objective of improving the program (Poister, 2007). Monitoring and evaluation is the basis of an evidence-grounded methodology to the decision-making needed for designing and executing an effective prevention, treatment and care programs for the health care issue, like worm infection. Monitoring and evaluation actions are inseparably connected but vary in their objective and design. Monitoring provides information on the present position of the program, policy or project.. Conversely, evaluation gives information regarding whether particular programs or initiatives are operational and reasons why the aims or targets are not being realized. When a monitoring process perceives that a program is not working appropriately, a good evaluation could assist in clarifying the realities and developments renowned.

There is increasing interest in implementing school-based deworming projects in less developed countries, as evidenced by the recent FRESH – Focusing Resources on Effective School Health – initiative involving the World Bank, World Health Organization, UNESCO, and UNICEF, as well as ongoing World Bank school health projects in Uganda and India, Partnership for Child Development projects in Ghana, Tanzania, and Vietnam, and government programs in Egypt (PCD 1997). Wide adoption of school-based helminthes control programs will likely require the active participation of education ministries in developing countries, and this may require

evidence on the effect of deworming on educational outcomes. However, it remains unclear whether deworming leads to educational gains (Dickson et al, 2000).

The national census of Kenya 2009 placed the total number of school age going children at 10,624,380 with 8,661,333 (82%) children currently attending school. A national mass fecal examination of 27,729 children from 395 schools, estimated intestinal parasitic worms infections to be five million (56.8%), and subsequently, a mass school deworming program was initiated. Evidence has shown that improved health status leads to increased productivity, educational performance, life expectancy, savings and investments, and decreased debts and expenditure on health care. Studies in the US have shown that worm infections lower's literacy levels by 13% and lower's earnings later in life by 43%.

Research in Western Kenya showed that school based mass deworming decrease absenteeism by 25% several studies have been carried out in the country to assess the prevalence of helminthes infections in school children. Recent studies by Brooker in 2008 showed that intestinal parasitic worms affected an estimated five million (56.8%) of school children in Kenya. Children aged 13-14 years old exhibited the highest prevalence of worm infection (70%), with *Ascaris lumbricoides* being the commonest infection (75%), followed by *Trichuria* *Trichuria* (51%), hookworm (40.5%) and *Schistosomiasis* Manson (8.1%). (Kabaka & Kisia, 2011).

According to the mass fecal examination in Coast province, intestinal parasitic worms affect an estimated five million (56.8%) children in Kenya. School going children aged 13-14 years old exhibited the highest prevalence's of Soil Transmitted Helminthes (STH) infection (70%).Through the help of Geographical Information Systems (GIS), 135 geographical targets that could benefit from mass deworming were identified. According to WHO guidelines, mass deworming should be undertaken in areas where the prevalence of worm infection is above 50%. Given the magnitude of the problem and the need to control the burden of STH infection, a decision to deworm school children was agreed upon as the best possible solution. This was to be carried out nationally through a sub-national deworming program implemented in three phases.

The overall objective of the program was to reduce the prevalence of STHs infections in the country. This was to be achieved through: deworming of all school age going children in 45 districts of high density STHs infections located in Coast, Nyanza, Western, Eastern and Central Provinces by June 2009 and training of District and Divisional officers and school teachers on the deworming process and personal hygiene in 45 districts. The target population for

deworming was 2-14 year old school age going children in 8000 schools. Also targeted for training were 1000 District and Divisional officers and 16,000 school teachers.

National governments are responsible for ensuring that routine monitoring as well as evaluation activities are adequately planned, budgeted and systematically implemented as part of the national deworming M&E system. As many different stakeholders are involved in M&E, it is important to foster coordination at all levels to minimize fragmentation and duplication of effort. Establishing a comprehensive national M&E system takes time; it is essential to use a strategic implementation approach guided by what data are needed to answer key questions about the worm's epidemic and response: identifying and describing the problem; understanding the potential response; monitoring and evaluating the national program; and ultimately, determining the effectiveness of the overall deworming response in reducing the worm epidemic.

This investigative and analytic process requires a range of M&E methods for data gathering, analysis and interpretation. From a systems perspective, the different components of the national school-deworming M&E system need to work to an acceptable standard or the system to function effectively and generate all the required data. These system components are not restricted to the technical functions of M&E (data collection, verification, analysis and use), but also include the equally important organizational structures (human resources, partnerships, plans. (La, 2005).

## **1.2 Statement of the Problem**

Intestinal helminthes which include roundworms, hookworms, whipworms and schistosomiasis infect over one in every four individuals worldwide and is especially common among school – aged kids in emerging Nations (Ford & Bering ford, 2011). It is believed that, these intestinal worms cause a negative influence on education hampering child's development along with school attendance and decreasing future income. Particularly these impacts are more noticeable in Africa where close to a half of all overall disease problem is because of communicable disease and parasitic infection comprising of helminthes infection. However the consequences of more instantaneous interest to financiers and policy makers which involves school turn out and registration, examinations scores and finally job market results need to be investigated thoroughly. Worms are worldwide spread but just like other parasitic infections, they fancy tropical countries of the world. Kwale County is an example of such a region (Ehiri, 2009). Worms could result into anemia and malnutrition which is detrimental not only to the physical health but also to mental well being (Ivan &Blue, 2007). Beside children who are infected with



worms are less probable to attend school or even become focused while they are there. The programs that have been created such as school-based deworming program could help in preventing the situation. However, the question on their effectiveness has not been addressed, hence the essence of this study.

### **1.3. Purpose of the Study**

The purpose of this research was to identify and evaluate the determinants of Monitoring and evaluation of public health programs in Kwale County.

### **1.4. The objectives of the study**

The objectives of this study were;

1. To examine the extent to which project organizational structure influence the monitoring and evaluation of public health programs in Kwale County.
2. To determine the extent to which the human capacity influences monitoring and evaluation of public health programs in Kwale county.
3. To assess the extent to which advocacy and communication influences the monitoring and evaluation of public health programs in Kwale County.
4. To assess the extent to which the database contributes to monitoring and evaluation of Public health programs in Kwale County.
5. To examine the extent to which data dissemination and use influences monitoring and evaluation of public health programs in Kwale County.

### **1.5. Research Questions**

This research was to answer the following questions;

1. How does project organizational structure determine Monitoring and evaluation of public health programs in Kwale County?
2. In which ways does the human capacity influence the monitoring and evaluation of public health programs in Kwale County?
3. In which ways does advocacy and communication influence monitoring and evaluation of public health programs in Kwale County?
4. How does database contribute to the monitoring and evaluation of public health programs in Kwale County?

5. How does data dissemination and use influence monitoring and evaluation of public health programs in Kwale County?

### **1.6. Research Hypotheses**

The research sought to test the following hypotheses.

1. (H<sub>0</sub>): There is association between the project structure and monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no association between the project structure and monitoring and evaluation of public health programs in Kwale County.

2. (H<sub>0</sub>): There is significant influence by Human capacity and Monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no significant influence by Human capacity and Monitoring and evaluation of public health programs in Kwale County.

3. (H<sub>0</sub>): There is significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale County.

4. (H<sub>0</sub>): There is significant contribution by database on monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no significant contribution by database on monitoring and evaluation of public health programs in Kwale County.

5. (H<sub>0</sub>): There is association between Data dissemination and use in monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no association between Data dissemination and use in monitoring and evaluation of public health programs in Kwale County.

### **1.7. Justification of the study**

Monitoring is a continuous collection of data on specified indicators to facilitate decision making on whether an intervention is being implemented in line with the design while evaluation is the Periodic and systematic collection of data to assess the design, implementation and impact in terms of effectiveness, efficiency, distribution and sustainability of outcomes and impacts. Monitoring and Evaluation data is collected to justify the use of program resources vis-à-vis progress made and objectives achieved. Funders of programs are particularly interested in these

data; as there is often a requirement for the program to show certain levels of performance in order to maintain the funders' support. Program beneficiaries are also keenly interested in knowing that the program targeted at them is effective and good value for money.

Resources are always limited and there are many competing demands in public health. To avoid any duplication of effort and to reduce the data collection burden, data for accountability should be a sub-set of the data already collected for program management purposes. Sometimes, there may be a need for data serving a specific donor's needs, but those should be kept to a minimum so as not to overburden data collection resources.

The research will inform the government and different stakeholders in the academic sector on the exact statistics and dynamics of implementation of the programs. This is vital because it helps plans for future programs to be done with background information and as well be improved. This is important to the policy makers because it will help them put up comprehensive health and informed academic measure to handle the effects now and even in the future.

The research will also encourage /suggest the way organizations, both implementers and donors make decisions ensuring that they use scientific evidence rather than just instincts to evaluate the performance of policies. In turn, the research will encourage the use of evaluations to help design new programs and testing the variations in the existing programs.

### **1.8. Significance of the Study**

This research is significant to a group of individuals and stakeholders including the government concerned, donors who contribute to the effectiveness of the plan, managers rolling out the program, technocrats interested in the statistics, implementers on the ground, communities involved and policy makers.

In the long run, the research will inform on how to improve future programs. The interpretation of the findings of the study will point out any short comings of the deworming process and be used in implementation of the program in other places and part two of it in the same region. This is important mainly to the government, technocrats and the donors, details on costs, effectiveness and reach out measures are important for this. The study is more important for the stakeholders including the beneficiaries and the community involved. It will help them understand the necessity of the deworming process and the various measures being undertaken. The research is an important part of the whole procedure of deworming, therefore must be done for an effective result.

### **1.9. Basic assumptions of the study**

The basic assumptions of this study are;

1. The data collection method chosen was the most appropriate for the study.
2. The respondents answered questions correctly and truthfully.

### **1.10. Delimitation of the Study**

The scope of the study was to establish the determinants of monitoring and evaluation and limited itself on seeking the answers to research questions. Basically the study was trying to identify the determinants of monitoring and evaluation and establish key system features that support effective monitoring and evaluation.

### **1.11. Limitations of the study**

The following were some of the limitations of this study.

1. The researcher had limited funds. The research was a bit costly since it required the training of implementers, travelling and facilitation.
2. The sample size may also have being small considering it was done in one county only and not everyone was consulted. It may also have limited information. The questions asked plus the sample chosen may not have given an expanded perception and interpretation of the needed data.

### **1.12. Definitions of Significant terms used in the Study**

The significant terms used in this study include;

**Advocacy:** Public support for or recommendation of a particular cause or policy.

**Communication:** The imparting or exchanging of information or news.

**Database:** A structured set of data held in a computer, especially one that is accessible in various ways.

**Deworming:** dissemination or giving of the Albendazole and mebendazole tablets to school aged children to kill the worms and protect from infection.

**Evaluation:** the use of social research methods to systematically investigate achievement of a program's results.

**Human capacity:** Is developing the will, skills, capabilities, and systems to enable people to respond effectively to a particular cause.

**Monitoring:** The routine process of data collection and measurement of progress toward program objectives.

**Organizational structure:** The typically hierarchical arrangement of lines of authority, communication, right and duties of an organization. Organizational structure determines how roles, power and responsibilities are assigned, controlled and coordinated and how information flows between the different levels of management.

**Program:** A planned series of future events, items, or performances. A specially arranged selection of things to be done.

**Public Health:** The science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals.

### **1.13. Organization of the Study**

The study is arranged in five sections. Chapter one gives a background of the study, statement of the problem, the purpose of the study, objectives of the study, research questions and research hypothesis. It further goes on to describe the significance of the study, limitations and delimitation of the study, basic assumptions of the study and finally the definition of significance terms. Chapter two deals with the review of the literature based on the objectives of the study. A conceptual frame work is used to show the variables of the study and their accompanying indicators. This chapter concludes with a summary of the literature review. Chapter three will explain the research methodologies used in the study. Chapter Four contains data analysis while chapter Five presents the summary of findings , discussions , conclusions , recommendations and suggested areas for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter reviews the literature on the determinants of monitoring and evaluation of public health programs such as project organization structure, human capacity, advocacy and communication strategies, databases and dissemination and use of data. It further seeks to enlighten on other moderating factors for monitoring and evaluation.

#### **2.2. Concept of Monitoring and Evaluation**

Several different authors have described Monitoring and evaluation in several different ways in the field, usually as a consequence of diverse theoretical and tactical approaches to the exercise of evaluation. Evaluation can be described as a methodological collection and assessment of information for the purposes of decision making, typically with regard to effectiveness, proficiency and suitability of an activity (Owen, 2006).

Monitoring can be defined as the repetitive tracking and reporting of significant information regarding the program. Consequentially, evaluation is apprehensive with making of appropriate decisions concerning the capacity of a program to realize its set objectives as well as its value to the targeted population. (Poister, 2007). Existing literature supports the view that evaluation could be conducted in several levels with focuses on a number of different objectives.

According to a research study carried out by Owen in 2006, there is valuable categorization of five different forms of evaluations that helps in classification of literature (Melnick, 2002). These are proactive evaluation, clarificative evaluation, interactive evaluation, monitoring evaluation, and impact evaluation. According to Owen (2006), proactive evaluation usually takes place prior to the design of a program to help in decision making regarding the needed interventions.

A clarificative evaluation emphasizes on making clear internal structures and operational program, in some cases referred as program logic or theory. On the other hand, interactive evaluation has been described as a precise kind of evaluation, in which the management of the evaluation initiative lies in the hands of people who have conferred interest (Browning & Thomas, 2005). It could be reasoned, though, that interactive and participatory-emphasized evaluation could actually be viewed as a method of evaluation that could be existing in the other types of evaluation discussed here.

According to Poster (2007), monitoring evaluation plays significant role in both accountability and enhancement purposes. This kind of evaluation could take in performance monitoring or organization of the performance.

Reports obtained from the performance measurement schemes give imaginative data from numerous actions for a program, for instance inputs, actions and results (Hitchcock, Schubert, & Thomas, 2003). Most literatures suggest that the emphasis on evaluation of a program or service, particularly the accomplishment of results is one of the most important element of monitoring and evaluation of the process.

Monitoring and evaluation are not only used to asses programs but also in the assessment of various business performances. Another useful research which was done by Pomerantz in 2001 shows that monitoring and evaluation is relatively an inconsistency as an area of research in the sense that there is a kind hurry to professionalize the field. However, there is inadequate professional consideration towards this. Monitoring and evaluation could be the greatest cost constituent of a progress project and nonetheless there is petite standardization of exercising or qualifications (Njenga et al, 2011).

An important first step in M&E is to clearly describe the program of interest. A Program Logic Model can be used to describe the main elements of a program and how these work together to reach the program's goals. This framework facilitates the planning and execution of the program, but also helps setting priorities for M&E. Monitoring & Evaluation data should be collected with the intention of being used (this is often referred to as the utilization-focused approach in M&E). The primary use of M&E data is for program improvement; some of these data will also be used to satisfy accountability purposes and to share information and lessons learned for broader public use. Typically, the types of data needed are: inputs required for implementing the program's activities, describing the activities themselves, and their outputs (i.e., immediate effects). For some of the programs, these outputs are then intended to lead to outcomes (i.e., intermediate effects) that in turn are intended to lead to impacts . These data are gathered through routine monitoring and/or evaluation studies linked to a specific program.

### **2.2.1 Monitoring and Evaluation of Public Health Programs.**

It is important that all stakeholders in public health program work together to avoid duplication of effort. This requires establishing partnerships and formal communication and collaboration mechanisms. (Beracochea, Weinstein & Evans, 2011). A wide variety of stakeholders should participate in the development and regular updating of the national Monitoring & Evaluation plan, including sub-national authorities and representatives from civil society. The objectives of the national M&E plan should be explicitly linked to the National Strategic Plan to ensure that relevant data are collected to measure the progress in the country's response (World health organization, 2006). The national M&E plan should describe a 3-5 year implementation strategy for the components of the M&E systems, indicate resource requirement estimates and outline a strategy for resource mobilization. The national M&E plan should be reviewed and updated regularly to make adjustments in data collection needs associated with revisions of the National Strategic Plan, and to strengthen M&E system performance based on periodic M&E assessments. (Aral, Fenton & Lipchitz 2013). For the national Public Health Program M&E plan to be operationalised, an annual costed national M&E work plan needs to be developed that describes the priority M&E activities for the year with defined responsibilities for implementation, costs for each activity, identified funding, and a clear timeline for delivery of outputs. This work plan represents the joint work plan that integrates the M&E activities of all relevant stakeholders. (Njenga, et al, 2011).

### **2.3 Organizational Structures and Monitoring & Evaluation**

An organizational structure is the typically hierarchical arrangement of line of authority, communication, rights and duties of an organization. Organizational structure determines how roles, power and responsibilities are assigned, controlled and coordinated and how information flows between the different levels of management. (Potvin 2008). Organizational structure consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment. Organizations are a variant of clustered entities. An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs. Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as



the branch, department, workgroup and individual. Organizational structure affects organizational action in two big ways. First, it provides the foundation on which standard operating procedures and routines rest. Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent their views shape the organization's actions. (Saint-Georgiev, 2008). Employees within the functional divisions of an organization tend to perform a specialized set of tasks, for instance the monitoring and evaluation department would be staffed only with M& E specialists. This leads to operational efficiencies within that group (Porche, 2008). As a whole, a functional organization is best suited as a producer of standardized goods and services. Coordination and specialization of tasks are centralized in a functional structure, which makes producing a limited amount of products or services efficient and predictable. Moreover, efficiencies can further be realized as functional organizations integrate their activities vertically.

Program management is about making the correct decisions to achieve the program's goals and objectives. It involves good program planning (such as setting realistic goals and objectives and ensuring that program activities are in line with these), good program implementation (such as meeting timelines and ensuring the quality of the program) as well as good resource management (such as monitoring the use of funds and ensuring value for money). These management functions rely on the availability of the right kind of information about the program. There are many program aspects that one might like to collect data about. However, all data collection has costs in terms of time and often financial resource (Njenga, 2011). For the national public health program M&E system to function effectively, a variety of organizations need to work together at different levels. Ideally, the system should be coordinated by one organization, such as the National School Health Program (NSHP) or its equivalent. In addition to human resources, there is also a need for financial resources, as well as basic infrastructure, equipment and supplies. (Aral, Fenton & Lipchitz, 2013).

#### **2. 4. Human Capacity for Monitoring & Evaluation of the Program**

Projects need to develop Human capacity. Human capacity development can be defined as the process by which individuals, groups, organizations, institutions, and societies develop their abilities - both individually and collectively - to set and achieve objectives, perform functions, solve problems and to develop the means and conditions required to enable this process. (Lee, 2010). Based on this definition, two important attributes of human capacity development can be

achieved. Firstly, human capacity development should address at least four levels individuals, organizations, sector/networks, and the broader enabling environment. Importantly, it is noted that, the overall capacity is not just the sum of individual/institutional/sector capacities but also includes the opportunities and incentives for people to use and extend their skills within an enabling environment. Human capacity development, therefore, takes place not just within individuals, but between them and in the institutions they create. Capacity-development initiatives must take a holistic view of the context in which individuals operate (Ivanovo, 2007).

Secondly, human capacity development is a process, whereby individual development becomes embedded in a sustainable shift in performance and collective behavior. This process includes identifying needs, building knowledge, understanding, skills and attitudes that can be implemented through practice and experience of individuals that lead to sustainable changes in the collective performance of institutions, sectors, society and the enabling environment. It is a not a simple linear process and that capacity cannot be solely developed from the outside but should be acquired over time, with external support facilitating the process. It is also recognized that this is a two-way process whereby an individual's capacity-development needs, knowledge and experience would closely reflect the requirements of the institution - be it an organization or a household - in which they operate. This means that individuals/organizations/sectors that require or request assistance should be involved in the design and evaluation of the capacity development. Because human capacity development is a process, it has to some extent, uncertain results that are not easily measurable, although it is felt that some evaluation of performance was necessary to promote continual improvement. (Issel 2009). Not only is it necessary to have dedicated and adequate numbers of M&E staff, it is essential for these staff to have the right skills for the work. Human capacity building should focus on all levels of the system. M&E capacity building should focus not only on the technical aspects of M&E, but also address skills in leadership, financial management, facilitation, supervision, advocacy and communication. (La, 2005).

## **2.5 Advocacy and Communication in Monitoring and Evaluation**

Advocacy is the act of well-planned and intended series of actions to influence change. In democracies, advocacy is also a formal form of voicing a need for change and/or enforcing rights through legal mechanism. Advocacy aims to influence a change in policy visualization, identification, formulation, implementation and execution. It also aims to access information and create democratic spaces for greater say for citizens in governance matters. Advocacy is thus a

planned, political process by engaging certain key information and skills, to influence policy outcomes. It is important to simplify and demystify M&E, create a supportive M&E culture, and reduce any fear or negative connotations regarding M&E. The purpose of advocacy is to influence decision makers to adopt or change laws and policies (and sometimes even practices that are not regulated by policies) that affect a particular population. For this reason, an understanding of the policy process is critical for evaluators of deworming campaigns. A communication and advocacy strategy for M&E can help to achieve these objectives. The strategy needs to be multi dimensional, with tailored messages for different audiences, including the general public. (Gumucio & Tufte, 2006). Advocacy is educating and creating awareness among leaders and the general public of issues facing the community and the importance of aligning public policy to address the need. Advocacy does not endorse or oppose specific legislation, but rather informs the community at large how public policy decisions impact service provision (Novick 2007). In recent years it has been recognized that social development projects only have limited success if they are conducted within a local and global environment of gross inequality in power and wealth (Institute of medicine US, 2010.) As a result, many organizations are addressing these inequality issues through advocacy projects and programs which either complement their other development efforts or which have become their primary strategy. Organizations which apply rights-based approaches automatically include advocacy in all of their program strategic plans. (Ford, 2011).

Essentially, advocacy is the strategic use of information to influence the policies and actions of those in positions of power or authority to achieve positive changes in people's lives. Advocacy work and programs target human rights in an effort to improve quality of life. Advocacy should be based on the experience and knowledge of the families and communities it aims to support. It should be empowering for those individuals and communities. In addition to focusing on changes brought about by the advocacy work, any review or evaluation should concentrate on the lessons learnt from other parts of the world. These should be clearly documented and shared with the staff, partners, community members and donors as appropriate. It is important to advocate and lobby for funds to support deworming programs in Kenya given the consequences the worms have in the future of the Kenyan children.

## **2.6. Project Databases in Monitoring and Evaluation of Programs**

A database is an organized collection of data. The data is typically organized to model relevant aspects of reality in a way that supports processes requiring this information. Formally, the term

"database" refers to the data itself and supporting data structures. Databases are created to operate large quantities of information by inputting, storing, retrieving, and managing that information. Databases are set up, so that one set of software programs provides all users with access to all the data. Databases use a table format that is made up of rows and columns. Each piece of information is entered into a row, which then creates a record. Once the records are created in the database, they can be organized and operated in a variety of ways that are limited mainly by the software being used. Databases are somewhat similar to spreadsheets, but databases are more demanding than spreadsheets because of their ability to manipulate the data that is stored. It is possible to do a number of functions with a database that would be more difficult to do with a spreadsheet. The word data is normally defined as facts from which information can be derived (Poister 2007). A database may contain millions of such facts. From these facts the database management system (DBMS) can develop information.

A "database management system" (DBMS) is a suite of computer software providing the interface between users and a database or databases. Because they are so closely related, the term "database" when used casually often refers to both a DBMS and the data it manipulates. Outside the world of professional information technology, the term *database* is sometimes used casually to refer to any collection of data (perhaps a spreadsheet, maybe even a card index). Most projects in developed countries today depend on databases for their project monitoring and evaluation (Troy 2005). Increasingly, databases are not only used to support the internal operations of the project, but also to underpin its online interactions with customers and suppliers. Databases are not used only to hold administrative information, but are often embedded within applications to hold more specialized data.

An information system consists of the infrastructure (hardware), a data base (software), and skilled individuals to use the databases to capture, verify, transfer, analyze, and share data. Clear roles and responsibilities need to be established at national, sub-national, and service-delivery levels to ensure an appropriate and timely dataflow between the different levels. A national deworming database is not a prerequisite for a functional national deworming M&E system (Miguel 2004). However, an electronic data management system allows for the information to be captured in a way that facilitates data verification, data sharing, and data use. (Chen, 2005).

The national and sub-national authorities need a routine system to track the demand for and supply of project services. Standardized data from all providers, including facility and

Community-based deworming service providers should be collected on a routine basis. To guide decision making at all levels, the data needs of different stakeholders should be determined and the data made available in a timely fashion (Valente, 2002). Biological and behavioral surveillance and surveys are essential to determine the drivers and the spread of the worms' epidemic in each country. Worm surveillance and worm surveys may focus on the general population, most-at-risk populations or both. The need for surveys, as well as, the specific focus and content of each survey should be considered within the context of each country's epidemic. Protocols and data collection tools should be based on international standards to obtain high-quality data and to ensure that results from repeated surveys can be compared over time within a given country, as well as across countries. This information should be complemented with data obtained from other social and behavioral science methods including rigorous qualitative data (Troy 2005). It is therefore prudent that, all projects be equipped with functional databases.

## **2.7. Data Dissemination and use in Programs**

Information dissemination means; Methods one uses to communicate information, Knowledge, facts or making facts known. Dissemination of information also refers to the distribution of information to the general public usually conducted by the government or an agency specifically given authorization to release information for any public sector. (Melnick, 2002). The dissemination of information is a one-way process. The disseminated information flows down from the source (an agency of the government) to the target audience (the public).

There may or may not be any feedback from the public. The information dissemination programs and projects, planned for the benefit of the adult community, cannot be effective unless the media and the language used for communication of contents are meaningful to the adult community (Kotch 2013).

The media most commonly used for communication are oral/verbal communication, written communication, visual communication, and multi-media communication. Oral communication is by word of mouth when two or more persons meet and talk directly, face-to-face, or by telephone. Both these forms are oral and not verbal. Verbal communication is through words, both written and spoken, such as group meetings and presentations, and informal talks. Visual communication (drawings, photographs, pictures, etc) is more effective than any number of words. Multi-media communication (combining text, visual, and graphics, sound, and motion on pictures) is still more effective. (Kabaka, 2010).

The most important reason for conducting M&E is to provide the data needed for guiding policy formulation and program operations. A detailed data use plan should be included in the national M&E plan; this plan should link data needs and data collection efforts with specific information products for different audiences, as well as a timetable for dissemination. It should also include activities to encourage data use.

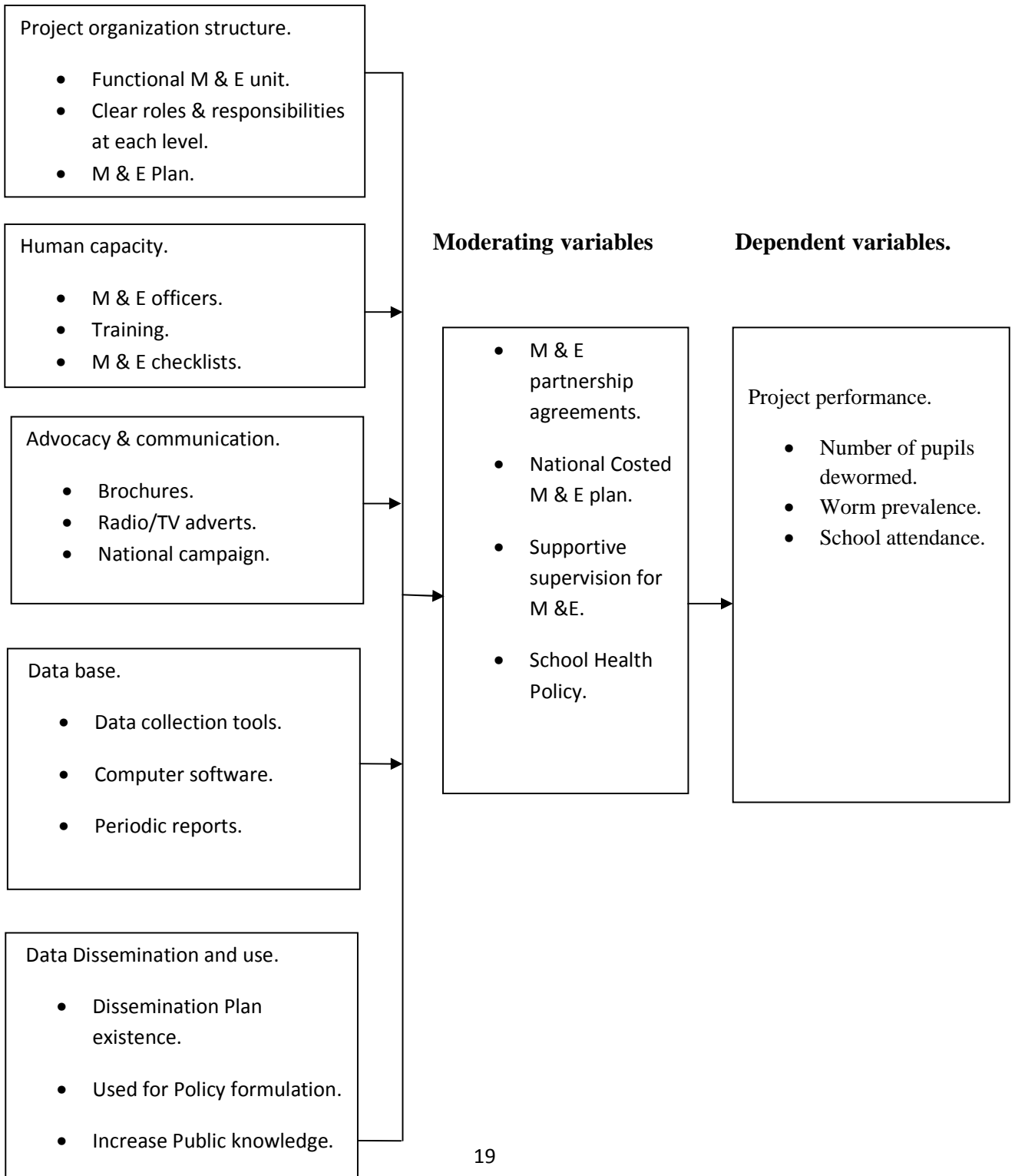
A functional M&E system collates and presents the data in a way that facilitates data use at all levels, including the general public and beneficiaries of deworming services. (Institute of Medicine (U.S), 2010). For sound decision-making, it is important to be confident about data quality. Regular data quality checks and provision of feed-back are important mechanisms to improve or sustain data quality (Kotch 2013). Supportive supervision on data collection is crucial. Supervision refers to overseeing and directing the performance of others and transferring the knowledge, attitudes, and skills that are essential for successful M&E of deworming activities (Seltzer 2011).

Data auditing which refers to the process of verifying the completeness and accuracy of reported aggregate program data is equally essential. Appropriate use of evaluation and research data ensures that the planning of the health program response is based on the best available evidence and guides ongoing program improvement. Establishing a national process for identifying evaluation and research gaps relevant to the National Strategic Plan and for coordinating partners helps ensure that evaluation studies are relevant to the country's needs and provide actionable results; that such efforts are coordinated to avoid duplication of effort; and that study results are shared widely and available for use in decision-making within the country of origin as well as beyond, where relevant (Linnan, 2002).

## 2.8. Conceptual Frame Work.

Figure 1. A conceptual framework of determinants of Monitoring and evaluation of Public health programs.

### Independent variables.



The conceptual frame work above indicate the determinants of monitoring and evaluation of public health programs which are project organizational structure, human capacity on Monitoring & Evaluation , advocacy and communication, database and data dissemination and use as independent variable , which they lead to moderating variables that determine project performance as dependent variable.

## **2.9. Summary of Literature Review**

In summary, various literatures that exist indicate that monitoring and evaluation is indeed very important in finding out the success of any project or program. Even though there are no much research that has been done with regard to monitoring and evaluation in the public health sector, related research available provides very useful information about the application of these processes.

Research conducted by Owen in the year 2006, indicates that there is valuable categorization of five different forms of evaluations that helps in classification of existing literature. These are proactive evaluation, clarificative evaluation, interactive evaluation, monitoring evaluation, and impact evaluation.

For an effective M&E system to be put in place, various components of the M & E are essential. This include and not limited to a well defined project organizational structure with a functional M & E unit , enhanced human capacity on M & E , Monitoring & Evaluation partnerships , well elaborate M & E plan ,a strong advocacy and communication strategy on M&E within the project ,routine M & E of the project activities with a strong database and finally an elaborative data dissemination and usage plan. However, there is little research that focuses on the monitoring and evaluation, which creates an opportunity for further research.



## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1. Introduction

This chapter outlines the study methodology that was used in the research project. This include the study design, target population, sampling procedures, methods of data collection, Validity and reliability of the data collection instruments, methods of data analysis, operational definition of the variables and finally ethical consideration.

#### 3.2. Research Design

The study deployed descriptive survey research design with an attempt to explain the determinants of monitoring and evaluation of public health programs. The design is best suited for this study as it is able to elicit information about characteristics of the deworming program in Kwale County. Furthermore, the chosen survey design requires minimal investment to develop and administer and is relatively easy for making generalizations (Valente, 2002).

#### 3.3. Target Population

A total of 480 people supervised the deworming program in Kwale County. Samples from various divisions in the three major districts of Kwale County were administered with the questionnaires.

#### 3.4. Sample Size and Sampling Procedures

Samples of 218 respondents from various divisions in the three major districts of Kwale County participated in the survey. The below formula was used to calculated sample size.

$$n = \frac{N}{1+N(e)^2}$$

Where n = desired sample size when the population is less than 10,000.

e =Sampling error.

N= Population size.

At 95% confidence level the sampling error is 0.05. Therefore this implied that the desired

$$\text{sample } n = \frac{480}{1+480(0.05)^2} = 218.$$

The table below summarizes the proposed sample size for this study.

**Table 3.1. Sample size**

| S/No. | Type of pop.              | Areas( Districts)       | Total Pop. | Sample size. |
|-------|---------------------------|-------------------------|------------|--------------|
| 1.    | Project Managers/Trainers | Kwale                   | 6.         | 6            |
| 2     | District level staff.     | Kwale/Kinango/Msambweni | 123        | 94           |
| 3     | School teachers           | Kwale/Kinango/Msambweni | 351        | 118          |
| Total |                           |                         | 480        | 218          |

### 3.5. Data Collection Instruments

Questionnaires and interview schedules were the main instruments of data collection. A questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic. When properly constructed and responsibly administered, questionnaires become a vital instrument by which statements can be made about specific groups or people or entire populations. Questionnaires are frequently used in quantitative marketing research and social research. They are a valuable method of collecting a wide range of information from a large number of respondents. Adequate questionnaire construction is critical to the success of a survey. Inappropriate questions, incorrect ordering of questions, incorrect scaling, or bad questionnaire format can make the survey valueless, as it may not accurately reflect the views and opinions of the participants. A useful method for checking a questionnaire and making sure it is accurately capturing the intended information is to pretest among a smaller subset of target respondents. Generally, interviews and Questionnaires are considered to be appropriate methods because of their perceived easiness to use and assessment. Furthermore, interviews and questionnaires are considered to be time effective, low in terms of cost and obscurity. The questionnaires will be administered by researcher and selected enumerators. Both open ended and closed ended questions will be used .Open ended questions will allow the respondent to provide sufficient details while closed ended questions will allow easy quantification of the results by researcher by use of SPSS computer software. With SPSS predictive analytics software, the researcher is able to predict with confidence what will happen next so that one can make smarter decisions, solve problems and improve outcomes.

### **3.6. Data Collection Procedures**

A tool kit comprising of a questionnaire and focus group discussions were used as the best type that seek to establish the determinants of Monitoring and evaluation of public health programs in Kwale County. The questionnaire will be prepared based on extensive review of the literature on monitoring and evaluation. Data collection tools will be piloted and suggestion made before finalizing the questionnaire. A six –point Likert scale was be used to answer most of the questions in the survey. The study utilized a self –administered questionnaire and in-depth interview techniques as well as access to secondary data.

### **3.7. Validity and Reliability of Research Instruments**

Validity and reliability of the research instrument were established as follows.

#### **3.7.1. Validity of the Research Instruments**

M'ikanatha (2007) refers to validity as the quality that a procedure or instrument or a tool used in research is accurate, correct, true and meaningful. The research intend to use content validity as a measure of the degree to which data collected using the questionnaires represent the objectives of the study. The instrument will be given to the officer in charge of public health in Kwale County to assess what the instrument is trying to measure and his views will be in cooperated in the final questionnaires

#### **3.7.2. Reliability of the Research Instrument**

Merrill (2010) Says that reliability is concerned with estimates of the degree to which a research instrument yields consistency results after repeated trials. For the purpose of this research, reliability will be determined by test –retest administered to 20 subjects not included in the study sample. Interviewers will be instructed to carefully identify ambiguous and inappropriate questions that are not clear or offending. Their inputs will be obtained and used to modify the final questionnaire.

### **3.8. Data Presentation and Analysis.**

Data collected were cross checked for completeness. Interviewers submitted completed instruments at the end of each working day. Analysis of the data obtained was done using descriptive and inferential statistics. Qualitative data was summarized to identify determinant of monitoring and evaluation of the Kwale School based deworming program and qualitatively

analyzed by identification of emerging and recurrent common themes. Tables are used to analyze content of the data for completeness and consistency.

### **3.9. Ethical Consideration.**

Contextually, ethical clearance for the determinants for the monitoring and evaluation survey was obtained from the relevant Government ministries (Ministry of Education and that of Public health and sanitation). Discussions were held with education officials, teachers and parents to explain the purpose of the study and to obtain approval for the study. Confidentiality of the information that was obtained during the study from respondents was guaranteed. The researchers emphasized that, the purpose of this study is purely academic for the purpose of fulfilling requirement of a degree program and that the report will not be published for public consumption. Parents who participated in the study are allowed to opt out if they didn't want to participate. This passive, opt-out method is considered to be an ethical and practical way of informing participants in low-risk studies (Ellickson & Hawes 1989), especially research used to directly guide government public health intervention

### 3.10: Operational Definitions of Variables

Table 3.2: Operational definition of variables.

| Research objectives.  | Type of variables.                                       | Indicators.      | Measure.                  | Level of scale.              | of Research design | Data collection method. | Level of analysis.                |
|---|--|------------------|---------------------------|------------------------------|--------------------|-------------------------|-----------------------------------|
| 1. To examine the extent to which project organizational structure influence the monitoring and evaluation of public health programs in Kwale County. | Independent variable.<br>Project Organization structure. | M& E unit.       | Availability of M& E plan | Nominal.                     | Observation.       | Inspection.             | Descriptive.<br>Central tendency. |
| 2. To determine the extent to which the human capacity influences monitoring and evaluation of public health programs in Kwale county.                | Independent variable. Human capacity.                    | Trained on M & E | M& E skills.              | Nominal scale.               | Survey.            | Questionnaire.          | Descriptive.<br>Central tendency. |
| .3. To assess the extent to which advocacy and communication  | Independent variable.<br>Advocacy and communication.     | Media reports.   | Print media brochures.    | Nominal scale. <sup>25</sup> | Survey.            | Questionnaire.          | Descriptive.<br>Central tendency. |

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influences the monitoring and evaluation of public health programs in Kwale County.

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|   |   |                        |                 |                |        |                |                                   |
|---|---|------------------------|-----------------|----------------|--------|----------------|-----------------------------------|
| 4. To assess the extent to which the database contributes to monitoring and evaluation of Public health programs in Kwale County. | Independent variable.<br>Project M& E database. | Data collection tools. | Annual reports. | Nominal scale. | survey | Questionnaire. | Descriptive.<br>Central tendency. |
|---|---|------------------------|-----------------|----------------|--------|----------------|-----------------------------------|

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|  |   |                 |                       |                |        |               |                                   |
|--|---|-----------------|-----------------------|----------------|--------|---------------|-----------------------------------|
| 5. To examine the extent to which data dissemination and use influences monitoring and evaluation of public health programs in Kwale County. | Independent variable.<br>Data dissemination and use plan. | Annual reports. | Frequency of reports. | Nominal scale. | survey | Questionnaire | Descriptive.<br>Central tendency. |
|--|---|-----------------|-----------------------|----------------|--------|---------------|-----------------------------------|

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## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTREPRETATION

#### 4.1. Introduction.

This chapter presents data analysis and provides the interpretation of analyzed data for the study on the determinants of effective monitoring and evaluation of public health projects in Kwale County.

#### 4.2. Response Rate

An analysis of the rate at which questionnaires distributed were returned and completed is discussed in this session.

**Table 4.1: Response rate of respondents**

| Category                              | Number of cases (N) | Percentage (%) | Cumulative percentage (CP) |
|---------------------------------------|---------------------|----------------|----------------------------|
| Questionnaires returned               | 146                 | 67             | 67                         |
| Questionnaires not returned.          | 72                  | 33             | 100                        |
| <b>Total questionnaires submitted</b> | <b>218</b>          | <b>100</b>     |                            |

The data was collected from a cross-section of personnel who supervised and implemented the national school deworming program in Kwale County. Out of 218 questionnaires distributed to the respondents, 146 were submitted back to the researcher giving a response rate of 67 percent.

#### 4.3. Demographic Characteristics of the Respondents.

The table below shows the characteristics of the respondents from both ministries of Health and that of education.

**Table 4.2: Demographic characteristics of the respondents**

| Respondents                 | Number of cases (N) | Percentage (%) | C.P  |
|-----------------------------|---------------------|----------------|------|
| District Medical officers   | 3                   | 2              | 2    |
| District Education officers | 3                   | 2              | 4    |
| Head Teachers               | 21                  | 14.4           | 18.4 |
| Health facility in charges  | 33                  | 22.6           | 41   |
| Teachers                    | 86                  | 59.0           | 100  |
| <b>Total</b>                | <b>146</b>          | <b>100</b>     |      |

**Table 4.3: The role of respondents in the deworming program**

| Role         | number of case (N) | percentage (%) | C.P |
|--------------|--------------------|----------------|-----|
| Manager      | 7                  | 5              | 5   |
| Supervisor   | 64                 | 44             | 49  |
| Trainer      | 32                 | 22             | 71  |
| Others       | 43                 | 29             | 100 |
| <b>Total</b> | <b>146</b>         | <b>100</b>     |     |

Table 4.3 above shows that, 70 % of the respondents participated in monitoring and evaluation of the Kwale deworming project either as managers, supervisors or trainers.

#### 4.4. Project Organizational Structure.

Project organizational structure is one of the factors that determine if a project will be monitored and evaluated or not.

The respondents were asked react to the following statement “am aware of the project organizational structure of the Kwale School –based deworming Project’. Below are their responses.

**Table 4.4: Knowledge on project organization structure**

| Reaction              | Numbers of cases (N) | percentage (%) | C.P (%) |
|-----------------------|----------------------|----------------|---------|
| 1. strongly agree     | 81                   | 55.5           | 55.5    |
| 2. Agree              | 43                   | 29.5           | 85      |
| 3. Somewhat agree     | 15                   | 10.2           | 95.2    |
| 4. somewhat disagree  | 2                    | 1.4            | 96.6    |
| 5. Disagree           | 3                    | 2              | 98.6    |
| 6. Strongly disagree. | 2                    | 1.4            | 100.0   |
| <b>Total</b>          | <b>146.</b>          | <b>100</b>     |         |

Statistical results reveal that 55.5% of respondents strongly agreed that, project organizational structure did exist in the Kwale deworming project while 29.5% agreed and 10.2 % somehow agreed making total respondents who agreed to 95.2%.The remaining 4.8 % disagreed. This brings a cumulative percentage of 100.0%. It’s evident that, project organizational structure had big role to play in monitoring and evaluation of Kwale deworming project.



**Table 4.5: Mean and standard deviation of knowledge on the project structure**

| <b>Descriptive Statistics</b> |      |                |     |
|-------------------------------|------|----------------|-----|
|                               | Mean | Std. Deviation | N   |
| Organizational structure      | 1.81 | .936           | 146 |
| Role in the Program           | 2.31 | .825           | 146 |

From the above Descriptive statistical output, it is clear to deduce that the mean obtained while comparing the organizational structure and the role in the monitoring and evaluating program, it is given as 1.81 against 2.31 with their standard deviations of 0.936 and 0.825 which bear a statistical significance in that the mean is tend to be twice the standard deviation for the data.

**Table 4.6: Coefficient correlations of the project structure and roles in the program**

|                          |                     | Organization | Role in the |
|--------------------------|---------------------|--------------|-------------|
|                          |                     | al structure | Program     |
| Organizational structure | Pearson Correlation | 1            | .825        |
|                          | Sig. (2-tailed)     |              | .825        |
|                          | N                   | 146          | 146         |
| Role in the Program      | Pearson Correlation | .825         | 1           |
|                          | Sig. (2-tailed)     | .825         |             |
|                          | N                   | 146          | 146         |

The coefficient of correlation above shows a strong positive correlation of 0.825 between the organizational structure and its role in the program evaluation and monitoring. This implies that as the structure increases, the role in program increases as well and vice versa.

#### **4.4.1 Testing of the Research Hypothesis on organizational structure**

The study sought to test the following research hypothesis;

(H<sub>0</sub>); There is association between the project structure and monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>); There is no association between the project structure and monitoring and evaluation of public health programs in Kwale County.

**Table 4.7: Chi square values on usefulness of project organizational structure in monitoring and evaluation.**

|                   | <b>Observed</b> | <b>Expected</b> | <b>Residual</b> |
|-------------------|-----------------|-----------------|-----------------|
| Strongly agree    | 78              | 24.3            | 53.7            |
| Agree             | 23              | 24.3            | -1.3            |
| Somehow agree     | 17              | 24.3            | -7.3            |
| Somehow disagree  | 21              | 24.3            | -3.3            |
| Disagree          | 6               | 24.3            | -18.3           |
| Strongly disagree | 1               | 24.3            | -23.3           |
| Total             | 146             |                 |                 |

Table 4.7 above show values of observed cases and that of expected on usefulness of project organizational structure on monitoring and evaluation.

**Table 4.8: Chi-square values on association between project organization structure and M&E.**

|                   | Observed(O) | Expected(E) | $\frac{(O-E)^2}{E}$ |
|-------------------|-------------|-------------|---------------------|
| Strongly agree    | 78          | 24.3        | 4.88                |
| Agree             | 23          | 24.3        | 2.86                |
| Somehow agree     | 17          | 24.3        | 0.09                |
| Somehow disagree  | 21          | 24.3        | 0.02                |
| Disagree          | 6           | 24.3        | 0.57                |
| Strongly disagree | 1           | 24.3        | 0.92                |
| Total             | 146         |             | $\Sigma$ 9.34       |

Computed chi-square value ( $Z^2$ ) is 9.34

Degree of freedom= n-1. Where n = numbers of variables observed

6 - 1 = 5.

At 5 % level of significance, Chi-square table value ( $Z^2\alpha$ ) is 11.07

Decision.

If  $Z^2\alpha$  is larger than  $Z^2$ , we accept ( $H_0$ ).

110.07 is larger than 9.34. Therefore we accept the  $H_0$  and reject  $H_1$ . We can statistically conclude that, there is association between the project structure and monitoring and evaluation of public health programs in Kwale County.

#### 4.5. Human capacity on monitoring and evaluation of programs

The respondents were asked react to the following statement. “I received a training /orientation on the Kwale school-based deworming project”. Their responses are summarized below.

**Table 4.9: Training for human capacity development and the role in the Program**

| Reactions         | Numbers of cases (N) | Percentage (%) | C.P (%) |
|-------------------|----------------------|----------------|---------|
| Strongly agree    | 137                  | 93.8           | 93.8    |
| Agree             | 7                    | 4.8            | 98.6    |
| Somehow agree     | 2                    | 1.4            | 100     |
| Somehow disagree  | 0                    | 0              | 100     |
| Disagree          | 0                    | 0              | 100     |
| Strongly disagree | 0                    | 0              | 100     |
| Total             | 146                  | 100            |         |

The study data reveals that, 100% of the respondent’s received some form of training or orientation for the Kwale deworming project as illustrated above by their responses.

**Table 4.10: Mean and standard deviation on Training for human capacity development and the role in the program**

#### Descriptive Statistics

|                     | Mean | Std. Deviation | N   |
|---------------------|------|----------------|-----|
| Role in the Program | 2.31 | .825           | 146 |
| Human capacity      | 1.67 | .689           | 146 |

From the above Descriptive statistical output, it is clear to deduce that the mean obtained while comparing the human capacity and the role in the monitoring and evaluating program, it is given as 2.31 against 1.67 with their standard deviations of 0.825 and 0.689 which bear a statistical significance in that the mean is tend to be twice the standard deviation for the data.

**Table 4.11: Correlation coefficient on Training for human capacity development and the role in the program**

|                     |                     | Role in the Human capacity Program |      |
|---------------------|---------------------|------------------------------------|------|
| Role in the Program | Pearson Correlation | 1                                  | .729 |
|                     | Sig. (2-tailed)     |                                    | .729 |
|                     | N                   | 146                                | 146  |
| Human capacity      | Pearson Correlation | .729*                              | 1    |
|                     | Sig. (2-tailed)     | .729                               |      |
|                     | N                   | 146                                | 146  |

\*. Correlation is significant at the 0.05 level (2-tailed).

The coefficients of correlation above show a strong positive correlation of 0.729 between the human capacity development and its role in the program evaluation and monitoring. This implies that as the Human capacity increases, the role in program increases as well and vice versa.

#### 4.5.1 Testing of the Research Hypothesis on human capacity

The study sought to test the following research hypothesis;

(H<sub>0</sub>): There is significant influence by Human capacity and Monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no association between the human capacity and monitoring and evaluation of public health programs in Kwale County.

**Table 4.12: Chi square values on human capacity in monitoring and evaluation.**

|                   | <b>Observed</b> | <b>Expected</b> | <b>Residual</b> |
|-------------------|-----------------|-----------------|-----------------|
| Strongly agree    | 12              | 24.3            | -12.3           |
| Agree             | 37              | 24.3            | 12.7            |
| Somehow agree     | 49              | 24.3            | 24.7            |
| Somehow disagree  | 34              | 24.3            | 9.7             |
| Disagree          | 11              | 24.3            | -13.3           |
| Strongly disagree | 3               | 24.3            | -21.3           |
| Total             | 146             |                 |                 |

Table 4.12 Shows the observed and expected values for each reaction.

**Table 4.13: Chi square values on Influence of human capacity and monitoring and evaluation**

|                   | Observed(O) | Expected(E) | $\frac{(O-E)^2}{E}$ |
|-------------------|-------------|-------------|---------------------|
| Strongly agree    | 12          | 24.3        | 0.26                |
| Agree             | 37          | 24.3        | 0.52                |
| Somehow agree     | 49          | 24.3        | 1.03                |
| Somehow disagree  | 34          | 24.3        | 0.16                |
| Disagree          | 11          | 24.3        | 0.30                |
| Strongly disagree | 3           | 24.3        | 0.77                |
| Total             | 146         |             | $\Sigma$ 3.04       |

Computed Chi- square value ( $Z^2$ ) is 3.04

Degree of freedom= n-1. Where n = numbers of variables observed

6 - 1 = 5.

At 5 % level of significance, Chi-square table value ( $Z^2\alpha$ ) = 11.07

Decision.

If  $Z^2\alpha$  is larger than  $Z^2$  , we accept ( $H_0$ ).

110.07 is larger than 3.04. Therefore we accept the  $H_0$  and reject  $H_1$ . We can then statistically conclude that, there is significant influence by Human capacity and Monitoring and evaluation of public health programs in Kwale County.

#### 4.6. Advocacy and communication for monitoring and evaluation.

The respondents were asked to choose the following strategies that they believed were used for advocacy and communication to promote the Kwale deworming project.

**Table 4.14: Advocacy and communication and the role in the program**

| Advocacy channels | Numbers of cases (N) | Percentage (%). C.P |      |
|-------------------|----------------------|---------------------|------|
| Radio/television  | 30                   | 20.5                | 20.5 |
| Brochures         | 97                   | 66.4                | 86.9 |
| National campaign | 12                   | 8.2                 | 95.1 |
| Others            | 7                    | 4.8                 | 100  |
| <b>Total</b>      | <b>146</b>           | <b>100</b>          |      |

The above analysis shows that brochures and posters were the major strategy for advocacy and communication for the Kwale deworming project represented by 66.4 % of the respondents. Followed by local FM radios and television with 20.5 %.

**Table 4.15: The Mean and standard deviation for advocacy and communication and the role in the program**

#### Descriptive Statistics

|                            | Mean | Std. Deviation | N   |
|----------------------------|------|----------------|-----|
| Role in the Program        | 2.31 | .825           | 146 |
| Advocacy and communication | 1.40 | .493           | 146 |

From the above Descriptive statistical output, it is clear to deduce that the mean obtained while comparing the advocacy and communication and the role in the monitoring and evaluating program,

it is given as 2.31 against 1.40 with their standard deviations of 0.825 and 0.493 which bear a statistical significance in that the mean is tend to be twice the standard deviation for the data.

**Table 4.16: The correlation coefficient of advocacy and communication and role in the program**

| Correlations               |                     | Role in the Advocacy<br>Program and<br>communication |      |
|----------------------------|---------------------|--|------|
| Role in the Program        | Pearson Correlation | 1  | .650 |
|                            | Sig. (2-tailed)     |  | .650 |
|                            | N                   | 146  | 146  |
| Advocacy and communication | Pearson Correlation | .650   | 1    |
|                            | Sig. (2-tailed)     | .650   |      |
|                            | N                   | 146  | 146  |

The coefficient of correlation above shows a strong positive of 0.650 correlations between the advocacy and communication and its role in the program evaluation and monitoring. This implies that as the advocacy and communication strategies increase, the role in program increases as well and vice versa.

#### **4.6.1 Testing of the Research Hypothesis on advocacy and communication**

(H<sub>0</sub>): There is significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale County.

H<sub>1</sub>): There is no significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale County.

**Table 4.17: Chi square values on advocacy and communication.**

|                   | <b>Observed</b> | <b>Expected</b> | <b>Residual</b> |
|-------------------|-----------------|-----------------|-----------------|
| Radio/television  | 30              | 36.5            | -6.5            |
| Brochures         | 97              | 36.5            | 60.5            |
| National campaign | 12              | 36.5            | -24.5           |
| Others            | 7               | 36.5            | -29.5           |
| <b>Total</b>      | <b>146</b>      |                 |                 |

**Table 4.18: Association between advocacy and communication and monitoring and evaluation**

|                   | Observed(O) | Expected(E) | $\frac{(O-E)^2}{E}$ |
|-------------------|-------------|-------------|---------------------|
| Radio/television. | 30          | 36.5        | 0.03                |
| Brochures         | 97          | 36.5        | 2.75                |
| National campaign | 12          | 36.5        | 0.45                |
| Others            | 7           | 36.5        | 0.65                |
| Total             | 146         |             | $\Sigma$ 3.88       |

Computed Chi- square value ( $Z^2$ ) is 3.88.

Degree of freedom= n-1. Where n = numbers of variables observed

4- 1 = 3.

At 5 % level of significance, Chi-square table value ( $Z^2\alpha$ ) = 7.81.

Decision.

If  $Z^2\alpha$  is larger than  $Z^2$  , we accept ( $H_0$ ).

7.81 is larger than 3.88, Therefore we accept the  $H_0$  and reject  $H_1$ . We can then statistically conclude that, there is significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale County



#### 4.7. Project data base and role it plays in monitoring and evaluation

The respondents were asked react to the following statement “Database was used at different levels to capture, verify, transfer, analyze and shared data for the Kwale school-based deworming project. ”. Below are the analyses of the respondents’ views.

**Table 4.19: Database use and the role in the program**

| Reactions         | Numbers of cases (N) | Percentage (%). C.P (%) |      |
|-------------------|----------------------|-------------------------|------|
| Strongly agree    | 23                   | 15.7                    | 15.7 |
| Agree             | 46                   | 31.5                    | 47.2 |
| Somehow agree     | 55                   | 37.7                    | 84.9 |
| Somehow disagree  | 14                   | 9.6                     | 94.5 |
| Disagree          | 8                    | 5.5                     | 100  |
| Strongly disagree | 0                    | 0                       | 100  |
| Total             | 146                  | 100                     |      |

The data shows that 84.9% do agree computers were used to capture, verify and transfer data for the kwale deworming project while 15.1% don’t think so.

**Table 4.20: Mean and standard deviations in the use of database and the role in the program**

| Descriptive Statistics |      |                |     |
|------------------------|------|----------------|-----|
|                        | Mean | Std. Deviation | N   |
| Role in the Program    | 2.31 | .825           | 146 |
| Database contribution  | 1.40 | .493           | 146 |

From the above Descriptive statistical output, it is clear to deduce that the mean obtained while comparing the data contribution and the role in the monitoring and evaluating program, it is given as 2.31 against 1.40 with their standard deviations of 0.825 and 0.493 which bear a statistical significance in that the mean is tend to be twice the standard deviation for the data.

**Table 4.21: The correlation coefficient for the database and the role in the program**

| Correlations          |                     | Role in the Program | Database contribution |
|-----------------------|---------------------|---------------------|-----------------------|
| Role in the Program   | Pearson Correlation | 1                   | .617                  |
|                       | Sig. (2-tailed)     |                     | .617                  |
|                       | N                   | 146                 | 146                   |
| Database contribution | Pearson Correlation | .617                | 1                     |
|                       | Sig. (2-tailed)     | .617                |                       |
|                       | N                   | 146                 | 146                   |

The coefficient of correlation above shows a strong positive correlation of 0.617 between the database contribution and its role in the program evaluation and monitoring. This implies that as the structure increases, the role in program increases as well and vice versa.

**4.7.1 Testing of the Research Hypothesis on database**

(H<sub>0</sub>): There is significant contribution by database on monitoring and evaluation of public health programs in Kwale County.

(H<sub>1</sub>): There is no significant contribution by database on monitoring and evaluation of public health programs in Kwale County.

**Table 4.22: Observed and expected cases on contribution of database**

|                   | Observed | Expected | Residual |
|-------------------|----------|----------|----------|
| Strongly agree    | 23       | 24.3     | -1.3     |
| Agree             | 46       | 24.3     | 21.7     |
| Somehow agree     | 55       | 24.3     | 30.7     |
| Somehow disagree  | 14       | 24.3     | -10.3    |
| Disagree          | 8        | 24.3     | -16.3    |
| Strongly disagree | 0        | 24.3     | -24.3    |
| Total             | 146      |          |          |

**Table 4.23: Chi-square values on association between database and M&E.**

|                   | Observed(O) | Expected(E) | $\frac{(O-E)^2}{E}$ |
|-------------------|-------------|-------------|---------------------|
| Strongly agree    | 23          | 24.3        | 2.86                |
| Agree             | 46          | 24.3        | 0.80                |
| Somehow agree     | 55          | 24.3        | 1.60                |
| Somehow disagree  | 14          | 24.3        | 0.18                |
| Disagree          | 8           | 24.3        | 0.44                |
| Strongly disagree | 0           | 24.3        | 1                   |
| Total             | 146         |             | $\Sigma$ 6.88       |

Computed chi-square value ( $Z^2$ ) is 6.88

Degree of freedom= n-1. Where n = numbers of variables observed

6 - 1 = 5.

At 5 % level of significance, Chi-square table value ( $Z^2\alpha$ ) is 11.07; Decision.

If  $Z^2\alpha$  is larger than  $Z^2$ , we accept ( $H_0$ ).

11.07 is larger than 6.88. Therefore we accept the  $H_0$  and reject  $H_1$ . We can statistically conclude that, there is significant contribution by database on monitoring and evaluation of public health programs in Kwale County.

#### **4.8. Data dissemination and use for project monitoring and evaluation.**

The respondents were asked to react to the following statement by selecting the options provided in the table below. “The Kwale school-based deworming project has elaborate data dissemination plan.”

**Table 4.24: Data dissemination and the role in the program.**

| Reactions         | Numbers of cases (N) | Percentage (%) | C.P (%) |
|-------------------|----------------------|----------------|---------|
| Strongly agree    | 3                    | 2.1            | 2.1     |
| Agree             | 25                   | 17.1           | 19.2    |
| Somehow agree     | 21                   | 14.4           | 33.6    |
| Somehow disagree  | 83                   | 56.8           | 90.4    |
| Disagree          | 11                   | 7.5            | 97.9    |
| Strongly disagree | 3                    | 2.1            | 100     |
| <b>Total</b>      | <b>146</b>           | <b>100.</b>    |         |

From the above data, More than a half of the respondents 66.4% think the Kwale deworming project didn't have an elaborate data dissemination plan while 33.6% agree the plan existed.

**Table 4.25: Mean and standard deviation for data dissemination and the role in the program**

| Descriptive Statistics |      |                |     |
|------------------------|------|----------------|-----|
|                        | Mean | Std. Deviation | N   |
| Role in the Program    | 2.31 | .825           | 146 |
| Data Dissemination     | 1.83 | .630           | 146 |

From the above Descriptive statistical output, it is clear to deduce that the mean obtained while comparing the data dissemination and the role in the monitoring and evaluating program, it is given as 2.31 against 1.83 with their standard deviations of 0.825 and 0.630 which bear a statistical significance in relation to the study objectives.

**Table 4.26: Correlation coefficient for data dissemination and the role in the program**

| Correlations        |                     |                          |                    |
|---------------------|---------------------|--------------------------|--------------------|
|                     |                     | Role in the Data Program | Data Dissemination |
| Role in the Program | Pearson Correlation | 1                        | .514               |
|                     | Sig. (2-tailed)     |                          | .514               |
|                     | N                   | 146                      | 146                |
| Data Dissemination  | Pearson Correlation | .514                     | 1                  |
|                     | Sig. (2-tailed)     | .514                     |                    |
|                     | N                   | 146                      | 146                |

The coefficient of correlation above shows a strong positive correlation of 0.514 between the data dissemination and its role in the program evaluation and monitoring. This implies that as the data dissemination strategy increases, the role in program increases as well and vice versa.

#### 4.9. Analysis of Key Informants' Data

The informant was interviewed using a structured questionnaire. The informants were randomly selected from the three districts of Kwale count namely Matuga, Kinango and Msambweni. They were mainly parents with children in school or community members. This interview was made to compare data from the Kwale deworming project managers and implementers.

The key informants were asked to declare if they have children aged between 2 -14 years who were the basic targets and beneficiaries of the deworming project by either answering yes or no to the question. Below is the summary of the respondents.

**Table 4.27: Key informant's characteristics**

| Have children 2-14 yrs | Numbers of cases(N) | Percentage % C.P |      |
|------------------------|---------------------|------------------|------|
| Yes                    | 41                  | 93.2             | 93.2 |
| NO                     | 3                   | 6.8              | 100  |
| <b>Total</b>           | <b>44</b>           | <b>100</b>       |      |

From the above data show that the majority of respondents as the key informant were parents with children in aged between 2-4 years.

##### 4.9.1. Awareness of the deworming program among community members.

The key informants were asked if they had children in school, and if yes, are they aware of the national school deworming program in Kwale County? The table below shows their responses.

**Table 4.28: Awareness of deworming program among the community members**

| Aware of deworming project | Numbers of cases(N) | Percentage % C.P |      |
|----------------------------|---------------------|------------------|------|
| Yes                        | 43                  | 97.7%            | 97.7 |
| NO                         | 1                   | 2.3%             | 100  |
| <b>Total</b>               | <b>44</b>           | <b>100</b>       |      |

The data above reveals that 97.7% of the respondents were aware of the deworming project.

#### 4.9.2. Strategies employed to promote Kwale deworming program.

The key informants were asked if they know about the Kwale deworming project, how they came to know about it. They were provided with the options in the table below.

**Table 4.29: Advocacy and communication strategy deployed to create awareness of deworming program among the community members in Kwale County.**

| Communication channel  | Numbers of cases(N) | Percentage % C.P |      |
|------------------------|---------------------|------------------|------|
| Radio/Television       | 11                  | 25.0             | 25   |
| Brochures/posters      | 2                   | 4.5              | 29.5 |
| From a child in school | 29                  | 66.0             | 95.5 |
| Others                 | 2                   | 4.5              | 100  |
| <b>Total</b>           | <b>44</b>           | <b>100</b>       |      |

## CHAPTER FIVE

### SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMEDATIONS

#### 5.1 Introduction

This final chapter presents a summary of findings, conclusions, recommendations and suggestions for further research.

#### 5.2 Summary of Findings

The study sought to establish the determinants of an effective monitoring and evaluation system in public health program, the case of national school –based deworming program in Kwale County and came up with the following findings.

##### 5.2.1 Project organizational structure in monitoring and evaluation

On how the project organizational structure determine monitoring and evaluation of public health programs in Kwale county, respondents were asked to respond to a set seven statements regarding the existence of organization structure in the Kwale school –based deworming program , its components including functional monitoring and evaluation unit , existence of monitoring and evaluation plan and how useful was the organizational structure to the monitoring and evaluation of the deworming program. 54.5 % strongly agreed with statements, 24.5% agreed while 9.2 % somehow agreed. This adds up to a total of 88.2% agreeing that organizational structure was very critical in monitoring and evaluation of the Kwale deworming program.

The reminding 11.8 % somehow disagreed, disagreed or strongly disagreed. The 88.2% is significant proportion of the respondents who agreed with statements and therefore it can concluded that, there is strong association between the project organization structure and monitoring and evaluation of public health programs in Kwale county.

Other than the use of frequency tables, we can also view from the SPSS statistical output that the relationships between the organizational structures and monitoring and evaluation have direct relationships as stated in chapter Four of this project report. This means that as the intensity of the organizational structure strategy increases, the program in monitoring and evaluation increases as well and the vice versa happens.

### **5.2.2 Human capacity in public health Monitoring & Evaluation**

In which ways human capacity influence the monitoring and evaluation of public health programs in Kwale county, respondents were asked to respond to a set of four statements regarding human capacity in monitoring and evaluation of Kwale deworming program. The statements sought to establish if the project implementers received any training or orientation about the program, areas of competence covered in the training, whether the project had specialized staff on monitoring and evaluation and lastly whether the project used any checklists during implementation, monitoring and evaluation. 40 % of the respondents strongly agreed with the statements, 22.6% agreed and 19.2 % somehow agreed.

This totals to 81.8 % respondents who agreed with the statements. 18.2% of the respondents somehow disagreed, disagreed or strongly disagreed. 81.8% is significant proportion of the respondents and it can therefore be concluded that, there is significant influence by human capacity on monitoring and evaluation of public health programs in Kwale County.

A part from the use of frequency tables, we can also view from the SPSS statistical output that the relationships between the Human capacity and monitoring and evaluation have direct relationships as stated in chapter Four of this project report. This means that as the intensity of the Human capacity strategy increases, the program in monitoring and evaluation increases as well and the vice versa happens.

### **5.2.3 Advocacy and Communication in Monitoring and Evaluation**

In which ways advocacy and communication influence monitoring and evaluation of public health programs in Kwale county , respondents were asked to select three strategies that, according to their understanding and experience were used in Kwale deworming program as advocacy and communication tool to promote the deworming program. The strategies were radio /television, project brochures, national campaign and any other strategy used and not listed. 20.5% of the respondents said radio and television, 66.4% stated brochures, and 12% national campaign and 8.2 % choose others.

Given that, the respondents were project implements, key informant interviews were conducted to parents with children aged between 2 – 14 years who were the target beneficiaries and community members to collate the information given by the project implementers. Key informants were asked if they were aware of the kwale school deworming program and 97.7% of them said that, they were



aware. Only 2.3 % said were not aware of the deworming program. The key informants were further asked how they came to know about the school –based deworming project and were given four choices.

Through radio/television, brochures, told by their school going children and any other way not listed. 25% of the key informants stated that they heard it through radio/television, 4.5% from brochures, 66% from their school going children and 4.5 % said they heard from other channels. From the above data, it is clear that majority (97.7%) of the respondents had some knowledge or had heard about the deworming program in kwale. It's observed that, most key informants got the information on the deworming program through their school going children (66%). It can therefore be concluded that, there is significant association between advocacy and communication and monitoring and evaluation of public health programs in Kwale.

Other than the use of frequency tables, we can also view from the SPSS statistical output that the relationships between the advocacy and communication and monitoring and evaluation have direct relationships as stated in chapter Four of this project. This means that as the intensity of the advocacy and communication strategy increases, the program in monitoring and evaluation increases as well and the vice happens.

#### **5.2.4 Project Database in Monitoring and Evaluation**

On how database contribute to the monitoring and evaluation of public health programs in Kwale County, respondents were asked to respond to a set of four statements on whether the deworming program in kwale used computer software at different levels to capture , verify , transfer , analyze and share data , whether clear roles and responsibilities were established at national , sub –national and services delivery point , whether the program had data collection tools/summary sheets and finally whether the program generated periodic and regular reports. 30.1 % of respondents strongly agreed, 25.3% agreed and 25.9% somehow agreed.

This adds up to 81.3% of the respondents who agreed. The remaining 18.7 % somehow disagreed, disagreed or strongly disagreed. The 81.3% is a significant proportion of the respondents who agreed. It can therefore be logically concluded that, there is significant contribution of database to monitoring and evaluation of public health programs in Kwale County.

Apart from the use of frequency tables, we can also view from the SPSS statistical output that the relationships between the project database contribution and monitoring and evaluation have direct

relationships as stated in chapter Four of this project. This means that as the intensity of the database contribution strategy increases, the program in monitoring and evaluation increases as well and the vice happens.

#### **5.2.5 Data Dissemination and Use in Monitoring and Evaluation**

On how do the data dissemination and use influence monitoring and evaluation of public health programs in Kwale county, respondents were asked to respond to set of three statements on whether the Kwale deworming program had an elaborate data dissemination plan, whether the Kwale deworming data contributed to national school health policy formulation and lastly if there was increased public awareness about worms in Kwale as a result of the deworming program. 29.9% of the respondents strongly agreed, 29.0% agreed and 15.5% somehow agreed. This totals to 74.4% of respondents who agreed with the statements.

The remaining 25.6% somehow disagreed, disagreed or strongly disagreed. The 74.4 % of the respondents who agreed makes a significant proportion of the respondents and it can therefore be logically concluded that, data dissemination and use influence monitoring and evaluation of public health programs in Kwale County.

Other than the use of frequency tables, we can also view from the SPSS statistical output that the relationships between the data dissemination and monitoring and evaluation have direct relationships as stated in chapter Four of this project report. This means that as the intensity of the data dissemination strategy increases, the program in monitoring and evaluation increases as well and the vice versa happens.

### **5.3 Discussions of the Findings**

The study sought to determine the influence of organizational structure on monitoring and evaluation. An organizational structure is the typically hierarchical arrangement of line of authority, communication, rights and duties of an organization. Organizational structure determines how roles, power and responsibilities are assigned, controlled and coordinated and how information flows between the different levels of management. (Potvin 2008). Organizational structure consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organizational aims. The study findings show that, there was significant influence by project organizational structure on monitoring and evaluation of the Kwale deworming program.

95.2% of the respondents agreed that, they benefited from the organization structure as it helped them understand their roles and responsibilities at various levels of the project. Due to organization structure existence, the project benefitted from M & E specialists who were within the project as the structure created M & E unit within the project.

The study further sought to determine to what extent the human capacity influence M & E. Human capacity development is a process, whereby individual development becomes embedded in a sustainable shift in performance and collective behavior. This process includes identifying needs, building knowledge, understanding, skills and attitudes that can be implemented through practice and experience of individuals that lead to sustainable changes in the collective performance of institutions, sectors, society and the enabling environment. 100% of the responded agreed that, the project provided them with some form of training or orientation. The respondents agreed that, the training they received were very useful in their work during the implementation period.

On advocacy and communication, the study sought to establish to what extent to advocacy and communication influences monitoring and evaluation. Advocacy is the act of well-planned and intended series of actions to influence change. Advocacy engages certain key information and skills, to influence policy outcomes. It is important to simplify and demystify M&E, create a supportive M&E culture, and reduce any fear or negative connotations regarding M&E. The purpose of advocacy is to influence decision makers to adopt or change laws and policies (and sometimes even practices that are not regulated by policies) that affect a particular population. In order for advocacy to be effective, Periodic and regular feedback in terms of project reports should be provided at regular intervals to keep all the stakeholders informed. Use of media to promote the program performance is crucial and use of local FM radios and local television stations are useful. 97.7 % of the respondents in the study admitted being aware of the deworming project as a result of advocacy and communication effort made by the project.

The study sought to understand how database contribute to monitoring and evaluation. A database is an organized collection of data. The data is typically organized to model relevant aspects of reality in a way that supports processes requiring this information. Formally, the term "database" refers to the data itself and supporting data structures. Databases are created to operate large quantities of information by inputting, storing, retrieving, and managing that information. Databases are set up, so that one set of software programs provides all users with access to all the data. The kwale deworming project had a functional database as evidenced by 84.9% of the respondents.

Finally the study sought to establish the influence of data dissemination and use in monitoring and evaluation. Information dissemination means; Methods one uses to communicate information, Knowledge, facts or making facts known. Dissemination of information also refers to the distribution of information to the general public usually conducted by the government or an agency specifically given authorization to release information for any public sector. (Melnick, 2002). The dissemination of information is a one-way process. The disseminated information flows down from the source (an agency of the government) to the target audience (the public). According to the study 74.4% of the responded agreed that, data dissemination and use was very vital in kwale project. From the findings, it can be safely be concluded that, Projects need to disseminate information to the public to create awareness of their activities and at the same time increase public participation on the same. The most important reason for conducting M&E is to provide the data needed for guiding policy formulation and program operations. A detailed data use plan should be included in the national M&E plan; this plan should link data needs and data collection efforts with specific information products for different audiences, as well as a timetable for dissemination. It should also include activities to encourage data use. An effective M&E system collates and presents the data in a way that facilitates data use at all levels, including the general public and beneficiaries of the program (Institute of Medicine U.S , 2010).

#### **5.4 Conclusions**

Based on the results of this study the researcher is able to draw the following conclusions. Project organizational structure plays an important role in monitoring and evaluation of public health programs. It ensures different departments of the organization perform different tasks and thus ensuring monitoring and evaluation unit is created within its structure to influence monitoring and evaluation functions. Organizational structure ensures specialization of functions of each of its department.

The study has confirmed that, Training of staff to carry out monitoring and evaluation is very useful to programs as this ensures human capacity is developed within the project. Well trained staff understands the importance of monitoring and evaluation and cooperate to avail data for monitoring purposes.

For effective monitoring and evaluation systems to be functional, advocacy and communication strategies need to be developed and embedded in the programs. Advocacy supports awareness

creation and thus increases chances of the project to perform better as the project enjoys public support from the community and the beneficiaries.

The study has further confirmed that, for the Project to be effectively monitored and evaluated, databases are needed to support monitoring to influence decision making and policy formation to further support the project objectives and goals. Data disseminations and use assists in information sharing provide lessons learnt and contribute in improving on future programming

### **5.5 Recommendations**

The researcher would like to make the following recommendations;

There is need to strengthen the project organizational structure for the kwale deworming program to ensure there the Monitoring and evaluation unit which is visible at the grassroots. Most monitoring and evaluation staffs are based at the regional level.

There is need to increase human capacity development efforts to cover others such as finance, report writing and programming in general.

There is need to improve on advocacy and communication strategy in Kwale county, the program area. The program used brochures (66.4% of the respondents) as the major strategy to promote the deworming program which was only accessed by 4.5 % of the key informant. Use of FM local vernacular radios and television has a potential to reach more audience. According to the study about 20.5 % of the key informants got to know about the deworming program through radio and television.

There is a need to provide periodic and regular reports about the deworming program. According to the study 51.3 % of the respondents felt that, the program did not produce periodic and regular reports as required. There is a need to develop an elaborate data dissemination plan for the Kwale school-based deworming program. Data from the study show that 66.4 %of the respondents don't believe the program has a data dissemination plan.

### **5.6 Suggestion for further research**

The study concentrated on only four determinants to support an effective monitoring and evaluation system. There is need to explore and research on other determinants such as policy frameworks, role of supportive supervision , funded partnership agreements in public health programming and role of civil society in monitoring and evaluation of public health programs.

## REFERENCES

- Aral, S. O., Fenton, K. A., & Lipshutz, J. A. (2013). *The new public health and STD/HIV prevention: Personal, public and health systems approaches*. New York, NY: Springer.
- Beracochea, E., Weinstein, C., & Evans, D. P. (2011). *Rights-based approaches to public health*. New York: Springer Pub. Co.
- Bouchard, C., & Katzmarzyk, P. T. (2010). *Physical activity and obesity*. Champaign, IL: Human Kinetics.
- Browning, C. J., & Thomas, S. A. (2005). *Behavioural change: An evidence-based handbook for social and public health*. Edinburgh [etc.]: Elsevier Churchill Livingstone.
- Brownson, R. C. (2003). *Evidence-based public health*. Oxford: Oxford University Press
- Carrin, G. (2009). *Health systems policy, finance, and organization*. Amsterdam: Academic Press.
- Chen, H.-T. (2005). *Practical program evaluation: Assessing and improving planning, implementation, and effectiveness*. Thousand Oaks, Calif: Sage.
- Cheng, H., Kotler, P., & Lee, N. (2011). *Social marketing for public health: Global trends and success stories*. Sudbury, Mass: Jones and Bartlett.
- Crompton D, Montresor A, Nesheim M, and Savioli L, Ed. (2003): *Controlling disease due to helminth infections*. Geneva
- Edelstein, S. (2011). *Nutrition in public health: A handbook for developing programs and services*. Sudbury, MA: Jones & Bartlett Learning.
- Ehiri, J. (2009). *Maternal and child health: Global challenges, programs, and policies*. New York: Springer-Verlag.
- Ford, J. D., & Berrang-Ford, L. (2011). *Climate change adaptation in developed nations: From theory to practice*. Dordrecht: Springer.
- Gibney, M. J., Margetts, B. M., Kearney, J. M., & Arab, L. (2012). *Public Health Nutrition*. Oxford: Wiley.
- Gumucio, D. A., & Tufte, T. (2006). *Communication for social change anthology: Historical and contemporary readings*. South Orange, N.J: Communication for Social Change Consortium.
- Haider, M. (2005). *Global public health communication: Challenges, perspectives, and strategies*. Sudbury, Mass: Jones and Bartlett Publishers.

- Hitchcock, J. E., Schubert, P. E., & Thomas, S. A. (2003). *Community health nursing: Caring in action*. Australia: Thomson/Delmar Learning.
- Hitchcock, J. E., Schubert, P. E., & Thomas, S. A. (2003). *Community health nursing: Caring in action*. Australia: Thomson/Delmar Learning.
- Institute of Medicine (U.S.). (2010). *Strategic approach to the evaluation of programs implemented under the Tom Lantos and Henry J. Hyde U.S. global leadership against HIV/AIDS, tuberculosis, and malaria reauthorization act of 2008*. Washington, D.C: National Academies Press.
- Issel, L. M. (2009). *Health program planning and evaluation: A practical and systematic approach for community health*. Sudbury, Mass: Jones and Bartlett Publishers.
- Ivanov, L. L., & Blue, C. L. (2007). *Public health nursing: Leadership, policy, & practice*. Australia: Delmar Cengage Delmar.
- Kabaka , C & Kisia C.W , (2011): *World conference on social determinants of Health* ,Rio de Jenerio, Brazil.
- Kirch, W. (2008). *Encyclopedia of public health: With 75 figures and 86 tables*. Dordrecht: Springer.
- Kotch, J. (2013). *Maternal and child health: Programs, problems, and policy in public health*. Burlington, MA: Jones & Bartlett Learning.
- La, F. G. M. (2005). *Health system innovations in Central America: Lessons and impact of new approaches*. Washington, DC: World Bank.
- Lee, L. M. (2010). *Principles & practice of public health surveillance: [edited by] Lisa M. Lee ... [et al.]*. Oxford: Oxford University Press.
- Linnan, L., & Steckler, A. B. (2002). *Process evaluation for public health interventions and research*. San Francisco ;[Great Britain: Jossey-Bass.
- Melnick, A. L. (2002). *Introduction to geographic information systems in public health*. Gaithersburg, MD: Aspen Publishers.
- Merrill, R. M. (2010). *Introduction to epidemiology*. Sudbury, Mass: Jones and Bartlett Publishers.
- Miguel E, Kremer M (2004): *Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities*. *Econometrica*
- M'ikanatha, N. M. (2007). *Infectious disease surveillance*. Malden, MA: Blackwell Pub.

- National Academy of Sciences (U.S.). Institute of Medicine (U.S.), National Research Council (U.S.), National Research Council (U.S.), & National Academies Press (U.S.). (2011). *BioWatch and public health surveillance: Evaluating systems for the early detection of biological threats*. Washington, D.C: National Academies Press.
- Njenga, S. et al. (2011). *Sustained reduction in prevalence of lymphatic filariasis infection in spite of missed rounds of mass drug administration in an area under mosquito nets for malaria control*.
- Novick, L. F., Morrow, C. B., & Mays, G. P. (2007). *Public health administration: Principles for population-based management*. Sudbury, Mass: Jones and Bartlett.
- Owen, M. (2006). *Program evaluation: Forms and approaches* (3rd ed.). Crows Nest, NSW: Allen & Unwin.
- Poister, H. (2007). *Performance monitoring. Handbook of practical program evaluation* (pp. 98-125). San Francisco: Jossey-Bass.
- Porche, D. J. (2004). *Public & community health nursing practice: A population-based approach*. Thousand Oaks: Sage Publications.
- Potvin, L., McQueen, D. V., & Hall, M. (2008). *Health promotion evaluation practices in the Americas: Values and research*. New York: Springer.
- Saint-Georgiev, V., Western, K. A., & McGowan, J. J. (2008). *National Institute of Allergy and Infectious Diseases, NIH: Frontiers in Research*. Totowa, NJ: Humana Press.
- Seltzer, B. (2011). *101 careers in public health*. New York: Springer Pub.
- Troy, D. B. (2005). *Remington: The science and practice of pharmacy*. Philadelphia, PA: Lippincott, Williams & Wilkins.
- Tulchinsky, T. & Varavikova, E. (2009). *The new public health*. Amsterdam: Elsevier / Academic Press.
- Valente, T. (2002). *Evaluating health promotion programs*. New York: Oxford University Press.
- World Health Organization. (2006). *Preventive chemotherapy in human helminthiasis: coordinated use of anthelmintic drugs in control interventions: a manual for health professionals and programme managers*. G



**Appendix 1.**

**LETTER OF TRANSMITTAL.**

Boniface Kiala Muia.

P.O Box 87042.

Mombasa.

April 2013.

To the Participant,

Dear Sir/Madam.

**RE; ACADEMIC RESEARCH PROJECT FOR A MASTERS DEGREE PROGRAMME.**

I am a student at the University of Nairobi (UON) pursuing a Masters Degree course in Project Planning and Management. It is a requirement that, I conduct and submit a research report on **“Determinants of an effective Monitoring and evaluation systems of public Health programs. The case of national school deworming program in Kwale County.”**

I am inviting you to participate in this research study by completing the attached questionnaire. Please note that, the information you give is to be used in this study is for academic purposes only and such it will be treated with utmost confidentiality and will not be shared with unauthorized person. Your cooperation and honesty in filling this questionnaire will be highly appreciated.

Thank you for your time.

Yours faithfully,

Kiala Muia.

Cell phone; 0711970313.

Email;[muiabk@yahoo.co.uk](mailto:muiabk@yahoo.co.uk).

**Appendix 2.**  
**RESPONDENT QUESTIONNAIRE.**  
**(PROJECT MANAGERS.)**

Thank you for taking your time to answer this questionnaire. It seeks to identify the determinants of Monitoring and evaluation of public health programs. The case of National school deworming program in Kwale County. The information gathered from the field during this research is solely for academic purposes and will not be shared with any unauthorized person. Although your participation is voluntary, it is important for the purpose of this study that all questions be answered.

*(Please tick in the box against your response to the options provided. For questions without options, fill in your answer on the space provided.)*

**Section A: Background information.**

1. What is your functional title in the ministry that you work with?

District Medical officer of Health (DMOH).

District education officer (DEO).

Head teacher.

Health facility in charge.

Teacher.

Other specify -----

2. What was your role in the just concluded deworming program in Kwale County?

Manager

Supervisor

Trainer

Other specify-----

**Section B: Project organizational structure.**

1. Select and tick (√) the response category in regard to the project organizational structure that represents your reaction to each statement. ( where 1=strongly agree , 2 = Agree , 3 somehow agree , 4 somehow disagree , 5= Disagree and 6 =strongly disagree).

| Statement.  | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Am aware of the project organizational structure of the Kwale school – based deworming Project.   |   |   |   |   |   |   |
| The Kwale school-based deworming project was organized in a way that, different implementation levels had a role to play.ie National, District, Division and community levels.                                  |   |   |   |   |   |   |
| In my understanding the Kwale school- based deworming project had different departments i.e. finance, supplies etc and that, they were well coordinated and added value to the project implementation strategy. |   |   |   |   |   |   |
| The project organizational structure helped me to clearly understand my roles and responsibilities in the Kwale school-based deworming project.   |   |   |   |   |   |   |
| The project organization structure of Kwale school-based deworming project has a functional Monitoring and evaluation component.  |   |   |   |   |   |   |
| There was a monitoring and evaluation plan for the Kwale school-based deworming project.  |   |   |   |   |   |   |
| The Kwale school- based deworming project organizational structure was very useful in monitoring and evaluation of the project activities.  |   |   |   |   |   |   |

**Section C: Human Capacity.**

1. Select and tick (√) the response category in regard to the human capacity development that represents your reaction to each statement. ( where 1=strongly agree , 2 = Agree , 3 somehow agree , 4 somehow disagree , 5= Disagree and 6 =strongly disagree).

| Statement.  | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| I received a training /orientation on the Kwale school-based deworming project.   |   |   |   |   |   |   |
| The training I received covered other areas such as leadership skills, financial Management, facilitation, supervision, advocacy and communication. |   |   |   |   |   |   |
| The Kwale school-based deworming project had officers specialized in Monitoring and evaluation.   |   |   |   |   |   |   |
| Checklists were used during the implementation, monitoring and evaluation of the Kwale school-based deworming project.                              |   |   |   |   |   |   |

**Section D: Advocacy and communication.**

1. In your own understanding, what were the major advocacy and communication strategies to promote this project?

Radio /television adverts.  Brochures

National Campaign

Others specify-----

**Section E. Project Data base.**

1. Select and tick (√) the response category in regard the project database that represents your reaction to each statement. ( where 1=strongly agree , 2 = Agree , 3 somehow agree , 4 somehow disagree , 5= Disagree and 6 =strongly disagree).

| <b>Statement.</b>   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
|---|----------|----------|----------|----------|----------|----------|
| Computer software was used at different levels to capture, verify, transfer, analyze and shared data for the Kwale school-based deworming project.                                  |          |          |          |          |          |          |
| .Clear roles and responsibilities were established at National, sub-national and service-delivery levels to ensure an appropriate and timely dataflow between the different levels. |          |          |          |          |          |          |
| There were data collection tools/summary sheets for each level for the Kwale school –based deworming project.   |          |          |          |          |          |          |
| Periodic and regular reports are generated for the Kwale school-based deworming project.  |          |          |          |          |          |          |

**Section F: Data dissemination and use.**

1. Select and tick (✓) the response category in regard the data dissemination and use that represents your reaction to each statement. ( where 1=strongly agree , 2 = Agree , 3 somehow agree , 4 somehow disagree , 5= Disagree and 6 =strongly disagree).

| <b>Statement.</b>   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
|---|----------|----------|----------|----------|----------|----------|
| The Kwale school-based deworming project has elaborate data dissemination plan.   |          |          |          |          |          |          |
| Data from Kwale school-based deworming project contributed in national school health policy formulation.                        |          |          |          |          |          |          |
| There is increased knowledge on public awareness about worms in Kwale county as a result of the school-based deworming project. |          |          |          |          |          |          |

Thank you for your time.

**Appendix 3.**

**Key informant interview schedule.**

**(PARENTS/COMMUNITY MEMBERS).**

Thank you for taking your time to answer this questionnaire. It seeks to identify the determinants of Monitoring and evaluation of public health program. The case of National school-base deworming program in Kwale County. The information gathered from the field during this research is solely for academic purpose and will not be shared with any unauthorized person. Although your participation is voluntary, it is important for the purpose of this study that all questions be answered.

*(Please tick in the box against your response to the options provided. For questions without options, fill in your answer on the space provided.)*

**Section A; Back ground information.**

1. Name of the district/Division-----

**Section B; Operational details.**

1. Do you have children aged between 2 – 14 yrs?

Yes

2. If yes, are you aware of the national school deworming program in Kwale County?

Yes  No

3. If yes, how did you come to know about the school deworming program?

Radio /television adverts.  Brochures.

From my child who is in school

Other sources specify-----

Thank you for your time.