TITTLE: THE IMMUNIZATION STATUS OF CHILDREN UNDER FIVE (5) YEARS IN EASTLEIHG, NAIROBI

A RESEARCH PROPOSAL SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF BACHELOR OF SCIENCE IN NURSING DEGREE OF THE UNIVERSITY OF NAIROBI

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DATE: SEPTEMBER, 2007
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LIST OF ABBREVIATIONS

AIDS-Acquired Immunodeficiency Syndrome
BCG-Bacillus Calmette Guerin
CDC-Centers of Disease Control
DRC-DEMOCRATIC REPUBLIC OF CONGO
DSA-Development Solutions for Africa
EPI-Expanded Programme on Immunization
GPEI-Global Polio Eradication Initiative
HMIS-Health Management Information System
KAP-Knowledge Attitude and Practice
KEPI-Kenya Expanded Programme on Immunization
KRCS-Kenya Red-Cross Society
M0H-Ministry of Health
MCH/FP-Maternal and Child Health and Family Planning
OPV-Oral Polio Vaccine
SONS-School of Nursing Sciences
UNICEF-United Nations Children’s Fund
UoN-University of Nairobi
WHO-World Health Organization
DECLARATION

I Wanyonyi F. Wekesa declare that this research proposal is my original work and has not been presented for award of any degree or diploma in any known institution.

Signature .................. Date 03/09/07
CERTIFICATE OF APPROVAL

The research proposal has been submitted for examination of the Degree of Bachelor of Science in Nursing with my approval as a University supervisor.

Signature .................................. Date 3rd September, 2007

MRS. E. ODHIAMBO
LECTURER, SONS, UoN.
ACKNOWLEDGMENT

I thank God the Almighty for having brought me this far. I express my sincere gratitude to all those who have contributed to the development of this proposal. I also wish to thank my supervisor, Mrs. E. Odhiambo, lecturers, colleagues (Jared), my brother (Nyongesa) and family for all the unwavering support.
CHAPTER ONE

BACKGROUND INFORMATION

Immunization is a major way of preventing the eight (8) deadly childhood diseases. Expanded Programme on Immunization (EPI) recommends that a child be immunized at the first contact with a health facility. A child is said to be fully immunized when he/she has received a dosage of Bacillus Calmette Guerin (BCG), four doses of polio vaccine, three doses of pentavalent and a dose of measles (Kenya Demographic Health Survey-[KDHS], 2003). Also a child is expected to receive vitamin A at six months then every six months up to five years.

Kenya Expanded Programme on Immunization (KEPI) has laid down the schedule of administering the vaccines. BCG and birth polio are given at birth, then oral polio vaccine (OPV₁) and pentavalent₁ given at six weeks. The other two doses of OPV and pentavalent are given at intervals of four weeks interval, that is, 10 and 14 weeks respectively. Measles vaccine is given at 9 months. Therefore a child is expected to be fully immunized at the age of 9 months (KDHS, 2003).

In Kenya the target is to immunize 80% of children in 80% of the districts in the first year of life. However, only 60% of children are fully immunized while 7% have received no immunization (KDHS, 2003). The low immunization rates have led to high mortality rates of 116 deaths per 1000 live births. Also only 40% of births in Kenya occur in health facilities. Children born at home are likely to miss birth vaccines (KDHS, 2003).

The immunization status of Pumwani district where Eastleigh is found was 58% in 2004 (Health Management Information System [HMIS], 2003-2004 report).
There have been many reasons leading to missed opportunities in immunization programmes and non completion of immunization. These missed opportunities have led to low immunization coverage which have resulted into outbreaks of preventable diseases hence the need to determine immunization status of a given region.

PROBLEM STATEMENT

The immunization coverage is above the target in most developed countries but way below the target in the developing countries. In Africa Gambia and Ghana have received 90% target of measles immunization while Central Africa and Nigeria routine immunization for measles is 35% and South Africa 83% (UNICEF, 2005). In Kenya there has been a drop in immunization coverage. In 1998, fully immunized children were 65%; BCG 96%, measles 79%, pentavalent 79% and polio 81% (KDHS, 1998) while in 2003, fully immunized was 60%, BCG 89%, measles 74%, pentavalent 74% and polio 76% (KDHS; 2003). Kenya experienced 1st phase mass measles campaign in April and May 2006 that was necessitated by the death of 41 people, mostly children and hundreds hospitalized due to measles outbreak(Kenya measles outbreak, 2/2006)

In case of an outbreak the countries economy is seriously affected due to cost involvement in the treatment and control of the disease. Also there is increased pressure on health facilities and parents especially mothers spend their time nursing the sick children in hospitals.

After the measles outbreak in Kenya, the virus genotype identification was carried out and it was found out that all but one of the six viruses collected from Nairobi were from patients from Eastleigh where the
outbreak had been reported in the Somali and Ethiopian communities (Shariff S. K; 2005). During the measles outbreak, other countries advised their citizens against visiting Kenya thus adversely affecting the tourism industry.

**JUSTIFICATION**

There have been recent outbreaks of polio and measles in some parts of Kenya. Eastleigh is one of the regions that was affected by measles in 2006. According to Kenya Red-Cross Society head of health and social services, Dr. James Kisia, the outbreak can be attributed to: low immunization coverage, high rate of malnutrition, illiteracy and laxity among parents to take their children for immunization. It has also been partly blamed on increase in number of unvaccinated visitors from the neighboring countries (Kenya measles outbreak, 1/2006). Eastleigh is one the estates inhabited by people from Somalia hence the need to determine the immunization status in this estate. Ministry of health (MOH) organized a massive immunization campaign after these outbreaks. However the campaign was met with some resistance in Eastleigh where a health worker was assaulted during polio immunization in March 2007. Other countries including Kenya and Somalia have recently reported imported polio cases or cases related to an importation in the past 6 months (Centre of Disease Control, CDC traveler’s health, 2006).
OBJECTIVES

Main
To determine the immunization status of children under 5 years in Eastleigh, Nairobi

Specific
1. To determine the rate (%) of missed opportunities
2. To find out the characteristics of parents/guardians whose children are not immunized
3. To determine Knowledge, Attitude and Practice (KAP) of parents/guardians on immunization.

STUDY QUESTIONS

1. What is the immunization status of children in Eastleigh, Nairobi?
2. What factors contribute to missed opportunities?
3. What is the KAP of parents/guardians on immunization?

EXPECTED BENEFITS

The findings will help MoH in planning for massive immunization on specific national immunization days. Health workers will use the findings in organizing for health education to address the factors leading to missed opportunities.
CHAPTER 2
LITERATURE REVIEW

Immunization being one the elements of primary healthcare, most countries are working hard to achieve the highest immunization coverage possible. However, many countries have not yet achieved their targets.

IMMUNIZATION STATUS WORLDWIDE

Measles alone account for 1 million preventable deaths worldwide each year. Every year, 130 million children are born, 91 million of them in developing countries but almost 30 million have no access to immunization (WHO, 2001).

It has been documented that in some countries the benefits of immunization have not been equitably distributed and about half of the children who begin immunization drop out before completion due to problems with demand, supply, satisfaction, quality and inaccessibility of services.(Global HEALth, 2003)

In a study carried out in 27 countries (18 in Africa, 8 in Asia and 1 in America) during 2002-2003, it was found out that all countries had weaknesses in their monitoring systems; these included inconsistent use of monitoring charts, inadequate monitoring of vaccine stocks, injection supplies and adverse events. There was also poor monitoring of completeness and timeliness of reporting. All these hamper their ability to manage their immunization programmes (Ronveaux o. et al, 2005)
According to the global polio eradication initiative (GPEI) only four countries i.e. Nigeria, India, Pakistan and Afghanistan remain polio endemic and all time low.

Some countries including Angola, Bangladesh, Cameroon, Chad, Ethiopia, Kenya and Somalia have recently reported imported polio cases or cases related to an importation in the past 6 months (centre of disease control CDC traveler’s health, 2006)

IMMUNIZATION STATUS IN AFRICA

The immunization status is below the target in most African countries. This low immunization coverage has been associated with various factors.

In a study done in Cameroon, Hugh R. Waters et al found out that financial difficulties, vaccine supply disruptions and alteration of the cold chain were causes of the decline in immunization coverage. (Hugh R. Waters et al, 2004)

In Uganda, full immunization coverage was 38% in 2001. The low coverage was attributed to lack of knowledge about immunization schedules, confusion about national immunization days, poor attitude towards immunization, fear that vaccine may cause AIDS, health workers rudeness and mistrust and parents feeling that preventable diseases are rare in Uganda. (Uganda demographic health survey)

In a study on impact of emergency mass immunization on measles control in displaced population in Gulu district, northern Uganda, it was concluded that in similar situation, supplemental mass measles immunization should be focused on internally displaced population camps with a wide age group in addition to improve routine immunization activities in the entire district. According to WHO/UNICEF joint statement, reducing measles in emergencies 2004, “Well planned
immunization activities have proved to be highly successful in reducing measles morbidity and mortality in complex emergencies, "as quoted by P. Onek and H. M Babikako in their study (P. Onek and HM Babikako, 2005).

IMMUNIZATION STATUS IN KENYA
The target is to fully immunize 80% of children in 80% of the districts in the first year of life. However, only 60% of children are fully immunized (KDHS, 2003). The utilization of maternal child health (MCH) services are low according to M. O. Audo and P. K. Njoroge. This is attributed to the perceived poor quality of care. The perception is influenced by person's socioeconomic status (M. O. Audo and P. K. Njoroge, 2005). In another related study, it was discovered that the utilization of MCH/FP was low in Nairobi city council health faculties (Development Solutions for Africa, 2002). The underutilization of MCH/FP services might contribute to low immunization coverage. The low immunization coverage has been associated with many factors such as; mothers' age, low level of education and relatives lack of knowledge on immunization, (N. Kamau and F. O. Esamai, 2001). Others include long distances to the nearest health facilities, lack of staff, failure to immunize daily, myths about immunization and health workers attitudes (R. M. Omutanyi and M. A. Mwanthi, 2001).

In a study carried out in six health facilities predominantly serving the slums of Nairobi it was found out that missed opportunity rate was 3%. The researcher recommended that routine supervision be strengthened in order to minimize missed opportunities and inappropriately administered vaccines (Borus P. K, 2004).
CHAPTER THREE

MATERIALS AND METHODS

Study Design
This will be a descriptive cross-sectional study aimed at establishing the immunization status of children under 5 years in Eastleigh, Nairobi.

Study Area
This study will be conducted in Eastleigh, Nairobi, which is found in eastern part of Nairobi. It is divided into three sections, i.e. section I, II and III. Eastleigh is in Nairobi north district, Pumwani division and is approximately 10 km from the city centre. It has a population of about 55,000. It is a middle class estate. It was originally a large Kenya-Asian enclave until independence. Currently, it is majorly inhabited by Kenyans, Ethiopians and Somalis. Some refugees from Somalia have found their refuge in the estate until it has been nicknamed “Little Mogadishu.”
Most residents engage in business as the major economic activity (Campbell, 2006).

Study population
Children under 5 years and their parents/guardians.

Inclusion Criteria
All parents/guardians above 16 years who consent who have stayed in Eastleigh for at least 6 months.