INFLUENCE OF AIDS, POPULATION, HEALTH INTEGRATED ASSISTANT (APHIA) PLUS PROJECTS ON IMPLEMENTATION OF ANTENATAL CARE SERVICE IN EMBU COUNTY

Evelyn Kanyiva Njeru
Master of Arts in Project Planning and Management, University of Nairobi, Kenya

Dr. Anne Wairimu Ndiritu
University of Nairobi, Kenya

Full Length Research

Available Online at:

http://www.iajournals.org/articles/iajispm_v2_i2_100_110.pdf

ABSTRACT

Antenatal care services are essential services that are provided to all women during pregnancy to ensure optimal health of women and their unborn babies and the care thereafter during childbirth and puerperium. The purpose of this study was to find out the influence of APHIA Plus projects on implementation of antenatal care services in Embu County. The objectives of this study included; to determine the influence of capacity building and training by APHIA Plus on implementation of antenatal services, the influence of adoption of Information Technology by AHIA Plus on implementation of antenatal care services and the influence of Monitoring and Evaluation services by APHIA Plus on implementation of antenatal care services in Embu County. A quantitative descriptive study design was adopted. The target population for this study included 126 staff working in 22 health facilities assisted by APHIA Plus. Simple random sampling method was used to obtain a sample size of 41 respondents. A standardized self-administered questionnaire was used to collect data from the respondents .Data collection was done by using questionnaires to the respondents who filled them. Data analysis was done with the help of SPSS version 16.0 and was presented by tables .The research findings revealed that implementation of antennal care services was influenced by different factors, for examples, in capacity building and training, 82.9% of the respondents reported that they had been trained on relevant programs that were related to Antenatal care services; In adoption of the Information Technology in the health facilities,53.1% of the respondents reported that they were able to use computers that were installed in their health facilities to type, store and dissemination data. The study findings revealed that Monitoring and Evaluation was done in the health facilities with 70.1% of the respondents reporting that the health facilities had monitoring guidelines for them to follow. However, majority, at 74.4% reported that Monitoring and Evaluation services had some challenges like lack of funds and knowledge on how to carry out such services. The study concluded that, to some extent, there was influence of capacity building and training, adoption of Information Technology and influence of Monitoring and Evaluation of .Antenatal care services .The study recommended that training of staff in relevant areas of working should continue, in order to improve work performance. Adoption of Information Technology should be improved and more staff to be trained on the technology and its use so as to improve communication .Monitoring and Evaluation as an ongoing activity must be implemented at all levels in the organization to ensure continuity and smooth running of activities, efficiency and effectiveness of services.

Key Words: *aids, population, health integrated assistant (APHIA) plus, antenatal care service, Embu County*

INTRODUCTION

Antenatal care services play an important role in ensuring a healthy mother and a baby during pregnancy and after delivery (MOH, 2013). The antenatal programs are designed to maximize good health outcomes, low maternal mortality, low postpartum anemia and infections and appropriate child birth weight (WHO, 2005). It is during this antenatal period and services that pregnancy, complications and risks associated with pregnancy are identified and appropriate referral or specialized case management is recommended (Down- zivin 2009). Pregnant women are given important information on danger signs during pregnancy, preventive and curative treatment, appropriate nutrition, breastfeeding and other feeding methods and family planning methods. Women also get opportunity to interact and establish a social relationship with the health care provider in preparation for child birth (Gitonga, 2011).

According to Kenya Demographic Health Survey (2010), antenatal services involve a minimum of four focused visits at specific times for all pregnant women, which include evidence based interventions such as screening for and treatment of conditions such as anemia, abnormal fetal lie, hypertension, diabetes, syphilis, malaria; counseling about diet, hygiene, HIV/AID, tuberculosis, tetanus immunization, birth plan and emergency preparedness and newborn care and feeding. Antenatal care services, for them to be effective must be facility based care that should be available around the clock at primary and referral sites to manage, acute and chronic problems and emergencies (WHO, 2005). These services require equipment, drugs, supplies and support such as transport and referral facilities for emergencies (Hollander,2006). However Heaman (2008) found that over 18 million African women give birth at home with no skilled care leading to risk of hemorrhages or death of their babies.

The main goal of APHIA Plus Health projects is to support the countries to realize its 2015 community strategy, a flagship program to reform Primary Health Care of which ANC is one of its components, in designing, implementing and evaluating the interventions that engage communities to promote health behaviors, (Chege 2011). APHIA Plus projects and programs support the counties to maximize their existing service delivery capacity, integrate maternal and child health among other services. APHIA Plus is financially supported by USAIDS together with other non-governmental organizations to help communities to improve their quality of care by strengthening health facilities at district levels and below with emphasis on improving health (Chege, 2011).

The government of Kenya has worked with APHIA Plus to enhance innovative activities such as mentorship and technical zonal meetings, capacity building of staff and infrastructure development so as to address the many interconnected health needs of the women. The staff of APHIA Plus work with district stakeholders and facility management teams and align interventions with provincial and district health plans (MOH 2011). APHIA Plus project best practices to enhance ANC services in health facilities include staff capacity buildings, particularly at grassroots community level, funding for infrastructure development and purchase of supplies and equipment, adoption and improvement of Information Technology,

effective monitoring and evaluation programs related to health services as well as planning for those services (Chege, 2011).

STATEMENT OF THE PROBLEM

Every year an estimated 529,000 women die from complications related to pregnancy (WHO, 2005) .More than 10 million children under five years die and out of this number, four million babies die before one month old (UNICEF, 2017). This figure does not include the four million babies who die in the last trimester of pregnancy. Sub-Sahara African countries carry the heaviest burden of maternal, newborn and child deaths. Studies have shown that there is a 1:16 lifetime risk of maternal deaths in Sub-Sahara Africa and newborn deaths on the continent accounts for almost 30% of the global total (MOH, 2013). According to recent analysis in the Lancet, cost effective, evidence based interventions and improved health care strategies could help upto 2/3 of these newborn and child death and maternal deaths as well as even in setting of high mortality and weak health system (Rosato, et al 2008). The same study revealed that such strategies and efforts are unsuccessful due to many challenges that are faced by health facilities. Magadi et al (2009) reported that 40% women who reported health complications were due to lack of qualified health personnel, poor accessibility to health facility and poor management in the health facilities.

Chege (2011) in an evaluation study to determine the utilization of the ANC services in Nyanza Province of Kenya, found that 30% of pregnant women do not complete required number of visits, some being reported to lack consistence in visits. MOH (2011) records revealed poor monitoring and follow up of women defaulters, poor maintenance of records and inadequate infrastructure within the health facilities .The Kenya government, through its counties has realized the impact brought by poor health facilities with less equipment, staff and poor communication systems to pregnant women and their children and supported ANC activities in all the counties (MOH 2011). Moreover to encourage antenatal women to attend the clinics as per health policies, the government has rendered free service to pregnant women (MOH, 2013). However, a study done by Gitonga (2013) in Kenya on the determinant of utilization of ANC services, revealed that the ANC utilization by pregnant women remains 68 – 72%, meaning that more has to be done to improve utilization of this vital service.

Hearman et al (2008) reported the importance of having improved .ANC services , especially when well-trained personnel are adequate to meet the demand of the clients and services rendered .According to Hearman et al (2008), women and babies who visited clinics at the appropriate schedules and are attended by health personnel experienced improved outcomes , fewer low birth weight babies, reduced need for neonatal intensive care and women reporting healthier babies in their first weeks of life compared with the controlled group. Similar finding were cited by KDHS (2013). An assessment done by AMREF (2011) in Nyanza Province of Kenya revealed that the country's ANC response in hampered by constraints such as poor co-ordination, lack of resources, unqualified staff and community involvement as well as family involvement and participation in ANC services, especially in rural areas. However, more effort to improve implementation of the services called for Global funds,

non-government agencies and other non-profitable organizations to intervene and develop programs that assist in improving the lives of people especially, women and children USAIDS(2012).The effort to utilize much funds doesn't guarantee effectiveness use of such services (Say & Raine, 2007). According to USAIDS (2012), greater co-ordination among the partners, the NGOs and other stakeholders must be made to ensure that resources are not wasted and actions not duplicated. Chege (2011) maintains that keeping of records for use of funds in implementation of ANC services must be improved .This can be done only through adoption of Information Technology, and effective Monitoring and Evaluation of services. In Kenya, IT services are poor especially in remote due to lack of electricity. According to KDHS (2011), about 40% of the total area has no electricity, meaning that if even computers can be available, IT services will be faced with challenges in communication.

GENERAL OBJECTIVE

The purpose of this study was to investigate on the influence of APHIA Plus Projects on implementation of Antenatal care services in Embu County, Kenya.

SPECIFIC OBJECTIVES

1. To determine the influence of capacity building and training by APHIA Plus on Implementation of Antenatal care services in Embu County.
2. To establish how adoption of information technology by APHIA Plus influences implementation of Antenatal Care Services in Embu County.
3. To establish how monitoring and evaluation by APHIA Plus influence implementation of Antenatal Services in Embu County.

THEORETICAL FRAMEWORK

According to Karuru (2011) a theoretical framework is a collection of interacted concepts, like a theory but not necessarily so well worked out. This study is based on Constraints theory. This theory is applicable in production planning, production control, project management and performance measurement (Blackstone, 2010) .Its main objective is to identify and detect problems that would arise from the process or system, so as to rectify or improve performance (Blackstone, 2010).

According to Rand (2000), Constraints theory is based on the facts that, like a chain with its weakest link, in any complex system at any point at a time, there is most often only one aspect of that system that is limiting its ability to achieve more of its goals. Blackstone (2010) maintains that, for a system to attain any significant improvement that whole system must be managed with it in mind.

According to Rand (2000), the Constraints theory has five steps namely: (1) Identify the system constraints; (2) Decide how to exploit the system constraints; (3) Subordinate everything else to the above decision; (4) Elevate the system constraints; and, (5) Go back to step 1 if in any previous steps constraints has been broken and do allow Inertia to cause a system constraint.

The main purpose of the project is to meet its goal and objectives. All managers must be focused on tasks that make up the project (Mullins, 2002). This has to be made possible if all the necessary resources to perform tasks are provided. Lack of provision of such resources make projects constrain and work become difficult to achieve, thus implementation of a services becomes either slowed down, stopped prolonged or in effective (Karuru, 2011)

RESEARCH METHODOLOGY

Research Design

In this study, the researcher used quantitative research design. Quantitative research is essentially about collecting numerical data to explain a particular phenomenon (Mugenda & Mugenda, 2003). This involved a descriptive study, in which the information was collected without changing the environment, a description of how the APHIA Plus projects influenced the implementation of Antenatal care services in Embu County. Through this design, the researcher was able to interact with the respondents through interview to collect necessary information, thus a relationship or association between APHIA Plus activities/projects and their influence on health in health facilities was also demonstrated.

Target Population

Target population refers to the entire group of individuals or objectives to which the research is interested in generalizing the conclusion (Wimmer & Dominick, 2011). According to Kothari (2006) a target population consists of members of a group or population under study .In this study, there are directly benefit from APHIA plus projects. There are 126 staff working in these facilities .therefore the target population for this study is 126 staff working staff. The table 3.3 illustrated healthy facilities and number of staff rendering ANC services.

Sampling Method

This section described the strategies that were used to identify the main categories of respondents for the study. A sample is a smaller collection of units from a population used to determine truths about that population (Field, 2005). In quantitative research, one attempts to select a sample in such a way that it is unbiased and represents the population from where it is selected (Kumar, 2011). The purpose of sampling in quantitative research is to draw inferences about the group from which one has selected the sample. Mugenda and Mugenda (2003) suggested that for a descriptive study, ten percent or above of the accessible population is enough for the study. The danger with smaller samples is that they do not reproduce the salient characteristics of the accessible population to an acceptable degree (Cohen, Marion and Morrison, 2011).

The four health facilities were selected by simple random sampling. In simple random sampling method, the entire population of (N=126) had equal chance of inclusion in the sample. According to Kothari (2006), random sampling follows the Law of "Statistical Regularity" that stated that if an average, the sample chosen is random one, then the sample will have the same composition and characteristics as that of the whole population. The four

health facilities were selected out of the total health facilities that had received assistance from APHIA Plus. They included Dallas Dispensary, Kirirtiri H/C, Runyenjes Hospital and Embu County Hospital.

Sample Size Determination

There were 43 staff working in the four randomly selected health facilities for this study. Using Krejcie and Morgan 1970 formula, a sample size of 41 respondents were realized as a sample frame.

Method of Data Collection

The data for this study was collected through questionnaires. The researcher intended to use this method because questionnaires were free from bias of interviewer and the respondents had adequate time to give well thought out answers (Mugenda and Mugenda, 2003). Data on issues like training of staff on ANC services, training and use of modern methods of Information Technology and information on Monitoring and Evaluation by APHIA Plus were also obtained.

Research Instruments

The research instruments were questionnaires which were given to the respondents in health sector, that is, the staff in the health facilities. According to Kothari (2006), a questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. The questionnaire consisted of both closed and open ended questions. Closed questions consisted of a fixed set of questions to be answered in a specified sequence and with a designated response options. Open ended questions provided participants with opportunities to reveal information in a naturalistic way. The questionnaire was divided into four sections. The first section comprised of the respondents bio-data questions whereas the remaining three comprised of variables which the researcher intended to research on. A total of 50 questionnaires were produced.

Data Analysis

The primary data collected was sorted, edited, coded and analyzed. This data quality checks eliminated errors or point of contradiction in data. The purpose of coding was to classify or arrange the question answers into meaningful categories so as to bring out their essential pattern. The researcher tabulated the quantitative data for each research question. This process gave a comprehensive picture of how the data looked like and assisted the researcher in identifying patterns. This was done by constructing frequency and percent distribution in order to determine if scores were entered correctly, scores were high or low, how many were in each category and the spread of the scores (Kothari, 2006). This was done using SPSS version 16.0. The SPSS helped to spot data entry errors or unusual data points. It had a full set of statistical tests, was easy to run similar reports and graphics for subsets and better output organization (Mugenda and Mugenda, 2003).

Ethical Consideration

These included respect for the respondents, confidentiality, trust, openness and carefulness among other issues. The respondents were informed of the purpose of the study and there were no names of the respondents required. Permission and clearance to carry out the research was obtained from National Commission for Science, Technology and Innovation. Letter of introduction to the area of the study was issued. Code numbers were used in the questionnaires to present both the respondent's name and that of the health facility.

RESEARCH FINDINGS

he study revealed that there is an influence on implementation of ANC services played by capacity building and training of staff. From the findings, majority of the staff interviewed (82.9%) were trained in areas that directly had impact on Antenatal care services. The same findings reveal that those staff who trained in the related course benefited from such trainings to some extent. This concurs with Obisi (2011), who stated that in any training, staff acquires knowledge and skills that enable them to work well in their areas of service. The staff revealed that such training had influence on implementation of antenatal services to a greater extent. This shows that any form of training directly related to a service is very important if an organization desire to increase its productivity. According to Mullins (2002), better services attracts customers, thus working staff need to be updated and trained from time to time in order to improve their services.

According to Chege (2011), Staff needs continuous education and training to remain more informed about new updates pertaining their service. Therefore it is very unfortunate for this element of training to be ignored and those who were left out and did not attend any course during their service need to be encouraged to do so. From the findings, the respondents reported that they had access to computers and spend some time using them. This meant that their facilities were equipped with some computers. Some respondents revealed that they were able to use computers for writing and sending e-mails, others for browsing and internet services. Generally computers are very important gadgets for storing and use of data in the current world.

According to Kabiru (2007) information, communication and technology should not be directed to the services alone but also through people's ability to use such technologies and services effectively to allow their dialogue to be heard and to learn to participate in community life. This explanation did not feature very well from the findings, however, majority of the staff were satisfied with computing system in their facilities.

Monitoring and Evaluation services are offered to access the performance of projects, or programs set up by the government, international organizations and non- government organizations. The study findings revealed that there were some form of monitoring and evaluation services in the health facilities. The study findings also revealed that majority of interviewed staff (92.7%) reported that they prepared progressive reports that they handed over to their managers. The study also revealed that once monitoring and evaluation report

were compiled, information was disseminated on the notice boards for feedback to the staff, while others were send to the donors and beneficiaries. This element of passing information about M&E to the managers, stakeholders and other beneficiaries is very important. WHO (2012) affirms that monitoring and evaluation of services is essential and can be used in future for project planning and development by the managers. According to Mulwa (2009), the success or failure of any service or project depend on consistence in M&E use because it is only in M&E that successes and failures and challenges in performance are realized and collective measure taken in order to complete a successive project.

CONCLUSIONS

The study found out that the implementation of antenatal care services was influenced by different factors. The factors included capacity building and training of staff, adoption of information technology and monitoring and evaluation of antenatal care services. To improve such services, the above factors should be taken seriously. As a result, this will ensure better and prompt services, competence among the staff hence quality management systems in health facilities where objectives and goals are achieved.

RECOMMENDATIONS

It is evident that capacity building and training of staff, adoption of information technology and monitoring and evaluation affect implementation of antenatal care services. To close on the gaps to further improve most of such services, the following are recommended:

Continuous training in relevant health sectors should be scheduled to ensure that every health professional is trained in relevant areas of services and according to the needs of that particular service. This will enhance knowledge and skills on the relevant jobs. Therefore the government should set aside some funds from the budget to enhance training of staff on value addition courses like such as leadership, communication, budget, M&E and IT to ensure effective service delivery according to the mission and vision of the institution.

Hospitals and other health facility to be supplied with enough computers which are of good quality to facilitate working, communication and storage of data. Those who are not computer literature must be trained on how to operate them, in order to embrace modern technology.

Monitoring and Evaluation is ongoing activity that must be implemented by all organizations and at all levels, therefore the government and county governments must ensure that funds are available for training staff on M&E and also for carrying out such services for effectiveness and efficiency of institutions or organizations.

REFERENCES

Chege. J. Askwe I. Mosery N. Ndube, Nxumalo M. & Kunene B. (2005). *Feasibility of introducing a comprehensive integrated package of ANC services in rural*

public clinics in South Africa. *Frontiers Final Report* Washington DC. Population Council.

Cohen, L, Mainion, L and Morrison K (2011). *Research methods in Education* Routledge New York.

Down-zivin L(2009). Still too far to walk Determination of delivery of ANC Service. BMC *Pregnancy and Childbirth*. 9(2) 35 -37

Field A. P (2005). *Discovering Statistics using SSPS,* London sage.

from http//www.scholarpedia.org/article/Theoryof constraints. 26th march 2013

Gitonga G. (2011) *Determinant of utilization of ANC services in Eastern Province of Kenya.* MOH. Pages 30-31.

Heaman M: Newburn C; Green C (2008). Inadequate prenatal care and its association with adverse pregnancy outcomes: a comparison of Indices: BMC. *Pregnancy & Childbirth:* 8-15.

Hollander D. (2003). Prenatal benefits improve birth outcome among working Mexican women. *International family planning perspective*. 23(2):94-95.

Karuru, R.N (2011). Determination of implementation of Antenatal care programs a case studied in South Imenti Meru. *East African Medical Journal* Vol (2) PP 270 – 273.

Kathori C.R (2006) *Research Methodology, methods and techniques*: New age International (P). India.

Kenya Demographic Health Survey, (2013)*Antenatal Services and prevalence*. Nairobi, MOH.

Kumar R (2011). *Research Methodology. A step by step guide for beginners.* Sage publications Ltd, England.

Magadi M. MadiseJ, Rodrignes N (2009) frequency and turning of ANC in Kenya exploring the variation between women of different communities, *Social Sciences andMedicine*.57(4) 557 -561

Ministry of Health (2013). *Free antenatal care services. Promoting livelihood of women*. MOH, Nairobi

Mugenda O.M and Mugenda ACG (2003). *Research methods. Quantitative and Qualitative Approaches.* Acts Press, Nairobi.

Mullin L.(2002)*Organizational management*. Oakland limited . New york.

Rand, G.K.(2000) Critical chain. Theory of constraints applied to project management. International journal of project management Retrieved from *http//www.scribd.com/doc/65967999.*

Rosato M, Laverack G; Grabman L; Tripathy P (2008). Community participation: Lessons for maternal newborn and child health. *The Lacet,*372, Issue 9642, 13-19, PP. 962-971.

Say, L. and Raine, R. (2007) A systematic review of inadequate in the use of maternal health care in developing countries: examining the scale of the problem and the importance of context. Bill *World Health Organization,* 85:812-819.

UNICEF (2003). Antenatal care in developing countries; Promises, achievements and missed opportunities. *An analysis of trends, levels and differentials,*1990-2001. Geneva Switzerland.

UNICEF (2011).*Child molarity in developing countries analysis of trends, levels and differentials 2008-2010* Geneva Switzland.

WHO (2005). *The World Health Report. Make every mother and child count*. World Health Organization, Geneva.

Winner, R. and Deninick, R (2011). *Mass media Research. An Introduction*. Gengage Learning. New York. USA.