



UGANDA MANAGEMENT INSTITUTE

**CRITICAL FACTORS INFLUENCING THE EFFECTIVENESS OF MONITORING  
AND  
EVALUATION SYSTEM OF BAYLOR INTERNATIONAL  
PAEDIATRIC HIV CARE CENTRE- MULAGO**

**BY**

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OF UGANDA MANAGEMENT  
INSTITUTE.**

**DECEMBER, 2009**



**DECLARATION**

I, Irene Tumwine, declare that this is my original work and has never been presented in any other institution for any academic award, and should never be reproduced without my consent.

.....

**IRENE TUMWINE**

Date.....

## **APPROVAL**

This research dissertation titled “an analysis of the factors influencing the effectiveness of monitoring and evaluation system: A case study of Baylor International Paediatric HIV CARE Centre – Mulago” has been conducted under our supervision and it is submitted for presentation with our approval.

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## **DEDICATION**

This piece of work is dedicated to my late parents Mr. & Mrs. Justus Tumwine who worked so tirelessly to give me a good background that has made me what I am today. Special dedication to my Husband Mr. Stephen Butera and my children Shivan Alinda and Ivan Butera Akampa who rendered me immeasurable support both psychologically and emotionally that enabled me to work hard. I also dedicate it to my mentors Mrs. Joy Asimwe Byarugaba and my brothers whose support has continued to motivate me to achieve greater heights in life.

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## ACRONYMS

M & E .....Monitoring and Evaluation

HIV ..... Human Immune Virus

ARVs.....Anti Retroviral Drugs

BIPAI.....Baylor International Paediatric HIV care centre

AIDS.....Acquired Immune Deficiency Syndrome

PPPH .....Private Public Partnerships for health

MDGs.....Millennium Development Goals

NGOs .....None Governmental Organisation

SCAN.....Survey for capacities, activities and needs

## ABSTRACT

The study was conducted to analyse the key factors that influence the effectiveness of Monitoring and Evaluation system for Baylor International Paediatric HIV CARE Centre – Mulago as a case study. The main objectives of the study were to assess the factors influencing the effectiveness of the M & E system in BIPAI HIV Care Centre-Mulago. The study was guided by the following variables; the effect of indicators and tools used, effects of funding, human resources and stake holder’s commitment and their influence on M & E systems. The study used a cross-sectional study design on a population of 251 respondents comprising of M & E Staff/ Officers, Project Managers (M & E), civil society Leaders and Clients of BIPAI project selected using purposive, convenience and simple random sampling methods. The data were collected using questionnaires, interview and focus group discussions. Quantitative data were analysed using frequencies, graphs, and Pearson’s correlation coefficient and regressions. Qualitative data were analysed through transcribing and generation of themes from presentation in narrative form. The study empirically established that the indicators and tools used, funding, human resources and the stakeholders’ commitment had a significant relationship with the effectiveness of the monitoring and Evaluation system. Hence the study concluded that the BIPAI project had established a set of indicators and tools for M & E, had allocated adequate funds for the M&E activities, had competent human resources coupled with stake holder’s commitment which had relationship with the effectiveness of M & E systems. The study recommended that the management of BIPAI project should continuously set project indicators and tools to guide implementation of M & E activities; should ensure that there is enough funding for the implementation of the project activities and also incorporate the budget for funding of M & E activities into the project documents and also share the budgets with other partners that are implementing the M&E activities ;Stake holders and project implementers should regularly be updated and given opportunities to expand their capacity in documentation of data and information relevant to undertake critical project decisions. Further, the stakeholders especially beneficiaries should be involved in all project processes beginning with the initial project assessments ,planning for the project activities, implementation, monitoring and Evaluation so as to contribute to effective M & E systems critical for proper decision making at organisational level.



# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Introduction**

The study is focusing on factors influencing effectiveness of Monitoring and Evaluation systems for Baylor International Paediatric HIV CARE Centre –Mulago project. Various studies have been carried out with regard to monitoring and evaluation concepts, but none has provided a clear understanding of the various factors affecting the effectiveness of Monitoring and Evaluation systems in relation to information management and data that is used in decision making. There was therefore a need for this study to provide an insight on the factors influencing the success of project monitoring and evaluation systems. This chapter presents background information, the statement of the problem, the purpose, the objectives, the research questions, the hypotheses, the conceptual frame work, the significance, the scope, limitations, and the operational definitions of the terms used in the study.

### **1.1 Background to the study**

Bamberger (2006:48), defines Monitoring and Evaluation as “an internal project activity designed to provide constant feedback on the progress of a project, the problems it is facing, and the efficiency with which it is being implemented” He further states that it is mainly used to help in the selection and design of future projects. Evaluation studies can assess the extent to which the project produced the intended impacts (e.g. increases in income, better housing quality, etc.)

and the distribution of the benefits between different groups, and can evaluate the cost-effectiveness of the project as compared with other options”.

Project Monitoring and Evaluation has been hailed as the main ingredient of project success as they offer the surest way to ascertain whether quality was built within the project or not. Thus, Projects/Programs have been applying M & E components e.g. initial project assessments/surveys, midterm evaluations and end of project evaluations, to support ongoing learning and decision making as they implement their strategic plans. Although monitoring and evaluation (M & E) are regarded as useful components in program and project management, many Non governmental Organizations like the Baylor international Pediatrics HIV CARE centre have cultures, histories or procedures that undermine their effective use for learning and reporting. In that regard, monitoring systems have proven very important in identifying the resource gaps, weaknesses and strength during implementation of the project activities thus help in producing relevant information regarding the inputs, processes and out puts for the projects that guide informed decision making at policy levels. The underlying principle of project monitoring according to Jody and Roy(2004) is to help improve performance and achieve results and its essential in every project because its one of the indicators that shows whether the project is making progress or not. Project monitoring ensures that development programs are being implemented in accordance with the stipulated plans, and budgets in order to achieve their intended goals and Monitoring and Evaluation are performed regularly in order to track the project progress or influence project success. Project success is seen as the project achieving or exceeding its intended impact within its allocated resources and time. However, successful

monitoring will depend on among other things; appropriate structures, procedures and policies, effective information management and capacity of the staff involved (Randel, 2002).

Approaches to monitoring and evaluation (M & E) are changing in response to changes taking place in development as a whole. The introduction of sector-wide approaches and budget support are two developments that call for innovative M & E systems. In addition, the appearance of a number of global initiatives, such as the Millennium Development Goals (MDGs) and the Global Funds, together with a renewed focus on poverty reduction, are also playing their part in the development of new evaluation approaches like the ex-ante and ex-post evaluations ie initial surveys and evaluation after the project has closed down to evaluate the impact and out comes which was not the case before. At the same time, the trend away from bilateral towards multilateral aid mechanisms and partnerships will influence the practice of evaluation in the coming years. These changes represent a considerable challenge to M & E.

According to Jody & Ray (2004), there has been a change in the public and private sector management and a variety of Internal i.e. beneficiaries and external forces (donors) have converged to make governments and Organisations more accountable to their stakeholders. In order to meet the stakeholders' expectations, Governments and other Organisations have to develop Monitoring and Evaluation systems with properly developed set of indicators that will produce desirable results (OECD, World Bank Report, 2006). Louisa and Mike (2002), add that the selection of indicators, collection of information concerning indicators, the analysis of information, presenting and communicating the information and using it appropriately are essential for a successful monitoring system. In effect, information being central to decision-

making at all levels of project management particularly information on the project outputs, outcomes and impacts, it is crucial that for this information to be useful it has to be accurate, complete, accessible and up-to-date. For this to be possible, the design of the M & E system should adequately furnish these needs. Overarching conclusion confirmed by data and interviews in all the different case study countries shows that in spite of growing interest in monitoring & evaluation, there is still a lack of reliable evidence on the impact of NGO development projects and programmes (Riddell et al, 1997). In their conclusions about enhancing impact in the future they note that a repeated and consistent conclusion drawn across countries and in relation to all clusters of studies is that the data are exceptionally poor. There is a paucity of data and information from which to draw firm conclusions about the impact of projects.

Similar conclusions were reached by the recent Danida-funded study of 45 Danish NGO projects in four countries (Oakley, 1999: 94). These two multi-country studies raise serious doubts as to whether many NGOs know what they are doing, in the sense of their overall impact on people's lives. NGOs may or may not be having a positive impact, but their ability to scale up that impact must be limited by the ability to give evidence of those achievements. This was also associated to the ability to communicate this information to others with more resources which is strongly attributed to weak monitoring and evaluation systems to capture the data required for strong decision making process. Hence it is pertinent therefore, to carry out a study at the Baylor International Paediatric HIV Care Centre to find out whether the presence of M & E system were achieving the set objectives and effectively providing information that is required for proper decision making to enhance the performance of the organization.

The Baylor Paediatric International Centre at Mulago Hospital is – supported by the Baylor International Paediatric AIDS Initiative and is first to provide a comprehensive package of HIV care and treatment services for children and adolescents infected or exposed to HIV, including testing, treatment, counseling of children and their families, and training healthcare professionals in the management of pediatrics HIV AIDS. Baylor has operated in Uganda since 2003, when it set up a paediatric infectious diseases clinic at Mulago hospital; today, more than 7,500 children and caregivers receive HIV/AIDS care and are routinely followed up. Baylor-Uganda supports 44 ARV treatment centers around the country, mostly in district hospitals and clinics. Uganda has an estimated 100,000 people on ARVs, but only 10,000 of them are children.

## **1.2 Statement of the problem**

Contrary to the belief that HIV/AIDS prevalence was on the decline, Significant gaps have remained in the information routinely collected and evaluated by most HIV Paediatric Centres in Uganda leave alone the doubt that M & E the basic tool for reviewing the performance of NGO' projects is used.

Available evidence in Uganda's ministry of health sector strategic plan (HSSP 2005- 2010) hails the success story of Uganda as a model example in Sub Sahara Africa in undercutting HIV/AIDS prevalence, and credit goes to private public partnership for health (PPPH) for enabling NGO's like BIPAI to contribute to undercutting HIV/AIDS prevalence. However challenges still remain. In 2007, 33 million people of whom 2.5 million children were newly infected with HIV and more than 2.1 million people died from AIDS-related causes. Available data still suggests that there are serious weaknesses and gaps in the M & E systems eg. Weak supervision during the

implementation of project activities, inability to measure the impact that the Non Governmental Organisations and Development Organisations like the Baylor International Paediatric HIV Care Centre Mulago are challenging the fundamental principals of Monitoring and Evaluation that involve ensuring quality out puts at the end of project interventions. This leaves an unanswered question on the M & E systems among other factors as to whether it was achieving its intended results. Fore instance Weak piloting studies, inadequate supervision, overstated achievements, ambiguous results and timing discontinuities are a source of ineffectiveness to the monitoring and Evaluation systems (World Bank, 2005). The human resources responsible, the indicators and tools used, funding issues and the cooperation between different stake holders involved had a bearing on the status quo. There are studies that have been conducted about the monitoring and evaluation systems, however there was no specific systematic study that has analysed the factors responsible for the ineffectiveness of the monitoring and Evaluation systems among International Paediatric HIV Care Centres. As such this study intended to assess the factors that impede the effectiveness of M & E system under the Baylor International Paediatric HIV Care Centre-Mulago.

### **1.3 General Objective of the study**

The main objective of the study was to assess the factors influencing the effectiveness of the M & E system in BIPAI HIV Care Centre-Mulago.

### **1.4 Specific objectives of the study**

- (a) To assess the effect of indicators and tools used on M & E system of the BIPAI project.

(b) To assess the degree to which funding influences the effectiveness of M&E system of the BIPAI project.

(c) To examine the effect of human resources on the M & E system of the BIPAI project.

(d) To establish the influence of stakeholders' commitment on the effect of selected factors on M&E system of the BIPAI project.

### **1.5 Research Questions**

(a) How do the indicators and tools used influence the effectiveness of M & E system of the BIPAI project?

(b) Does funding influence the effectiveness of M & E system for the BIPAI project?

(c) How does the human resource capacity and attitude influence the effectiveness of the M & E system for the BIPAI project?

(d) How does the participation of different stakeholders' influence the effectiveness of the M & E system of the BIPAI project?

### **1.6 Hypotheses of the study**

(a) Indicators and tools used have a significant contribution on M & E system.

(b) The level of funding has a significant effect on the M&E system.

(c) Human resources have a significant effect on M & E system.

(d) Stake holders' commitment has a significant effect on selected factors of M&E system.

## **1.7 Scope of the study**

The study was conducted in International Paediatric HIV Care Centre Mulago Hospital Complex, Kampala. It covered Monitoring and Evaluation project officers and managers, civil society leaders and project clients'. The study area was purposively selected by the researcher out of the need to decipher and understand an organization where she was a participant observer. The study was restricted to BIPAI operations in Kampala District. Kampala is the capital city of Uganda, which is located on latitude 0 degrees 19'N, Longitude 32degrees 35 E. It covers an area of 189 square Km. It is divided into 5 divisions, 99 parishes and 811 sub-parishes. Kampala District is almost entirely surrounded by Mpigi, Wakiso, and Kalangala District with an estimated 125 Square KM. The study covered critical key factors of M & E indicators and tools, funding and human resource factors influencing the effectiveness of M & E system of the Baylor International Paediatric care centre- Mulago. The study covered the period of three years 2005 to 2008. The period was chosen because it was the period long enough to effect M & E and get more representative results about project operations and outcomes.

## **1.8 Conceptual frame work**

Below is the conceptual model illustrating the relationship between the factors influencing the effectiveness of the monitoring and Evaluation system for the Baylor International Paediatric HIV Care Centre. Each of the variables was given its indicators as illustrated in the diagram below;

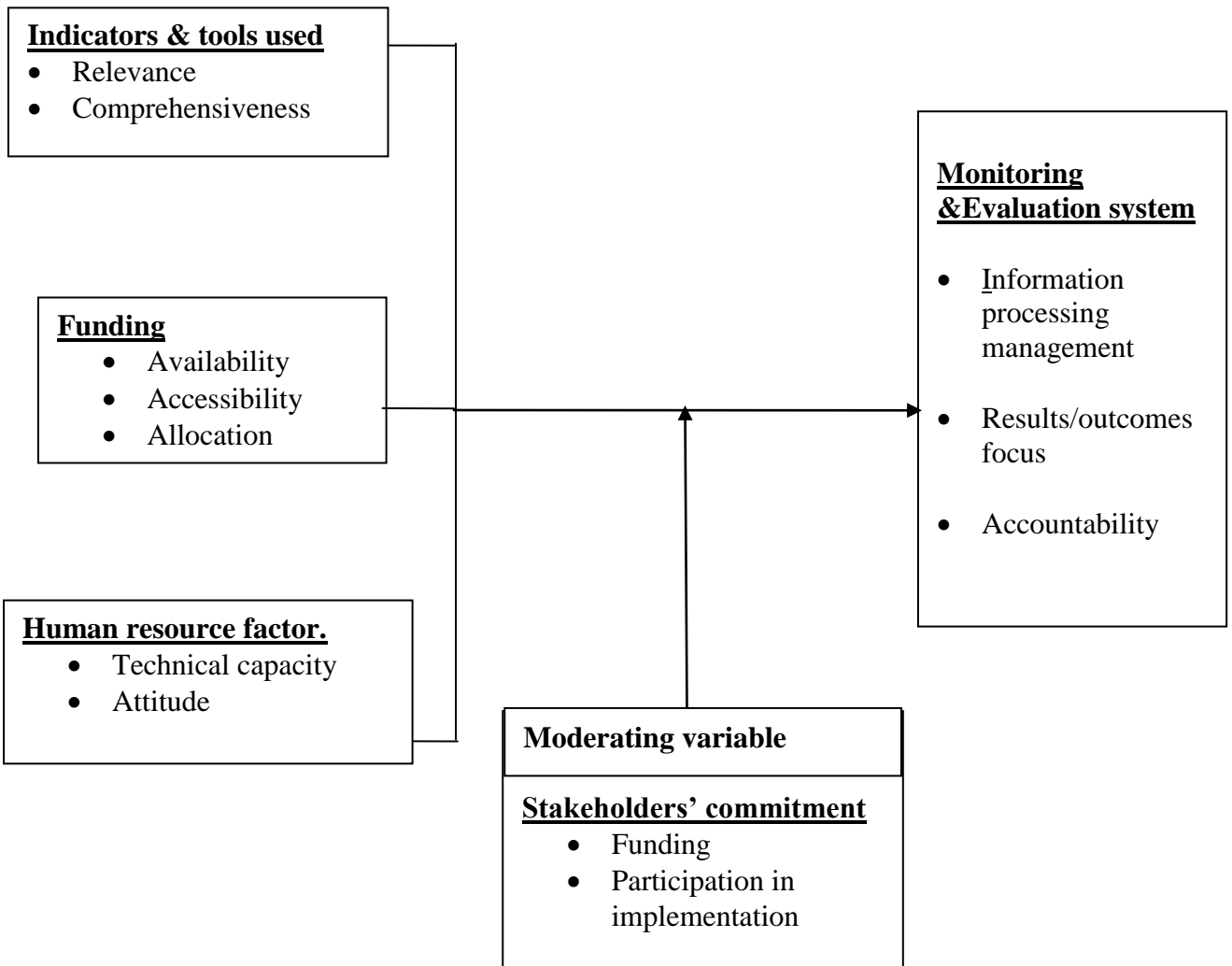


**Figure 1: Conceptual Framework showing factors influencing the effectiveness of M & E system in BIPAI Project**

**Independent Variable**

**Dependent Variable**

**Critical factors**



**Source: By Duigan (2007).**

The conceptual model illustrates an understanding of how the critical factors (a set of indicators and tools, funding, human resource and stakeholders' commitment and participation) influenced the M&E system for the BIPAI project.

In this study it was hypothesized that the relevance and comprehensiveness of the indicators and tools used influence the Monitoring and Evaluation system which has been operationalised into information processing and management, results/outcomes focus and accountability thus enhancing the effectiveness of the system in achieving its objectives. However, if the indicators are not relevant and comprehensive to capture the required data, then the monitoring system would thus be ineffective.

The funding factors i.e. Availability, accessibility and allocation of funds towards the project influenced the M & E systems. Hence if funding is low this would negatively influence the effectiveness of the M & E system yet if funding for the M&E activities is available and allocated towards the implementation of these activities, then it will positively influence the effectiveness of the M & E system for the BIPAI project.

The human resources factors that involve the technical capacity of human resources and their attitude towards the project influence the M & E system for the BIPAI project. Hence if their technical capacity is limited and their attitude is negative, this would negatively influence the effectiveness of the monitoring system. If the human resource has the necessary competencies and their attitude is good it would lead to data collection and use.

Stakeholders' commitment in terms of funding and participation during implementation of the M&E activities will moderate the relationship between critical factors and effectiveness of the M&E system in achieving its objectives. Stakeholders' tend to commit funds and participates in

M & E activities which strongly influenced the relationship between critical factors and effectiveness of M & E system for the BIPAI project.

### **1.9 Assumptions and limitations**

The study was guided by the assumption that Monitoring and Evaluation is considered an integral part in decision making and planning for the implementation of the M& E interventions.

Among the limitations is that the study setting was in an urban area and a hospital environment where the respondents were mobile without enough time to attend to the researcher, hence several visits were conducted to the centre which made it very expensive. there were several visits

The research topic was cumbersome and a touchy area concerning the management of a sensitive program hence some of the respondents i.e. the implementing team comprising of the project managers and officers were hesitant in answering some of the questions because there was a feeling that any response in the affirmative disapproves their performance and lack of critical skills on their part. However this was over come by sensitising the respondents and assuring them of high confidence levels and emphasizing that the research was purely for academic purposes and not an evaluation of their project interventions.

Further the study topic was sensitive since it concerned the study about HIV AIDS, getting information especially from the beneficiaries and the care takers of the foster children was not easy. Some of the respondents considered the information to be investigative and were rather sensitive about sharing their experiences. On the other hand, some of the respondents preferred their privacy. However having taken a lot of time this was over come by investing in

sensitisation meetings that helped the respondents to understand that the research was purely an academic requirement tailored towards the award of a degree.

### **1.10 Justification of the study**

M & E has escalated from a peripheral area to a highly sought-after discipline. Demand for greater accountability and evidence of aid effectiveness has been a driving force for a functional Monitoring and Evaluation system to guide the implementation of HIV AIDS among international organizations like BIPAI project. Bilateral aid donors have had a growing feeling that the 'M & E bubble' may burst sometime soon as a result of the growing frustration with the inadequacy of information to support its own fundamentals. This therefore called for studies like this one to analyze the factors influencing the effectiveness of M & E systems and heighten the relevance of M & E in organizational context.

### **1.11 Significance of the study**

Although the research was principally a requirement for the award of a masters degree in Management studies of Uganda Management Institute, the results(of the research) will be useful for policy makers and the project implementation teams among the HIV AIDS programs by putting in place measures on how to Monitor and evaluate the program interventions.

In addition, it's hoped that the study findings/ results will add new concepts and knowledge to the existing knowledge about Monitoring and Evaluation concepts. The generated information will be used in redefining and modifying the held beliefs and concepts in the entire study.

The findings of this study will be useful to the donors who fund most of the projects by ascertaining how projects are implemented, monitored and evaluated. It is hoped that the findings will contribute to a sense of responsibility to the project implementers as they will be compelled to account for whatever resources released/ allocated to the project by the donors.

The findings of this study are hoped to contribute empirical knowledge to students and academicians and provide the best practices to be replicated by project implementers for the smooth implementation, monitoring and evaluation of further projects.

The study findings are expected to provide up-to date literature to academicians who may wish to carry out a similar or related study. It is thus hoped that the study findings will stimulate further research. This will consequently reduce the risk of dismissing M & E outright rather than discriminate between functional and non functional M & E systems. The findings of the study will offer something innovative in the field of monitoring and evaluation.

### **1.12 Operational definitions**

**Paediatrics** infant or child, to age of 16 generally referring to childhood health and diseases, **paediatric**: Relating to the medical care of children; "Paediatric dentist". Paediatrics' (also spelled as paediatrics) is the branch of medicine that deals with the medical care of infants, children, and adolescents. The upper age limit ranges from age 14 to 21, depending on the country.

**Monitoring:** Is an ongoing process, carried out routinely and it is the process of collecting and analyzing information to track programme implementation progress.

**Evaluation:** is a systematic process of collecting and analyzing information to assess the effectiveness of the organization in achieving its goals.

**System:** This refers to an element organized to ensure efficient functioning of a system as a whole.

**M & E system** is a set of organisational structures, management processes, standards, strategies, plans, programme indicators, information systems, reporting lines and accountability relationships which enables organizations and other institutions to discharge their M & E effectively

**Comprehensive indicators:** are the core activities that entail everything regarding the inputs, processes, and outputs of the project and would help the staff determine progress towards meeting organizational objectives.

**Capacity building:** is the empowering through training the human resources with skills so as to get the best out of them, to enable them work effectively and efficient

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter the researcher reviewed the existing literature on the theoretical and empirical studies on factors influencing effectiveness of M & E systems. The literature was reviewed with the aim of creating a deeper understanding of the subject matter, highlighting the literature gap and presenting the existing debate and arguments. The literature is sourced from different documents, authors and authorities to compare and contrast information on factors influencing M & E systems locally and worldwide from different organizational experiences. The first section presents the preliminary literature review by presenting the theoretical review. This is followed by the actual literature review by presenting related literature on the influence of indicators and tools used on M & E systems, influence of funding on M & E systems, the influence of human resource on M & E systems, the moderating role of stakeholders commitment on key critical factors and effectiveness of M & E systems sub themes in the conceptual framework.

#### **2.1. Theoretical review**

A number of theories of M & E are reviewed here to help in guiding the discussion about the key factors influencing the effectiveness of an M & E system and their effectiveness in measuring project output and they include the outcome theory and the pretest-post test model.

##### **2.1.1. Outcome theory.**

The outcome theory was proposed by Duignan (2007) suggests the need for quantitative outcome evaluation to comprehensively specify possible high-level outcome attribution evaluation designs. The theory equally proposes program evaluation regarding the importance of intervention logics in conceptualizing that an evaluation must be carried out. The outcomes theory calls for a practical way of linking indicator to monitoring and more one-off evaluation; a systematic and standard way of setting out an evaluation plan; a concise treatment of the issue of the feasibility and affordability of high-level outcome attribution evaluation designs; a way of conceptualizing the integration of formative, process and outcome evaluation; and a systematic way of specifying which approach one is adopting to overall monitoring and evaluation strategy (Patton, 1997).

The outcomes theory draws on economics' agency theory's insights into the issue of risk about the achievement of outcomes being a central issue in the relationship between a control organization (principle) and an intervention organization (agent). This view was reinforced by Pawson and Tilley (1997) that the Outcomes theory adds value by: providing a comprehensive treatment of the relationship between different types of indicators and evaluation; the specification of lower level evaluation questions; the importance of building hierarchical causal maps (outcomes hierarchies) within outcome sets e.g. moving beyond the simple distinction sometimes made in agency theory between behavioral and outcome measures. By clearly mapping out what is known, what is not known and what is feasible and affordable to know in any domain, outcomes theory allows the building of sound business and economic models where all stakeholders are clearly aware of the degree of uncertainty around all the estimates which are put into such models, (Riesman I, & Clegg I 1999).



The outcome theory suggests key concepts of indicators that the management of NGOs have to set to guide M & E activities. The theory further suggests the need for tools for gathering data to measure the performance of the project against the set indicators which shows the level of achievement of the set targets and this contributes to the effectiveness of the M&E system which is the basic tool for measuring performance among the NGOs like the BIPAI project.

### **2.1.2. Pretest-Posttest Model**

The basic assumption of the pretest-post test model is that without project interventions, the situation that existed before the implementation of the project will continue as did before. As a result of the intervention, the situation will change over time. Therefore, we measure the situation before the project starts and repeat the same measures after the project is completed. The differences or changes between the two points in time can be attributed to the project interventions. For example the pre and posttests should be the same, measures should be taken from the same groups, etc. In addition, to establish a strong link between project interventions and project impact, the model should take into account other biases that might occur between the two points in time. Some of those biases might be out of the project control, i.e., social, political, economic, and environmental factors (McCoy, 2005).

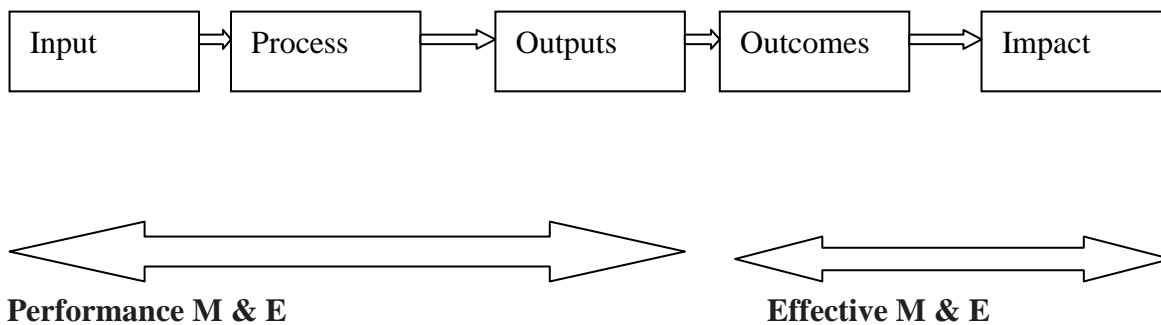
The pretest-posttest model highlights the need to assess the level of change among the beneficiaries thus following the interventions of the project to address the felt need, M & E systems should evaluate the extent to which the project has brought about change to the

beneficiaries. To do this, the M & E system is based on a set of indicators and tools to provide information for decision making.

## 2.2. Conceptual review

In general, it is common to find confusion even among stakeholders between Monitoring and Evaluation. Monitoring is the routine, daily, assessment of ongoing activities and progress. In contrast, evaluation is the episodic assessment of overall achievements, Monitoring looks at what has been done whereas evaluation examines what has been achieved or what impact has been made.

The model below shows a framework for M & E.



The model shows how monitoring and evaluation is used in programmes for measuring implementation and assessing the effect of implemented programmes.

A programme or intervention will have:

- (i) **Inputs** that refer to resources invested in the programme and will include financial, technological, and human resources;
- (ii) **Processes**-These are activities carried out to achieve the program objectives.

Monitoring of these activities will show what has been done and how well it has been done within the time limit based on the work plans for the objectives;

(iii) **Output**-These refer to the results achieved at the programme level or simply programme products. Output may be in three forms: numbers of activities conducted in each functional area such as training ; service output which measures adequacy of services delivery system in terms of access, quality of care or program image; and service utilization that measures the extent to which the services are being used;

(iv) **Outcome**-This refers to the changes observed at the population level among members of the target population as a result of a given program or intervention. There are two types of outcome namely:

(a) **Effects**- which is short - to medium range (e.g., 2-5 years) change in behaviour promoted by programme (e.g. abstinence, use of condoms, seeking treatment for STDs from Health worker);

(b) **Impact**- which are changes that occur over long-term (e.g. reduction in new infections of HIV among young people or increased length of life among HIV infected) (Kenya National AIDS Control Council, 2005).

Monitoring usually addresses inputs, activities and outputs. Most monitoring systems are designed to the ongoing information needs of project managers and provide information required for reporting, and facilitating the attainment of the intended project objectives. Monitoring is mainly descriptive and should be frequent, throughout the project (Shapiro, 2001). Monitoring is aimed at improving the efficiency and effectiveness of a project or organization. It is based on targets set and activities planned during the planning phases of work (Shapiro, 2001). The concept of monitoring guided this study to understand monitoring as the systematic collection

and analysis of information as a project progresses aimed at improving the efficiency and effectiveness of a project or organization.

In the implementation of the strategic plan, there are various stages involved before attaining the desired goal. Every strategic plan will have a desired goal which is the net effect expected of the intervention targeting the population. Once resources have been utilized for activities they are expected to produce desired results that will eventually lead to the goal of the strategic plan (Kenya National AIDS Control Council, 2005).

The OECD (2006) DAC defines evaluation as "an assessment, as systematic and objective as possible, of an on-going or completed project, programme or policy, its design, implementation and results. Evaluation is the comparison of actual project impacts against the agreed strategic plans. It can be informative or summative. It looks at what has been set out to do, what has been accomplished and how it has been accomplished. The aim is to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

Monitoring and evaluation form the essential elements of a control and reporting system. It is important to accurately assess what has or is happening compared to what was expected to happen (Young, 2003). Monitoring helps to determine whether any change that has occurred due to a programme has been worthwhile or effective. Monitoring is an ongoing process. It is carried out routinely and is usually quite structured. It helps managers keep an eye on things in a simple way (Whiteley, 1996). It entails routinely collecting data and measuring progress towards a

programme's objectives. It addresses the extent to which planned activities have been realised, what services have been provided, how well the services are provided, and the cost per unit (FHI, 2004).

Evaluation provides regular feedback to help analyze impact, outcomes, and results of activities, and helps assess relevance, scope, and responsiveness towards the achievement of the project objectives (McCoy, 2005). The need for effective monitoring and evaluation (M & E) is increasingly recognized as an indispensable tool of both project and portfolio management (IDS, 1998). The acknowledged need, to improve the performance of development assistance calls for close attention to the provision of management information, both to support the implementation of projects and programs and to feed back into the design of new initiatives (McCoy, 2005).

The concept of evaluation guided this study in understanding the need to compare actual project impacts against the agreed strategic plans in an informative or summative exercise of the BIPAI project. This study undertook to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability of the BIPAI project.

### **2.3. Critical factors and effectiveness of M & E system**

This study considered indicators and tools used, funding, human resource and stakeholders' commitment as the key critical factors influencing the effectiveness of M & E systems.

#### **2.3.1. Indicators & tools used and effectiveness of M & E system**

Indicators are operational measures of the components in the Framework. In the Kenyan case they have been developed using standard operational definitions and discussed for each area of the strategic plan bearing in mind all their desirable features. Indicators definitions, numerators

and denominators are well covered in the operational manual for M & E for HIV/AIDS. An example of an outcome indicator in prevention of HIV programs area is *“Percentage of young people who have had sex with non-regular partner in the past 12 months by gender and marital status”*.

Data Sources - Indicators for HIV/AIDS response in Kenya whether drawn from reports or from other agencies require data from a variety of sources. These sources are population surveys, population censuses and vital registration, facility surveys, surveys of programme clients and providers, programme service statistics and records (administrative and special programmes).

DataFlow/Linkages -These are relationships between existing institutional structures created for the coordination of the national HIV/AIDS programme at various levels (Kenya National AIDS Control Council, 2005).

Tools and Indicators provide the quantitative and qualitative details to a set of objectives. They are statements about the situation that will exist when an objective is reached, therefore, they are measures used to demonstrate changes in certain conditions or results of an activity in a project or program. In addition, they provide evidence of the progress of program or project activities in the attainment of development objectives. Indicators should be pre-established, i.e. during the project design phase. When a direct measure is not feasible, indirect or proxy indicators may be used. Indicators should be directly linked to the level of assessment (e.g. output indicators, outcome indicators or impact indicators). Output indicators show the immediate physical and financial outputs of the project. Early indications of impact (outcomes) may be obtained by surveying beneficiaries' perceptions about project services. Impact refers to long-term developmental change. Measures of change often involve complex statistics about economic or

social welfare and depend on data that are gathered from beneficiaries. They should also be clearly phrased to include change in a situation within a geographical location, time frame, target among others. Good indicators should be simple, measurable, attainable, realistic and time bound ( Consultancy report to DG VIII, European Commission, Brussels 1996).

M & E designers should examine existing record keeping and reporting procedures used by the project authorities in order to assess the capacity to generate the data that will be needed. Some of the impact indicators, such as mortality rates or improvement of the household income, are hard to be attributed to the project in a cause-effect relation. To maximize the benefits of M & E, the project should develop mechanisms to incorporate the findings, recommendations and lessons learned from evaluations into the various phases of the program or project cycle.

In an effort to assess the impact of poverty alleviation projects in the UK local authorities were successful in monitoring poverty status by first setting up a range of different indicators both quantitative and qualitative which were published and distributed to local area. Some of the antipoverty indicators moved beyond the use of narrow statistical measures to encompass the commissioning of new research on wider aspects of deprivation and exclusion there by facilitating effective monitoring and evaluation of the anti poverty activities by the stakeholders including the beneficiaries themselves (Alcock & Craig, 1996).

Alcock & Craig (1996) further noted that the anti poverty assessment noted that through monitoring and evaluation it was possible to observe the level of outputs which were the services

or products from the commitment of resources. These were again clearly identified and were more congruent with the aims of anti poverty.

Daikaki, Grioroudis and Stabouli (2006) reported that by using a set of indicators and tools Environmental Performance Evaluation EPE projects instituted by ISO 1430 are always in position to monitor environmental standards through collecting and analyzing data, assessing information against environmental performance criteria, reporting and communicating and periodic review and improvement of environmental standards by certified partners. Indicators were necessary for different kind of stakeholders to measure and assess progress in environmental performance. Environmental indicators instituted by ISO were considered to be both significant and useful mainly due to the fact that , by providing quantitative information and thus objectivity on the significant environmental issues faced by an organization, offers the potential to add value by allowing management to; track progress towards stated objectives and targets, benchmarking performance more easily, assessing the effectiveness and potential of environmental management initiatives or projects, produce information for different stakeholder, regularly providing information to support any review process and appraising the significance of aspects and impacts.

According to Brazil (1999) an organizations capacity to process information can range from being properly planned and based on haphazard data sources to being planned information systems supported by allocated sources. One extreme of the continuum, unprocessed data are least certain and least relevant to decision making needs. Moving up the continuum, data re collected and analyzed to assist decision making. Well developed information systems (tools) are



central to successful M & E activities. In many organizations, M & E and information systems are integrated under an information system.

Kolk and Mause (2002) further argued that the use of indicators enabled organizations to identify more easily areas and actions that preserve the requirement for continuous improvement of projects.

Brazil (1999) concludes that in many programs evolutions based on indicators and tools are undertaken for a variety of reasons including: monitoring efficiency of program task, reviewing objectives and formulating new indicators, analyzing case loads and patient flows, study patients and provider satisfaction, study post treatment outcomes, participating in community planning and comparing cost outcomes of different approaches to service needs.

The Kenyan experience provides a framework for stakeholders with a tool for well coordinated, interlinked and functional HIV/AIDS M & E systems that allow them to efficiently assess how well HIV/AIDS interventions are contributing to achieving the national programme goals. The following reasons justify the necessity of having the Kenya National HIV/AIDS M & E Framework:

- (i) It provides opportunities to develop integrated national and sector specific M & E systems to guide a national response to HIV/AIDS;
- (ii) It assists in responding to the regional and international reporting requirements;

(iii) It provides the platform for partnership, networking, and collaboration between national-level and local-level stakeholders in monitoring and evaluating national and decentralized responses to HIV/AIDS.

The goal of the Framework is to guide coordinated and efficient collection, analysis, use, and provision of information that will enable the tracking of the progress made in the national response to HIV/AIDS and enhance informed and sound decision making and policy for the multisectoral, decentralized HIV/ AIDS programme. The objectives of the Framework are to assist all HIV/AIDS stakeholders in:

- (a) Conceptualization of coordinated national HIV/AIDS Monitoring and Evaluation system for national response;
- (b) Guide in development and strengthening of the Monitoring and Evaluation System.
- (c) Directing gathering of information that will be used in Monitoring and evaluation

Expected outputs on the implementation of the framework in Kenya include: Quality and timely reporting by all programme implementers; Establishment or Strengthening of Monitoring and Evaluation Systems depending on their current status; Establishment of a data products warehouse; Establishment of monitoring and evaluation dissemination strategy; Structured coordinated flow of routinely collected information among players at various levels of the M & E system; Strategic indicators developed and reviewed based on existing ones and periodically reviewed to represent professional insight from experts of HIV/AIDS and Monitoring and Evaluation.

To obtain the above products, an M & E Operational Manual should be developed describing how the M & E System is supposed to operate in practical terms (including job descriptions, indicator definitions, standardized tools and requirements, reporting formats, and data flow).

WHO (2007) contends that key considerations have to be met for effective M & E systems to include among other:

**Simplicity:** The ease in which data are collected, analysed, and reported remains crucial. Procedures should remain manual as much as possible. Data collected at facility, household, and community levels should be able to be entered into registers and forms. The data collation and analysis should not stop functioning because of a power failure, a shortage of printed stationery, or a breakdown of computers. However, data collection should also benefit fully from modern technology to facilitate national data aggregation, analysis, and report generation.

**Action Orientation:** Data collected must be used for programmatic and technical decision making. There must be a direct link between data collection, analysis, reporting, and decision making at all levels of HIV/AIDS interventions. An M & E system provides information for policy development, program planning, and operational management. It also collects and forwards only the information necessary for decision making, while providing feedback to the periphery.

**Transparency and Accountability:** M & E of the national response to HIV/AIDS has to be open and participatory for stakeholders and participants at all levels. Those in charge of data collection, analysis, reporting, and policy decisions must take ownership of their actions and be able to professionally defend their reports and/or decisions. All stakeholders and participants have to agree on and abide by this key principle.

An efficient monitoring and evaluation (M & E) system is the cornerstone for measuring a country's progress in providing universal access to prevention, care and treatment services by 2010 and achieving the Millennium Development Goals (i.e. to "halt and reverse the spread of HIV" by 2015). While the need for strong M & E systems has been increasingly recognized over the past two decades, adequate action has not been taken to fully apply, use and intricately link M & E to the planning and implementation of programme interventions. Thus, M & E systems in countries remain undervalued, under-implemented and under-used (WHO, 2007)

The need for strong M & E systems is well understood by national AIDS programmes and also that M & E systems cannot remain static and may need to be modified to generate new information to understand the epidemic better as it evolves over time. However, several constraints need to be overcome to fully apply M & E systems as an integral part of programme planning and implementation. In many countries, M & E systems were designed for donor projects. Such project-specific fragmented systems have led to duplication of efforts in collecting and reporting information. Furthermore, the information that is collected from the M & E systems is seldom analysed suitably or disseminated to appropriate stakeholders. Often M & E is looked upon as a requirement for donor reporting rather than a tool for guiding the national response to the epidemic. Key constraints in M & E systems in many countries include: fragmentation of M & E systems leading to duplication of efforts in collecting and reporting information; Limited commitment to and value accorded to M & E in making informed decisions; Limited co ordination and lack of linkages across interventions and among departments; Weak health systems with limited staff and infrastructure; Lack of completeness of reporting; Questionable validity (accuracy) of information; Uncertainty of size estimates of most-at-risk populations; Inadequate analyses/ triangulation of data; Failure to link M & E

outputs with programme interventions; Lack of systematic M & E reporting and dissemination (WHO, 2007).

### **2.3.2. Funding and effective M&E system**

Funding according to UNAIDS, (2000) includes availing and allocating adequate financial resources for M & E systems which may come from government, donors, trust funds or partnerships and the NGOs budget and the private sector's philanthropy.

One way to measure the commitment to HIV prevention and control is by assessing the financial support for activities on prevention, treatment, care and support. Measuring expenditure on HIV can also indicate the absorptive capacity, productivity and progress of various investments. Funds are received from different sources: government (central and provincial level), Overseas Development Assistance, loans and the private sector. These funds are support the HIV programs of various organisations in various sectors at all levels nationwide. In some cases people living with HIV and their families pay out-of-pocket expenses for additional health services (WHO, 2007).

Barlow (2002) contends that funding strongly contributes to sustainability of the of the M & E systems depending identification on how much will needed for expenses through annual project budgets and the consequent fund raising. The management of the NGO will need to search to identify potential funding sources and allocate enough funds to administration of the M & E activities. This can be achieved through finding out how much funds each activity of the project needs (allocated) and developing budgets based on functional budgets. From the functional

budgets the expected resources and expenses associated with each project activity and the allocated percentage overhead are then identified (Brown, 2005)

According to Brazil (1999) the futures that allow for the development of both adequate staffing and planning of an infrastructure to provide relevant information both for administrative and clinical activities is funding of evaluation activities. Lack of adequate funding has been a persistent obstacle to the growth of M & E practice. In support of the above the civil hope foundation (2007) in its goal indicated that costed M & E work plans for which they were responsible for were always planned, budgeted and the funds were available for its activities to be executed which contributed to the project success. It was learnt that developing and costing a work plan for HIV/AIDS M & E for the organization was a key success factor. The above assertion implies a key role of funding for effective M & E in project management. The WHO (2007) recommend costing and operationalizing the M & E Plan by creating time-explicit work plans, with clear indication of costs, funding gaps, responsibilities and leading agencies. Costs related to the implementation of the M & E work plan need to be included in the organisation's mid-term expenditures framework to ensure a greater share of funding from the state budget yet joint resource mobilization based on the costed work plans

PATH anticipates funding one to two proposals with HIV incidence as an outcome, and four to five proposals with outcomes other than HIV incidence. For each proposal, funds are available to support front-line activities, monitoring and evaluation, and other related project costs, with the majority of funds (75%) earmarked to implement front-line activities. Overhead costs may not exceed 13% of the budget. PATH anticipates that projects with HIV incidence as an impact

measure will require a substantially larger proportion of the budget allocated for monitoring and evaluation. As such, PATH has allocated up to US\$3,500,000 for each of two projects, including approximately 22% of funds dedicated towards M & E activities. With regard to the projects with other outcome measures, approximately US\$1,000,000 is available for each, including approximately 10% of funds dedicated towards M & E activities in each project. In addition, PATH encourages creative and cost-effective approaches to monitoring and evaluation, especially with respect to measuring HIV incidence as an outcome ([www.path.org](http://www.path.org))

Most projects pursue costed M & E work plan and the goal may be that all M & E functions for which is responsible, are planned, budgeted, funds are available for it and activities are executed. The functions involved therefore include develop and cost a work plan on HIV M & E for the organization that is part of the organization's broader work plan and tracking and report progress with the implementation of these M & E activities to our staff and stakeholders (UNAIDS, 2007).

### **2.3.3. Human resources and effective M&E system**

Human resource is a key consideration of the under personnel and tries to ensure that the M & E staff have sufficient expertise, training and attitudes to implement the M & E activities. A prerequisite for evaluation is adequate staffing with skilled professionals. Frequently project staff lacks the skills to design and implement M & E plan. The result is superficial data or post-hoc design, instead of evaluation plan that are integral component of project development (Brazil, 1999).

The functional role of the evaluator can vary from statician, where the data analysis is the basic task, to decision maker where analysis, coordination and policy implementation are the principal tasks. To be effective, the evaluator's role should be embedded in the organization's decision making process. In this way the evaluator can ask relevant questions, propose appropriate evaluation and assume advocacy role in implementing changes that are decided on as the results of an evaluation. Evaluators should be clearly defined as an advisor or consultant to project manager. In this way the evaluator has great capacity to influence organizational change as a result of evaluation activities (Brazil, 1999).

Daikaki et. al (2006) noted that training of personnel and a great effort of devotion were some of the requirement necessary to initialize and progress formal environmental M & E of environmental standards projects.

The government of Tanzania noted that M & E staffs were in place to facilitate delivery of the required HIV/AIDS services albeit some of them are new and need capacity to be built. At regions and districts M & E is an added staff responsibility yet M & E staffs at national level are trained with good capacity. Some challenges remained and included: M & E certificate and degree courses are rare; There is no recognition of M & E officers in Government staffing structures (establishment posts); Turnover of M & E staff is high, due to rarity of skills and especially in public sector; There are constraints in terms of office, equipment, resources for M & E work at regional and district levels; M & E units are under policy and planning yet most regional staff are not formally trained in M & E. The government of Tanzania as such has set out to: Advocate for M & E to be recognized as a profession within the public service; Build capacity, attract, motivate and empower M & E staff; Establish post to coordinate information in



each Ministry; Support local Government to have M & E persons; Develop and implement capacity strengthening plan (Assessment of National HIV M & E system in Tanzania (2007)

The Human Capacity for Multi-Sector HIV M & E in Republic of Moldova revealed that a critical shortage of qualified human resources at all levels of the national M & E system, ad-hoc approaches to capacity building, potential for overlap of capacity building due to limited communication, the lack of a central database of events (with the notable exception of [www.aids.md](http://www.aids.md) that has a dynamic events platform), excessive reliance on external technical assistance and capacity building that curtails sustainability. It was also noted that the standard University education curricula is lacking modules on M & E. Another missing link, is the capacity building plan that would be built on identified capacity needs and gaps; it would include measurable performance objectives, clearly defined outputs, and ways to track progress over time. In order to be able to build supportive supervision and mentoring in the capacity building plan, the capacity of the M & E unit staff, as well as other key staff responsible for supervising the data collection, aggregation process and levels, need to be augmented (M& E system assessment report 2008, Republic of Moldova)

The WHO (2008) equally noted that in most developing countries among capacity gaps, participants have identified projections, modelling and estimation skills and capacities as being critical. In human resources, a barrier identified was the limited motivation and professional growth of M & E staff. For example, the public service inventory does not include the position of specialist in M & E in the list of professions; hence there is little motivation to pursue an education.

Identified Weaknesses included: missing inventory of existing capacity and avenues for capacity building; no higher education in M & E; no database/common pool of experts; no database of M & E ongoing capacity building events; lack of a capacity building plan; non-implementation of assessments regarding needs and gaps, regular assessments and milestones: the ability to measure implementation of capacity building plan.

#### **2.3.4. Stakeholders' commitment and effective M& E system**

Previous attempts by individual implementers and stakeholders in developing M & E systems often led to parallel systems being developed for different programmes. There was minimum sharing of information between programmers and between different implementers leading to inefficiency in utilising scarce resources. For example, under National AIDS/STD Control Programme independent vertical systems were developed for each programme area of VCT, PMTCT, ART, and STDs. Efforts however are being made to integrate these systems and a form MOH 726 has been developed together with their registers to integrate information so as to enable NASCOP to have one M & E system that responds to all of its programme needs. On the other hand Sentinel Surveillance has been operational and consistently undertaken in the region and thus the country has been able to track the epidemic since 1990 through various sentinel sites across the country (Kenya National AIDS Control Council, 2005).

Operationalizing the M & E system is an incremental process, relying on ongoing training, advocacy, and participation from all sectors and levels of government. There is need to:

- (a) Dedicate funding and skilled resources for implementing the system.
- (b) Build capacity using a national HIV/AIDS output monitoring system information.

(c) link national HIV/AIDS M & E systems with other M & E and management of information systems.

(d) Include HIV/AIDS M & E requirements in all HIV/AIDS related documents. It also demonstrates the level of detail and ongoing effort required to ensure that an M & E system functions as required to efficiently produce results in harmony with project intended objectives.

Most of the information needs of the systems required data to be collected at the local level. A data collection tool SCAN was developed for this purpose to measure community-based health activities over years in each public health jurisdiction. The SCAN was designed to assess: level of implementation of the activities, partnership with other community organizations, perceived effectiveness of programming, perceived importance of organizational practices, barriers and facilitators to effective practice, need to technical assistance and use of resource centres. Through this effort it has been possible to engage all the stakeholders to support the monitoring of the Canadian Heart Health Initiative (Cameron, Walker, Gough & McDonald, 2000). Through this initiative feedback on the results of the SCAN a qualitative data collection went to local public health department and provincial level stakeholders supported by a Health Management Information Systems.

The Canadian experience of the data collection tool (the Survey of Capacities, Activities and Needs-SCAN) was developed to measure community-based health activities over years in each public health jurisdiction and its success was based on financial resource deployment decisions and commitment at the community level. It was noted that if resources were to be deployed adequately, there was need to have the capacity to make evidence based decision about what is working and what was not (Cameron et. al, 2000).

The Uganda CHAI program offers the role of stakeholders in M & E systems. Community group members contribute to the management of all the key processes of service delivery, participating in: planning and budgeting for activities, cash flow management, implementation of approved activities, monitoring and reporting. Supporting supervision is provided by District Aid Committee (DAC) and district level NGOs as part of the national action plan for HIV/AIDS pandemic fight. The design of the community projects criteria anticipated the limitations that exist in community skills and capabilities. The community group account to stakeholders in multiple ways, including written reports, oral briefs during local councils and church meetings, and informal information sharing during the course of executing planned activities. Institutions reported to included parish councils, sub-counties and districts local governments. The institutions form the focus of formal accountability, requiring from community groups the regular submission of written financial reports and progress reports (Awio, Lawrence, Northcott, 2007).

#### **2.4. Summary of literature**

Measuring efficiency and quality of delivery is complex. Many approaches assess work processes or institutional arrangements that are reasonably thought to contribute to efficiency and service quality. Some tools which have attempted to develop specific measures and have tried to under pin project performance to: Human Resources Management and Information Technology Management. In terms of performance, like in the public service while assessing NGO's performance, it is often asserted that their efficiency is low, and that quality of service is poor. These are two related but separate considerations – and both are distinctly hard to substantiate or refute. Assessing organizational performance in the not for profit making entity is quite difficult.

First, unlike private organizations, NGO have no single performance indicator – such as profits or market share – that can be used to compare across different types of organization or product.

Few organizations in the public service work for profit; and the outputs of organizations such as an audit body or the planning division are used only by other organizations within and not for external users. Second, NGO's are often responsible for goods with low contestability and measurability. In such circumstances it is generally impossible to find performance measures that satisfy the ideal qualities of consistency, comparability, clarity, controllability, comprehensiveness, bounded-ness, relevance, and feasibility. Therefore when performance of NGO projects objectives is assessed through M & E, it's often the outputs assessed based on; three intermediate dimensions of performance: "outputs," accountability and stakeholder participation or morale. Outputs focus is often measured by creating indicators covering: whether an organization's activities were geared to its objectives; whether the organization was considered efficient; and whether a merit-based reward and punishment system was in place. Outputs focus is evidence that projects are striving to achieve organizational goals. It is a reasonable, though empirically contestable proposition that rewarding good performance and punishing bad performance encourages a results focus. For example there aren't known performance standard measures established to measure staff output which impacts on the effectiveness of the M&E system of the organisation.

**Accountability** is measured by using 15 questions to create indicators covering, inter alia, enforcement of donor or funding regulations; demonstrated accountability to the public at large, and to civil society. In assessing the institutional environment, the existence of credible rules is tested in four areas: record management, project evaluation, internal audit and performance appraisal. In measuring performance, the past enforcement of these rules is tested in the same

four areas. Accountability is performance in the distinctive sense of adhering to the formal rules that allow actual behaviour to be tested against mandated standards.

**Stakeholder participation or morale** is measured by creating indicators covering stake holders' satisfaction and vertical solitude. (Vertical solitude is a measure of the disconnect between the managers of organizations and other officials working in them, Zussman and Jabes, (1989). Organizational performance is thought to be directly linked to participant's morale

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This section gives the methodology used in the study. It presents a description of the research design, the study area, study population, sample size and selection, sampling designs and methods, data collection methods, instruments and procedures , ,tests for validity and reliability and data analysis.

#### **3.1 Research Design and Approaches.**

A research design is the conceptual framework within which data is collected and analysed. The research design was a case study of Baylor International Paediatrics HIV AIDS Care centre. The research design makes up the blue print of the collection and measurement of data and analysed. The research design provides answers to questions like what is the study about, why is the study being conducted, where will the study take place, what makes up the study population, what type of data are required and where will such data be found, what techniques of data collection will be used and how will the data be analysed and interpreted (Amin, 2005).

The researcher used a cross sectional descriptive study design basing on the use of qualitative and quantitative approaches that were adopted to establish the factors influencing effectiveness of M & E systems (Amin, 2005). These designs were used for profiling, defining, segmentation,

estimating, predicting, and examining associative relationships. Cross-Sectional studies easily provide a quick snapshot of what's going on with the variables for the research problem.

Quantitative perspective is on the premise that there is an objective reality which can be expressed numerically.

Quantitative data are numerical data that are collected and statistically analysed to explain, predict a control phenomenon.

Qualitative data give narrative and description information that explains and gives greater insight into the problem. Qualitative data collection is referred to as one in which the researcher is able to obtain detailed information about the phenomena being studied and establish partners, trends and relationships from information gathered about the effectiveness of Monitoring and Evaluation system for the project.

### **3.2 Study Area**

The study was carried in International Paediatric HIV Care Centre Mulago Hospital-PIDC Children's Ward Kampala division. Mulago hospital is located at 5Km from the capital business centre. The Baylor Paediatric International Centre at Mulago Hospital is – supported by the Baylor International Paediatric AIDS Initiative and is the first to provide a comprehensive package of HIV care and treatment services to children and adolescents infected or exposed to HIV, including testing, treatment, counselling of children and their families, and training healthcare professionals in the management of paediatric HIV. Baylor has operated in Uganda



since 2003, when it set up a paediatric infectious diseases clinic at Mulago hospital; Today, more than 7,500 children and caregivers receive HIV/AIDS care and are routinely followed up. Baylor-Uganda supports 44 ARV treatment centres around the country, mostly in district hospitals and clinics. Uganda has an estimated 100,000 people on ARVs, but only 10,000 of them are children. This research therefore, sets out to analyse the appropriateness for BIPAI M & E system in gathering information, data and the tools used to measure the performance outcomes.

### **3.3 Study Population**

Population refers to the group of people, events or things or elements of interest that researcher wishes to investigate (Denscombe, 2003). The study target population was 251 elements comprising of M & E managers, M&E officers, client's i.e. Children under the care and on ARVS at BIPAI, and Civil society leaders. This study population was selected on the basis being implementers and beneficiaries of BIPAI project because they had the key information on the indicators and tools used, funding, human resources and the stakeholders' participation during the implementation of the project activities and their influence on the effectiveness of M & E systems.

### **3.4 Sample Size and Selection**

#### **3.4.1 Sample size**

Sekaran (2000:265) describes a sample as a subset of the population. It comprises of some selected members who are referred to as subjects. A sample is thus a sub group or subject of the population. Sampling is the process of selecting a sufficient number of elements from the

population, so that a study of the sample and an understanding of its characteristics would make it possible to generalize such characteristics to the population elements. A total of 152 subjects were selected as shown in table 3.1 below shows the population categories, population, sample and sampling techniques used in the study.

**Table 3. 1: Population categories, population sample and sampling techniques used in the study.**

Category	Population	Sample	Technique
M & E Managers	12	10	Purposive sampling
M & E officers	19	14	Purposive sampling
Clients	120	92	Convenience sampling
Civil Society Leaders	100	36	Simple random sampling
<b>TOTAL</b>	<b>251</b>	<b>152</b>	

**Source: Adopted and modified from Krejcie & Morgan 1970 (as cited in Amin, 2005)**

### **3.4.2 Sample Selection Method**

Sampling is the process of selecting a sufficient number of elements from the population, so that a study of the sample and an understanding of its properties or characteristics would make it possible for the researcher to apply such properties or characteristics to the population elements.

There are two (2) major types of sampling approaches i.e. probability and non probability sampling. In probability sampling, the elements in the population have some known chance or probability of being selected as sample subjects while in the non probability sampling, the elements do not have a known or predetermined chance of being selected as subjects (Sekaran 2000). The researcher used both probability and non-probability sampling designs of purposive

and convenience sampling. Purposive sampling was used to select respondents who are more knowledgeable and experienced in factors affecting M & E systems. Convenience sampling was used to draw information from beneficiaries who are conveniently available to provide it especially from the beneficiaries' of the project services. A probability sampling method of simple random sampling using the lottery technique where all names of subjects were written on tags and placed in a basket and one tag picked until the required number was reached, was used.

### **3.5 Sampling techniques and procedure**

The sampling of respondents who participated in this study was based on both probability and none probability methods.

Non- probability or biased sampling was used because the researcher to a bigger extent wanted to focus on in-depth information and not making generalizations (Mugenda and Mugenda, p. 50). Of the non-probability methods, I used purposive sampling and convenient sampling in the collection of the data. Purposive sampling, was employed, in which the researcher purposively chose subjects who in her opinion, were relevant to the study and were capable of providing the desired information, as suggested by Sarantakos (2005, p. 164). Purposive sampling was used to most of the respondents because they had the required information with respect to the objectives of the study however convenient sampling was also used on clients' and medical staff because these are people who would come to the centre on specific days so, these were the days when they would be available to the researcher. Such methods especially convenient sampling method, have been known for achieving sufficient responses and to make the study viable. It is also quick and inexpensive (Sekaran, 2003; Amin, 2005).

Of the probability methods stratified sampling technique was employed to achieve desired representation from various sub groups in the population as per Mugenda and Mugenda (1999, p.47). The sub-groups involved M&E managers, officers, clients/ beneficiaries of the project and civil society leaders who were also among the beneficiaries of the project and the development partners. The total population was 251 out of which 152 was sample out and the population came from BIPAI project department, the stakeholders, the clients / beneficiaries from Kampala district and project clients from other outreach centres that had come for treatment at the Kampala outreach centre.

### **3.6 Data collection Methods**

Data collection methods are an integral part of research design which involves selection of both qualitative and quantitative data (Amin, 2005). There several data collection methods but the following will be used:

#### **3.6.1 Questionnaire**

A questionnaire is a reformulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives. The questionnaire was used on the basis that the variables under study can not be observed fore instance the views, opinions, perceptions and feelings of the respondents. The questionnaire was equally used because the information had to be collected from a large sample in a short period of time yet the respondents could read and write (Sekaran, 2003).

In this research, personally administered questionnaires were used to draw information regarding the effectiveness of the M&E system from the M & E managers, M & E officers, project beneficiaries and community leaders.

### **3.6.2. Interviewing**

An interview is a dialogue between an interviewer and interviewee. It is an organised conversation aimed at gathering data about a particular topic. This is a method where a researcher interviews respondents to obtain information on the issue of interest. In this case, the interviews during this research were structured and were specifically administered to key informants, i.e. M & E managers using interview guides. The researcher interviewed respondents face to face to obtain information on key influencing factors and effectiveness of M & E systems.

### **3.6.3 Focus group discussions**

This method requires that a researcher organizes a group of about 6-12 people who are well informed or have experience on a situation which the researcher is investigating to give their experience and way forward on an issue (Mugenda & Mugenda, 1999). The researcher used this method to collect data from beneficiaries of the project services using the focus group discussion check lists.

### **3.6.4 Documentary review**

Documentary review involved reviewing existing published and unpublished information relating to key critical factor and effectiveness of M & E system. Relevant documents such as the internal project quarterly reports, mid term evaluation reports, project documents, newspapers, journals, magazines, were reviewed and vital information recorded. The information from documentary reviews was used to supplement other methods of data collection in understanding the core areas and variables of the study.

### **3.7 Data collection instrument**

Data collection instruments are tools that aided the researcher to collect accurate and reliable qualitative and quantitative data on key critical factors and effectiveness of M & E systems. The following data collection instruments were used during field data collection:

#### **3.7.1. Questionnaire**

The qualitative data was gained from a close ended questionnaire divided in three sections namely, background information about the respondents, critical factors and effectiveness of M & E systems. A standard questionnaire scored on a five point Likert scale was used to get quantifiable primary information from individual respondents. Self administered questionnaires were used and administered by the researcher. These entailed all the required questions to generate relevant information to the study.

#### **3.7.2 Interview schedules**

Interviews with the target interviewees were conducted by meeting interviewees and asking them questions of which the researcher recorded all the responses by herself. The interview schedule consisted of questions which were posed for the M & E staff, managers, clients and civil society leaders.

#### **3.7.3 Focus group discussions**

Focus group discussions were held with beneficiaries (M&E project managers and officers, foster parents) from the Kampala district and the beneficiaries from BIPAI project especially those who had come for treatment and counselling in HIV AIDS related illnesses consisting of

six members each. Using this method, qualitative information was obtained which made it possible to draw inferences on the study variables.

#### **3.7.4 Documentary checklist**

This method involved deriving information by studying written documents. Documentary analysis involved reviewing and analysing the existing data relating to key critical factors against the effectiveness of M & E systems. Sources included management reports, electronic data bases, journal and books among others.

### **3.8. Procedure of data collection**

After successfully defending the proposal before a panel of Masters Defence committee, the researcher got an introductory letter from Uganda Management Institute introducing her to the respondents and which was also presented to the management of BIPAI that gave permission to conduct the study within the department and hold discussion groups with the selected respondents and data collection commenced. Coding and editing were done while in the field and after data collection. There after, data was analysed and a report of the findings was written.

#### **3.8.1 Pre-testing of data collection instruments**

Pre-testing involves examining individual questions as well as each of the study instruments very carefully with the aim of ensuring that the questions measure what they are intended to measure, respondents understand the questions, and creating a positive impression that motivates respondents to answer (Amin, 2005). Pre-testing was conducted to establish the validity and reliability of the study instrument.

### **3.8.1.1 Validity**

Validity refers to the truthfulness of findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Amin, 2005). The validity of the instrument was established using the Content Validity Index (CVI). This involved expert scoring the relevance of the questions in the instrument in relation to the study variables. Indicators and tools used yielded a CVI of 0.90, funding yielded CVI of 0.90, Human resource yielded CVI of 0.85, and stakeholders' commitment yielded CVI of 0.90 while Effectiveness of M & E yielded CVI of 0.95. This finding suggested that all items used to measure each variable were relevant in measuring what they were supposed to measure hence the instruments were valid. Further, the instruments were discussed with the supervisor(s), experts and also pre- tested using part of the study sample respondents to ensure construct, content and face validity.

### **3.8.1.2 Reliability**

Reliability is the measure of the degree to which a research instrument yields consistent results after repeated trials. In this study, Cronbach's alpha method was used to compute and establish the reliability of the questionnaire. Statistical Package for Social Sciences SPSS taking only variables scoring above 0.70 as the minimum accepted for social sciences (Mugenda & Mugenda 1999). This was because of its easy applicability and fitted a two or more point rating scale. The reliability analysis revealed that indicators and tools used measured using 10 items yielded an alpha value of 0.91, funding measure using 6 items yielded alpha value of 0.89, Human resource measured using 7 items yielded alpha value of 0.87, stakeholders' commitment measured using 6



items yielded alpha value of 0.89 while Effectiveness of M & E measured using 5 items yielded alpha value of 0.91. Further, test-retest of the instruments was done in order to ensure dependability and consistency. This finding suggested that all items used to measure each variable were reliable.

### **3.9 Measurement of Variables**

The variables were measured by operationally defining concepts. For instance the questionnaire was designed to ask responses about key influencing factors and effectiveness of M & E. These were channelled into observable and measurable elements to enable development of an index of the concept. A 5- point Likert rating scale constituting 1 for strongly agree, 2 for agree, 3 for disagree, 4 for strongly disagree and 5 for no comment was used to measure both the independent and dependent variables.

### **3.10 Data analysis**

Amin (2005) stated that statistical analyses are used to describe an account for the observed variability in the behavioural data. Data was collected, coded and edited during and after the study to ensure completeness, consistency, accuracy, and removal of errors and omissions. It also involved identifying patterns, consistencies and relationships in the questionnaire and interview guide (Qualitative data). Data analysis therefore involved qualitative and quantitative analysis.

#### **3.10.1 Qualitative Data Analysis**

Qualitative data collected from interviews, documentary review and focus group discussions was sorted and grouped into themes. The researcher thereafter evaluated and analysed the adequacy of information in answering the research questions through coding of data, identifying categories

and parameters that emerged in the responses on critical influencing factors affecting M & E systems (Mugenda & Mugenda 1999). While analysing qualitative data, summaries were made on how different themes/variables were related and how they influenced the effectiveness of Monitoring and Evaluation system of BIPAI project.

### **3.10.2 Quantitative Data Analysis**

Quantitative data was presented in form of descriptive statistics using frequency, graphs, correlations and regression analyses. The correlations technique included the Pearson's correlation coefficient (+or-) to show the direction of the relationship between the variables and significance tested at 99% and 95% confidence levels based on two tailed correlation and significance less than or equals 0.05. A negative correlation indicates an inverse, negative relationship between the two variables while a positive correlation indicates a direct positive relationship between the variables. The regression analysis involved analysis of variance using the adjusted  $R^2$  values, beta, t values and significance to determine the magnitude of the influence of the independent variable on the dependent variable (Amin, 2005).

### **3.11 Ethical considerations.**

The researcher obtained consent from all the respondents. Given the nature of the project anonymity was observed as some people did not want their names and age to be recorded. The researcher observed extreme confidentiality while handling the responses. Information was availed to the respondents that the researcher would not cause any danger directly or indirectly and that participation was voluntary.

## **CHAPTER FOUR**

### **PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS**

#### **4.0. Introduction**

This chapter presents research findings; data presentation, analysis and discussion of the findings, various characteristics of the respondents such as age, gender, and education levels are equally presented. This chapter further, presents analyses and interprets the study findings arising from the field information collected from respondents in regards to the effectiveness of the M&E system for BIPAI project. The section presents background information about the respondents. This is followed by presentation and analysis of the study findings in relation to the specific objectives.

#### **4.1. Background information about the respondents of the study**

This section presents the characteristic of the respondents in relation to age, gender and level of education based on the information filled by the respondents. This is presented in order to give a clear picture of the nature of people who participated in the study.

##### **4.1.1. Gender of the respondents**

The study considered the gender of respondents. This was done in order to establish the most frequent gender in terms of participation and utilisation of services of BIPAI project and how this influences the effectiveness of M&E system as illustrated in table below.

**Table 4. 1: Gender of the respondents used in the study**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	48	46.6%
Female	55	53.4%
<b>Total</b>	<b>103</b>	<b>100%</b>

**Source: Primary data.**

Table 4.1 above shows that the majority of the respondents were female (53.4%) while the male comprised of 46.6% of the total number of respondents. Although male and female participated and utilised the services of BIPAI project in almost equal numbers, the female gender was slightly higher in both beneficiaries and the human resources responsible for M& E activities.

#### **4.1.2. The Age group of the respondents**

The study also established the age groups of the respondents to identify the most frequent age in terms of human resources and beneficiaries involved in M & E processes and activities of BIPAI project.

**Table 4. 2: Age groups and frequency of the respondents used in the study**

<b>Age Group</b>	<b>Frequency</b>	<b>Percentage</b>
20- 29	33	32.0%
30- 39	48	46.6%
40- 49	15	14.6%

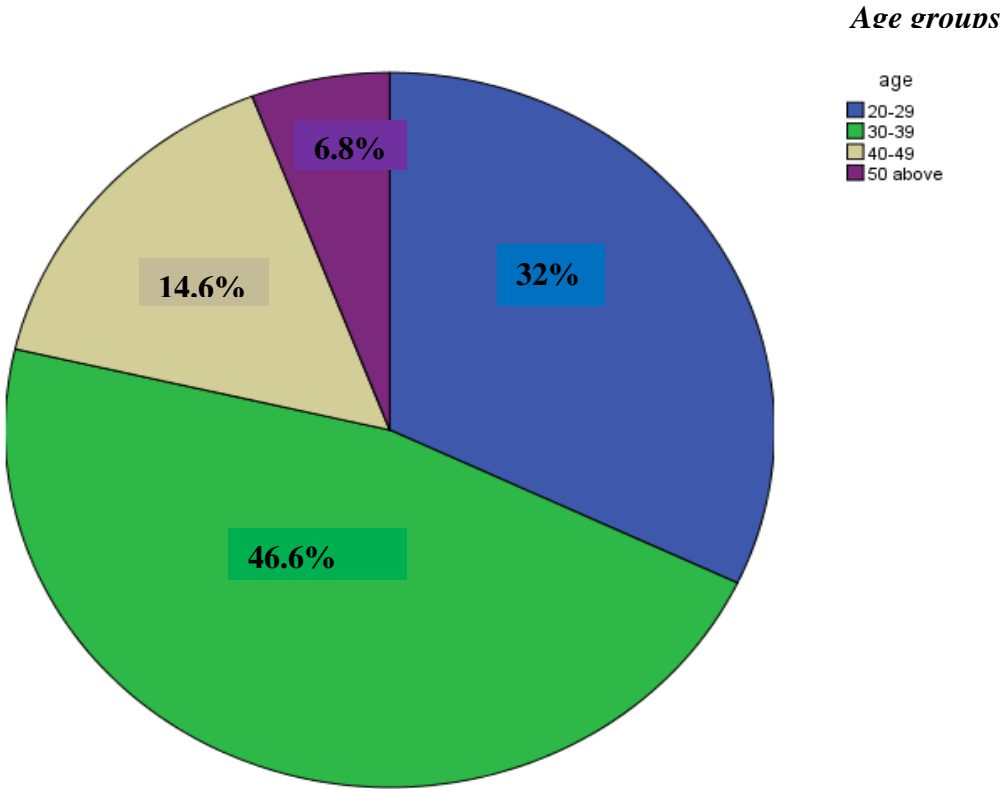
50 and above	7	6.8%
Total	103	100%

**Source: Primary data.**

The above table can be represented using the figure 4.1 indicated below.

Figure 4.1 below shows that the majority of the respondents (46.6%) were in the age group 30-39 years. This was followed by 32% who were in the age group 20-29 years, 14.6% who were in the age group 40-49 years and the least number of respondents (6.8%) were in the age group 50 and above. This study finding on age group suggested that most respondents were in the age group of 30-39 years and were used as project human resources responsible for M & E as well as clients from which the effectiveness of M & E was to be established.

**Figure 2: Age group of the respondents used in the study**



**Source: Primary data**

### 4.2.3. The Education level of the respondents

The education level of the respondents was considered in the study to identify influence of education in participating in M & E activities and how this influenced the effectiveness of M & E system.

**Table 4. 3: Education level of the respondents used in the study**

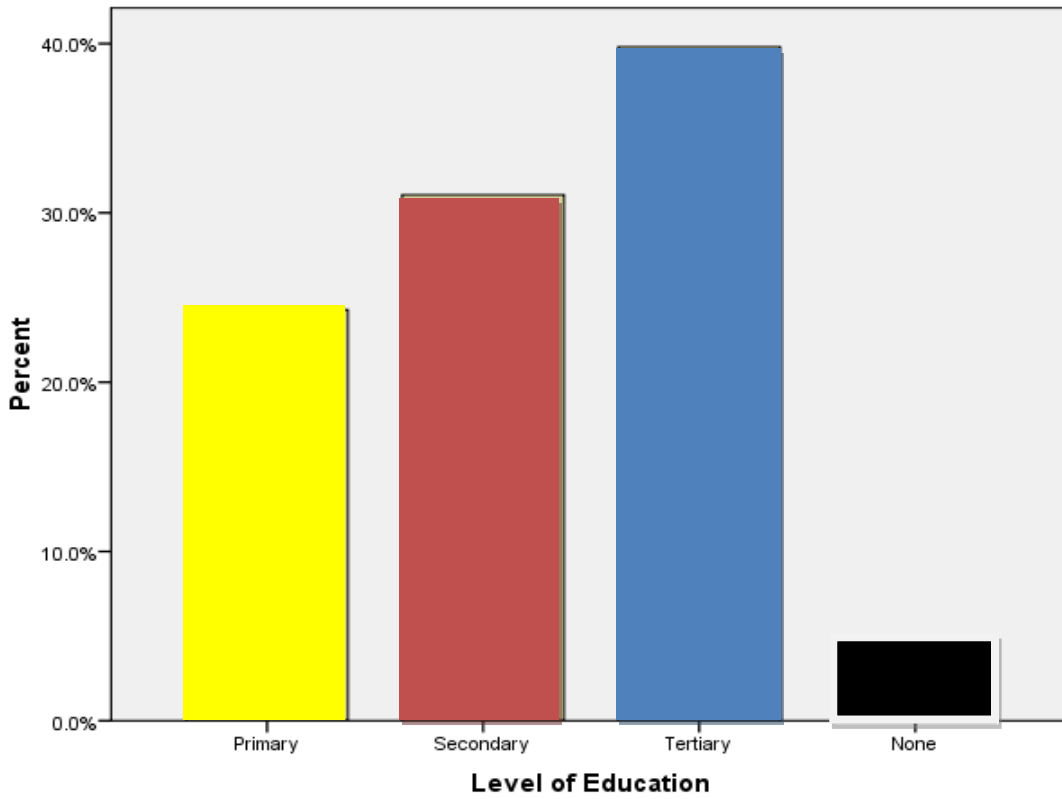
<b>Level of education</b>	<b>Frequency</b>	<b>Percentage</b>
Primary	25	24.3%
Secondary	32	31.1%
Tertiary	41	39.8%
None	5	4.8%
Total	103	100%

**Source: primary data**

The above table can be represented graphically using figure 4.2 below.

Figure 4.2 below illustrates the frequency of education levels of different beneficiaries and human resources involved in BIPAI project.

**Figure 3: Showing the education level of the respondents used in the study**



**Source: Primary data**

Figure 3 above shows that the majority of respondents (39.8%) were of tertiary education level while 31.1% were of secondary levels and 24.3% were of primary education level of education. Only 4.9% were not educated. This study finding implied that BIPAI project beneficiaries and implementers were mainly of tertiary level of education level used as project human resources responsible for M & E and some of the project clients from which the effectiveness of M & E were to be established .

### **4.3 Study findings**

The study findings are presented and analyzed using graphs, frequencies, correlation and regression results in relation to the specific objectives. The main objective of the study was to assess the factors influencing the effectiveness of the M & E system in managing information and data that are used in making critical decisions in regards to BIPAI project performance. In this section the study findings are presented in relation to the objectives thus;

1. To assess the effect of indicators and tools on M & E system of the BIPAI project.
2. To assess the effect of funding on M & E system of the BIPAI project.
3. To examine the effect of human resources on the M & E system of the BIPAI project.
4. To establish the influence of stakeholders' commitment on the effect of selected factors on M & E system of the BIPAI project.

#### **4.3.1 The effect of indicators and tools on M & E system of the BIPAI project.**

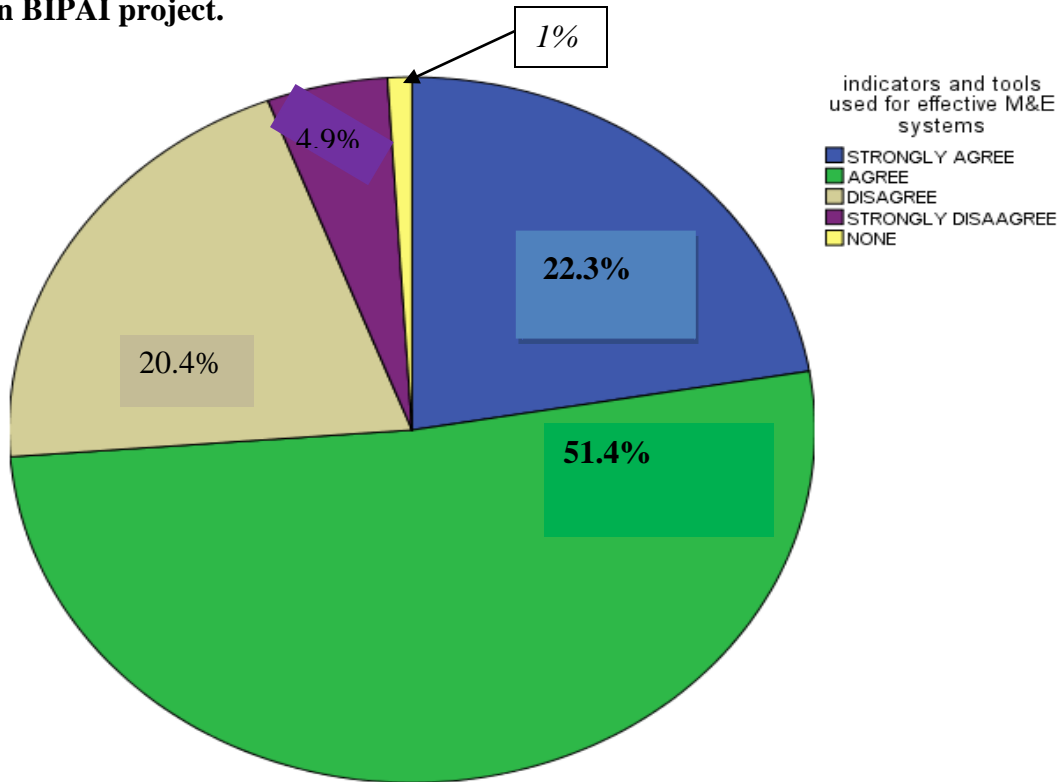
The effect of indicators and tools used on M & E system was the first objective of the study.

The findings of the study were based on the questionnaires, interview guides, focus group discussion and documentary analysis. Indicators according to the conceptual framework comprised of relevance and comprehensiveness.

The study analyzed the effects of indicators on M & E systems of the BIPAI project. The findings on the extent to which respondents agreed and disagreed on the indicators and tools used are shown in figure 4.3 below.



**Figure 4: Showing the extent to which respondents agreed with Indicators and Tools used in BIPAI project.**



**Source: Primary data**

Figure 4 above shows that most respondents (73.7) agreed and strongly agreed that there were a set of indicators and tools used in BIPAI project. Only 20.4% disagreed while 4.9% strongly disagreed that there were a set of indicators and tools used for M & E in the BIPAI project yet only 1% were not sure. Since 73.7% the majority of the respondent indicated that there existed a clear set of indicators and tools used for M & E, it was concluded that the BIPAI project had established a set of indicators and tools to guide M & E activities of the project. Thus, the BIPAI project was in position to establish quantitative and qualitative information on the set objectives.

The study then analysed the extent to which the respondents responded to each of the items used to measure indicators and tools used in the BIPAI project and the findings are shown in table 4.3 below.

**Table 4. 4: Frequencies and their percentages to which M & E indicators and tools were being used in BIPAI Project.**

Indicators and tools used on effective M & E system.	Strongly agree	Agree	Disagree	Strongly Disagree	No Comment	Missing	Total
1. BIPAI uses indicators and tools that are relevant to the project	21(20.4%)	57(55.3%)	16(15.5%)	5(4.9%)	3(2.9%)	1(1%)	103(100%)
2. BIPAI chooses indicators and tools that a comprehensive in data collection & analysis.	20(19.4%)	51(49.5%)	21(20.4%)	6(5.8%)	5(4.9%)		103(100%)
3. BIPAI project outputs are immediate	26(25.2%)	47(45.6%)	15(14.6%)	7(6.8%)	7(6.8%)	1(1%)	103(100%)
4. BIPAI can easily count the numbers of clients whose lives have been improved by the project activities	25(24.3%)	54(52.4%)	13(12.6%)	8(7.8%)	2(1.9%)	1(1%)	103(100%)
5. Activities and inputs are developed to produce the output that will achieve project objectives	18(17.5%)	55(53.4%)	21(20.4%)	3(2.9%)	4(3.9%)	2(1.9%)	103(100%)
6. Measures of the extent to which a contribution has been made is used during evaluation	21(20.4%)	50(48.5%)	21(20.4%)	8(7.8%)	3(2.9%)		103(100%)
7. Conditions at the evaluation period indicate that purpose has been achieved	18(17.5%)	51(49.5%)	23(22.3%)	7(6.8%)	2(1.9%)	2(1.9%)	103(100%)
8. The quantity and quality of outputs is used in evaluation	23(22.3%)	57(55.3%)	11(10.7%)	9(8.7%)	2(1.9%)	1(1%)	103(100%)
9. The timing and delivery of outputs is used during evaluation	22(21.4%)	50(48.5%)	23(22.3%)	6(5.8%)	2(1.9%)		103(100%)
10. Implementation of program targets has been used during evaluation	25(24.3%)	40(38.8%)	23(22.3%)	6(5.8%)	8(7.8%)	1(1%)	103(100%)

**Source: Primary data**

Table 4.4 above revealed that 75.7% (20.4%+55.3%) of the respondents agreed that BIPAI used indicators and tools that were relevant to the project while only 20.4% (15.5%+4.9%) disagreed that the BIPAI did not use indicators and tools that were relevant to the project. 2.9% gave no

comment while 1% did not respond. Since the majority of 75.2% agreed that BIPAI used indicators and tools that were relevant to the project it was inferred that BIPAI was aware of the situation that would exist to show that they are achieving their intended objectives. Through these measures it was possible to demonstrate changes in the HIV/ AIDS project activities. By using the relevant indicators and tools for M & E, the system contributed to projects success. In an interview with a project M & E officer she expressed the fact that one of her role was to develop project indicators which were given in the project log frame to be used for future tracking of the progress of the projects activities during implementation. The study therefore deduced that indicators and tools that are relevant to the project were important for project effective M & E systems and needed to be provided for to guide M & E during project implementation.

Similarly, the table 4.4 above revealed 68.9% (19.4%+49.5%) of the respondents indicated that BIPAI chose indicators and tools that were comprehensive in data collection & analysis while only 26.2% (20.4%+5.8%) disagreed yet 4.9% gave no comment. Going by the majority of 68.9% who indicated that the BIPAI chose indicators and tools that were comprehensive in data collection & analysis, this implied that the BIPAI was in position to collect the required information necessary for thorough M & E hence improved decision making in the project which ensures the attainment of project intended outputs. In choosing the project tools the project manager indicated that they have standardized tools for capturing data about the progress of each project objective as indicated in the project proposals. Documentary analysis revealed that each project objective has specific inputs, indicators, and means of verification, processes and outputs (BIPAI project proposal, 2005). The study indicated that choosing indicators and tools that were

comprehensive during proposal development, was a prerequisite for effective M & E during project implementation.

Table 4.4 above also shows that 70.8% (25.2%+45.6%) of the respondents agreed that BIPAI project outputs were immediate while only 21.4% (14.6%+6.8%) disagreed, 6.8% gave no comment and 1% did not respond. Since the majority of the respondents (70.8%) agreed that BIPAI project outputs were immediate, this meant that the project was in position to achieve its project outputs immediately. This was attributed to the presence of clear indicators and M & E tools used by the BIPAI project implementers and the interest of the intended beneficiaries.

Table 4.4 above also shows that a total of 76.7% (24.3%+52.4%) of the respondents indicated that that BIPAI easily counted the numbers of clients whose lives were improved by the project activities while 20.4% (12.6%+7.8%) disagreed, 1.9% gave no comment while 1% did not respond. Since the majority of the respondents (76.7%) agreed that BIPAI easily counted the numbers of clients whose lives were improved by the project activities through access to the Ant retroviral therapy (ART) care and support. This implied that BIPAI project was in position to capture real information pertaining to its beneficiaries critical for measuring the projects performance out puts hence attaining the project intended objectives. In focus group discussion, the beneficiaries indicated that they are visited by the project staff on monthly basis to check on the treatment response rates and provide professional advice and take records of beneficiaries in the community. Documentary analysis revealed that most beneficiaries were from Kawempe Division although some had shifted to other divisions and were experiencing problems of

accessing the services from Mulago the only BIPAI centre in Kampala where they could access the services (Quarterly and field reports, January to March, 2007).

Table 4.4 further revealed that majority of 70.9% (17.5%+53.4%) agreed that activities and inputs were developed to produce the output that would achieve project objectives while a minority of 23.3% (20.4%+2.9%) disagreed yet 3.9% gave no comments and 1.9% did not respond. Since the majority of respondent (70.9%) indicated that activities and inputs were developed to produce the output that would achieve project objectives, it meant that development of inputs and activities was important to show how the objective would be achieved based on the well developed project inputs and activities in the BIPAI project that ensured the attainment of the intended project objectives and goals. The project documents supported this assertion as stipulated in the project quarterly reports, mid term evaluation reports and annual reports, 2008). This study finding inferred that development of activities and inputs to produce the output that would achieve project objectives was instrumental in achieving effective M & E systems in project management.

Table 4.4 above shows majority of 68.9% (20.4%+48.5%) of the respondents indicated that indicators and tools measured the extent to which a contribution had been made during evaluation in the BIPAI project while only 28.2% (20.4%+7.8%) of the respondents disagreed and 2.9% gave no comments. Since the majority of the respondents (68.9%) agreed that indicators and tools measured the extent to which a contribution had been made during evaluation in the BIPAI project, this implied that identifying indicators and tools measures the extent to which the project contributed to change in life of the community and beneficiaries

hence contributing to project accountability. The management of the project indicated that the impact of the project on the beneficiaries in terms of prolonged life time, stability of one's life was one of the project impact assessments that were conducted in their M & E. This study finding inferred that indicators focusing on assessment of the contribution of the project during project M & E was important and needed to be provided for to guide effective M & E.

Table 4.4 above further shows that 67% (17.5%+49.5%) of the respondents agreed that the conditions at the evaluation period indicated that purpose of BIPAI project had been achieved while 29.1% (22.3%+6.8%) of the respondents disagreed yet 1.9% gave no comment and 1.9% did not respond suggesting that the M & E was in position to help the BIPAI project ascertain the extent to which their mandate was being attained. This study finding led to the inference that M & E needed to show the prevailing condition vis-à-vis the planned condition before the project.

The study also found out that 77.6% (22.3%+55.3%) indicated that the quantity and quality of outputs were used in evaluation while only 19.4% (10.7%+8.7%) of the respondents disagreed yet 1.9% gave no comment and 1% did not answer. Since the majority of the respondent indicated that the quantity and quality of outputs were used in evaluation, it implied that by focusing on the quantity and quality of the project outputs, it was likely that the project would be in position to attain project objectives. Basing on the discussions with BIPAI M & E officers it was indicated that project output quantities and quality were instrumental indicators to guide effective M & E in project management.

Table 4.4above shows 69.9% (21.4%+48.5%) of the respondents indicated that the timing and delivery of outputs was used during evaluation while 28.1% (22.3%+5.8%) disagreed yet 1.9% gave no comment. Since a majority of 69.9% of the respondents indicated the timing and delivery of output was used during evaluation, it was implied that time was a key aspect in project management as time it is one of the measures of project success. The project manager informed this study that the project had a work plan which indicated timeframes for each activity and the expected outputs at particular times of the project cycle which ultimately was a key area in BIPAI project evaluation. The study found out that timeframes for the delivery of the project out puts should be of paramount interest for M & E system in HIV/AIDS project management.

Table 4.4above shows that majority of 63.1% (24.3%+38.8%) of the respondents indicated that implementation of project targets was used during evaluation while 28.1% (22.3%+5.8%) disagreed yet 7.8% gave no comment and 1% did not respond. Since a majority of 63.1% of the respondents indicated that implementation of project targets was used during evaluation it was implied that project performance targets needed to be assessed during M & E. In support of the above observation, the project manager indicated that documentation of achievement of project targets was a condition for renewed funding from the different donors based on the planned targets to the project proposals. The M & E staff acknowledged that project performance targets derived from project documents are the basis for their M & E although in some instances the targets are changed but the new targets become the basis for the continuous M & E in the project cycle. The study therefore found out that assessment of project performance targets should be considered during M & E.

#### 4.3.1.1 Correlation analysis between indicators and tools on M & E system .

To test the relationship between indicators/tools used and M & E system effectiveness a correlation analysis was conducted using Pearson’s correlation coefficient and significance at the one tailed level. The findings are presented in table 4.5 below.

**Table 4. 5: Showing correlation matrix between indicator/tools and effectiveness of M & E systems.**

		Indicators and Tools used	Effective M & E System
Indicators and tools used	Pearson Correlation	1	.647**
	Sig. (1-tailed)		.000
	N	103	103
Effective M & E System	Pearson Correlation	.647**	1
	Sig. (1-tailed)	.000	
	N	103	103

\*\* . Correlation is significant at the 0.01 level (1-tailed).

$P \leq 0.05$

**Source: Primary data.**

Table 4.5 shows the Pearson’s correlation coefficient  $r = .647^{**}$  between indicators/tools and effectiveness of M & E system suggesting that the two variables were related. The  $r = .647^{**}$  and significant  $p = 0.000$  between indicators/tools and effectiveness of M & E systems suggesting that there was a high positive significant relationship between indicators/tools and effectiveness of M & E systems for BIPAI project. This has implication to project management in that in order to achieve effective M & E there is need for clear project indicators and tools guided by each objective and relevant tools for capturing data on the indicators. The study therefore confirmed the hypothesis that indicators used had a strong positive contribution on M & E system of the BIPAI project.



### 4.3.1.2 Regression analysis

A regression analysis was conducted to measure the extent to which (effects) the indicators and tools used predicted the effectiveness of M & E system of BIPAI project using adjusted R<sup>2</sup> values, standardized beta values, t values and significance measured at 0.05 level. The results are tabulated in table 4.6 below.

**Table 4. 6: Regression model of indicators/tools used and Effective M & E system .**

Predictors	Adjusted R Square	Df	Mean Square	F	Sig.
	0.413	1	34.495	72.826	0.000 <sup>a</sup>
			Standardized coefficients	T	Sig.
	Adjusted R square	Std error	Beta ( <i>B</i> )		
Constant		0.202		2.710	0.008
Indicators and tools	0.413	0.088	0.647	8.534	0.000

Predictor: (constant) Indicators and tools used  
 Dependent variable: Effective M & E system

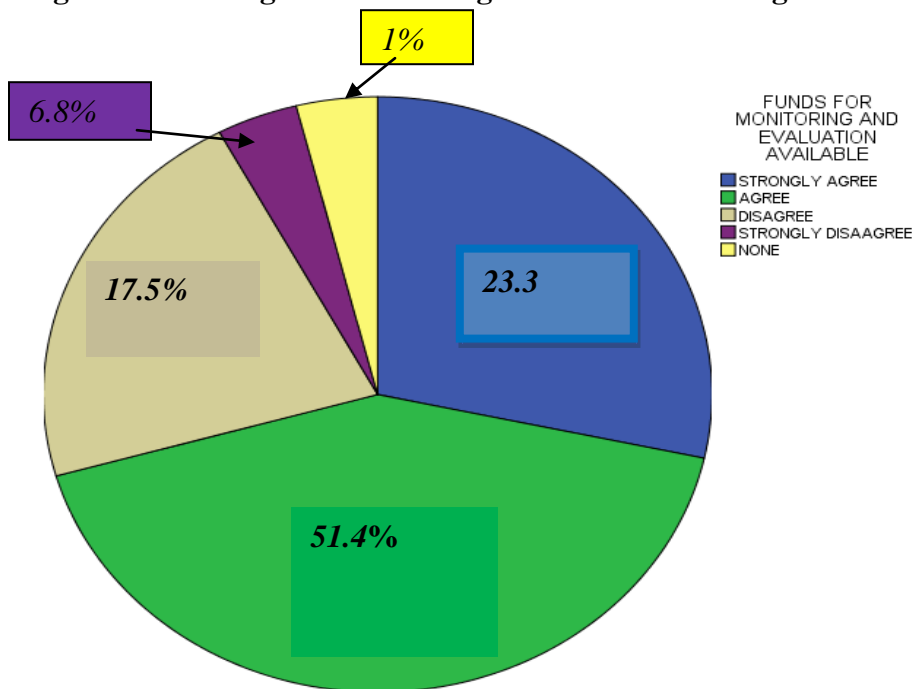
**Source: Primary data**

The regression model in table 4.6 above shows adjusted R<sup>2</sup> value of 0.413 between indicators and tools used and effective M & E systems suggesting that indicators/tools used predicted 41.3% of the variance in effective M & E systems. The R<sup>2</sup> = 0.413, beta 0.647, t = 0.854 and significance of 0.000 suggested that indicator/tools used were a strong significant predictor of effective M & E system. The implication is that to have an effective M & E system the project implementers/management should ensure that there are relevant and comprehensive indicators and tools during project implementation.

### 4.3.2. The effect of funding on M & E system of the BIPAI project

The effects of funding on effective M & E system were the second objective of the study. The findings of the study are based on the questionnaires, interview guides, focus group discussion and documentary analysis. Funding according to the conceptual framework comprised of accessibility, allocation and availability of funds. Figure 5 below shows the extent to which respondents scored the funding variable.

**Figure 5: Showing the extent of agreement with funding in the BIPAI project.**



**Source: Primary data**

Figure 5 above shows that most respondents agreed that funding was appropriate in the BIPAI project, as indicated by 74.7% of the respondents who agreed and strongly agreed while a small portion of respondents of 17.5% disagreed and some strongly disagreed (6.8%) and 1% gave no comment. The majority of respondents agreed that there was enough funding in the BIPAI project which was adequately allocated, available and accessible during the implementation of the project activities hence contributed to effective M & E systems.

The study analyzed the effects of funding on effective M & E system of the BIPAI project. The findings of each of the funding items are presented using frequencies for each of the items used to measure as shown in table 4.7 below.

**Table 4. 7: Frequency table showing the funding aspects of BIPAI project**

Funding item	Strongly agree	Agree	Disagree	Strongly disagree	No comment	Missing	Total
1. M & E system always have enough funding.	24(23.3%)	46(44.7%)	22(21.4%)	5(4.9%)	5(4.5%)	1(1%)	103(100%)
2. M & E systems are always as priority in the budgeting process.	21(20.4%)	43(41.7%)	26(25.2%)	7(6.8%)	6(5.8%)		103(100%)
3. M & E department receives enough funds to run its projects.	32(31.1%)	46(44.7%)	14(13.6%)	7(6.8%)	3(2.9%)	1(1%)	103(100%)
4. There is transparency and accountability for the project resources.	30(30.1%)	39(37.9%)	25(24.3%)	2(1.9%)	5(4.9%)	1(1%)	103(100%)
5. Funds for monitoring and evaluation are always available.	29(28.2%)	43(41.7%)	22(21.4%)	4(3.9%)	4(3.9%)	1(1%)	103(100%)
6. The organization has a system in place to track the funding and accountability.	27(26.2%)	46(44.7%)	25(24.3%)	1(1%)	4(3.9%)		103(100%)

**Source: Primary data**

Table 4.7 above shows that most respondents 68% (23.3% + 44.7%) of the respondent agreed that M & E system in BIPAI project always had enough funding while only 26.3%(21.4%+4.9%) disagrees yet 4.5% gave no comment and 1% did not respond. The finding that the majority of respondents (68%) agreed that M & E system in BIPAI project always had enough funding

suggested that the project prioritized funding M &E system during project implementation which contributed to achievement of the project mandate. A documentary review revealed that M & E was allocated 20% of the total annual project cost as indicated in the BIPAI project proposal document for 2008.

Similarly, table 4.7 above shows that a majority of 62.1% (20.4%+41.7%) of the respondents agreed that M & E systems was always a priority in the budgeting process while 32% (25.3%+6.8%) disagreed yet 5.8% made no comment. Since the majority of respondents agreed that M & E systems was always a priority in the budgeting process, it was implied that during the formulation of the project activities, the project implementers had prioritized M & E funding to enable smooth implementation of the M & E activities as a key success factor.

Further table 4.7 above shows that a majority of 75.8% (31.1%+44.7%) of the respondents agreed that M & E department received funds to run its activities while only 9.7% (6.8%+2.9%) disagreed yet 2.9% gave no comment and 1% did not respond. The fact that the majority of the respondents (75.8%) indicated that M & E department received funds to run its activities, suggested that funding of M & E activities run concurrently with other project activities throughout project life time. Interviews with BIPAI field and M & E officers revealed that by the nature of BIPAI project activities concerning HIV/ AIDS, they generate data to be used by M &E system which needed adequate funding in modern management information systems. Such information included the kind of ARV's used by the client, duration on ARV's, nutrition used, kind of social support received from BIPAI among others and project financial accountability.

Table 4.7 above shows that 68% (30.1%+37.9%) of the respondents indicated that there was accountability for the project resources while 26.2 % (24.3%+1.9%) disagreed yet 4.9% gave no comment and 1% did not respond. Since the majority of the respondents (68%) agreed that there was transparency and accountability for the project resources, it was implied that for successful project management there is need for open communication about the funds received to support implementation of the project activities and acquisition of project activities. The open communication of funds received should be supported by adequate documentation of how the funds were utilized (accountability) by the project implementers including those allocated for M & E systems. This was in conformity with project's activity, quarterly and audit reports reviewed as expressed in an interview with the project manager. Also discussions with project staff revealed established systems of accounting and accessing project funds e.g for an officer to get money different vouchers are filled and authorized at different levels in line with project policies concerning finances which ensures thorough checks and balances with in the M& E system. The project document indicated that project accountability related to financial, administrative issues, value for money, results, budgets, and management strategies focusing on performance and achievement of outputs, outcomes and impacts (BIPAI project proposal/document 2008). The study concluded that effective M & E systems needed to be supported with transparency and accountability by project officials and stakeholders responsible.

Table 4.7above shows that 69.9% (28.2%+41.7%) of the respondent agreed that Funds for monitoring and evaluation were always available while only 22% (21.4%+1%) of the respondents disagreed yet 3.9% gave no comment and 1% did not respond. Since the majority of the respondents indicated that funds for M & E were always available it was implied that BIPAI

project strongly emphasised allocation and availing of funds for M & E to contribute to the project success. Lastly, table 4.5 above revealed that 70.9% (26.2%+44.7%) of the respondents agreed that the organization has a system in place to track the funding and accountability while only 25.3% (24.3%+1%) of the respondents disagreed yet 3.9% gave no comment. Since the majority of the respondents (70.9%) agreed that the organisation had a system in place to track the funding and accountability, this suggested that project management needed accountability for the project funds even for M & E.

#### 4.3.2.1 Correlation analysis between funding and M & E system of the BIPAI project.

To test the relationship between funding and M & E system effectiveness a correlation analysis was conducted using Pearson's correlation coefficient and significance at the one tailed level.

The findings are presented in table 4.8 below.

**Table 4. 8: Showing correlation matrix between funding and M & E systems in BIPAI project.**

		Funding	Effective M & E System
Funding	Pearson Correlation	1	.679**
	Sig. (1-tailed)		.000
	N	103	103
Effective M & E System	Pearson Correlation	.679**	1
	Sig. (1-tailed)	.000	
	N	103	103

\*\* . Correlation is significant at the 0.01 level (1-tailed).

**Source: Primary data**

Table 4.8 shows the Pearson's correlation coefficient  $r = .697^{**}$  between funding and effectiveness of M & E system suggesting that the two variables were related. The  $r = .697^{**}$  and significant  $p = 0.000$  between funding and effectiveness of M & E systems suggested that there was a high positive significant relationship between funding and effectiveness of M & E

systems for BIPAI project. This has implication to project management in that in order to achieve effective M & E system there should be adequate funding that is allocated for the implementation of M&E activities. This should be supported by availability and accessibility of project funds. The study therefore confirmed the hypothesis that the level of funding had a strong effect on M & E system of the BIPAI project.

#### 4.3.2.2 Regression analysis for funding and effectiveness of the M & E system

A regression analysis was conducted to measure the extent to which (effect) funding predicted the effectiveness of M & E system of BIPAI project using adjusted  $R^2$  values, standardized beta values, t values and significance measured at 0.05 level. The results are tabulated in table 4.9 below.

**Table 4. 9: Showing regression model of indicators/tools used and Effective M & E system in BIPAI project**

Predictors	Adjusted R Square	Df	Mean Square	F	Sig.
	0.455	1	37.916	86.212	0.000 <sup>a</sup>
			Standardized coefficients	T	Sig.
	Adjusted R square	Std error	Beta ( $\beta$ )		
Constant		0.180		3.409	0.001
Funding	0.455	0.078	0.679	9.285	0.000

Predictor: (constant) Funding

Dependent variable: M & E system

Source: Primary data.

The regression model in table 4.9 above shows adjusted  $R^2$  value of 0.455 between funding and effective M & E systems suggesting that funding predicted 45.5% of the variance in effective M & E systems. The  $R^2 = 0.455$ , beta 0.679,  $t = 9.285$  and significance of 0.000 suggested that funding was a strong significant predictor of effective M & E system. The implication is that to

have an effective M & E system the project implementers/management should ensure the management and accountability of project funds during project implementation.

### 4.3.3 Effect of Human Resources on the M & E system of the BIPAI project.

The effect of human resource on effective M & E system was the third objective of the study. The findings of the study were based on the questionnaires, interview guides, focus group discussion and documentary analysis. Human resources consideration according to the conceptual framework comprised of sufficiency, technical capacity and attitudes of staff used in BIPAI project. The study analyzed the effects of human resources on M & E system of the BIPAI project. The findings of each of the human resource items are presented using mean and standard deviation in table 4.10 below.

**Table 4. 10: Showing the human resources aspects in BIPAI project**

Human Resources Item	Strongly agree	Agree	Disagree	Strongly disagree	No comment	Missing	Total
1. I understand the need of frequently tracking my actions in project activities.	44(42.7%)	38(36.9%)	15(14.6%)	2(1.9%)	4(3.9%)		103(100%)
2. All staff regularly write performance and progress reports	28(27.3%)	41(39.8%)	23(22.3%)	3(2.9%)	7(6.9%)	1(1%)	103(100%)
3. My training is in community health/social work	32(31.1%)	30(29.1%)	28(27.2%)	5(4.9%)	7(6.9%)	1(1%)	103(100%)
4. All staff are paid in line with their training and qualifications	27(26.2%)	35(34%)	25(24.3%)	10(9.7%)	6(5.8%)		103(100%)
5. All staff feel important when objectives are achieved	31(30.1%)	40(38.8%)	20(19.4%)	5(4.9%)	6(5.8%)	1(1%)	103(100%)
6. I believe BIPAI has greatly	26(25.2%)	43(41.7%)	21(20.4%)	6(5.8%)	5(4.9%)	2(1.9%)	103(100%)



improved the conditions of its clients							
7. All staff are sufficient for the current positions	27(26.2%)	38(36.9%)	23(22.3%)	7(6.8%)	7(6.8%)	1(1%)	103(100%)

**Source: Primary data.**

Table 4.10 above shows that the majority of staff 79.6% (42.7%+36.9%) agreed that the project staff understood the need to frequently track their actions in project activities during implementation yet only 16.5%(14.6%+1.9%) disagreed and 1% gave no comment. Since the majority of the respondents indicated that the staff understood the need to frequently track their actions in project activities during implementation it was inferred that the project staff had the required technical capacity to draw the activity work plans and schedules. These were frequently consulted during the processes of project implementation thus ensuring an M & E system. It was inferred that successful M & E systems relied on the contribution of human resources who understood the importance of frequently tracking their action in project activities as desired capability/competency. A sample of quarterly reports reviewed showed that the project activities were implemented in accordance with the quarterly work plans made at the beginning of each quarter (BIPAI quarterly reports and work plans 2008).

Table 4.10 also showed that 67.1% (27.3%+39.8%) of the respondents indicated that all staff regularly wrote performance and progress reports while 25.2% (22.3%+2.9%) disagreed, 6.9% gave no comment and 1% did not respond. Since a majority of 67.1% indicated that the staff regularly wrote performance and progress reports, this implied that the BIPAI project staff had necessary knowledge and skills for tracking the project inputs, outputs, outcomes and impact required for informed decision making. Interviews with project officers and managers revealed that such information is used to review activities in accordance with the project stipulated

objective and goals. Such collected information included number of clients treated per quarter, the age/sex ratios, discordance rates, new clients infected and affected by HIV/AIDS enrolled on the program. A review of the job description of the M & E staff indicated that the person should have at least two years relevant experience in M & E of HIV/AIDS related project in a developing country strategic plans, had capabilities in data collection, analysis, interpretation and report writing obtained from an HIV/AIDS related experience and education background. The study therefore deduced that effective M & E systems required deployment of staff that were capable of writing performance and progress reports related to M & E.

Related to the above study finding, table 4.10 further shows that a majority of 60.2% (31.1%+29.1%) of the respondents indicated that BIPAI project staff had the required training in community health/social work necessary for the implementation of the project activities while 32.1% of the respondents disagreed, 6.9% gave no comment while 1% did not respond. Since a majority of 60.2% of the respondents indicated that BIPAI project staff had the required training in community health/social work necessary for the implementation of the project activities it implied that the effective implementation of M & E system activities equally needed competencies gained in community health/social work by the project staff. This was consistent with document review analysis of the HR reports produced where it was evident that although 10 of the M & E staff had background in statistics, they had to undergo training in social work related contents to appreciate the context in which the BIPAI project operated for effective service delivery and ensuring achievement of the project mandate. The beneficiaries in a focus group discussion indicated that the staff who visited them effectively conducted community mobilization; community needs identification, counselling and referral advice to the satisfaction

of the community. The study therefore deduced that the effectiveness of HIV/AIDS M & E equally relied on project staff that had competencies in community health/social work and continuous training in community health and social work. Community health and social work training was vital for such a system to achieve its intended objective.

The study findings in table 4.10 also showed that 60.2% (26.2%+34%) of the staff agreed that all staff are paid in line with their training and qualifications while 34% (24.3%+9.7%) disagreed and 5.8% gave no comment. The study concluded that the project staffs were well remunerated/motivated to work in line with job description and project scope. Further probing from the staff however, showed that they are paid according to project available funding, one's negotiation power and workload. To some staff, they argued that sometimes the work done is not commensurate with the pay. However, the pay does not prevent them from collecting required information for the M & E system. This study therefore noted that compensation of project staff was vital for effective M & E systems although in some instances the project staff are paid differently and based on when funds are available. There was need to design effective human resources compensation plans to meet employee compensation and performance expectations.

Table 4.10 above equally found out that a majority of 68.9% (30.1%+38.8%) of the respondents indicated that staff felt important when objectives are achieved while 24.3% (19.4%+4.9%) disagreed, 5.8% gave no comment and 1% did not respond. Since 68.9% of the respondents indicated that staff felt important when objectives are achieved this implied that project staffs were taken as a key success factor for effective M & E system in BIPAI Project. A female M &

E officer in a focus group discussion had this to say: *“I feel motivated when I am called to present my performance report in donor meetings in a way especially when questions are asked about certain information i did not capture well, when i go back to work place, I work hard to capture that information i missed. In the process you end up fine tuning sections of information in the M& E format that is important in taking critical decisions”*

The study indicated that staff orientation needed to be part of the project success factor as it contributed to staff recognition of their role in project success.

A majority of 66.9% (25.2%+41.7%) of the respondents believed that BIPAI has greatly improved the conditions of its clients while only 24.3% (19.4%+4.9%) disagreed, 4.9% were not sure and 1.9% did not respond. The improvement in the conditions of the clients was especially in improving the quality of life by those infected by HIV/AIDS through the provision of ARV's, social support, counselling and follow up by the field staff. A client had this to say *“thank God for the coming of this project, my grand child would be dead now, but since I started coming here, the boy has improved now, he can play and go to school like any other child”* Also focus group discussion with clients showed that they are sometimes involved in M & E processes e.g foster parents are used as community counsellors who do follow up and generate information about health status of patients attached to BIPAI project. All this ensures an effective M& E system and informed decision making at implementation level.

In order to have an operational effective M & E system, there is need for an adequate number of qualified and knowledgeable staff. Table 4.8 above revealed that 63.1% (26.2%+36.9%) agreed that BIPAI staff were sufficient for the current positions in the organization while 29.1%

(22.3%+6.8%) disagreed, 6.8% gave no comment and 1% were not sure. Interactions with the project team also revealed that every employee whether in M & E department or not must have knowledge of tracking outputs from the work. This being an HIV/AIDS project, at every stage, each input and output is captured meaning that some staff unknowingly contributes to the M & E system.

#### 4.3.3.1 Correlation analysis between human resource and effective M & E system

To test the relationship between human resources and M & E system effectiveness a correlation analysis was conducted using Pearson’s correlation coefficient and significance at the one tailed level. The findings are presented in table 4.11 below

**Table 4. 11: Correlation matrix between human resources and effective M & E systems in BIPAI Project.**

		Human resources	Effective M & E System
Human resources	Pearson Correlation	1	.678**
	Sig. (1-tailed)		.000
	N	103	103
Effective M & E System	Pearson Correlation	.678**	1
	Sig. (1-tailed)	.000	
	N	103	103

\*\* . Correlation is significant at the 0.01 level (1-tailed).

**Source: Primary data.**

Table 4.11 shows the Pearson’s correlation coefficient  $r = .678^{**}$  between Human resource attributes and effective M & E system suggesting that the two variables were related. The  $r = .678^{**}$  and significant  $p= 0.000$  between human resource attributes and effectiveness of M & E systems suggesting that there was a high positive significant relationship between human resource attributes and effective M & E systems for BIPAI project. This has implication to project management in that in order to achieve effective M & E system there is need for hiring

sufficient staff with the right technical competences and attitudes towards achieving the project goals and objectives. The study therefore confirmed the hypothesis that human resources had a significant effect on M & E system of the BIPAI project.

#### 4.3.3.2 Regression model between human resources and effective M & E System

A regression analysis was conducted to measure the extent to which (effect) human resource predicted the effectiveness of M & E system of BIPAI project using adjusted  $R^2$  values, standardized beta values, t values and significance measured at 0.05 level. The results are tabulated in table 4.12 below.

**Table 4. 12: Regression model of human resource attributes and Effective M & E system in BIPAI project.**

Predictors	Adjusted R Square	R	Df	Mean Square	F	Sig.
	0.454		1	37.827	85.836	0.000 <sup>a</sup>
				Standardized coefficients	T	Sig.
	Adjusted square	R	Std error	Beta ( $\beta$ )		
Constant			0.188		2.832	0.006
Human resource	0.454		0.078	0.678	9.265	0.000

Predictor: (constant) Human resource

Dependent: Effective M & E systems

Source: Primary data.

The regression model in table 4.12 above shows adjusted  $R^2$  value of 0.078 between human resources attributes and effective M & E systems suggesting that human resource attributes predicted 45.5% of the variance in effective M & E systems. The  $R^2 = 0.454$ , beta 0.678,  $t = 9.2654$  and significance of 0.000 suggested that human resources attributes were a strong significant predictor of effective M & E system.

The implication is that to have an effective M & E system there is need for effective management of project human resources to ensure effective M & E system critical for decision making at implementation level.

#### 4.3.4 Contribution of stakeholders on M & E system of the BIPAI project.

The contribution of stakeholders on effective M & E system was the fourth objective of the study. The findings of the study are based on the questionnaires, interview guides, focus group discussion and documentary analysis. Stakeholders' commitment consideration according to the conceptual framework included aspects of dedicated funding, HIV/AIDS management information systems, influencing outcomes and participation in project implementation in BIPAI project. The study analyzed the effects of stakeholders' commitment on effective M & E system of the BIPAI project. The findings on the stakeholders' commitment items are presented using frequency in table 4.13 below.

**Table 4. 13: Frequency table showing an analysis of stakeholders' commitment**

Stakeholders Commitment items	Strongly agree	Agree	Disagree	Strongly Disagree	No comment	Missing	Total
1. Stakeholders dedicate funding and skilled resources for implementing M & E system.	30(29.1%)	47(45.6%)	15(14.6%)	5(4.9%)	5(4.9%)	1(1.0%)	103(100.0%)
2. Stakeholders build capacity using a national HIV/AIDS output monitoring system information.	23(22.3%)	48(46.6%)	24(23.3%)	5(4.9%)	3(2.9%)		103(100.0%)
3. Stakeholders link national HIV/AIDS M & E systems with other M & E and management of information systems.	25(24.3%)	45(43.7%)	23(22.3%)	7(6.8%)	2(1.9%)	1(1.0%)	103(100.0%)
4. Include HIV/AIDS	28(27.2%)	41(39.8%)	28(27.2%)	4(3.9%)	1(1%)	1(1%)	103(100.0%)

M & E requirements in all HIV/AIDS related documents.							
5. Stakeholders commitment greatly influence the effectiveness of M & E system.	29(28.2%)	41(39.8%)	24(23.3%)	5(4.9%)	3(2.9%)	1(1%)	103(100.0%)
6. Stake holders are fully involved in the implementation of the project activities.	28(27.2%)	41(39.8%)	27(26.2)	3(2.9%)	4(3.9%)		103(100.0%)

Source: Primary data.

Table 4.13 above shows that the a majority of 74.7% (29.1+45.6%) of the respondents agreed indicated that stakeholders dedicated funding and skilled resources for implementing M & E system while only 19.5% (14.6%+4.9%) disagree, 4.9% indicated no comment and 1% did not respond. Since a majority of 74.7% of the respondents agreed that stake holders dedicated funding and skilled resources for implementing M & E system, this inferred that stakeholders' commitment was significant in contribution of funds and skilled expertise to M & E systems in BIPAI project. The management of the project revealed that the project was funded by local and international donors who committed funds for specific activities based on their interest. To this effect, the project has been in position to sustainably offer services to its intended beneficiaries and conduct effective M & E given the stakeholders continued financial support. The study concluded that stakeholders' funding was a key success factor for effective M & E systems during project implementation and soliciting stakeholders to fund project activities including M & E is an undertaking that the project management should undertake at all times.

The table 4.13 above equally revealed that the a majority of 68.9% (22.3%+46.6%) indicated that stakeholders undertook building capacity using a national HIV/AIDS output monitoring system information while only 28.2%(23.3%+4.9%) disagree, 2.9% gave no comment. Since the



majority of the respondents (68.9%) agreed that stakeholders undertook building capacity using a national HIV/AIDS output monitoring system information, it was inferred that stakeholders played a key role in by building human, financial, equipment and material support to facilitate M & E activities. The Stakeholders also linked national HIV/AIDS M & E systems with other M & E and management of information systems as indicated by 68%(24.3%+43.7%) of the respondents who indicated so. Only 29.1% (22.3%+6.8%) disagreed while 1.9% gave no comment and 1% did not respond. The study equally found out that stakeholders equally included HIV/AIDS M & E requirements in all HIV/AIDS related documents as indicated by a majority of 67%(27.2%+39.8%). Only 28.2% (23.3%+4.9%) disagreed while 1% gave no comment and 1% did not respond. The study findings on stakeholders commitment related to management information systems suggested that particularly stakeholders undertook a key role of integrating the BIPAI project activities on M & E with other systems related to HIV/AIDS. Indeed management acknowledged the role of UNAIDS and other agencies which publish BIPAI project activities and achievements. Other stakeholders have funded publicity workshops and sponsoring participation in international forum on HIV/AIDS by BIPAI project staff. Other stakeholders have donated computers, software, printers to facilitate automated documentation of project operations and generation of reports.

Table 4.13 revealed that 68% (28.2%+39.8%) of the respondents agree that stakeholders' commitment greatly influenced the effectiveness of M & E system while 28.2% (23.3%+4.9%) disagreed, 2.9% gave no comment while 1% did not respond. A total of 67% (27.2%+39.8%) of the respondents indicated that stakeholders were fully involved in the implementation of the project activities while 29.1% (26.2%+2.9%) disagreed and 3.9% gave no comment. The finding

that a majority of the respondents agreed that stakeholders were fully involved in the implementation of the project activities suggested that stakeholders' influence and participation through their interaction with the project M & E activities and the power authority they possessed was a key attribute for achievement of project outcomes. The study therefore deduced that stakeholders participation and influence was vital in guiding the observance of M & E systems during project implementation.

#### 4.3.4.1 Correlation analysis between stakeholders contribution on effective M & E system.

To test the relationship between stakeholders' commitment and M & E system effectiveness a correlation analysis was conducted using Pearson's correlation coefficient and significance at the one tailed level. The findings are presented in table 4.14 below.

**Table 4. 14: Correlation matrix between stakeholders' commitment and effective M & E in BIPAI project**

		Stakeholders commitment	Effective M & E System
Stakeholders commitment	Pearson Correlation	1	.687**
	Sig. (1-tailed)		.000
	N	103	103
Effective M & E System	Pearson Correlation	.687**	1
	Sig. (1-tailed)	.000	
	N	103	103

\*\* . Correlation is significant at the 0.01 level (1-tailed).

Source: Primary data

Table 4.14 shows the Pearson's correlation coefficient  $r = .687^{**}$  between stakeholders' commitment and effectiveness of M & E system suggesting that the two variables were related. The  $r = .687^{**}$  and significant  $p = 0.000$  between stakeholders' commitment and effectiveness of M & E systems suggesting that there was a high positive significant relationship between

stakeholders commitment and effectiveness of M & E systems for BIPAI project. This has implication to project management in that in order to achieve effective M & E system there is need for stakeholders' commitment through dedicated funding, capacity building, participation in project implementation and integration of project information into other management information systems. The study therefore confirmed that Stakeholders commitment and relationship significantly affected M & E system of the BIPAI project.

#### 4.3.4.2 Regression model between stakeholders contribution and M & E system

A regression analysis was conducted to measure the extent to which stakeholders' commitment predicted the effectiveness of M & E system of BIPAI project using adjusted  $R^2$  values, standardized beta values, t values and significance measured at 0.05 level. The results are tabulated in table 4.15 below.

**Table 4. 15: Regression model of stakeholders' commitment and Effective M & E system in BIPAI project**

Predictors	Adjusted R Square	Df	Mean Square	F	Sig.
	0.467	1	38.879	90.359	0.000 <sup>a</sup>
			Standardized coefficients	T	Sig.
	Adjusted R square	Std error	Beta ( $\beta$ )		
Constant		0.180		3.181	0.002
Human resource	0.467	0.079	0.687	9.506	0.000

Predictor: (constant) Stakeholders commitment

Dependent: effective M & E systems

Source: Primary data

The regression model in table 4.15 above shows adjusted  $R^2$  value of 0.467 between stakeholders' commitment and effective M & E systems suggesting that stockholder's

commitment predicted 46.7% of the variance in effective M & E systems. The  $R^2 = 0.467$ , beta 0.687,  $t = 9.506$  and significance of 0.000 suggested that stakeholders commitment was a strong significant predictor of effective M & E system.

The implication is that to have an effective M & E system the project implementers/management should emphasise and enlist the stakeholders' commitment.

## **CHAPTER FIVE**

### **SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATION**

#### **5.0 Introduction**

The study assessed the factors affecting the effectiveness of the M & E system in managing information used in making critical decisions in regards to BIPAI project performance. The variables included indicators and tools used for M & E, funding, human resources, stakeholders' commitment and their contribution to effective M & E systems of BIPAI project. This chapter presents a summary, discussion, conclusion and recommendations based on the study findings.

#### **5.1 Summary of findings**

Although monitoring and evaluation (M & E) are widely regarded as useful components in program and project management, many organizations have cultures, histories or procedures that undermine their effective use for learning and reporting. In that regard, monitoring systems have proven very important in identifying the resource gaps, weaknesses and strength in different areas and aspects of implementation and producing relevant information to the decision makers. However, the successful monitoring will depend on among others; appropriate structures, procedures and policies, effective information management, capacity of the staff involved (Randel, 2002).

According to the DANIDA funded study by Oakley (1999) NGOs may or may not be having a positive impact, but their ability to scale up that impact must be limited by the ability to give

evidence of those achievements. This is associated to the ability to communicate the information to other stake holders and partners within the available resources and/or influence which is strongly attributed to weak monitoring and evaluation systems to capture the data required for decision making process. There are serious weaknesses and gaps in the M & E systems among which includes weak supervision, inability to measure the impact that the Non Governmental Organisations and Development Organisations like the Baylor International Paediatric HIV Care Centre Mulago which is challenging the effectiveness of the M&E systems . This leaves unanswered question on the M & E systems among other factors as to whether the system was achieving its intended results (World Bank, 2005).

The literature suggests the need of well defined indicators and tools, funds, human resources and stakeholders' commitment for M & E systems to be effective. This study assesses the factors affecting the effectiveness of the M & E system in managing information used in making critical decisions in regards to BIPAI project performance by testing the following hypotheses:

1. Indicators used have a strong positive contribution on M & E.
2. The level of funding has a strong effect on M & E system.
3. Human resources have a significant effect on M & E system.
4. Stakeholders' commitment & relationship significantly affect M & E system of the BIPAI project.

Chapter one presented the background to the study while chapter two presented a review of related literature. Chapter three presented the methodology used in the study while chapter four presented, analyzed and interpreted the study results and chapter five presented a summary, discussion, conclusion and recommendations to the study.

## **5.2 Discussion of the study findings**

This section presents a discussion of the study in relation to: the effects of indicators and tools used on M & E systems of the BIPAI project, effect of funding on M & E systems of the BIPAI project, effects of human resources on M & E systems of the BIPAI project and lastly the contribution of stakeholders commitment on M & E systems of the BIPAI project.

### **5.2.1. Effect of Indicators and Tools used on M & E systems of the BIPAI project.**

The study found out that the majority (73.8%) of the respondent indicated that there existed a clear set of indicators and tools used for M & E, it was concluded that the BIPAI project had established a set of indicators and tools to guide M & E activities of the project. Thus, the BIPAI project was in position to establish quantitative and qualitative information on the set objectives regarding the number of clients who received ARVs in a quarter, the number of patients / clients who were consoled and the percentage of people whose lives had changed as a result of the project interventions. Further it was found out that BIPAI project used indicators and tools that were relevant to the project as indicated by a majority of 75.2% of the respondents who agreed. This suggested that BIPAI was aware of the situation that would exist to show that they are achieving thier intended objectives. Through these measures they were able to demonstrate changes in the project activities. Thus instruments to measure the project indicators on HIV/AIDS were vital and were being used by project implementers hence contributing to project success. The study therefore deduced that indicators and tools used by BIPAI project were relevant for their M & E system used. The above observations were supported by Daikaki et al

(2006) who reported that by using a set of indicators and tools, projects were easy to be monitored by setting standards through collecting and analyzing data. Daikaki et al (2006) further stressed that indicators were necessary for different kind of stakeholders to measure and assess progress which rhymed with study findings where different stakeholders were found.

Similarly, the study found out that BIPAI chose indicators and tools that were comprehensive in data collection & analysis as indicated by 68.9% of the respondents in table 4.2 above. This suggested that the BIPAI was in position to collect the required information necessary for thorough M & E hence improved decision making in the project which ensured the attainment of project intended outputs. In choosing the project tools the project manager indicated that they had standardized tools for capturing data about the progress of each project objective as indicated in the project proposals. Documentary analysis revealed that each project objective had specific inputs, indicators, and means of verification, processes and outputs. The study therefore inferred that choosing indicators and tools that were comprehensive in data collection and analysis was a prerequisite for effective M & E during project implementation.

The study equally found out that a majority of the respondents (70.8%) agreed that BIPAI project outputs were immediate which meant that the project was in position to achieve its project outputs immediately. This could be attributed to the presence of clear indicators and M & E tools used by the BIPAI project implementers and the interest of the intended beneficiaries. Table 4.2 above equally shows that a total of 76.7% of the respondents indicated that that BIPAI easily counted the numbers of clients whose lives were improved by the project activities. This implied that BIPAI project was in position to capture real information pertaining to its beneficiaries



critical for measuring the projects performance out puts hence attaining the project intended objectives. In focus group discussion, the beneficiaries indicated that they are visited by the project staff on monthly basis to check on the treatment response rates and provide professional advice, take records of beneficiaries in the community. A document analysis revealed that most beneficiaries were from Kawempe Division although some had shifted to other divisions and were experiencing problems of accessing the services from Mulago the only BIPAI centre in Kampala where they could access the services (Quarterly and field reports, January to March, 2007).

It was also found out that activities and inputs were developed to produce the output that would achieve project objectives as indicated by 70.9% of the respondents. This implied that BIPAI project was in position to capture real information pertaining to its beneficiaries critical for measuring the projects performance out puts hence attaining the project intended objectives. In focus group discussion, the beneficiaries indicated that they are visited by the project staff on monthly basis to check on the treatment response rates and provide professional advice, take records of beneficiaries in the community. The project documents supported this assertion as stipulated in the project quarterly reports, mid term evaluation reports and annual reports, 2008). This study finding inferred that development of activities and inputs to produce the output that would achieve project objectives was instrumental in achieving effective M & E systems in project management.

The study further found out that measures of the extent to which a contribution had been made were being used during evaluation in the BIPAI project as indicated by a majority of 68.9% of

the respondents in table 4.2 above. The study noted that by focusing on measures that show the extent to which contributions of the project, the project was likely to know its contributions to the community and beneficiaries which to a great extent contributes to projected accountability. The management of the project indicated that the impact of the project on the beneficiaries in terms of prolonged life time, stability of one's life was one of the project impact assessments that were conducted in their M & E. This study finding inferred that indicators focusing on assessment of the contribution of the project during project M & E was important and needed to be provided for to guide effective M & E.

Findings and analysis in table 4.2 above revealed that conditions at the evaluation period indicated that purpose had been achieved as indicated by a majority of 67% of the respondent suggesting that the M & E was in position to help the BIPAI project ascertain the extent to which their mandate was being attained which would not be possible without establishing this indicators and tools to measure it for project M & E in project management. This study finding lead to the inference that M & E needed to show the prevailing condition vis-à-vis the planned condition before the project.

The study equally found out that the quantity and quality of outputs were used in evaluation as indicated by a majority of 77.6% of the respondents. By focusing the quantity and quality of the project outputs, it was likely that the project would be in position to ascertain the project quality based on their focus of process output quantities and quality. It was therefore deduced that project output quantities and quality were instrumental indicators to guide effective M & E in project management that the management of projects need to always provide for.

It was also found out that the timing and delivery of outputs was used during evaluation as indicated by a majority of 69.9% of the respondents a key aspect in project management as time is one of the measures of project success. The project manager informed this study the project had a work plan which indicated timeframes for each activity and the expected outputs at particular times of the project cycle which ultimately was a key area in BIPAI project evaluation. The study therefore learnt that timeframes for the delivery of the project outputs should be of paramount interest for M & E system in HIV/AIDS project management.

Table 4.2 above revealed that implementation of project targets was used during evaluation in BIPAI project as indicated by 63.1% of the respondents suggesting that project performance targets needed to be assessed during M & E. In support of the above observation, the project manager indicated that documentation of achievement of project targets was a condition for renewed funding from the different donors based on the planned targets to the project proposals. The M & E staff acknowledged that project performance targets derived from project documents are the basis for their M & E although in some instances the targets are changed but the new targets become the basis for the continuous M & E in the project cycle. The study therefore deduced that assessment of project performance targets should be considered during M & E. The study finding echoes Shapiro (2001, Pg.2) who observed that monitoring is the systematic collection and analysis of information as a project progresses. It is aimed at improving the efficiency and effectiveness of a project or organization. It is based on targets set and activities planned during the planning phases of work. Evaluation is the comparison of actual project

impacts against the agreed strategic plans. It can be informative or summative. It looks at what has been set out to do, what has been accomplished and how it has been accomplished.

The study found Pearson's correlation coefficient  $r = 0.647^{**}$  between indicators/tools and effectiveness of M & E system suggesting that the two variables were related as indicated in table 4.4 above. The  $r = 0.647^{**}$  and significant  $p = 0.000$  between indicators/tools and effectiveness of M & E systems suggesting that there was a high positive significant relationship between indicators/tools and effectiveness of M & E systems for BIPAI project. The study finding noted policy implication to project management in that in order to achieve effective M & E there is need for clear project indicators derived from each objective and relevant tools for capturing data on the indicators. The study therefore confirmed the hypothesis that indicators used had a strong positive contribution on M & E system of the BIPAI project.

Similarly, the regression model in table 4.5 above revealed adjusted  $R^2$  value of 0.413 between indicators and tools used and effective M & E systems suggesting that indicators/tools used predicted 41.3% of the variance in effective M & E systems. The  $R^2 = 0.413$ , beta 0.647,  $t = 0.854$  and significance of 0.000 suggested that indicator/tools used were a strong significant predictor of effective M & E system. The implication was that to have an M & E system the project implementers/management should ensure that there relevant and comprehensive indicators and tools during project implementation.

The above findings and observations on indicators and tools and their contribution to M & E effectiveness are supported by related findings else where. In an effort to assess the impact of poverty alleviation projects in the UK local authorities were successful in monitoring poverty

status by first setting up a range of different indicators both quantitative and qualitative which were published and distributed to local area. Some of the antipoverty indicators moved beyond the use of narrow statistical measures to encompass the commissioning of new research on wider aspects of deprivation and exclusion there by facilitating effective monitoring and evaluation of the anti poverty activities by the stakeholders including the beneficiaries themselves (Alcock & Craig, 1996). Alcock & Craig (1996) further noted that the anti poverty assessment noted that through monitoring and evaluation it was possible to observe the level of outputs which were the services or products from the commitment of resources. These were again clearly identified and were more congruent with the aims of anti poverty.

Daikaki, Grioroudis and Stabouli (2006) reported that by using a set of indicators and tools Environmental Performance Evaluation EPE projects instituted by ISO 1430 are always in position to monitor environmental standards through collecting and analyzing data, assessing information against environmental performance criteria, reporting and communicating and periodic review and improvement of environmental standards by certified partners. Indicators were necessary for different kind of stakeholders to measure and assess progress in environmental performance. Environmental indicators instituted by ISO were considered to be both significant and useful mainly due to the fact that , by providing quantitative information and thus objectivity on the significant environmental issues faced by an organization, offers the potential to add value by allowing management to; track progress towards stated objectives and targets, benchmarking performance more easily, assessing the effectiveness and potential of environmental management initiatives or projects, produce information for different stakeholder,

regularly providing information to support any review process and appraising the significance of aspects and impacts.

According to Brazil (1999) an organizations capacity to process information can range from being properly planned and based on haphazard data sources to being planned information systems supported by allocated sources. One extreme of the continuum, unprocessed data are least certain and least relevant to decision making needs. Moving up the continuum, data re collected and analyzed to assist decision making. Well developed information systems (tools) are central to successful M & E activities. In many organizations, M & E and information systems are integrated under an information system.

Kolk and Mause (2002) further argued that the use of indicators enabled organizations to identify more easily areas and actions that preserve the requirement for continuous improvement of projects. Brazil (1999) concludes that in many programs evolutions based on indicators and tools are undertaken for variety of reasons including: monitoring efficiency of program task, reviewing objectives and formulating new indicators, analyzing case loads and patient flows, study patients and provider satisfaction, study post treatment outcomes, participating in community planning and comparing cost outcomes of different approaches to service needs.

### **5.2.2. Effect of funding on M & E system of the BIPAI project.**

The study found out that 74.8% of respondents indicated that there was good funding in the BIPAI, it was concluded that the funding in the BIPAI project was adequate allocation,

availability and accessibility, allocation of funds by the project for M & E which contributes to effective M & E systems.

The analysis of item by item found out that M & E system in BIPAI project always had enough funding as indicated by a majority of 68% of the respondents in table 4.5 above suggesting that the project prioritized funding M &E system during project implementation which was likely to contribute to achievement of the project mandate. A documents review revealed that M & E was allocated 20% of the total annual project cost (Annex II project budget in the project proposal/document 2008).

It was also found out that M & E systems was always a priority in the budgeting process as indicated by a majority of 62.1% of the respondents suggesting that during the formulation of the project activities, the project implementers had prioritized M & E funding to enable smooth implementation of the M & E activities as a key success factor. This particular study finding lead to the study observation that effective M & E systems needed to be supported by adequate funding and the project plan should consider M & E as a budget centre during project planning.

The study found out that M & E department received enough funds to run its activities as indicated by a majority of 75.8% of the respondents implying that the funding of M & E activities ran concurrently with other project activities funding throughout project life time. Interviews with BIPAI field and M & E officers revealed that by the nature of BIPAI project, they automatically generate data to be used by M &E system which automation needed adequate funding in modern management information systems. Such information included nature of

ARV's used by the client, duration on ARV's, nature of nutrition used, kind of social support received from BIPAI among others and project financial accountability.

Table 4.5 above equally revealed that there was transparency and accountability for the project resources as indicated by a majority of 68% of the respondent suggesting that for successful project management there is need for open communication about the funds received to support implementation of the project activities and acquisition of project activities. The open communication of funds received should be supported by adequate documentation of how the funds were utilized (accountability) by the project implementers including those allocated for M & E systems. This was in conformity with project's activity, quarterly and audit reports reviewed as expressed in an interview with the project manager. Also discussions with project staff revealed established systems of accounting and accessing project funds e.g for an officer to get money different vouchers are filled and authorized at different levels in line with project policies concerning finances which ensures thorough checks and balances within the M& E system. The project document indicated that project accountability related to financial, administrative issues, value for money, results, budgets, and management strategies focusing on performance and achievement of outputs, outcomes and impacts (BIPAI project proposal/document 2008). The study concluded that effective M & E systems needed to be supported with transparency and accountability by project officials and stakeholders responsible.

The study equally found out that 69.9% of the respondent agreed that Funds for monitoring and evaluation were always available implying that BIPAI project strongly emphasised allocation and availing of funds for M & E to contribute to the project success. Last but not least, table



4.5above revealed that a majority of the respondents (70.9%) agreed that the organisation had a system in place to track the funding and accountability suggesting that proper project management needed proper accountability for the project funds even for M & E.

The study found Pearson's correlation coefficient  $r = 697^{**}$  between funding and effectiveness of M & E system suggesting that the two variables were related. The  $r = 697^{**}$  and significant  $p = 0.000$  between funding and effectiveness of M & E systems suggested that there was a high positive significant relationship between funding and effectiveness of M & E systems for BIPAI project. The study therefore observed a policy implication to project management in that in order to achieve effective M & E system there should be adequate allocation of funds. This should be supported by reliable availability and accessibility of project funds. The study therefore confirmed the hypothesis that the level of funding had a strong effect on M & E system of the BIPAI project.

Similarly, the regression model in the regression model in table 4.8 above revealed adjusted  $R^2$  value of 0.455 between funding and effective M & E systems suggesting that funding predicted 45.5% of the variance in effective M & E systems. The  $R^2 = 0.455$ , beta 0.679,  $t = 9.285$  and significance of 0.000 suggested that funding was a strong significant predictor of effective M & E system. The implication was that to have an effective M & E system the project implementers/management should ensure effective management and accountability of project funds during project implementation.

The above finding and observations on funding and effectiveness of M & E are supported by Brazil (1999) who noted that the features that allow for the development of both adequate

staffing and planning of an infrastructure to provide relevant information both for administrative and clinical activities is funding of evaluation activities. Lack of adequate funding has been a persistent obstacle to the growth of M & E practice. In support of the above the Civil Hope foundation (2007) in its goal indicated that coasted M & E work plans for which they were responsible for were always planned, budgeted and the funds were available for its activities to be executed which contributed to the project success. It was learnt that developing and coasting a work plan for HIV/AIDS M & E for the organization was a key success factor. The above assertion implies a key role of funding for effective M & E in project management.

### **5.2.3 Effect of human resources on the M & E system of the BIPAI project.**

On human resources the study found out that the project staff understood the need to frequently track their actions in project activities during implementation as indicated by a majority of 79.6% of the respondents implying that the project staff had the required technical capacity to draw that activity work plans and schedules and frequently consulted them during the processes of project implementation thus ensuring an effective M & E system. It was inferred that successful M & E systems relied on the contribution of human resources who understood the importance of frequently tracking their action in project activities as desired capability/competency. A sample of quarterly reports reviewed showed that the project activities were implemented in accordance with the quarterly work plans made at the beginning of each quarter (BIPAI quarterly reports and work plans 2008).

Table 4.8 equally revealed that all staff regularly wrote performance and progress reports as indicated by a majority of 67.1% of the respondents implying the BIPAI project staff had

necessary knowledge and skills for tracking the project inputs, outputs, outcomes and impact required for informed decision making. Interviews with project officers and managers revealed that such information is used to review activities in accordance with the project stipulated objective and goals. Such collected information included number of clients treated per quarter, the age/sex ratios, discordance rates, new clients infected and affected by HIV/AIDS enrolled on the program. A review of the job description of the M & E staff indicated that the person should have at least two years relevant experience in M & E of HIV/AIDS related project in a developing country, had capabilities in data collection, analysis, interpretation and report writing obtained from an HIV/AIDS related experience and education background. The study therefore deduced that effective M & E systems required deployment of staff that were capable of writing performance and progress reports related to M & E.

Related to the above study finding, it was found out that the BIPAI project staff had the required training in community health/social work necessary for the implementation of the project activities as indicated by a majority of 60.2% of the respondents implying that the effective implementation of M & E system activities equally needed competencies gained in community health/social work by the project staff. This was consistent with document review analysis of the HR reports produced where it was evident that although 10 of the M & E staff had background in statistics, they had to undergo training in social work related contents to appreciate the context in which the BIPAI project operated for effective service delivery and ensuring achievement of the project mandate. The beneficiaries in a focus group discussion indicated that the staff who visited them effectively conducted community mobilization, community needs identification, counseling and referral advice to the satisfaction of the community. The study therefore deduced

that the effectiveness of HIV/AIDS M & E equally relied on project staff that had competencies in community health/social work and continuous training in community health and social work. Community health and social work training was vital for such a system to achieve its intended objective.

The study equal found out that 60.2% of the staff agreed that all staff are paid in line with their training and qualification which lead to the study conclusion that the project staff were well remunerated/motivated to work in line with job description and project scope. Further probing from the staff however, showed that they are paid to according to project available funding, one's negotiation power and workload. To some staff, they argued that sometimes the work done is not commensurate with the pay. However, the pay does not prevent them from collecting required information for the M & E system. This study therefore noted that compensation of project staff was vital for effective M & E systems although in some instances the project staff are paid differently and based on when funds are available. There was need to design effective human resources compensation plans to meet employee compensation and performance expectations.

According to table 4.8 above, it was equally found out that a majority of 68.9% of the respondents indicated that staff felt important when objectives are achieved this implied that project staff were taken as a key success factor for effective M & E system in BIPAI Project. A female M & E officer had this to say:

*"I feel motivated when I am called to present my performance report in donor meetings in a way especially when questions are asked about certain*

*information I did not capture well, when I go back to work place, I work hard to capture that information I missed. In the process you end up fine tuning sections of information in the M& E format that is important in taking critical decisions”*

The study concluded that staff orientation needed to be part of the project success factor as it contributed to staff recognition of their role in project success.

Another majority of 66.9% of the respondents believed that BIPAI has greatly improved the conditions of its clients. The improvement in the conditions of the clients was especially in improving the quality of life by those infected by HIV/AIDS through the provision of ARV's, social support, counselling and follow up by the field staff. A client had this to say “thank *God for the coming of this project, my grand child would be dead now, but since I started coming here, the boy has improved now, he can play and go to school like any other child”* Also focus group discussion with clients showed that they are sometimes involved in M & E processes e.g foster parents are used as community counsellors who do follow up and generate information about health status of patients attached to BIPAI project. All this ensures an effective M& E system and informed decision making at implementation level. The study therefore deduced that when effective M & E systems contributed to improved conditions of intended HIV/AIDS beneficiaries by the BIPAI project.

In order to have an operational effective M & E system, there is need for an adequate number of qualified and knowledgeable staff. Table 4.8 above revealed that a majority of 63.1% of the respondents agreed that BIPAI staff were sufficient for the current positions in the organization.

Interactions with the project team also revealed that every employee whether in M & E department or not must have knowledge of tracking outputs from the work. This being an HIV/AIDS project, at every stage, each input and output is captured meaning that some staff unknowingly contributes to the M &E system.

The study found Pearson's correlation coefficient  $r = 0.678^{**}$  between Human resource attributes and effective M & E system suggesting that the two variables were related. The  $r = 0.678^{**}$  and significant  $p = 0.000$  between human resource attributes and effectiveness of M & E systems suggesting that there was a high positive significant relationship between human resource attributes and effective M & E systems for BIPAI project. This had implication to project management in that in order to achieve effective M & E system there is need for hiring sufficient staff with the right technical competences and attitudes towards achieving the project goals and objectives. The study therefore confirmed the hypothesis that human resources had a significant effect on M & E system of the BIPAI project.

Similarly, the regression model in table 4.11 above revealed adjusted  $R^2$  value of 0.078 between human resources attributes and effective M & E systems suggesting that human resource attributes predicted 45.5% of the variance in effective M & E systems. The  $R^2 = 0.454$ , beta 0.678,  $t = 9.2654$  and significance of 0.000 suggested that human resources attributes were a strong significant predictor of effective M & E system. The implication was that to have an effective M & E system there is need for effective management of project human resources to ensure effective M & E system critical for decision making at implementation level.

The above findings and observation on human resources resound Brazil (1999) observation that a prerequisite for evaluation is adequate staffing with skilled professionals. Frequently project staff lacks the skills to design and implement M & E plan. The result is superficial data or post-hoc design, instead of evaluation plan that are integral component of project development. The functional role of the evaluator can vary from statician, where the data analysis is the basic task, to decision maker where analysis, coordination and policy implementation are the principal tasks. To be effective, the evaluator's role should be embedded in the organization's decision making process. In this way the evaluator can ask relevant questions, propose appropriate evaluation and assume advocacy role in implementing changes that are decided on as the results of an evaluation. Evaluators should be clearly defined as an advisor or consultant to project manager. In this way the evaluator has great capacity to influence organizational change as a result of evaluation activities (Brazil, 1999). Daikaki et. al (2006) noted that training of personnel and a great effort of devotion by were some of the requirement necessary for to initialize and progress formal environmental M & E of environmental standards projects.

#### **5.2.4. The contribution of stakeholders' commitment on M & E system of the BIPAI project.**

On stakeholders commitment the study found out that a majority of 74.7% of the respondents agreed that stake holders dedicated funding and skilled resources for implementing M & E system which inferred that stakeholders' commitment was significant in contribution of funds and skilled expertise to M & E systems in BIPAI project. The management of the project revealed that the project was funded by local and international donors who committed funds for specific activities based on their interest. To this effect, the project has been in position to

sustainably offer services to its intended beneficiaries and conduct effective M & E given the stakeholders continued financial support. The study concluded that stakeholders' funding was a key success factor for effective M & E systems during project implementation and soliciting stakeholders to fund project activities including M & E is an undertaking that the project management should undertake at all times.

It was also found out that a majority of the respondents (68.9%) agreed that stakeholders undertook building capacity using a national HIV/AIDS output monitoring system information, it was inferred that stakeholders played a key role in by building human, financial, equipment and material support to facilitate M & E activities. The Stakeholders also linked national HIV/AIDS M & E systems with other M & E and management of information systems as indicated by 68% of the respondents. The study equally found out that stakeholders equally included HIV/AIDS M & E requirements in all HIV/AIDS related documents as indicated by a majority of 67% of the respondents. The study findings on stakeholders commitment related to management information systems suggested that particularly stakeholders undertook a key role of integrating the BIPAI project activities on M & E with other systems related to HIV/AIDS. Indeed management acknowledged the role of UNAIDS and other agencies which publish BIPAI project activities and achievements. Other stakeholders have funded publicity workshops and sponsoring participation in international forum on HIV/AIDS by BIPAI project staff. Other stakeholders have donated computers, software, printers to facilitate automated documentation of project operations and generation of reports.



According to table 4.11 above it was also revealed that 68% the respondents agree that stakeholders' commitment greatly influenced the effectiveness of M & E system while a total of 67% of the respondents indicated that stakeholders were fully involved in the implementation of the project activities. The finding that a majority of the respondents agreed that stakeholders were fully involved in the implementation of the project activities suggested that stakeholders' influence and participation through their interaction with the project M & E activities and the power authority they possessed was a key attribute for achievement of project outcomes. The study therefore deduced that stakeholders participation and influence was vital in guiding the observance of M & E systems during project implementation.

The study found Pearson's correlation coefficient  $r = 0.687^{**}$  between stakeholders' commitment and effectiveness of M & E system suggesting that the two variables were related. The  $r = 0.687^{**}$  and significant  $p = 0.000$  between stakeholders' commitment and effectiveness of M & E systems suggesting that there was a high positive significant relationship between stakeholders commitment and effectiveness of M & E systems for BIPAI project. This had implication to project management in that in order to achieve effective M & E system there is need for stakeholders' commitment through dedicated funding, capacity building, participation in project implementation and integration of project information into other management information systems. The study therefore confirmed that Stakeholders commitment and relationship significantly affected M & E system of the BIPAI project.

Similarly, the regression model in table 4.14 above shows adjusted  $R^2$  value of 0.467 between stakeholders' commitment and effective M & E systems suggesting that stakeholders' commitment predicted 46.7% of the variance in effective M & E systems. The  $R^2 = 0.467$ , beta

0.687,  $t = 9.506$  and significance of 0.000 suggested that stakeholders commitment was a strong significant predictor of effective M & E system. The implication was that to have an effective M & E system the project implementers/management should emphasis and enlist the stakeholders' commitment.

The Uganda CHAI program offers the role of stakeholders in M & E systems. Community group members contribute to the management of all the key processes of service delivery, participating in: planning and budgeting for activities, cash flow management, implementation of approved activities, monitoring and reporting. Supporting supervision is provided by District Aid Committee (DAC) and district level NGOs as part of the national action plan for HIV/AIDS pandemic fight. The design of the community projects criteria anticipated the limitations that exist in community skills and capabilities. The community group account to stakeholders in multiple ways, including written reports, oral briefs during local councils and church meetings, and informal information sharing during the course of executing planned activities. Institutions reported to included parish councils, sub-counties and districts local governments. The institutions form the focus of formal accountability, requiring from community groups the regular submission of written financial reports and progress reports (Awio, Lawrence, Northcott, 2007).

### **5.3 Conclusions**

The conclusions are made in relation to the specific objectives of the study as presented below.

### **5.3.1 Indicators and Tools used on M & E systems of the BIPAI project.**

The study concluded that in order to have an effective M & E system the project management needs well stipulated set of indicators and tools. The indicators and tools enable the smooth implementation of the project activities according to the stipulated guidelines hence continuous monitoring of the progress of project activities and evaluating the project output in relation to the project inputs. Indicators enable organizations to identify more easily areas and actions that need continuous improvement in the project.

### **5.3.2. Funding and effective M & E system of the BIPAI project.**

The study concluded that effective M & E systems relied on availability and accessibility of adequate funding. This project funding was needed for facilitating M & E activities, M & E human resource management interventions and acquisition of modern M & E equipment and tools. Including M & E activities in the budgeting process needed to be continuously strengthened to ensure achievement of the project objectives. This needed to be supported with transparency and accountability based on strengthen systems for tracking and funding and accountability.

### **5.3.3. Human resources and effective M & E systems of the BIPAI project**

The study concluded that there is need for adequate skilled staffing to design and implement the project M & E activities. This helps to guide informed decision making especially where data collection, analysis, coordination and policy implementation are the principal project tasks /

roles. The human resources need competencies in; planning and implementing effective M & E plan, data managements, social and community health management which need to be continuously developed by the project management team.

#### **5.3.4. Stakeholders commitment and effective M & E systems of the BIPAI project**

On stakeholders' commitment, the study concluded that there was need for stakeholders' commitment through dedicated funding, capacity building, participation in project implementation and integration of project information into other management information systems.

### **5.4. Recommendations**

#### **5.4.1. Indicators and Tools used on M & E systems of the BIPAI project.**

The management of BIPAI project should continuously set project indicators and tools to guide implementation of M & E activities. The project indicators should be derived from the project objectives, goal and activities and documented in the project proposal and communicated to the affected stakeholders at appropriate times.

#### **5.4.2. Funding and effective M & E system of the BIPAI project.**

The management of BIPAI project should ensure that there is enough funding for the implementation of the project activities and also incorporate the budget for funding M & E activities. There should also be timely disbursement of funds to enable timely implementation of the M & E activities.

#### **5.4.3. Human resources and effective M & E systems of the BIPAI project**

For every successful project and effective M & E system, there should be well qualified staff, well motivated, given right job descriptions and tasks in accordance to their training. Though, BIPAI project was found to be training and acquainting every officer with M & E knowledge, the officers in charge of M & E department should regularly be updated and given opportunities to expand their capacity in documentation of data and information relevant to undertake decisions.

The fact that M & E processes are integral during project implementation, every body involved should be trained in capturing data that will be used by the M & E officers in analysing data that is used by the top management in most cases to take critical decision. This is because it is this collected data that is based on to solicit for further funding when writing project proposals.

#### **5.4.4. Stakeholders commitment and effective M & E systems of the BIPAI project**

Stakeholders especially beneficiaries should be involved in all project processes including assessment, implementation, monitoring so as to contribute to effective M & E system. This is because they help in tracking impact created by the project on their lives which help the project managers to make deductions whether the project made any changes in the lives of the beneficiaries.

The stakeholders especially donors should be involved in M & E system especially at the point of proposal development so that both the donor and project implementers understand the targets aimed at to be achieved and later measured in order to be able to assess project performance

### **5.5 Contributions of the study to Knowledge.**

There is a strong belief by the researcher that this study has substantially contributed to the existing body of knowledge. At the conceptualisation of this study, there were no sufficient answers to the research objectives; however, the researcher is confident that all the objectives of the study were answered through conducting the study. Hence the researcher confidently believes that the study has been able to assess the effect of indicators and tools used to effectiveness of the M&E system for the BIPAI project, generated information on the relationship between the key factors among which was the effect of funding and the effectiveness of M& E system of the project, examined the effect of human resources on the M&E system of BIPAI project and established the moderator influence of stakeholders' commitment on the relationship between the selected factors and the effectiveness of monitoring and evaluation system of the BIPAI project.

The findings of the study will be helpful to managers, administrators, policy makers especially the M& E system implementers in an effort to ensure the effectiveness of an M&E system in an organisation. The study will also be used as a reference material not only to the BIPAI project but also to other development agencies to design future M&E systems.

## **5.6 Proposed areas for further research.**

The study was conducted at Baylor International Paediatric HIV CARE Centre which is a small organisation. Though there is a degree of confidence with which conclusions can be drawn from the results, the focus was narrow. Hence there is need to consider a study of the same nature to be carried out for the entire organisation including the other BIPAI out reach centres as one unit. This will generate interesting results and will enable comparison of the findings in order to fully understand and enrich the concept of effective Monitoring and Evaluation systems for international organisations.

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**APPENDIX I: QUESTIONNAIRE FOR STAFF OF M&E DEPARTMENT at BIPAI PROJECT (M&E PROJECT MANAGERS AND OFFICERS).**

This questionnaire intends to assess the critical factors that influence the effectiveness of the monitoring and Evaluation systems among International Paediatric HIV AIDS care centres using the case study of the BIPAI project. You are kindly requested to answer the questions below sincerely and accurately.

The information that will be given will be treated with maximum *confidentiality*. Thank you very much for your kind consideration. Thank you for accepting to participate in this academic study.

**SECTION 1: BIODATA (SOCIAL & ECONOMIC CHARACTERISTICS)**

In this section, use the following scale to Tick or circle to indicate the opinion you agree with.

1. Age of respondent

- (i) (20 – 29)
- (ii) (30 – 39)
- (iii) (40 – 49)
- (iv) (50 & above)

2. Gender of Respondent

- (i) Male
- (ii) Female

3. Highest level of education

- (i) Primary
- (ii) Secondary
- (iii) Tertiary
- (iv) None

**Instructions:** In the sections below please complete the questionnaire by ticking or circling the number that best describes your answer to each question using the following scale:

- 1. (Strongly agree)
- 2. (Agree)
- 3. (Disagree)
- 4. (Strongly Disagree)
- 5. (No Comment)

(Circle or tick only one answer for each statement).

<b>SECTION 2: Clear and Measurable Objectives and responsiveness of HIV/AIDS services.</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
4	BIPAI has an M & E system.(department)					
<b>5</b>	<b>Indicators and tools used on effective M &amp; E system.</b>					
A	BIPAI uses tools that are relevant to the project					
B	BIPAI chooses tools that a comprehensive in data collection & analysis.					
C	BIPAI project outputs are immediate					
D	BIPAI can easily count the numbers of clients whose lives have been improved by the project activities					
E	Activities and inputs are developed to produce the output that will achieve project objectives					
F	Measures of the extent to which a contribution has been made is used during evaluation					
G	Conditions at the evaluation period indicate that purpose has been achieved					
H	The quantity and quality of outputs is used in evaluation					
I	The timing and delivery of outputs is used during evaluation					
J	Implementation of program targets has been used during evaluation					
K	Literature searches about clients and project activities is economical and efficient to obtain information					
L	Surveys produce reliable information & can anonymously be completed.					
M	Interviews give full range and in-depth information to yield rich data					
N	Observation are well suited for understanding of processes					



O	FGDs are efficient and reasonable in terms of costs								
<b>6</b>	<b>Human Resources and the effectiveness of the M&amp;E system</b>								
A	I understand the need of frequently tracking my actions in project activities								
B	All staff regularly write performance and progress reports								
C	The project has input/output assessment sheets								
D	My training is in community health/social work								
E	I like caring for the community								
F	All staff are paid in line with their training and qualifications								
G	All staff feel important when objectives are achieved								
H	I believe BIPAI has greatly improved the conditions of its clients								
I	All staff are appropriate for the current positions								
J	Staff have a positive work attitude								
K	Staffs like what they do.								
<b>7</b>	<b>Funding and the effectiveness of the M&amp;E system</b>								
A	M & E system always has enough funding								
B	M & E systems is always as priority in the budgeting process								
C	M & E department receives enough funds to run its projects.								
D	There is transparency and accountability for the project resources								
E	Funds for monitoring and evaluation are always available								
F	Others (specify)								
<b>8</b>	<b>Stakeholders Commitment and the influence of critical factors on M&amp; E system.</b>								
A	Stakeholders dedicate funding and skilled resources for implementing M & E system.								
B	Stakeholders build capacity using a national HIV/AIDS output monitoring system information.								
C	Stakeholders link national HIV/AIDS M & E systems with other M & E and management of information systems.								
D	Include HIV/AIDS M & E requirements in all HIV/AIDS related documents.								
E	Stakeholders commitment greatly influence the effectiveness of M & E system.								
<b>9</b>	<b>Effective M &amp; E System</b>								
A	Literature searches about clients and project activities is economical and efficient to obtain information								
B	Surveys produce reliable information & can anonymously be completed.								
C	Interviews give full range and in-depth information to yield rich data								
D	Observation are well suited for understanding of processes								
E	FGDs are efficient and reasonable in terms of costs								

**APPENDIX II: INTERVIEW GUIDE FOR M & E STAFF FOR THE BIPAI PROJECT REGARDING THE FACTORS INFLUENCING THE EFFECTIVENESS OF M&E SYSTEM FOR THE BIPAI PROJECT.**

Dear respondent, thank you for accepting to participate in this academic study. Your contribution is highly appreciated, you are requested to tell the truth and your information will be treated with utmost confidentiality.

Kindly give information regarding the subject of the study by answering the questions outlined below;

1. What ways have you used to establish that the project goals are achieved?
2. What is the impact of the project to beneficiaries?
3. What areas are effective in stakeholder performance?
4. What significant impacts has the project had?

**Human resources and their influence on the effectiveness of the M&E system**

1. In which areas have beneficiaries been active in decision making?
2. In what ways do beneficiaries have access to services of the project?
3. To what extent are beneficiaries satisfied with the services?
4. Are employers committed to the project?

**Funding and the effectiveness of the M&E system**

1. Are involved in the budgeting process of the project activities
2. Did you receive adequate funding?
3. Were the funds adequately distributed?
4. Were the funds adequately disbursed?
5. Did you account for the funds disbursed?

**Stakeholder commitment**

Are all stakeholders committed to the M & E project?

Do the stakeholders participate in the implementation of the project activities?

**INTERVIEW GUIDE FOR THE PROJECT CLIENTS IN ASSESSING THE CRITICAL FACTORS THAT INFLUENCING THE EFFECTIVENESS OF M&E SYSTEM FOR THE BIPAI PROJECT.**

Dear respondent, thank you for accepting to participate in this academic study. Your contribution is highly appreciated, you are requested to tell the truth and your information will be treated with utmost confidentiality.

Kindly give information regarding the subject of the study by answering the questions outlined below;

**Guiding questions:**

1. Can you say ways in which you have participated in the project activities?
2. How would you want to get involved in the project activities?
3. What are the strength and the weakness of the system they are using now?

**Human Resources /Factors**

4. Is there any way you feel the staffs of BIPAI are not handling you well?
5. Can you state in which ways?
6. Do you think the staffs at BIPAI are appropriate?

**INTERVIEW GUIDE CIVIL SOCIETY LEADERS IN ASSESSING THE CRITICAL FACTORS THAT INFLUENCING THE EFFECTIVENESS OF M&E SYSTEM FOR THE BIPAI PROJECT.**

Dear respondent, thank you for accepting to participate in this academic study. Your contribution is highly appreciated, you are requested to tell the truth and your information will be treated with utmost confidentiality.

Kindly give information regarding the subject of the study by answering the questions outlined below;

**Guiding questions;**

1. In what ways has BIPAI sought for your opinions regarding the project activities?
2. Can you give suggestions on how you would want to participate in the BIPAI project activities?

**THE EFFECT OF HUMAN RESOURCES IN ASSESSING THE EFFECTIVENESS OF M&E SYSTEM FOR THE BIPAI PROJECT.**

1. Compare the project activities and the people who work in the project
2. Any suggestions on how the staff of BIPAI should serve the beneficiaries?

**APPENDIX III:** Krejcie and Morgan's table of sample size determination.

*Sample size (s) required for the given population sizes (N)*

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

Note : From R. V. Krejcie and D. W. Morgan(1970), Determining sample size for research activities, Educational and psychological measurement,

**APPENDIX IV: Letter acknowledging defence of the proposal**



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Your Ref:

Our Ref: G/35

05 May 2009

**Ms. Tumwine Irene**  
**08/MMSPPM/16/006**

Dear Ms. Tumwine,

**FIELD RESEARCH**

Following a successful defense of your proposal before a panel of Masters Defense Committee and the inclusion of suggested comments, I wish to recommend you to proceed for fieldwork.

Please note that the previous chapters 1, 2 and 3 will need to be continuously improved and updated as you progress in your research work.

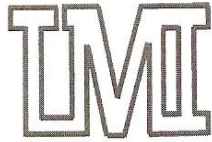
Wishing you the best in the field.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'John Kittobbe', is written over a light blue horizontal line.

**John Kittobbe**  
**AG. HEAD, HIGHER DEGREES DEPARTMENT/  
PROGRAMME MANAGER MMS**

**APPENDIX V: Field Authorization letter**



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Our Ref: **G/35**

**05 May 2009**

**TO WHOM IT MAY CONCERN**

**MASTERS IN MANAGEMENT STUDIES DEGREE RESEARCH**

Ms. Tumwine Irene is a student of the Masters Degree in Management Studies of Uganda Management Institute 16<sup>th</sup> Intake 2008/2009 specializing in Project Planning and Management, Registration number: **08/MMSPPM/16/006**.

The purpose of this letter is to formally request you to allow this participant to access any information in your custody/organisation, which is relevant to her research.

Her Research Topic is: ***"Factors Affecting the Effectiveness of Monitoring and Evaluation System of Baylor International Paediatric HIV Care Centre - Mulago"***.

A handwritten signature in blue ink, appearing to read 'John Kittobbe', is written over a light blue horizontal line.

John Kittobbe  
**AG. HEAD, HIGHER DEGREES DEPARTMENT/PROGRAMME MANAGER,  
MASTERS DEGREES IN MANAGEMENT STUDIES**