THE CONTRIBUTION OF PAY FOR PERFORMANCE PROJECT ON IMPROVING CHILD IMMUNISATION RATES:

A CASE OF MKURANGA HEALTH FACILITIES

THE CONTRIBUTION OF PAY FOR PERFORMANCE PROJECT ON IMPROVING CHILD IMMUNISATION RATES:

A CASE OF MKURANGA HEALTH FACILITIES

By

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A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Science in Health Monitoring and Evaluation (MSc HM&E) of Mzumbe University

2015

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled **Contribution of Pay for Performance Project on Improving Child Immunisation Rates**: **The Case of Mkuranga Health Facilities,** in partial of the requirements for award of the degree of Master of Science in Health Monitoring and Evaluation of Mzumbe University.

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DECLARATION

I, **Frank Jasper Lyimo,** declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university similar or any other degree award.

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ACKNOWLEDGMENT

This dissertation is not the product of my efforts alone, but contributions were received from various angles and individuals as follows:

First, I would like to thank God for giving me this opportunity and enabling me in every step of my studies at Mzumbe University, without his kindness and help my effort would be unsuccessful.

Second, I am grateful appreciate my Supervisor, Mr. Mackfallen Anasel, of School of Public Administration and Management (SOPAM) of Mzumbe University for his tireless time, effort to advise, make corrections, comments and suggestions toward the successful completion of this work.

Also, thanks go to the rest of my course lecturers, for their support, I would also like to extend my deepest appreciation to my fellow students for their cooperation throughout my studies at Mzumbe University.

Lastly, a special word of thanks goes to my family for their support, presence, encouragements and prayers; they were very tolerant and understanding on my absence at home during my studies at Mzumbe University and when I was writing this dissertation. I warmly acknowledge them.

DEDICATION

This work is dedicated to whole family of Mr and Mrs Frank Jasper Lyimo for their patience, contribution and support throughout the study period

ABBREVIATIONS AND ACRONYMS

CHAI	Clinton Health Access Initiative
CHMT	Council Health Management Team
DED	District Executive Director
DHIS	District Health Information System
HMIS	Health Management Information System
MoHW	Ministry of Health and Social welfare
P4P	Pay for Performance
RCH	Reproductive and Child Health
RHMT	Regional Health Management Team
IHI	Ifakara Health Institute

OPERATIONAL DEFINITIONS

Pay for Performance (P4P) - is a payment system that offers financial rewards to health care providers who achieve a specified target in provision of child immunization.

Incentive - is extra money offered to health care workers that encourage them to work harder in improving rate of child immunization at health facilities.

Motivation - Is an internal and external factors that stimulate desire and energy in health care workers to be continually interested and committed to provide child immunization

.

ABSTRACT

Pay for performance is the project implemented in Tanzania with the aim to motivate health care workers to improve performance toward attainment of Millennium Development Goal number 4 and 5.The objective of evaluation study was to evaluate the contribution of Pay for Performance on improving child immunisation rate at Mkuranga health facilities. Cross-section evaluation study was conducted where 30 closed-ended questionnaires were provided to all 30 in charges of health facilities involved in the study, 8 in depth interviews were conducted purposively to key informants of the selected facilities. Baseline data of year 2010 before the project were compared with ones (2011-2014) after the project to see whether p4p motivate health workers in providing measles and polio zero vaccine. Proportion of bonus payment, number of training and supportive supervision were calculated and presented in figures and tables, thematic content analysis with the aid of Atlas ti software was used to assist analysis of recorded information.

The results indicated that immunisation rate in all health facilities involved were doubled from year 2011 to years 2014. Immunisation rate shows that facilities with 3 number of supportive supervision had high rate of child immunisation, other facilities with less training and bonus payment had almost similar trend with those with more training and bonus payments. The study revealed delays of bonus payment and worries about sustainability of the project.

It was concluded that P4P play a big role in motivating health care workers in increasing rate of child immunised with polio zero and measles vaccine in Mkuranga health facilities. The increase might be associated with other factors rather than motivation trough bonus payment, training and supportive supervision alone. Other studies should be conducted to identify the real cause of this increase.

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CHAPTER ONE

INTRODUCTION

1.0 Background Information

More than two million children die every year from diseases that could be prevented by low-cost vaccines (UNICEF, 2005). Many countries in the world have been trying to increase immunisation coverage over time, but some regions are still lagging behind recommended targets. For example, in 2003, the average Latin American Immunisation coverage for measles and diphtheria, pertussis and tetanus toxoids (DPT) was shown to be below 90%, while that of the low-income countries was below 80% (The World Bank, 2003).

Globally, there is a concern on the non-uniform decline of mortality rate in children under five in some countries. Among 22 Sub-Saharan African countries, only five were on track to attain Millennium Development Goal number 4 of reducing child mortality rate, while the other 17 with inclusion of Tanzania were far below the target of reducing child mortality by two thirds between 1990 and 2015. The finding also showed decline in under-five mortality in Tanzania with stagnant child immunisation coverage (Semali , 2010). Several factors are associated with the personnel involved in delivering health services, such as a good working environment, continuing education, career progression, and performance appraisal, provision of job description, salaries and recognition (Manafa *et al.*, 2009). Performance for Pay "P4P" was consequently established to motivate health care workers.

This strategy introduced financial incentives for motivating health workers to attain pre-determined targets and therefore improve health outcomes. Indeed, this is noted by Bardach, who noted that pay-for-performance programmes shift the focus from basic care delivery to high-quality care delivery, so they are designed to incentivise people to improve care" (Bardach, N et al.2013). P4P refers to the transfer of money or material goods conditional on taking a measurable action or achieving a pre-

determined performance target (Eichler, 2006). The Ministry of Health and Social Welfare (MOHSW) seeks to improve the performance of health services in Tanzania through a P4P strategy in order to accelerate the reduction of child morbidity and mortality through immunisation. The P4P programme is designed to increase worker motivation and to create locally tailored solution to systemic bottlenecks at each level of the health system.

In January 2011 the Ministry of Health and Social Welfare (MOHSW) in collaboration with Clinton Health Access Initiative (CHAI) launched a P4P project in Pwani region. Norwegian Ministry of Foreign Affairs was responsible for funding this project. All districts in Pwani region implemented this programme and the idea was if the programme became successful, will be rolled out all over the country. The Facility that performs RCH services including immunisation was also included in the scheme and these included public, private and faith based organization facilities. The project was started by completing the backlog of baseline data of the year 2010 into the new HMIS summary forms and continued reporting was required for the ongoing eligibility of the project.

The scheme aimed to provides financial incentives to health facilities that in turn are shared among health staffs as individual bonuses. A portion of the incentive was also earmarked for facility improvements. Each facility chooses its own fund disbursement rules for the facility improvement funds and these rules must be transparent and approved by the Pilot Management Team. The bonus payments were based on indicators for maternal and child health services, HMIS strengthening, facility management, and overall performance across all P4P indicators.

1.1 Statement of the Problem

Poor performance in health service delivery has been a major concern worldwide especially in low-income countries including Tanzania. Performance has been associated with a number of factors including availability of medical supplies,

supportive supervision, reliable transportation, and quality of data, health infrastructures, leadership and governance (Busogoro & Beith, 2010). The World Health Report of 2006 shows that countries with fewer than 2.3 trained health personnel per 1000 population failed to achieve 80% coverage rate of measles immunisation and 57% of Sub-Saharan countries including Tanzania fall under this threshold (Manafa et al., 2009). Despite the Tanzanian Government's assistance to improve immunisation services, a large part of the country has not yet achieved the recommended target of immunisation.

For instance, the Tanzania Demographic and Health Survey of 2010 indicates that children who were vaccinated by 12 months of age were 94.9% for BCG vaccine, 74.6% for measles, 53.8% for Polio doze zero vaccine and 86.1% for PENTA 3 vaccine. Polio zero and measles coverage were below the national target of 90%. The findings show a great variation across the country whereby 86% of children in urban areas were fully immunised compared with 73% of rural children. The vaccination coverage in Zanzibar was 77% whereby in the mainland coverage was 75%.

The findings also show a regional variation of immunisation coverage in Zanzibar and Tanzania Mainland. PENTA 3 immunisation coverage for some of mainland region was Pwani (92.2%), Mbeya (83.3%), Tabora (51%), Kigoma (79%) and Rukwa (78.5%). Measles vaccine coverage per region were, Pwani (98%), Mbeya (78.3%), Tabora (61.4%), Kigoma (82.3%) and Rukwa (77%) and Polio zero vaccine were shown to be Pwani (91.4%), Mbeya (55.5%), Tabora(30.5%), Kigoma (32.4%) and Rukwa (35.1%).

Vaccination coverage for Pemba south region were 95.8%, 53%, and 83.9% for PENTA 3, Polio zero and Measles respectively, and Unguja south region the vaccination coverage were 97.9%, 74.4% and 86.9% for PENTA 3, Polio zero and Measles respectively. (Tanzania DHS, 2010).

Studies show that, majority of health care workers are not satisfied and therefore less motivated to perform their responsibilities efficiently. It was found that 50% of doctors and nurses were not satisfied with their jobs (Leshabari *et al.* 2008). P4P has been established with the aim of providing incentives to health care workers as motivation toward achieving health targets that include reducing child mortality (MDG 4). P4P is intended to increase working morale at all levels (RHMT, CHMT and facility) by providing bonus payment based on performance (Canavan & Kit, 2008). Very little has been documented on evaluating the contribution of P4P project on improving rate of child immunisation. An evaluation study conducted in Pwani Region by Ifakara Health Institute highlighted that P4P had no impact on services like vaccination coverage, postnatal care coverage and anti-retroviral during antenatal care. For that matter therefore, there is a need to conduct another evaluation study to check the validity of these findings. Hence, this study aimed to identify the contribution of pay for performance (P4P) on increasing rate of child immunisation at different health facilities found in Mkuranga District Council from the period of 2011 to 2014.

1.2 Evaluation Questions

i. How many children under one year old receiving measles and polio 0 vaccines in each facility during pay for performance project?

ii. How frequently are monetary incentives paid to health facilities?

iii. How many training sessions were conducted to health worker during pay for performance project?

iv. To what extent are supportive supervisions conducted in health facilities during pay for performance project?

v. How does health worker perceive contribution of pay for performance project in relation to child immunisation rate at facility level?

1.3 Objectives of the evaluation

1.3.1 General Objective

The overall objective of this evaluation was to identify the contribution of pay for performance (P4P) on improving child immunisation rates at different health facilities found in Mkuranga District Council from the period of 2011 to 2014.

1.3.2 Specific Objectives

i. To identify number of children under one years old are receiving measles and polio dose 0 vaccines in each facility during pay for performance project
ii. To identify number of pay for performance cycles paid in each facility
iii. To identify number of pay for performance training sessions conducted in health facilities
iv. To identify number of supportive supervisions conducted in health facilities during pay for performance project.
v. To determine health worker's perception on pay for performance project on the rate of child immunisation.

1.4 Rationale and justification of the Study

Pay for Performance was expected to improve the motivation of health care workers which, in turn increases their productivity towards the attainment of health targets. The programme has already been implemented for more than three years now and no internal evaluation has been done, so there was a need to conduct internal evaluation to assess the impact of P4P incentives on motivating health care workers to improve the rate of child immunisation at facilities level. The evidence provided would make the project to be scaled up to the whole country. Evidence-based information was to enable the planner and policy maker to allocate enough resources for immunisation services.

The programme was also to strengthen the health management information system by ensuring accurate and timely reports of immunisation services. The information provided was to support decision making and at the same time was to play a big role in immunisation planning intervention. The study also identifies challenges in the implementation, together with any ongoing concerns that need to be addressed. It was then to suggest recommended actions for the Mkuranga community and the country at large. Finally, the study conducted in partial fulfilments for the requirements of Masters Degree

1.5 Description of the P4P programme as implemented in Mkuranga

Pay for performance (P4P), was intended to bonus payments to health facilities linked to attainment of performance targets, it was being implemented in the United Republic of Tanzania with the goal of improving maternal and child health outcomes. Also, P4P intended to strengthening information systems and the use of information for management decisions and motivating health care providers. After discussions between the government of Tanzania and development partners, the government chose to implement a pilot project in Pwani region. Mkuranga District was one of the Pwani districts that implemented P4P project.

The idea behind this strategy was to link payment to results and this has been made possible in collaboration with various health stakeholders like Governments, International donors like Clinton health access initiatives (CHAI), researchers like Ifakara health institute (IHI), policymakers and health facilities. P4P compliments stakeholders contributions on training, supportive supervision and monetary incentives in Mkuranga district. All facilities, including hospitals, health centres and dispensaries within Mkuranga districts were eligible to participate in the scheme, irrespective of ownership. The selection of the health facility to be involved in this scheme were based on the condition that they provide reproductive and child health (RCH) services

The Baseline Phase commences in March 2010. This involved supporting the facilities to use their old registers to enter data into the new HMIS summary forms. After this the P4P rely on the routine collection of data through the HMIS. Facilities, districts and the region were supported and rewarded for completing this additional work of establishing the baseline. Enrolling of health facility to the P4P programme depended on completion of the backlog data entry into the HMIS. Thereafter, the actual performance indicators and targets for services provided begun to be measured and rewarded over the course of several payment cycles

Facilities were also required to provide bank accounts in order to qualify for participation. In many districts, primary level health facilities (health centres and dispensaries) do not have bank accounts, and hence, these accounts were set up as part of the programme. Stakeholders responsible for supervising facilities at district and regional levels were also eligible for bonuses (*i.e.*, Council Health Management Teams (CHMTs) at the district level; and the Regional Health Management Team (RHMT) at the regional level).

1.6 Objectives of the Pay for performance project

The overall goal of P4P was to accelerate the attainment of MDGs 4 and 5 in Tanzania. The MoHSW seeks to improve the performance of health services in Tanzania through a P4P strategy in order to accelerate the reduction of maternal and neonatal morbidity and mortality

The specific objectives of the pay for performance (P4P) are:

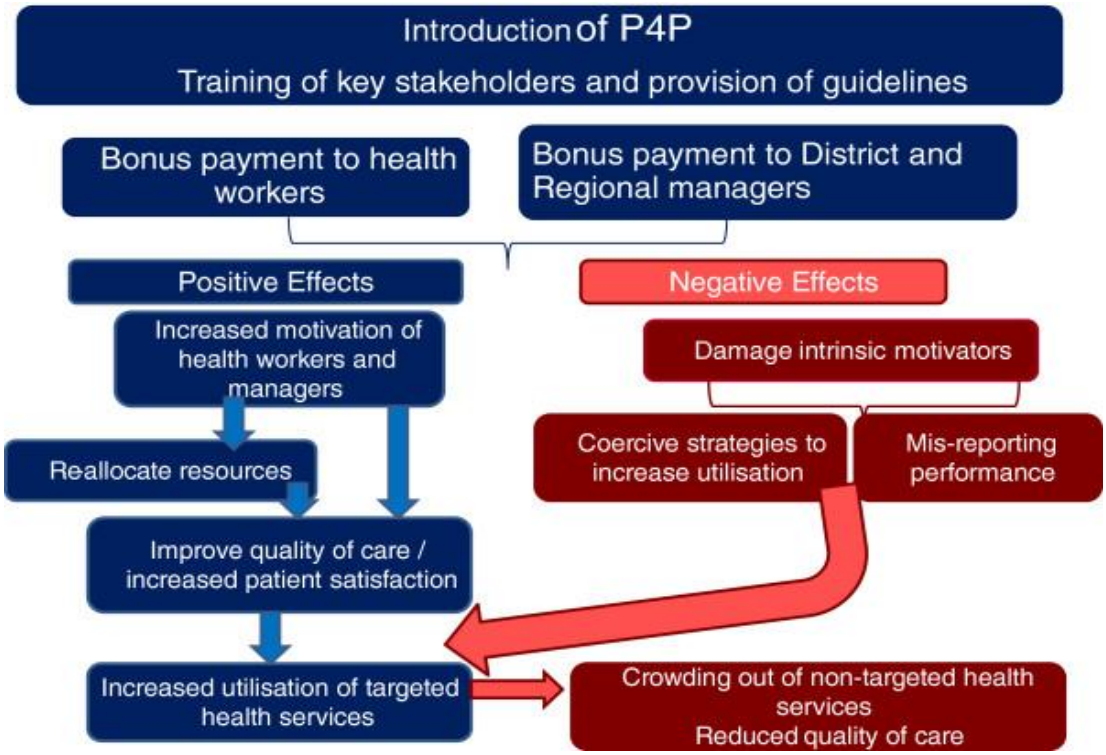
- To improve the efficiency and effectiveness of health service delivery using a results-oriented approach
- To motivate health care workers to provide quality services
- To increase the generation and use of health information for decision making leading to improved health outcomes
- To effectively manage, monitor and evaluate pay for performance (P4P) Pilot

1.7 Project logic model

A logic model is a visual conceptualisation of how the elements of a project are connected together. It lays out which inputs are necessary for the project activities (process), what outputs are expected from the activities and what short and long term outcomes will ultimately result from the implementation of the project.

A logic model is used as a tool to understand and analyse a project, which is crucial for the development and implementation of a sound monitoring and evaluation plan. This logic model (Figure 1.1) framework shows the linear relationship between bonus payments among the health worker, bonus payments among to districts and facilities managers. The assumption made on the results and the outputs of the P4P project in improving health services utilisation and for that matter increases in child immunisation rates.

Figure 1.1 Programme logic model: Positive and negative effects of the model



Source: Pay for performance implementation strategies, 2011

1.8 Stakeholders analysis

Stakeholders are individuals or organisations that are affected positively or negatively by the project. For the P4P project on child immunisation in Mkuranga district different stakeholders were actively involved, but for this evaluation only the main stakeholders for implementation of child immunisation were selected. Discussion was made for each stakeholder about the programme and the need for evaluation. Based on their degree of involvement six (6) main stakeholders were selected. Those were:

- Ministry of Health and Social Welfare (MoHSW)
- Non-governmental organisations e.g. Clinton Health Access Initiatives (CHAI), Ifakara Health Institute (IHI)
- Council health managements team (CHMT)
- Health workers (Doctors, nurses and medical attendants)
- Hospital directors and health facility in charges
- Parents and children

Table 1.1: Stakeholders analysis

Sn	Stakeholders	Role in the programme	Interest on evaluation	Role in the evaluation	Level of importance
1.	Parents and children	End user/beneficiaries	Increase rate of immunisation	Acceptance and adherence to the services	Low
2	Ministry of Health and Social Welfare (MoHSW)	Policy/Guideline review and development	To make sure programme implementation goals meet	To conduct supportive supervision	High
3	Non-governmental organizations (FHI, CHAI)	Contribute fund Strategic, plan, Protocol develop and review	To make sure fund utilisalised properly Technical support Low morbidity/quality improve	Audit report Baseline survey Monitoring and Evaluation	High
4	Health workers (Doctors, nurses, medical attendants)	Implementers of child immunisation services	Improve performances and deliver high services	To produce efficiently immunisation service	High
5	CHMTs	Supportive supervision and monitoring at district level	To make sure programme implementation goals meet	To conduct supportive supervision	High
6	Hospital directors and health facility in charges	Supportive supervision and monitoring at health facility level	Improve performances and deliver high services	To conduct supportive supervision	High

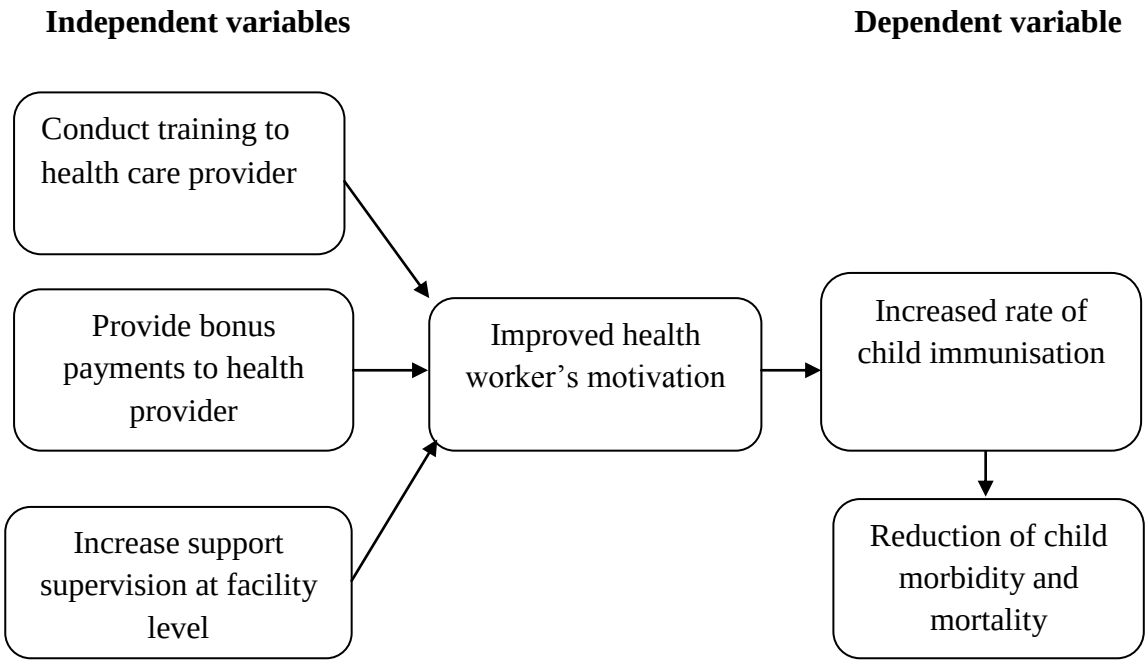
1.9 Conceptual framework

P4P is based on the assumption that health workers respond rationally to incentives, notably monetary rewards combined with additional funds allocated to facilities; more intense supervision and improved information system. Hence, P4P is assumed to increase health workers motivation to reach targets (extrinsic motivation).

Figure 1.2 expresses the relationship between outcome and independent variables. The figure tries to explain effects of the changes in independent variables affect positively or negatively dependent variable, which was increased rates of children being immunised. P4P was mainly introduced with the aim of motivating health care workers to improve the delivery of health services. The providers of health services are provided with incentives based on stated indicators. Increased supportive supervision promotes the quality of service produced at the same time increases the relationship among health care workers, it also identifies and solve the existing problems, therefore it becomes effective intervention in improving health workers performance through motivation to workers.

Training as a component of P4P project equips health care workers with skills in performing their work hence leads to better outcome, skills provide confidence in performing duties hence improve performances. Providing bonus payment was intended to increase working morale to health care workers, this was done in respect of the deliverables. The 25 % of money paid to each facility was used to improve the working environment of the respective facility hence increases motivation for health care workers to perform their duty, good working environment motivates working morale. All these are provided with the P4P programme leading to increased child immunisation and later reduction of morbidity and mortality.

Figure 1.2 Conceptual framework



Source: Researcher's own construct (2015)

1.10 Organisation of the dissertation

This dissertation was comprised of six chapters; chapter one presents the problem and its context. Chapter two provides literature review, this chapter also includes description of the programme to be evaluated, objectives of the P4P programme, and stakeholder's analysis for immunisation programme under P4P programme and chapter three is about research methodology, chapter four present results of the study, chapter five discusses the results and chapter six provides a summary, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section reviews different literature related to pay for performance on health worker's performance worldwide, factors for health worker's performance, and description of the P4P Programme in increasing child immunisation in Tanzania. The review of the literature is organised based on the specific objectives of the proposed study. Gaps in knowledge that exist from the previous literatures on the above mentioned topic is also identified in this section. Finally, the section presents a conceptual framework that shows the relationship between the variables of the proposed study.

2.1 Pay for performance on health worker's performance worldwide

P4P was mainly introduced with the aim of motivating health care workers to improve the delivery of health services. The providers of health services are provided with incentives based on stated indicators. The programme has been operated in low and high-income countries and shown to improve performance on delivery of health services. A study conducted in New York, USA, where Hudson Health Plan, a non-profit organisation, introduced a US $200 bonus payment for each fully immunised 2-year-old child. They also provided administrative supports to identify children in need of immunisation. The study showed that there was a significant rise in immunisation coverage within Hudson Health Plan (Chien *et al.*, 2010).

It has been shown by the World Health Report of 2006 that countries with fewer than 2.3 trained health personnel per 1000 population fail to achieve 80% coverage rate of measles immunisation. Tanzania is among those countries with such a problem, so P4P was established with the aim to motivate few health workers available to attain a given target.

Another evaluation study conducted in Rwanda showed that the incentives improved access to higher quality care, which resulted in substantial improvements in child health outcomes. The study also revealed that incentives led to a 20% improvement in efficiency. The study further provided strong support that P4P improved health outcomes. There was association between P4P incentive and knowledge of health care. This suggests that the effects of P4P incentives would be higher if completed with interventions that improve skills such as training. Training would have a great impact in settings with performance incentives (Basinga, 2011).

A study conducted in the Philippines showed that incentives P4P have been used to motivate community health workers to perform their duties. The study also showed that P4P incentives have been used to encourage mothers with free time to promote immunisation, family planning and better sanitation. A report in 2008 by the US Department of Social and Health Services concerning Washington State showed that a "Supplemental Budget" for P4P improved immunisation coverage for children.

Much effort has been made by the Pakistan Government to improve immunisation coverage as per expected benchmarks, but the coverage was still low. It has been showed that limited access to immunisation services, lack of parent awareness and weak management were the reasons that the immunisation target was not attained. In order to fill the gap, the country adopted Pay for Performance to motivate health care workers to improve immunisation coverage. Other interventions included government partnership with civil society organizations to scale up immunisation coverage, especially in hard to reach areas. (Bashir *et al.,* 2009)

Various studies found that 50% of doctors and nurses were not satisfied with their jobs (Leshabari *et al.,* 2008). Low motivation and dissatisfaction of health workers has been cited as the major concern especially in low income countries and this has a negative impact on the delivery of health services (Chandler *et al*., 2009). The majority of health care workers are not satisfied and therefore less motivated to perform their responsibilities efficiently.

2.2 Factors for health worker's performance in Tanzania context

Motivation is among the factors that affect the performance of health care workers. Apart from motivation, other factors that have been identified to improve the quality of health care services were adequate supportive supervision and availability of qualified staff. On the other hand, some challenges have been identified that hinder the provision of quality health care; these include inadequate number of human resources, lack of adequate supportive supervision, shortage of medical equipment and supplies and lack of reliable transport (Kwesigabo *et al.*, 2012). It was also shown that effective supportive supervision plays a big role in motivating health care workers to perform their duties and also improve performance (Bosch-Capblanch and Garner, 2008).

An evaluation study conducted in Pwani Region by Ifakara Health Institute showed that P4P resulted in l9% more women delivering their babies at health facilities. The study also indicated a 22% increase in the proportion of women getting two doses of anti-malaria treatment during antenatal care. On the other hand, the study also highlighted P4P had no impact on other services like vaccination coverage, postnatal care coverage and anti-retroviral during antenatal care.

CHAPTER THREE

EVALUATION METHODS

3.0 Introduction

This chapter describes how the study was carried out; study area, evaluation design, evaluation approach, evaluation period, evaluation dimensions, data collection methods and how the findings were analysed and presented.

3.1 Study area

Mkuranga district is one of the six districts in Coastal Region. It is bordered to the north by Dar es Salaam region, to the east by the Indian Ocean, to the south by Rufiji district and to the east by Kisarawe district. It is located 50km south of the Dar es Salaam region. The study area had a population of 236,816 according to 2012 National Census.

3.2 Sample size

The study was conducted in all 30 health facilities that were present and also providing immunisation services during the initiation of the project including those owned by government, private and faith-based. Currently, the district has 41 health facilities of which 1 is the government hospital, 2 are government health centres and 3 are faith-based health centres. 28 are government dispensaries, 4 are private dispensaries and 3 are faith-based dispensaries.

3.3 Evaluation Period

This evaluation of the pay for performance (P4P) project on the rate of child immunisation was conducted from February to May 2015.

3.4 Evaluation focus

Pay for performance was mainly introduced with the aim of motivating health care workers to improve the delivery of health services. The providers of health services are provided with incentives based on stated indicators hence this evaluation assessed how

the programme motivated health care workers and improved the delivery of health for the health facilities found in Mkuranga and whether there were any unintended consequences, what were the learnings, and how to improve the implementation in Health facilities found in Mkuranga district.

3.5 Evaluation approach

A mixed methods approach (quantitative and qualitative) was conducted. Quantitative approach was used to assess the level of child immunisation in each facility, while qualitative approach used to capture the information on the perception of healthcare worker on P4P project on the rate of child immunisation.

3.6 Evaluation design

Cross-sectional study design was employed to assess the contribution of pay for performance project on improving rate of child immunisation at facilities level. Baseline data of 2010, before the project was collected and stored in District Health Information System (DHIS2). Data after the project implementation was also collected to check the contribution of pay for performance incentives, training and supportive supervision motivate health care workers on increasing rate of child immunisation at different health facilities.

3.7 Evaluation variables

Evaluation variables were measure of spatial extent or magnitude and scope of programme components that help to make clear indicators, criteria, and parameters of evaluation to be used. Information matrix was used to evaluate the P4P project activities and objectives in the purposefully selected health facilities in Mkuranga district.

3.7.1 Independent Variables

The indicators used in this evaluation study were;

(i) Number of P4P incentive cycles received

(ii) Number of training received
(iii) Number of supportive supervision

3.7.2 Dependent variables

Immunisation rate; this refers to number of children who received Polio dose 0 and Measles vaccine before and after implementation of P4P project.

3.8 Inclusion criteria

- All health facilities (public, private and faith-based) in Mkuranga District that were present during the start of the project
- All health facilities (public, private and faith-based) in Mkuranga District which provide immunisation services.
- Health care workers who were present during the implementation of the project

3.9 Exclusion criteria

- Health facilities not present during the start of P4P project
- Health facilities not providing immunisation services
- Health care workers who were not present during the implementation of the project

3.10 Data Collection techniques

Both qualitative and quantitative data collection techniques were used, the data collection instruments was developed in English then translated to Kiswahili during data collection. Three data collection tools used in this evaluation study are shown in Appendix i and ii.

3.10.1 Quantitative data

Quantitative data was collected to all 30 health facilities in charge using structured closed-ended questionnaires developed in English then translated into Swahili. Numbers of supportive supervisions conducted, numbers of pay for performance

cycles paid and number of training conducted were among the information included in the questionnaires. (Appendix i)

3.10.2 Qualitative data

Respondents for in-depth interview were proportionally selected based on health facilities ownership. Proportionally, five (5) in-depth interviews were conducted to represent public health facilities one (1) in-depth interview conducted for private health facilities and lastly two (2) in-depth interviews were conducted for faith-based health facilities. In total eight (8) in-depth interviews were conducted using the interview guide (Appendix ii) with the assistance of a tape recorder to record information during interview session.

3.11 Data analysis

Quantitative data was entered using excel software spreadsheet and data transferred in to Statistical Software for Social Sciences (SPSS) version 20 for cleaning, coding and analysis. Tables and figures were used to represent the study findings.

The qualitative data was collected with the aid of Audiotapes; data were transcribed and translated into English by the researcher who conducted the interviews.

Qualitative data was entered and analysed in Atlas ti using thematic content analysis, in which the software assisted in summarising the contents and counting various aspects from the responses as explained by respondents based on the evaluation objectives.

3.12 Ethical considerations

The proposal for conducting evaluation study was submitted to Mzumbe University ethical clearance committee before implementation, the following components were observed before data collection.

3.12.1 Confidentiality

Respondents' views and opinions were treated as confidential and anonymous, protecting participant's confidentiality including protecting the identities of the people interviewed. Participants' confidentiality was observed also during presentation of the findings.

3.12.2 Informed consent

Respondents were informed about the evaluation study, and consent from the respondents was obtained after explaining the purpose of the evaluation study, and expected benefits. Respondents were also told that participation was voluntary and one could withdraw at any time of the study. The permission to conduct the study in the study area was obtained from the Regional administrative secretary of Pwani region, then he reported to the DED Mkuranga and thereafter to the DMO of Mkuranga DC. Then the researcher reported to wards and village government officers before being introduced to health workers for interviews.

3.13 Evaluation dissemination plan

The dissemination plan comprises submitting the evaluation report to different stakeholders including the Ministry of Health and Social Welfare, Regional Administrative Secretary of Pwani, District Executive Director and District Medical Officer of Mkuranga district Council.

CHAPTER FOUR

PRESENTATION OF EVALUATION FINDINGS

4.0 Introduction

The findings from this evaluation study answer the following evaluation questions: What is the number of children under one years old are receiving measles and polio 0 vaccines? How many supportive supervisions are conducted in health facilities during pay for performance project? What could be the number of training sessions conducted to health workers during pay for performance project? How frequently do monetary incentives be paid to each health facilities? And how does health worker perceive contribution of pay for performance project in relation to child immunisation rate at facility level?

4.1 Background information

4.1.1 Health facilities involved in this evaluation

A total of 30 health facilities were involved in this evaluation. Table 4.1 shows the level and ownership of those facilities involved in evaluation study.

Table 4.1: Type and ownership of health facilities involved in this evaluation

Health facility characteristics	Frequency (n=30)	Percentage
Level of heath facility		
Dispensary	24	80
Health Centre	5	16.7
Hospital	1	3.3
Ownership		
Faith base organisation	6	20
Government	22	73.3
Private	2	6.7

Source: Fieldwork 2015

4.1.2 Proportion of health workers responsible for child immunisation in Mkuranga health facilities

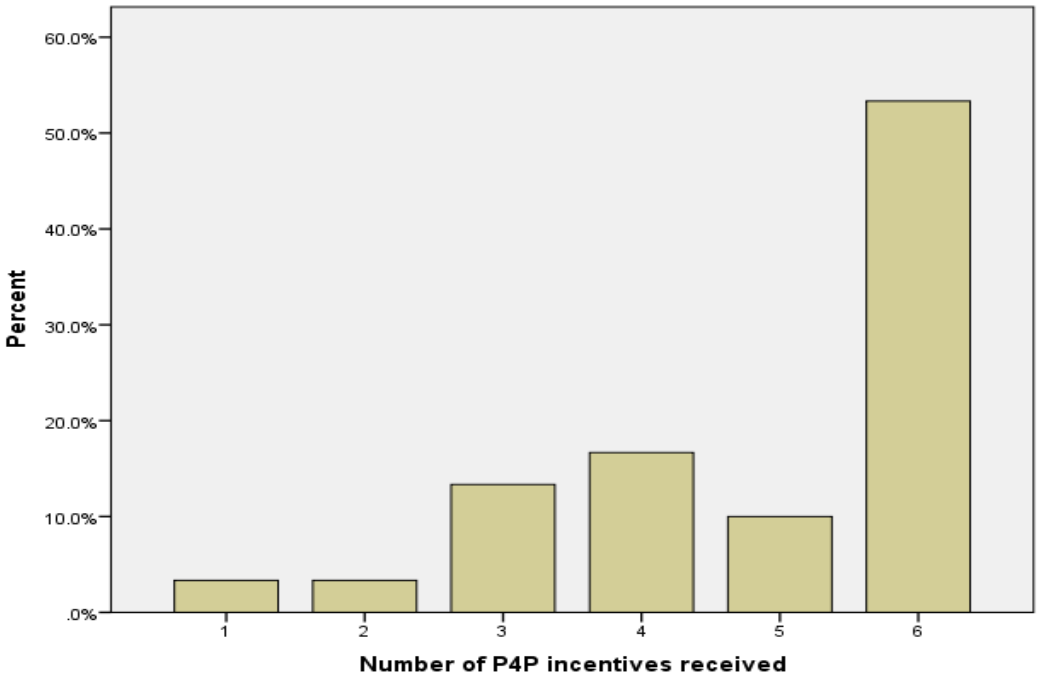
Results from 30 in charges of health facilities involved in this evaluation said, on average 4 health workers were involved in child immunisation clinic. Comparatively most of health workers responsible for child immunisation were found in faith-based organisation facilities compared to private health facilities. The following health facilities were found to have six (6) health workers who were responsible for child immunisation at the time of evaluation. These were Msufini Kidete dispensary, Irene-Kilimahewa health centre, Shungubweni dispensary, Nyota ya bahari health centre and Vikindu dispensary.

4.1.3 Number of bonus Cycle paid for the Health Facilities during Pay for performance project

Over half 16(53%) of the health facilities that participated in this evaluation received P4P bonus six times in four years, 2011-2014. Figure 4.1 reveals that only one health

facility 1(3.3%) among the health facilities involved in this project was paid once. Few 5(16.7%) of the health facilities were paid four times , other health facilities were paid two times and five times, 3.3% and 10% respectively for the period of four years of the project.

Figure 4.1 Number of bonus Cycle paid for the Health Facilities during Pay for performance project

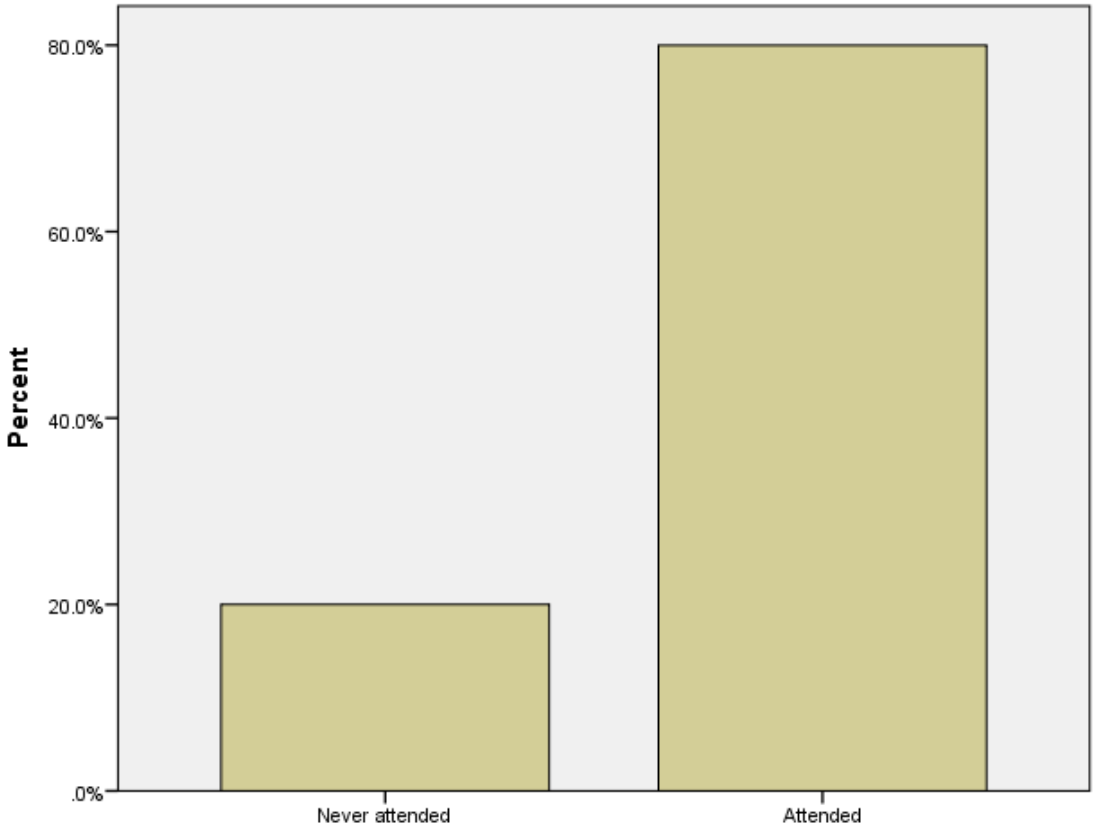


Source, Field work 2015

4.1.4 Training for the Health Facilities in-charge during Pay for performance project.

Thirty health facilities in charge were asked if they had ever attended any immunisation training. The finding shows that 24 (80%) of the health facility in charge had an opportunity to attend training as the result of the P4P project in Mkuranga district, the remaining 6 (20%) said they didn't get an opportunity to attend any training related to child immunisation (Figure 4.2)

Figure 4.2 Percentage of immunisation training attended by health facilities in charge



Source, Field work 2015

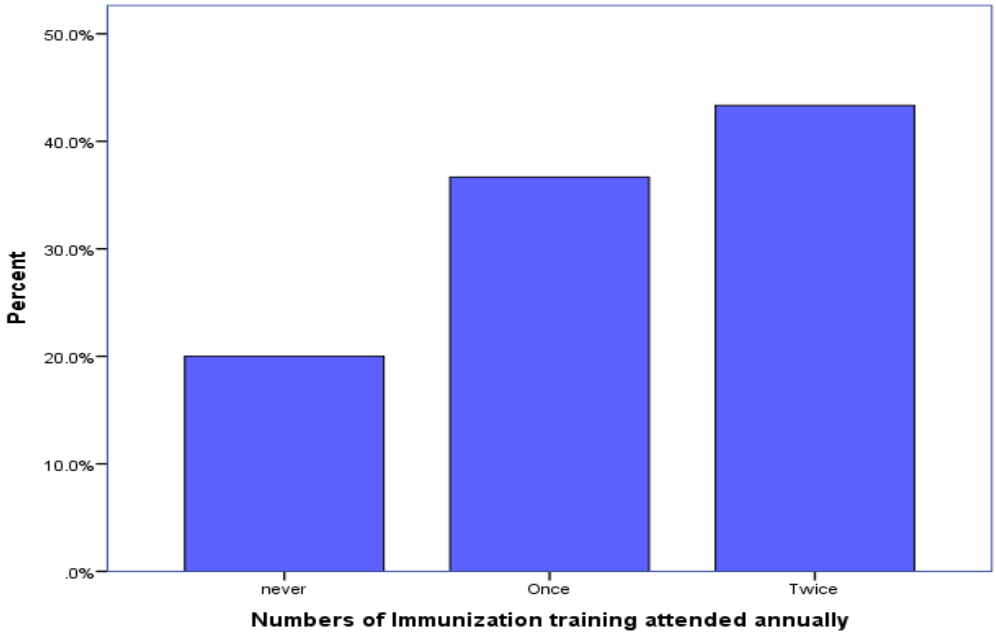
Among 30 health facilities in charges who participated in this evaluation study 13 (43%) showed to have attended training twice in a year since the establishment of the P4P projects. 11(37%) attended training once in a year and the remaining 6 (20%) never attended any training in a year. Figure 4.3 shows the number of immunisation trainings attended by health facilities in charge annually.

Training opportunity was also mentioned by five among eight key informants who participated in in-depth interview at Vikindu dispensary. The training opportunity was a result of pay for performance project. The health care workers said that the training

equipped them with knowledge which helped them to perform the work in a proper way and also informed them about better way of store the vaccine.

> *''... For those who provide child immunisation services were trained on the better ways of providing these services but also they trained on how to store the vaccines''* **[Vikindu Dispensary nurse mid wife]**

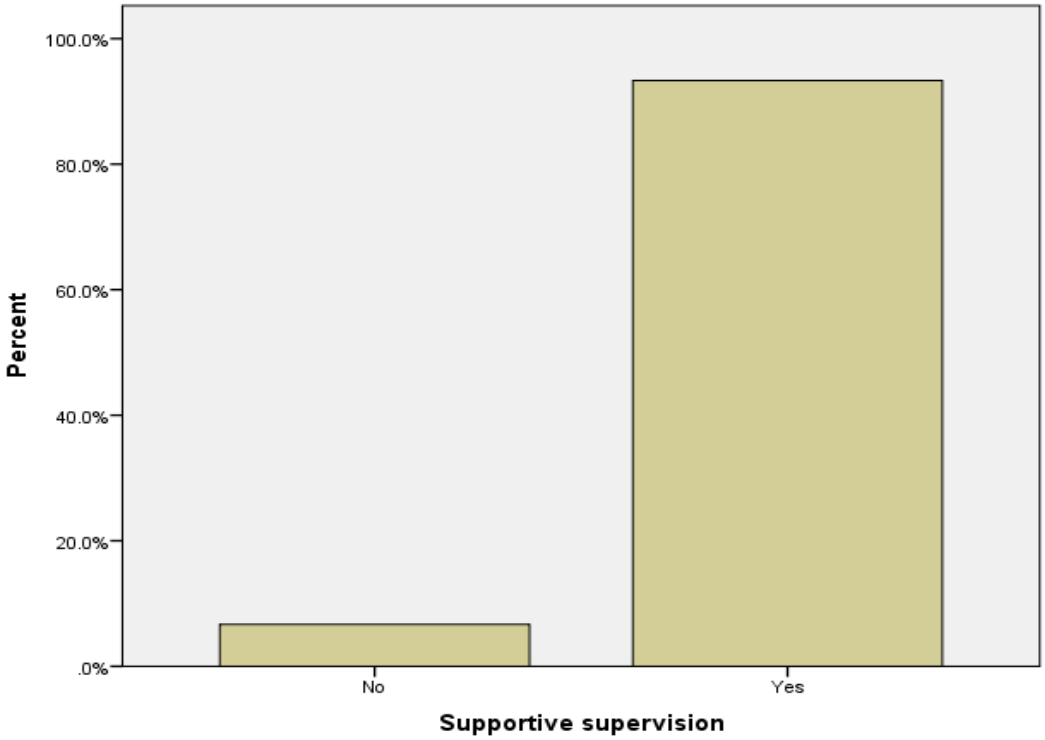
Figure 4.3 Frequencies of immunisation trainings attended quarterly among the health workers in charge



4.1.5 Number of quarterly supportive supervisions conducted to health facilities responsible for child immunisation services in Mkuranga district

Health workers in charge of all 30 facilities which were involved in the study were asked whether there was any quarterly supportive supervision conducted in their facility since the establishment of pay for performance project. Results show that 28 (93%) of health workers who were involved in this evaluation said their facilities were provided with quarterly supportive supervision. Only 2 (7%) among these staff reported that their facilities had not received any quarterly supportive supervision (Figure 4.4)

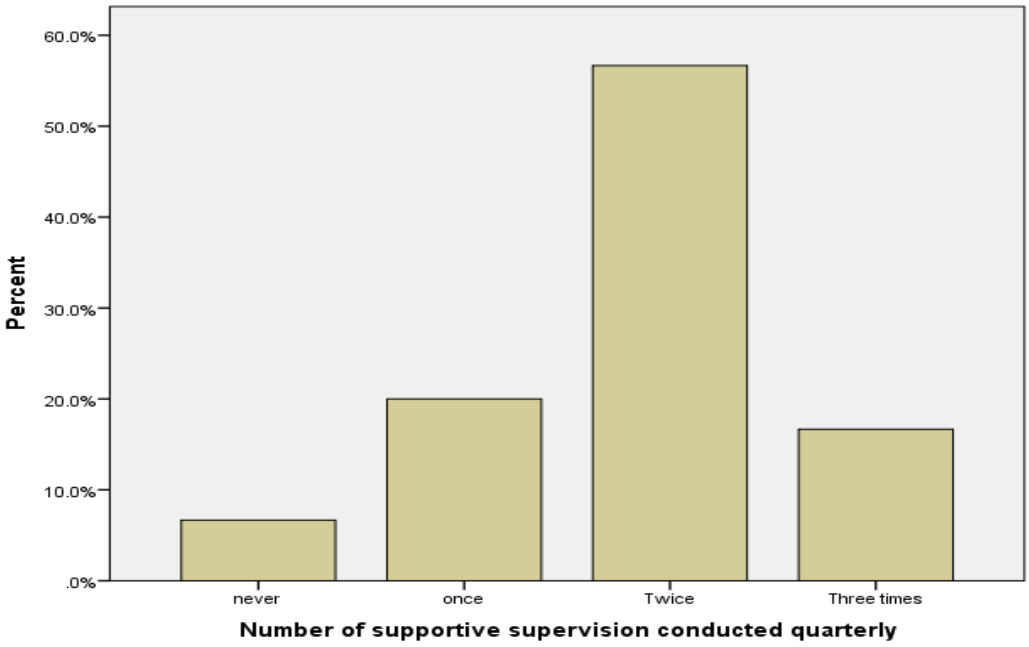
Figure 4.4 Percentage of supportive supervisions conducted quarterly among the health workers responsible for child immunisation in Mkuranga district



Source, Field work 2015

Among 30 health facilities in charge that participated in evaluation study, 17 (56.7%) of the respondents said supportive supervision was conducted in their facility twice in a quarter since the establishments of the P4P project. Finding also revealed that 6 (20%) respondent said their facility had been supervised once, slightly about 5 (16.7%) respondent said their facility had been supervised 3 times in a quarter while only 2 (7%) respondent said their facility had never had supportive supervision since the establishments of the P4P project in Mkuranga district (Figure 4.5). The implementation guidance shows that every health facility has to be visited at least once per quarter.

Figure 4.5 Frequency of supportive supervisions conducted quarterly among health facilities responsible for child immunisation in Mkuranga district



Source, Field work 2015

Findings from qualitative data shows that Pay for Performance project has helped to increase number of supportive supervisions conducted to the facilities. Supportive supervision helps to identify different problems which face those facilities. It also helps to identify whether working tools are missing or not as narrated by most of the respondents. The result from key informants shows that out of 8 key informants, majority 7 (87.5%) mentioned that supportive supervision has increased since the establishment of the pay for performance project. One CHMT members was quoted saying;

> *''..Number of supportive supervisions has increased… supportive supervision also helps to identify problems which face those facilities hence makes it easy to solve them... ''* ***[CHMT member]***

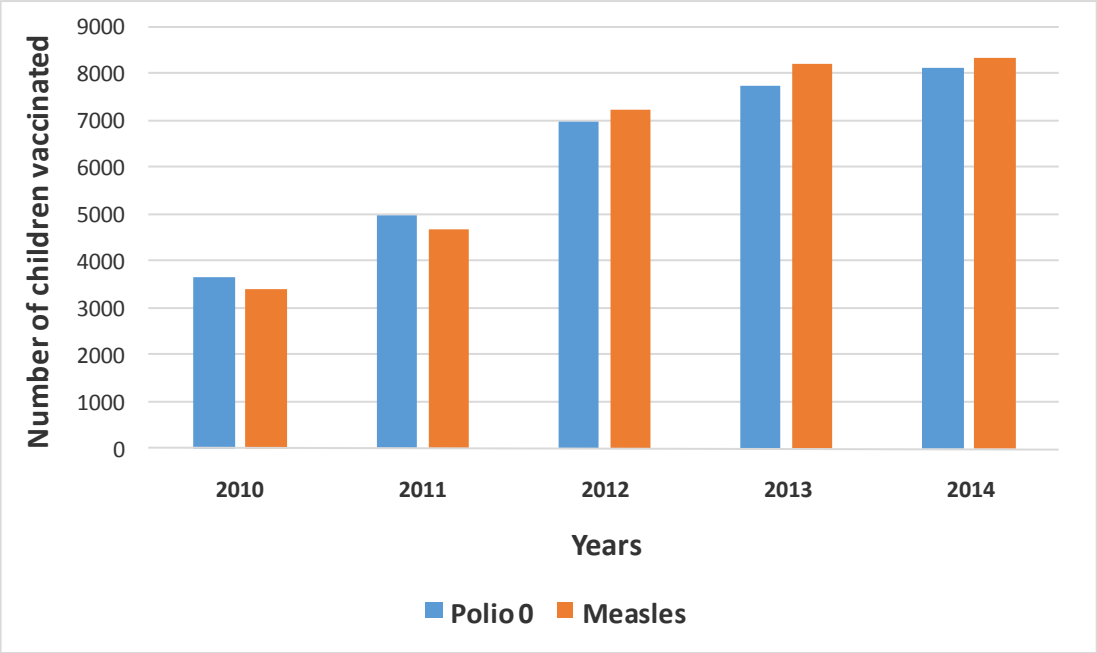
4.2 The influence of bonus payments, training and supportive supervision in improving rate of child immunisation in Mkuranga health facilities

Pay for performance (P4P) project was intended to motivate health workers to increase the rate of child immunisation. Bonus payments, health worker trainings and supportive supervision were used to motivate health workers. Evaluation was done to analyse total number of children received measles and polio 0 vaccines from 2011 to 2014, the influences of these initiatives towards improvements of child immunisation using the data from district health information systems (DHIS2).

4.2.1 Number of children under one years old receiving measles and polio 0 vaccines in Mkuranga district, 2010-2014

Vaccination data from Mkuranga district shows that generally the number of children received polio dose zero and measles were doubled from year 2011 to years 2013. Figure 4.6 shows that the number of children provided with Polio 0 and Measles vaccine from 2013 to 2014 slightly increased. Furthermore, data shows that number of children who got polio zero and measles vaccine four years after the commencement of the project increased three times compared to the number of children who got vaccines before the establishment of the project in 2010.

Figure 4.6 Number of children under one years old receiving measles and polio 0 vaccines in Mkuranga district, 2010-2014



Source: Mkuranga HMIS database 2010-2014

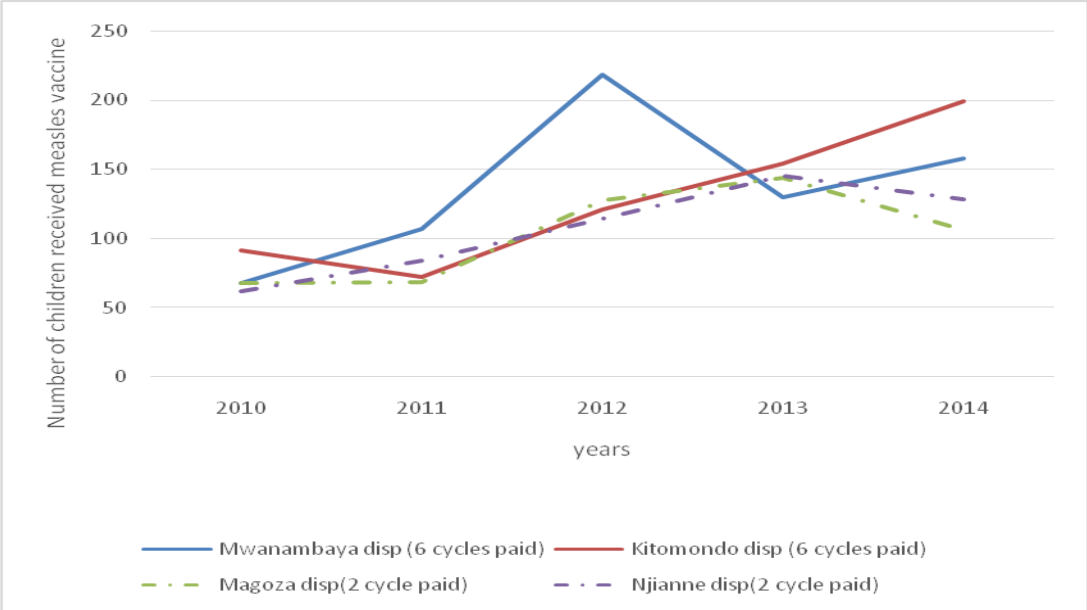
4.2.2 The influence of bonus payments in improving rate of measles in the study area

This incentive has to be paid twice a year in each health facility depending on their performance, the evaluation was made for the health facilities that mentioned to have six (6) cycles to see if they had higher rate of child immunisation compared to other health facilities that received 2 cycles of incentives. Findings shows that the trend of measles vaccine provided was almost increasing with the same rate for the three dispensaries i.e. Kitomondo, Njianne and Magoza with Kitomondo dispensary being paid six times while Njianne and Magoza dispensaries being paid twice. For Mwanambaya dispensary regardless of being paid six times their rate of measles vaccine tended to increase rapidly from year 2011 to year 2012 and dropped down sharply in the year 2013. (Figure 4.7).

Findings from in-depth interviews conducted to key informants show that, although pay for performance incentives were provided to the facilities depending on the target reached, they experienced delay of those payments. Several factors have been mentioned to be associated with those delays including some facilities did not have bank account, some accounts were dormant making it difficult to use those accounts. Alternatively the money has to be sent to DMO account and the procedure of withdraw those money took time hence leading to delay in the process of payment. One key informant was quoted saying;

> ''*…The challenge which faced this project was the delay in payments, they didn't reach on time, it happened that some of the facilities didn't have bank accounts for example my facility, so our money was sent to DMO account, so the process of withdrawing that money took some time hence our money was delayed…''* **[Vianzi Dispensary in charge]**

Figure 4.7 Number of measles vaccines in relation to frequency of cycle paid in health facility

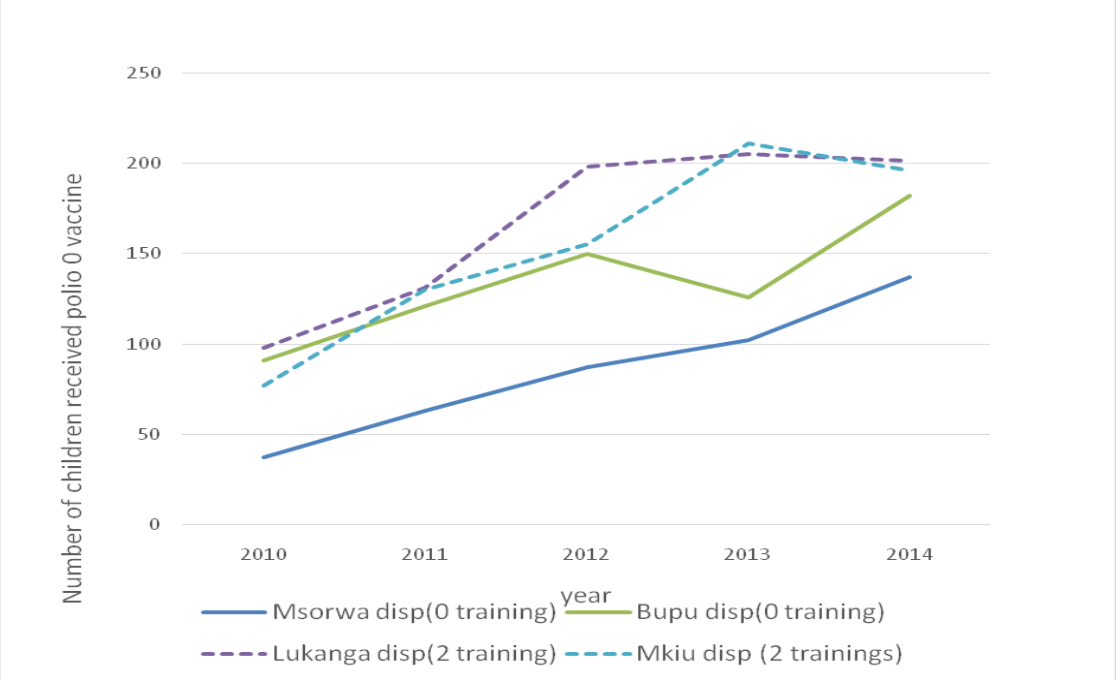


Source: Mkuranga HMIS database 2010-2014

4.2.3 The influence of training in improving rate of measles and polio 0 vaccine in the study area

The comparison were made for facilities with two trainings and those without training, findings revealed that the provision of polio 0 vaccine increased for all dispensaries from 2010 to 2014. Figure 4.8 revealed that the dispensaries that were provided with two trainings i.e. Lukanga dispensary and Mkiu dispensary performed better in provision of polio zero vaccine compared to the facilities that didn't receive any training i.e. Msolwa and Bupu Dispensaries.

Figure 4.8 Number of polio 0 vaccines in relation to frequency of training in health facility

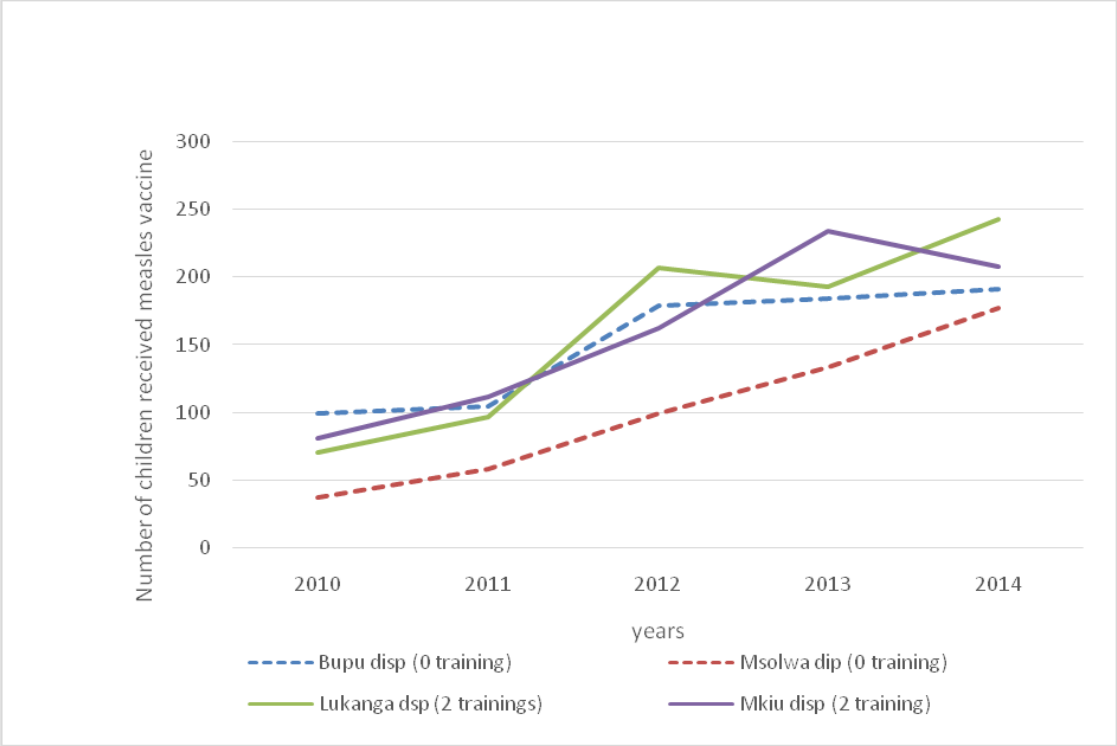


Source: Mkuranga HMIS database 2010-2014

Furthermore, the trend of measles vaccines seemed to increase regardless of the number of training provided in some of the health facilities. Figure 4.9 revealed that Bupu dispensary which was reported to have no training, initially their rate of measles increased almost similar to that of Mkiu dispensary which was provided with two trainings. Although there was an increase in number of children vaccinated in Mkiu dispensary in the year 2013, there was sharp decrease of the number of children

vaccinated in the year 2014. In comparison to Mkiu dispensary which had two trainings like Lukanga, there was sharp increase in number of children provided with measles from 2013 to 2014.

Figure 4.9 Number of measles vaccines in relation to frequency of trainings conducted to health facility

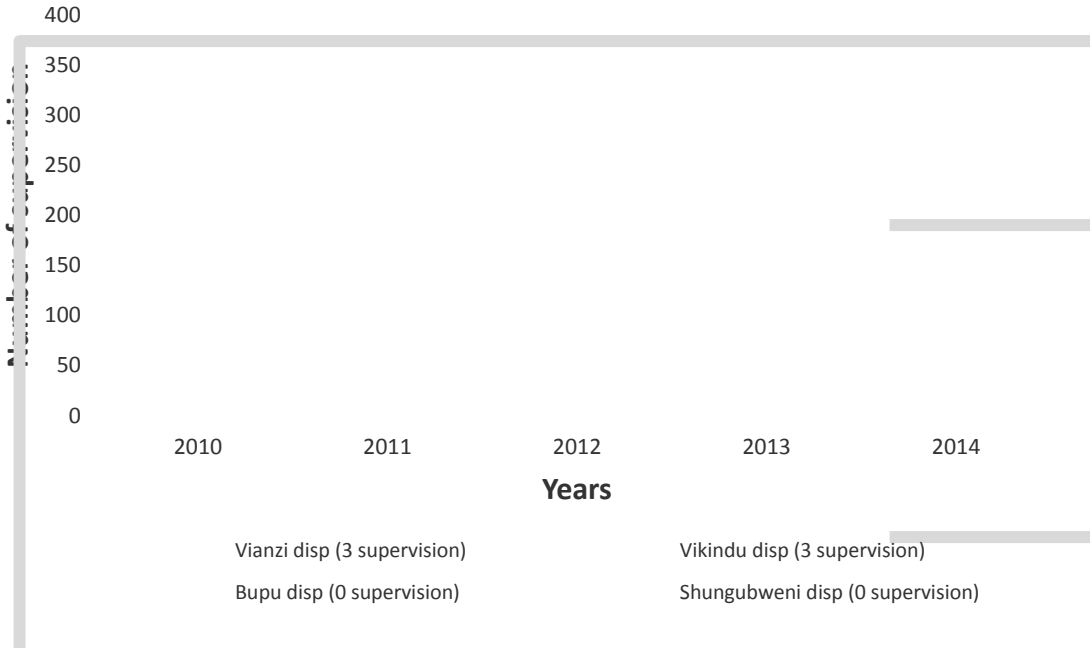


Source: Mkuranga HMIS database 2010-2014

4.2.4 The influence of supportive supervision in improving rate of measles and polio 0 vaccine in the study area

Evaluation findings suggest that rate of measles provision to children within the health facilities under pay for performances were much influenced by number of supportive supervisions performed in the health facilities. Figure 4.10 revealed that from 2011 Vianzi and Vikindu dispensaries which had three supportive supervisions in the period of three months perform well compared to Shungubweni and Bupu dispensaries that had no supportive supervision.

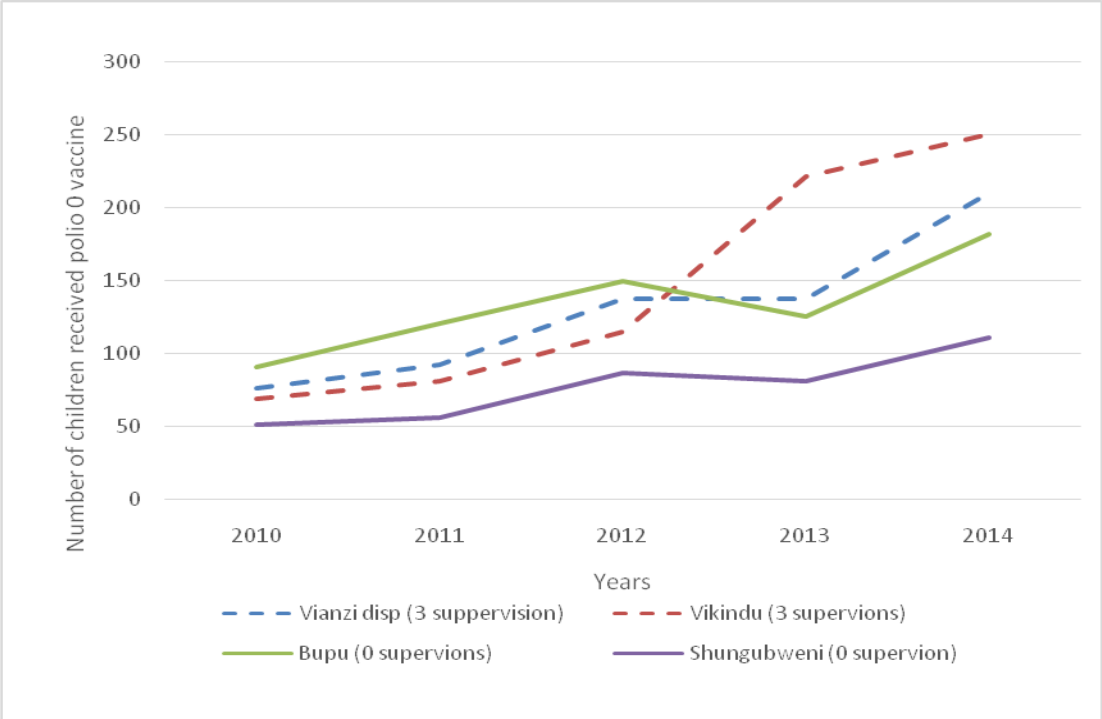
Figure 4.10 Trends of measles vaccines in relation to number of supportive supervision conducted in health facility



Source: Mkuranga HMIS database 2010-2014

Figure 4.11 shows that for all dispensaries with three supervisions and those with no supportive supervision the trend of polio 0 vaccine slightly increased from 2010 to 2012. Only Vikindu dispensary which had three supportive supervisions continued to improve in providing polio vaccination to more children compared to the rest of the dispensaries.

Figure 4.11 Number of polio 0 vaccines in relation to frequency of number of supportive supervision in health facility



Source: Mkuranga HMIS database 2010-2014

4.3 Perception of health care workers on pay for performance project on child immunisation services

Health workers were asked if they thought whether they were motivated to provide the Measles vaccines to children, majority (93%) said that they were motivated, only few (8%) said they were not motivated in providing measles vaccines in immunisation clinics. The evaluator also asked respondents whether they were motivated in provision of polio zero vaccines, majority (97%) said that they felt to be motivated and only few, about 3% felt that they were not motivated (Table 4.2)

Concerning provision of outreach and mobile clinics, majority (90%) of respondents felt that they were motivated on provision of mobile and outreach services since the start of P4P project and some (10%) thought that they were still not motivated in providing services in mobile and outreach clinics.

Table 4.2 Health worker's perception on pay for performance project during child immunisation services

Indicator		Frequency(n=30)	Percentage
Motivation on provision of Measles vaccines			
	No	2	6.7
	Yes	28	93.3
Motivation on provision of Polio 0 vaccines			
	No	1	3.3
	Yes	29	96.7
Motivation on provision for mobile and outreach clinics			
	No	3	10.0
	Yes	27	90.0

Source, Field work 2015

A further issue highlighted by respondents during qualitative interviews was the issue of sustainability of Pay for Performance incentives, this situation, which is beyond the control of health facilities, was believed to potentially affect the ability to attain the immunisation strategies in the future when the project ends. One medical attendant was quoted saying;

> *''....We have to remember that this money comes from the donor and if that is the case it reaches a time that these donors leave, so we don't have any other source of money to use for this project for our district'' ……* **[Lukanga disp medical attendant]**

Furthermore, some of the key informants during the in-depth interview perceived that pay for performance increased staff morale in provision of child immunisation, as one CHMT member phrased it:

> *''...Pay for performance has motivated workers because they know that after they finish their workings they get something (money) thus they work with high morale to meet targets because they know at the end of the day they get money for doing something, the level of immunisation was low at Mkuranga district but after this project the level was high....''* **[CHMT member]**

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

The aim of this evaluation study was to assess the contribution of pay for performance project in increasing child immunisation rate. This project was implemented by providing bonus payments, supportive supervision and training to health care providers at Mkuranga health facilities. There is evidence of increase rate of child immunisation from baseline data in year 2010 compared to the number of children vaccinated after commencement of the project.

Previous studies revealed that there is no single factor contributing to staff motivation rather its multiple of factors like training, bonus payment, supportive supervision and administrative issues. A study conducted in New York show that bonus payment together with administration issues for children immunisation contribute to increase in staff motivation which eventually improves the rate of child immunisation (Chien *et al*., 2010).

The pay for performance project was intended to provide two cycles of bonus per year as one of the incentives to improve staff motivation in Mkuranga district. This evaluation found that not all health facilities were provided with two cycles of bonus per year. Some of the health facilities received only one cycle in the period of four years, some received only two cycles of bonus payment for the period of four years. As noted in this evaluation, bonus incentive did not much contribute to the improvement of child immunisation rate. Although at Magoza and Njianne dispensaries the bonus was paid twice, immunisation rate from year 2011 to 2013 tended to increase almost similar to Kitomondo dispensary which had been paid six times. Mwanambaya dispensary that was paid six times, their immunisation trend was not constantly increasing rather the rate of child immunisation increased sharply from year 2011 to 2012 then sharply dropped down in the year 2013. This study concurs in one side with the study conducted in Pakistan whereby the government used pay for performance to

motivate health care workers in scaling up immunisation coverage in collaboration with civil society organisations especially in hard to reach areas (Bashir et al., 2009)

Delaying of bonus payments has been mentioned as a challenge of implementing P4P project. Many reasons have been mentioned like some of health facilities failed to have bank account and some accounts being dormant, these factors forced the payments to be effected via district medical officer account. The experience showed that the procedure of withdrawing that money from district medical officer account took time hence led to delay in the payment process to the respective health facilities. Findings from qualitative analysis showed that delay in payments became a big challenge in implementing the pay for performance project. This might have been associated with health worker being demoralised to perform their duties leading to decreased rate of child immunisation in some health facilities.

Through this evaluation, it was found that there were no viable means to ensure sustainability for P4P project in Mkuranga district. This could hamper the effort so far done by the health workers in Mkuranga district, For instance, in the implementation plan, health facilities were supposed to be paid eight cycles of bonus up to the period of this evaluation, but about half 16 (53%) of the health facilities had been paid six times with no assurance of further payments. Hence, the sustainability of payment remained not known to the facilities that met targets and this might also hamper health worker's motivation on increasing rate of child immunisation.

About 80% of the health workers involved in evaluation study attended training as part of the P4P strategy and the remaining 20% did not undergo any training. It has been observed that continuing professional development (CPD) enhances professional skills, knowledge, and attitudes toward work performance (Kamlesh Giri, *et all* 2012). This evaluation study showed that training to health workers had remarkable effect on provision of polio 0 vaccine, Lukanga and Mkiu dispensaries received two sessions of health workers training per year, the HMIS data showed that Lukanga and Mkiu dispensaries had relatively high rate of immunisation compared to Msorwa and Bupu

dispensaries which their health workers never attended any training per year. This evaluation finding was similar to the study conducted in Rwanda which suggested that the effect of pay for performance bonus would be higher if complemented with involvement of capacity building to health workers (Basinga, 2011).

Influence of supportive supervision was another factor that was evaluated to determine its contribution to increasing health workers' motivation toward increasing child immunisation. This evaluation study revealed that those health facilities which were supervised three times in a quarterly basis had relatively high number of children immunised with measles vaccine compared to those health facilities with no supportive supervision in the period of three months. Vianzi and Vikindu dispensaries that had three supportive supervisions had three times increase in number of children vaccinated with measles from the year 2011 to 2014 compared to the trend of the facilities without supportive supervision (Bupu and Shungubweni dispensaries) for the same period of time.

This study showed that pay for performance had an impact on the increased rate of child immunisation although the increased rates were not only due to motivation through training, bonus payments and supporting supervision alone. These findings oppose the study conducted by Ifakara Health Institute which highlighted that pay for performance had no impact on services like immunisation and postnatal care coverage in Pwani Region (Anna Elisabet *at al.*, 2014).

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Summary

The rate of child immunisation increased since establishment of the pay for performance project in the year 2011 to 2014. Number of children who received polio 0 and measles vaccine in all health facilities involved in this project doubled from year 2011 to years 2013. Motivation through bonus payments, supportive supervision and training alone did not directly influence the increased rate of child immunisation. This evaluation revealed that there was low readiness of the bonus payments to health workers leading to delay in payments which in turn affected health workers' motivation.

Training as one of the motivation for improvement of the child immunisation was not a standing alone factor for improving child immunisation rate in Mkuaranga health facilities. The comparison made for the health facilities with two trainings and those with no training showed to have almost similar trend, we expected that the facility with greater number of trainings could have greater number of children vaccinated than those with no training.

Contrary to training and bonus payments, supportive supervision showed to have more contribution to the increased rate of measles vaccination. The facilities which had three rounds of supportive supervision had greater number of children vaccinated than those which never had supportive supervision.

6.1 Conclusion

The evaluation study found that, pay for performance play role in motivating health care workers to increase the rate of child immunised with polio zero and measles vaccine in Mkuranga health facilities. Although there was increase in the rate of child immunisation in all facilities the study shows that the increase might have been associated with other factors rather than motivation through bonus payment, training and supportive supervision alone. The study also revealed that there prevailed delays in bonus payments and worries about the sustainability of the project.

6.2 Recommendations and possible area for future research

- To achieve the health targets the focus should not be on health worker's motivation alone but rather to other components of health system such as service delivery and information system.
- Each health facility needs to have a functional bank account to simplify the payment process.
- Adequate fund should be allocated for supportive supervision which revealed to have more contribution to the increased rate of child immunisation
- Other studies should be conducted to evaluate other factors that really cause the increased rates of child immunisation at facilities level.

REFERENCES

Basinga, P., Gertler, P.J & Vermeersch, C.M.J., (2010). Paying Primary Health Care Centres for Performance in Rwanda. *World*, *1*(January), pp.1-29.

Bardach, N. S., Wang, J. J., De Leon, S. F., Shih, S. C., Boscardin, W. J., Goldman, L. E., & Dudley, R. A. (2013). Effect of pay-for-performance incentives on quality of care in small practices with electronic health records: a randomised trial. *JAMA*, 310(10), 1051-1059.

Bashir, H., Kazmi, S., Eichler, R., Beith, A., & Brown, E. (2009). Pay for Performance: Improving Maternal Health Services in Pakistan. Abt associates. Health systems 20/20 project.

Bosch-Capblanch, X. & Garner, P., 2008. Primary health care supervision in developing countries. *Tropical medicine international health TM IH*, 13(3), pp.369-383.

Canavan, A. & Kit, H.A., 2008. Payment for Performance (P4P) Evaluation. , 31(0).

Chandler, C. I., Chonya, S., Mtei, F., Reyburn, H., & Whitty, C. J. (2009). Motivation, money and respect: a mixed-method study of Tanzanian non-physician clinicians. *Social Science & Medicine*, 68(11), 2078-2088

Eichler, R. (2006). Can "pay for performance" increase utilisation by the poor and improve the quality of health services. Background papers for the Working Group on Performance Based Incentives. Centre for Global Development.

Kwesigabo G, Mwangu MA, Kakoko DC, Warriner I, Mkony CA, Killewo J, Macfarlane SB, Kaaya EE, Freeman P (2012). Tanzania's health system and workforce crisis. *J Public Health Policy* 33:S35-S44.

Kamlesh Giri, Nina Frankel, Kate Tulenko, Amanda Puckett, Rebecca Bailey, and Heather Ross, IntraHealth Internationa (2012) Keeping Up to Date: Continuing Professional Development for Health Workers in Developing Countries

Leshabari, M.T. et al., (2008). Motivation of health care workers in Tanzania: a case study of Muhimbili National Hospital. *East African journal of public health*, 5(1), pp.32–37.

Manafa, O. et al. (2009). Retention of health workers in Malawi: perspectives of health workers and district management. *Human Resources for Health,* 7(65), p.65.

Morgan, L., Brinkerhoff, D., & Najib, M. (2012). Community Engagement and Performance-Based Incentives: The View from Indonesia. Washington DC: US Agency for International Development.

Olafsdottir, A. E., Mayumana, I., Mashasi, I., Njau, I., Mamdani, M., Patouillard, E.,... & Borgi, J. (2014). Pay for performance: an analysis of the context of implementation in a pilot project in Tanzania. *BMC health services research*, *14*(1), 392.

Prytherch H, Kagoné M, Aninanya G, Williams J, Kakoko D, Leshabari M, Yé M, Marx M, Sauerborn R (2013) Motivation and incentives of rural maternal and neonatal health care providers: a comparison of qualitative findings from Burkina Faso, Ghana and Tanzania. BMC Health Serv Res, 25:149.

Witter S, Fretheim A, Kessy FL, Lindahl A. K. (2012): Paying for performance to improve the delivery of health interventions in low- and middle-income countries (Review). The Cochrane Library

APPENDICES

APPENDIX I***: Health facility questionnaire***

INSTRUCTIONS

Answer all questions: Cycle or enter the number of appropriate answer in the space provided

Questionnaire number..... Name of Facility.....

S/N	Question	Option/response	code
Facility Description			
1	Level of health facility	Dispensary Health Centres Hospital	1 2 3
2	Type of health facility	Private Faith Based Organization Government	1 2 3
3	Number of health worker responsible for child immunisation	Enter number	
Background information			
4	Age in years	Enter number	
5	Sex	Female Male	1 2
6	Religion	Christian Muslim Other	1 2 3
7	What is your cadre	Medical attendant Nurse Clinician	1 2 3

		Medical Dr	4
Pay for performance in relation to the rate of child immunisation			
8	Have you attended any immunisation training	Yes No	1 2
9	Numbers of immunisation training attended annually	Enter number	
10	Is there any supportive supervision conducted in your facility	Yes No	1 2
11	Number of supportive supervision conducted quarterly	Enter number	
12	Have received any P4P incentives	Yes No	1 2
13	How many times your facility received P4P incentives	Enter number	
14	Are you motivated with P4P incentives to provide measles vaccine to the children under five years of age at you facility	Yes No	1 2
15	Are you motivated with P4P incentives to provide Polio dose 0 vaccine to the children under five years of age at you facility	Yes No	1 2
16	Are the P4P incentives influence you to conduct mobile and outreach services	Yes No	1 2

APPENDIX II**: Guide for In-depth Interview for Key Informant from CHMT and Facility in Charge**

Thank you for taking time to meet with me today. My name is Frank Jasper Lyimo a student at Mzumbe University. "I am conducting a study on the contribution of pay for performance on rate of child immunisation at Mkuranga health facilities"

I assure to you that the information provided will be in complete confidence, the information will be used for academic purposes and also I will share the findings with District authorities so that they can use the provided information in planning immunisation related activities. Neither your name nor information provided will be disclosed to anybody apart from research team.

This interview will take less than half an hour, I will be taping the session because I don't want to miss any information provided although, I will be taking some notes during the session. Note that, you are not forced to answer any question that you think you do not have to.

Do you have any questions before we begin? Yes or No

Signature.....

Question 1.

In your view can you tell me about pay for performance in relation to the rate of child immunisation?

Question 2.

What are the factors which influenced high rate of child immunisation?

Question 3.

What do you think could be the challenges of pay for performance project?