

Factors Influencing Low Vaccination Coverage among Children under One year in Kandahar city Kandahar Province of Afghanistan

Project/Assignment submitted in partial fulfillment of the requirement for
the award of the degree of Master of Public Health

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CERTIFICATE

Department of Public Health Maulana Azad University, Jodhpur Certificate [undersigned certify that the dissertation “factor influencing low vaccination coverage among under one year children of Kandahar city / Kandahar Province of Afghanistan is a record of the research work undertaken by Dr. Abdul Rahman Jawad”, in partial fulfillment of the requirement for the award of the degree of Master of Public Health under my guidance and supervision.

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DECLARATION

I hereby declare, that this assignment is completed by me under the direct supervision of my co-Guide and that I have appropriately cited all materials. It has not been submitted to any other university or institution for the award of any degree or Diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Best Regard

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Acknowledgment

All glory is to Allah Almighty, The Superior and The Sovereign. who enabled me to undertake study on Factors influencing low vaccination coverage among children under one year in Kandahar city / Kandahar Province of Southern region Afghanistan. Firstly, | would like to express my sincere gratitude to my site supervisor Dr. Mohammad Sarwar Ferozi for the continuous support of my MPH study and related research, for their patience, motivation, and immense knowledge.

Besides my colleagues, | am extremely thankful and indebted to my professors at

Jodhpur School of Public Health(JSPH) Maulana Azad University, Ms. Bhawna sati Assistant Professor Dr. Abhishek Lohra Assistant Professor for sharing their expertise, sincere and valuable guidance and encouragement extended to me during this period. | could not have imagined having a better tutor than them to complete my assignment.

Last but not least, | would like to thank my family and organization(WHO) for supporting me spiritually throughout my studies and writing this thesis and my life in general.

ABBREVIATIONS

REMT: Regional EPI Management team

PEI: Polio eradication initiative

MoPH: Ministry of public health

EPI: Expanded Program on Immunization

BCG: Bacille Calmette Guerin

DPT: Diphtheria Pertussis Tetanus

TT: tetanus toxin

DT: Diphtheria, tetanus vaccine

Hep A: Hepatitis A vaccine

HepB: Hepatitis B vaccine

MMR: Measles, mumps, and rubella vaccine

CDC: United States Centers for Disease Control and Prevention

OPV: Oral polio vaccine

IPV: inactivated polio vaccine

HPV: Human papillomavirus vaccine

PCV13: Pneumococcal 13-valent conjugate vaccine.

RT: Rota vaccine.

WHO: World Health Organization

UNICEF: United Nations Children's Fund

HFs: Health facilities.

CHWs: community health worker.

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Title

Factors Influencing Low Vaccination Coverage among Children under One year in Kandahar city Kandahar Province of Afghanistan

Back ground:

Immunization is one of the most cost effective public health interventions, saving millions of lives and averting illness and disability among children. as a direct result of immunization, polio is on the verge of eradication and 31 of the 59 high risk countries for maternal and neonatal tetanus have eliminated the disease through tetanus toxoid vaccination. For other diseases such as measles, deaths have drastically reduced; for example, deaths from measles have reduced by 75% from 2000 to 2013 worldwide, meaning 15.6 million deaths were averted. In addition to lowering child mortality, immunization programs have improved the primary care infrastructure in developing countries and empowered women to better plan their families, with consequent health, social and economic benefits.

But immunization is yet to realize its full potential, largely because success of an immunization program depends on high rates of acceptance and coverage. By the end of 2014, 18.7 million children under the age of 1 year had not received three doses of diphtheria-tetanus-pertussis (DPT3), a combination vaccine against three infectious diseases in humans (diphtheria, pertussis or whooping cough, and tetanus). Three quarters of children who have not received DPT3 coverage are living in 15 countries, including Afghanistan. Global polio eradication efforts have made important headway

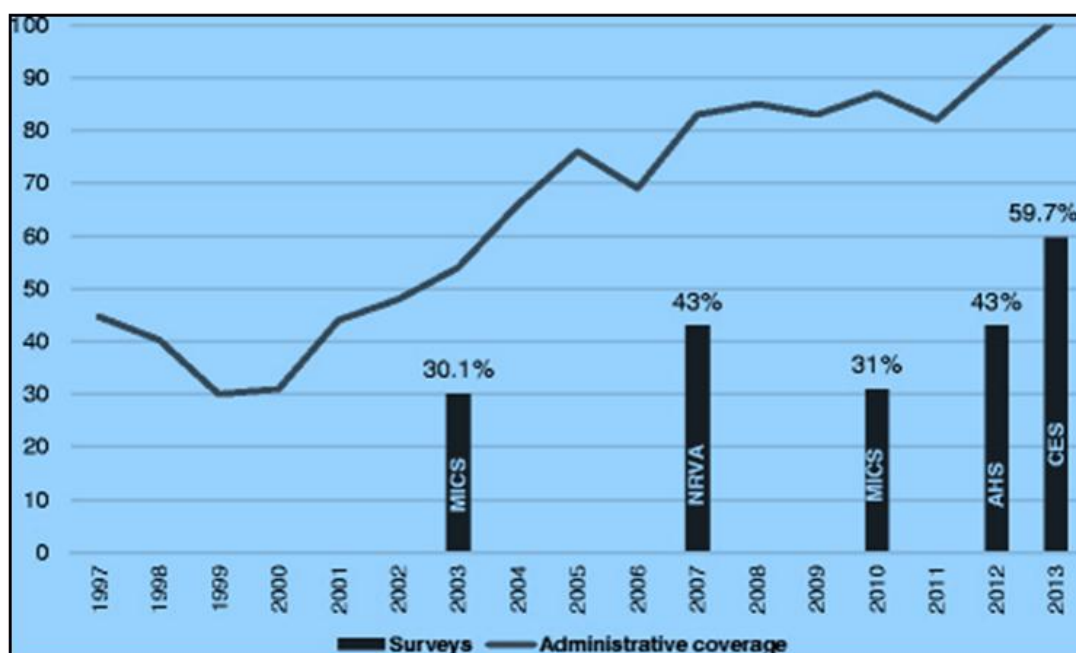
and now polio is endemic in only two countries Afghanistan and Pakistan.

Despite progress in recent years, Afghanistan is lagging behind in realizing the full potential of immunization. In addition, maternal and neonatal tetanus continues to threaten the lives of mothers and children polio is still endemic, and measles outbreaks continue especially among groups of internally displaced persons (IDPs). In spite of significant reductions over the past decade, the mortality rate of children under 5 years of age continues to remain high at 91 per 1000 live births.

It is important to consider the history and contextual challenges in delivering child vaccinations in Afghanistan. The immunization program in Afghanistan was launched in 1978 under the name of “Mass Immunization Program” through the Ministry of Public Health (MoPH) and was then gradually expanded with the aim of universal immunization coverage throughout the country. Conflict in the late 1970s had a negative impact on immunization and the program was further disrupted in 1999 under the Taliban regime, along with several other health services. In 2001, the MoPH of the new interim authorities had the enormous challenge of building the health care system from scratch. The maternal mortality ratio was estimated at 1600 maternal deaths per 100,000 live births in 2002, at that time the highest in the world, the infant mortality rate and under five mortality rate were 96 and 137 per 1000 live births respectively. Only 8% of infants received DPT3 vaccination in 2004. With an estimated population of 27.6 million and an annual population growth rate of 2.0%, children under 5 years of age account for 20% of the population. In addition to being heavily dependent on external aid and having weak governance, the health sector also faces the challenges of armed conflict, natural disasters, and internal displacement of an estimated 1.2 million people. Ongoing conflict continues to cause widespread disruption to health services.

While improvements in vaccination coverage are documented, there are large discrepancies between the reported administrative coverage, individual survey results, and WHO/UNICEF estimates. Administrative data indicates that the immunization coverage for all antigens in Afghanistan has been increasing since 2001 though is inconsistent with other estimates. For example, DPT3 was estimated at 48% coverage in 2002 and increased to 101% based on CSO data in 2013. Frequent outbreaks of measles during the past two to 3 years also put the administrative coverage under question. While the administrative data shows high rates of coverage, the Multiple Indicator Cluster Survey (MICS) 2010 showed DPT3 coverage of 31% and full immunization coverage of 16%.

One of the important shortcomings for calculating immunization coverage in Afghanistan is the absence of accurate population data and therefore the number of target children. The last census held in the country was in 1979. For the last 35 years, the Central Statistics Organization is using projected figures and there is a high degree of uncertainty for figures available. Coverage levels for immunization are derived from administrative data and population estimates; wide-ranging population estimates present an enormous challenge for planning the immunization program in Afghanistan.



Therefore, the MoPH, with support of UNICEF, developed and conducted a nationwide coverage evaluation survey to obtain reliable estimates of national and provincial level coverage of individual antigens and full immunization coverage. This paper presents the results of this survey along with an analysis of the challenges and solutions in scaling up immunization services in Afghanistan.

The survey aimed to estimate the levels of immunization coverage at sub-national (province, city) levels. The specific objectives of the survey are to: establish valid baseline information to enable the monitoring of progress of the immunization.

More than 95% of the 14 million deaths of children under 5 years old around the world occur in developing countries. Moreover, at least 70% of these deaths are due to diseases that can be prevented by vaccination. Of 165 countries where immunization coverage data are available, 20% have failed to achieve 80% coverage of Diphtheria-Pertussis-Tetanus (DPT) immunization for infants. Moreover, 10% of these countries have failed to achieve even 50% coverage. Afghanistan is one such country, which has not achieved reasonable coverage of infant immunization. (Mashal, Nakamura, Kizuki, Seino, & Takano, 2007).

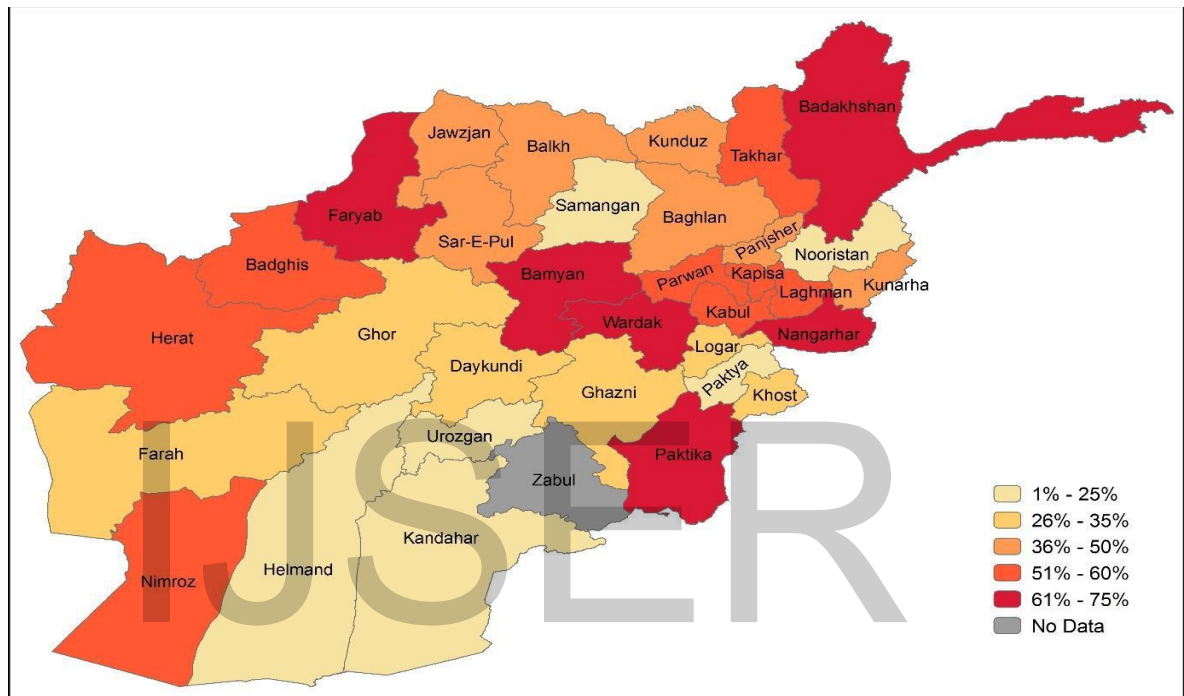
Services under the Expanded Program on Immunization (EPI) were initiated in 1978 in different parts of Afghanistan, mostly in urban areas. Until 2006, the program included vaccines against six diseases (tuberculosis, polio, diphtheria, pertussis, tetanus, and measles). Hepatitis B, Hib (Homophiles influenza type b), and PCV (pneumococcal conjugate vaccine) vaccines were introduced into the routine schedule in mid-2006, 2009, and 2013 in sequence (MoPH 2011). In August 2014, a zero dose of Hep B vaccine was initiated to be administered to newborns during the first 24 hours of life.

In Afghanistan, the target group for routine immunization is children under age 1,

however children up to age 23 months will not be refused vaccinations when brought to a health facility (except for BCG, which is administered only to children less than age 1). The same age groups are targeted during outreach activities. At age 18 months, a second dose of measles vaccine is recommended.(Survey, 2015)

Urban children are more likely than rural children to have received all basic vaccines (53% versus 43%).

At the provincial level, coverage with all basic vaccinations was highest in Paktika (75%), Badakhshan (72%), and Wardak (71%) and lowest in Nooristan (1%), Urozgan (2%), Paktya (16%), and Kandahar (16%).



Children are more likely to receive all basic vaccinations if their mothers have more than a secondary education (65%) than if their mothers have only a primary education (55%) or no education at all (42%).

The economic situation of households is directly related to vaccination coverage. Children belonging to households in the highest wealth quintile are most likely to receive all basic vaccinations. Vaccination coverage among younger children (age 12-23 months) is higher than coverage among children age 48-59 months, indicating that there has been an improvement in coverage over time. For instance, 38% of children age 12-23 months received all basic vaccinations, as compared with only 22% of children age 48-59 months.(AFDHS Survey, 2015)

Expanded Program on Immunization (EPI)

Situation update:

Immunization plays a pivotal role in reducing mortality and morbidity from vaccine-preventable diseases in Afghanistan. The Ministry of Public Health (MoPH) has strengthened its commitment for improving people's access to immunization services.

Over the past years, cold chain capacity has expanded, new life-saving vaccines have been introduced, vaccination coverage has expanded for traditional and new and under-utilized vaccines, and immunization is among the government’s top health priorities. However, overall immunization coverage remains low with disparities throughout the country, particularly between rural and urban areas and secure and insecure zones. Among children under five, the most vulnerable are those living in hard-to-reach communities.

Services under the Expanded Program on Immunization (EPI) were initiated in 1978 in different parts of Afghanistan, mostly in urban areas. Until 2006, the program included vaccines against six diseases (tuberculosis, polio, diphtheria, pertussis, tetanus, and measles). Hepatitis B, Hib (*Homophiles influenza* type b), and PCV (pneumococcal conjugate vaccine) vaccines were introduced into the routine schedule in mid-2006, 2009, and 2013 in sequence (MoPH 2011). In August 2014, a zero dose of HepB vaccine was initiated to be administered to newborns during the first 24 hours of life.

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Table :1

Childhood vaccination schedule in Afghanistan-2018

SN	Age	Vaccine (Type)
1	Birth (0–11 Months)	
2	Birth (as soon as possible within two week of life	OPV0, BCG,HB
3	6 Weeks	Pentavalent 1, OPV1,PCV1,Rota1
4	10 Weeks	Pentavalent 2, OPV2,PCV2,Rota2
5	14 Weeks	Pentavalent 3, OPV3,PCV3,IPV
6	9 Months	Measles1, OPV4
7	18 Months	Measles2,OPV5

Purpose of the study

- To Identify factor influencing low vaccine coverage among under one year children in Kandahar city of Kandahar province Afghanistan.
- To understand socio economics factor which effecting routine EPI coverage among under one year children’s.

Objectives:

- Primary objective:
 - To describe factors affecting low vaccine coverage among under one year children in Kandahar city.
- Secondary objectives:
 - To describe personal factors affecting low vaccine coverage (literacy rate, socio economic condition, knowledge, beliefs and attitudes).
 - To determine the factors which are influencing access and utilization of health services.
 - By end of this study I will determine the socio economic situation effects on low Routine EPI coverage.

INTRODUCTION & LITERATURE REVIEW

1.1. Introduction:

Vaccination is one of the major contributors to public health. It has eliminated some of the most dreaded childhood diseases, such as polio, from all over the world except in a few countries [1]. Childhood immunization is considered one of the most important health indicators of a healthy childhood. It assures protection from major childhood diseases, is estimated to prevent millions of deaths and cases of disability worldwide, and is therefore considered beneficial by the scientific community. (Siddiqa Bugvi et al., 2014)

Based on WHO/UNICEF (2008) report, global immunization coverage continues to increase dramatically. Global data shows that infants less than one year of age immunized with DPT, (the three doses of the combined vaccine against diphtheria, pertussis and tetanus) increased from 20% in 1980 to 79% in 2006. The percentage of children immunized with three doses of polio vaccine in 2006 rose from 22% in 1980 to 80%. Global coverage for measles increased from 16% in 1980 to 80% in 2006. However, these increases are still falling short of the 2010 target of 90% set by WHO/UNICEF Global Immunization Vision and Strategy. It is argued that further increases in coverage of DPT, Polio and Measles would save millions of infant lives. (Wyk, 2010)

By 2000, the following vaccinations were scheduled for children before the age of 12 months: one dose of Bacillus Calmette-Guerin (BCG) at birth or on first contact by a health worker, three doses of DPT (DPT1, DPT2 and DPT3) beginning from 6 weeks of age and at 4-week intervals, three doses of oral polio vaccine (OPV1, OPV2 and OPV3) according to the same schedule as DPT and one dose of measles vaccine at the

age of 9 months.(Mashal et al., 2007) In 2003, the following organization were responsible for planning, secure supply and logistics, monitoring activities by collecting data regarding implementation, supervision to maintain quality of service and financial management: one National EPI Office at Ministry of Public Health, 7 regional EPI Management Teams, and 32 provincial EPI Management Teams in collaboration with the World Health Organization (WHO) and United Nations Children's Fund (UNICEF). A total of 722 EPI centers in 331 districts acted as direct providers of immunization services. According to the national guidelines, the administration of all scheduled vaccines is carried out by these centers, which includes standard service of fixed (within-center, two days per week) and outreach (somewhere in the community, four days per week) activities.(Mashal et al., 2007)

1.2. Literature review

Globally, according to WHO, immunization interventions have proven to be a success across the globe and today reach out to over 100 million children and prevent 2.5 million deaths per year. As new global health paradigms emerge, fresh perspectives and priorities are emerging in the field of immunization as well. Universal immunization coverage is an important element of universal health coverage to achieve the MDGs by 2015. Despite improved vaccination coverage there are rising inequities amongst different population groups that need to be addressed for a more meaningful success. There are at least ten new antigens now available that can be added to the traditional EP interventions including vaccines against Hepatitis B, Rotavirus, Japanese Encephalitis, Human Papilloma Virus etc. Several countries are now moving beyond the traditional target population of infants and pregnant women to include adolescents and adults. WHO expects that by 2015 immunization should contribute to reducing approximately 25% to the reduction in child mortality.²(Child, 2013)

The Global Vaccine Action Plan (GVAP) is a framework adopted by all the World Health Organization (WHO) Member States at the Sixty-fifth World Health Assembly in May 2012 to achieve the vision of the Decade of Vaccines (DoV) 2011–2020 of “a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases”.¹ The GVAP’s mission is to “improve health by extending by 2020 and beyond the full benefits of immunization to all people, regardless of where they are born, who they are, or where they live”.(Child, 2013) Global vaccine action plan 2017.

WHO and its immunization partners have identified a set of activities to accelerate the introduction of new life-saving vaccines. WHO maintains a global new and under-utilized vaccines action plan, which provides a platform for coordinating the activities of global partners related to the introduction of vaccines in countries that need them most. Decisions on implementing new and underutilized vaccines require scientific evidence and data, a reliable supply of affordable vaccines, which are adapted to the country’s immunization schedule, and an integrated disease monitoring and surveillance system. Work has begun on the implementation of this action plan,

including the development of strategic options to support the introduction of more expensive new vaccines in low middle-income countries.(Philippe, Jean-Marie, Marta, & Thomas, 2009)

Vaccine costs in the developing world have grown from, US\$1/child in 2001 to about \$21 for boys and \$35 for girls in 2014, as more and costlier vaccines are being introduced into national immunization programs. To address these and other challenges, additional efforts are needed to strengthen 8 critical components of routine immunization: (1) policy, standards, and guidelines; (2) governance, organization, and management; (3) human resources; (4) vaccine, cold chain, and logistics management; (5) service delivery; (6) communication and community partnerships; (7) data generation and use; and (8) sustainable financing.(Shen, Fields, & McQuestion, 2014)

Kenya, about 23.2 million children remained unvaccinated of which 15.3 million (65%) are from eight countries in Africa. The complete immunization coverage in Kenya in 2003 was 57 % and this rose gradually in 2007 to 77%. However, an estimated 35% of new-born had not been immunized in 2006, translating to 0.5 million unvaccinated children in the country. Notwithstanding, very low immunization coverage remains a challenge in some Counties such as East Pokot Baringo County at about 25% and factors influencing low coverage are unknown.(Elizabeth, George, Raphael, & Moses, 2015)

A cross sectional population study was undertaken between January 2014 and March 2015 to determine the factors influencing low immunization coverage. Simple random sampling was used to select respondents. Data was collected using pretested structured questionnaires through house to house visits and analyzed using Epi info version 7 statistical software. Prevalence odds ratio was used to establish association of relevant factors with immunization coverage. Statistical significance was defined at p 0.05. Complete immunization coverage was 23%. Coverage for specific vaccines was; BCG (82%), OPV0 (34%), OPV 1(68%), OPV2 (62%), OPV3 (55%), DPTHepB1 (67%), DPTHepB2 (61%), DPTHepB3 (55%), Measles (46%). Predictors of full immunization possibly included number of children within the family, Knowledge of immunization schedule, Literacy level, place of birth of the child, nomadic lifestyle, economic status and the distance to the nearest health facility. Complete immunization coverage is low. Efforts to improve vaccination coverage must take into account the immunization determinants found in this study. There is need to focus on strengthening of awareness strategies, increasing the number of health

Facilities with Health workers and strengthening integrated outreach services.(Elizabeth et al., 2015)

Sudan: Sudan's Triple Capital (Khartoum, Khartoum North and Omdurman) has experienced exceptionally rapid urban growth over the past few decades, but this growth has not been matched by improvements in the delivery of health services. Also, due to war and a lack of stability in some parts of the country, Khartoum was subjected to massive immigration and displacement of people (the majority children and women) from remote areas of the country, mainly the south (before the North-South peace agreement) and the west. Displaced people settled mainly in the peripheral rural areas of the state, which already were underserved with health

services compared to the central urban areas. Health services had also declined due to population growth, leading to unsatisfactory and unequal geographic- cal distribution of healthcare facilities and personnel.

by war.(Ah & Jam, 2007)

The study was a cross-sectional survey among a representative sample of 410 male and female children under five years of age from households with varying socio-economic status and mothers with varying levels of education, from both urban and rural localities in the state.(Ah & Jam, 2007)

The correct vaccination coverage rate for children was found to be high. Children in urban and rural areas differed substantially in their correct vaccination rates and their receipt of each vaccine separately. Walking or travelling time to the place of vaccination was found to be longer in rural areas when compared with urban areas. The vaccination rate increased with an increase in the age of the children and the education level of the mother. Children of older mothers were more likely to have had the correct vaccinations. The mothers' knowledge of and attitudes to vaccination showed a strong relationship with the vaccination status of their children. When the coverage rate for each vaccine was taken separately, the economic level of the households significantly affected only the BCG vaccine coverage. Most vaccinations occurred in public outlet agencies.(Ah & Jam, 2007).

Finally, there was The large differences found in vaccination coverage by place of residence and level of mother's education suggest that much greater efforts are required by the government if better rates of correct vaccination are to be achieved in rural areas.

Ethiopia: The survey was cross sectional by design and used a multistage cluster sampling procedure. A total of 1,927 mothers with children of 12–23 months of age were extracted from the children's dataset. Mothers' self-reported data and observations of vaccination cards were used to determine vaccine coverage. An adjusted odds ratio (AOR) with 95 % confidence intervals (CI) was used to outline the independent predictors.(Lakew, Bekele, & Biadgilign, 2015)

The prevalence of fully immunized children was 24.3 %. Specific vaccination coverage for three doses of DPT, three doses of polio, measles and BCG were 36.5 %, 44.3 %, 55.7%and66.3%, respectively. Thematic variable analysis showed that sources of information from vaccination card [AOR 95 % CI; 7.7 (5.95-10.06)], received postnatal check-up within two months after birth [AOR 95 % CI; 1.8 (1.28-2.56)], women's awareness of community conversation program [AOR 95 % CI; 1.9 (1.44-2.49)] and women in the rich wealth index [AOR 95 % CI; 1.4 (1.06-1.94)] were the predictors of full immunization coverage. Women from Afar [AOR 95 % CI; 0.07 (0.01-0.68)], Amhara [AOR 95 % CI; 0.33 (0.13-0.81)], Oromiya [AOR 95 % CI; 0.15 (0.06-0.37)], Somali [AOR 95 % CI; 0.15 (0.04-0.55)] and Southern Nation and Nationalities People administrative regions [AOR 95 % CI; 0.35 (0.14-0.87)] were less likely to fully vaccinate their children.(Lakew et al., 2015)

Bangladesh, Data from the 2004, Bangladesh Demographic and Health Survey (N= 3530) was used. The data was analyzed using descriptive and multiple logistic regression methods. Approximately 60% of the children in rural Bangladesh were fully immunized. The full vaccination rate increased with an increase in the previous

birth interval and the education level of the mother. Women with the highest wealth index were significantly more likely to fully immunize their children. Distance from health facility, parity, mother's age, mass media, children's sex and tetanus toxoid injection were also significantly positively associated with full vaccination.(Rahman & Obaida-Nasrin, 2010)

Finally, in this study Findings reflect that, irrespective of need, only children from higher economic or educational groups can afford to be fully vaccinated in rural Bangladesh. In other words, predisposing, enabling and need factors appear to have a strong association with full immunization coverage.(Rahman & Obaida-Nasrin, 2010).

India: A community based, cross-sectional study was conducted in the urban slums of Bijapur city, India. Out of the 20 slums enlisted according to the Bijapur Slum Board, 7 slums were chosen by convenience sampling and house to house survey was done. The study was carried out over a period of two months (October and November, 2011). All mothers/ responsible guardians of children aged 12-23 months were included in the study. After explaining the purpose of the study to the mothers/ responsible guardians, oral consents were taken. Mothers/responsible guardians who did not give consent were excluded from the study. Information regarding knowledge, attitude and practices was collected by using semi-structured proforma. Reasons for non-immunization as per the mothers' reports were recorded. (Angadi, Pulikkottil Jose, Udgiri, Masali, & Sorganvi, 2013)

The data on getting one dose each of BCG and measles; three doses of DPT/ OPV were collected. Hepatitis B vaccine history was excluded, as it was included in the national immunization schedule only in 2010-2011. Accuracy of immunization data was improved by checking the immunization cards, and when cards were unavailable, mothers' reports on children having been given/not been given a vaccine was recorded.

A total of 155 children in the age group of 12 to 23 months were included in the study. This sample included 78 boys and 77 girl children. A vast majority of the mothers were housewives (85.16%) and 50.32% were illiterate(Angadi et al., 2013)

The conclusion for this study was that Conclusion: Immunization coverage in the urban slums of Bijapur is still way short of the 85% coverage mark. A lack of information and motivation among the parents is the main reason for this dismal scenario that needs to be rectified at the earliest

Pakistan, only 59-73% of children 12-23 months of age are fully immunized. This randomized, controlled trial was conducted to assess the impact of a low-literacy immunization promotion educational intervention for mothers living in low-income communities of Karachi on infant immunization completion rates.(Owais, Hanif, Siddiqui, Agha, & Zaidi, 2011)

Three hundred and sixty-six mother-infant pairs, with infants aged ≤ 6 weeks, were enrolled and randomized into either the intervention or control arm between August - November 2008. The intervention, administered by trained community health workers, consisted of three targeted pictorial messages regarding vaccines. The

control group received general health promotion messages based on Pakistan's Lady Health Worker program curriculum. Assessment of DPT/Hepatitis B vaccine completion (3 doses) was conducted 4-months after enrollment. A Poisson regression model was used to estimate effect of the intervention. The multivariable Poisson regression model included maternal education, paternal occupation, ownership of home, cooking fuel used at home, place of residence, the child's immunization status at enrollment, and mother's perception about the impact of immunization on child's health.(Owais et al., 2011)

Baseline characteristics among the two groups in this study were similar. At 4-month assessment, among 179 mother- infant pairs in the intervention group, 129 (72.1%) had received all 3 doses of DPT/Hepatitis B vaccine, whereas in the control group 92/178 (51.7%) had received all 3 doses. Multivariable analysis revealed a significant improvement of 39% (adjusted RR = 1.39; 95% CI: 1.06-1.81) in DPT-3/Hepatitis B completion rates in the intervention group.(Owais et al., 2011)

At the result of this study a simple educational intervention designed for low-literate populations, improved DPT-3/Hepatitis B vaccine completion rates by 39%. These findings have important implications for improving routine immunization rates in Pakistan.

Afghanistan:

Services under the Expanded Program on Immunization (EPI) were initiated in 1978 in different parts of Afghanistan, mostly in urban areas. Until 2006, the program included vaccines against six diseases (tuberculosis, polio, diphtheria, pertussis, tetanus, and measles). Hepatitis B, Hib (Homophiles influenza type b), and PCV (pneumococcal conjugate vaccine) vaccines were introduced into the routine schedule in mid-2006, 2009, and 2013 in sequence (MoPH 2011). In August 2014, a zero dose of Hep B vaccine was initiated to be administered to newborns during the first 24 hours of life.

In Afghanistan, the target group for routine immunization is children under age 1; however, children up to age 23 months will not be refused vaccinations when brought to a health facility (except for BCG, which is administered only to children less than age 1). The same age groups are targeted during outreach activities. At age 18 months, a second dose of measles vaccine is recommended.(Survey, 2015)

Urban children are more likely than rural children to have received all basic vaccines (53% versus 43%).

At the provincial level, coverage with all basic vaccinations was highest in Paktika (75%), Badakhshan (72%), and Wardak (71%) and lowest in Nooristan (1%), Urozgan (2%), Paktya (16%), and Kandahar (16%).

Children are more likely to receive all basic vaccinations if their mothers have more than a secondary education (65%) than if their mothers have only a primary education (55%) or no education at all (42%).

The economic situation of households is directly related to vaccination coverage. Children belonging to households in the highest wealth quintile are most likely to

receive all basic vaccinations. There is a 17-percentage-point difference in coverage between the highest and lowest wealth quintiles (56% versus 38%).

Vaccination coverage among younger children (age 12-23 months) is higher than coverage among children age 48-59 months, indicating that there has been an improvement in coverage over time. For instance, 38% of children age 12-23 months received all basic vaccinations, as compared with only 22% of children age 48-59 months.(Survey, 2015)

A study analyzed reports of infant immunization from 331 districts across 7 regions of Afghanistan between 2000 and 2003. Geographic information system (GIS) analysis was used to visualize the distribution of immunization coverage in districts and to identify geographic inequalities in the process of improvement of infant immunization coverage. The number of districts reporting immunization coverage increased substantially during the four years of the study. Progress in Bacillus Calmette-Guerin (BCG) immunization coverage was observed in all 7 regions, although satisfactory coverage of 80% remained unequally distributed. Progress in the third dose of Diphtheria-Pertussis-Tetanus (DPT3) immunization differed among regions, in addition to the unequal distribution of immunization coverage in 2000. The results of multivariate logistic regression analysis indicated a significant negative association between lack of security in the region and achievement of 80% coverage of immunization regardless of available resources for immunization, while resource availability showed no relation to immunization coverage.(Mashal et al., 2007)

The results of the present study indicated that among the 331 districts of Afghanistan, the number of districts reporting immunization coverage increased from 223 (67%) in 2000 to 297 (90%) in 2003. The Spearman correlation coefficients between immunization coverage in both years were ≥ 0.88 for the four different immunizations, BCG, DPT3, OPV3 and measles.(Mashal et al., 2007)

Immunization services in Afghanistan:

By 2000, the following vaccinations were scheduled for children before the age of 12 months: one dose of Bacillus Calmette-Guerin (BCG) at birth or on first contact by a health worker, three doses of DPT (DPT1, DPT2 and DPT3) beginning from 6 weeks of age and at 4-week intervals, three doses of oral polio vaccine (OPV1, OPV2 and OPV3) according to the same schedule as DPT and one dose of measles vaccine at the age of 9 months [14]. In 2003, the following organizations were responsible for planning, secure supply and logistics, monitoring activities by collecting data regarding implementation, supervision to maintain quality of service and financial management: one National EPI Office at Ministry of Public Health, 7 regional EPI Management Teams, and 32 provincial EPI Management Teams in collaboration with the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) [14]. A total of 722 EPI centers in 331 districts acted as direct providers of immunization services. According to the national guidelines, the administration of all scheduled vaccines is carried out by these centers, which includes standard service of fixed (within-center, two days per week) and outreach (somewhere in the community, four days per week) activities.(Mashal et al., 2007)

In 30 Sept 2015 introduction of IPV into the routine immunisation schedule in

Afghanistan is part of a worldwide roll-out of the vaccine across 126 countries – the largest and fastest globally coordinated vaccine introduction project in history. It is funded as part of the budget of the [Global Polio Eradication Initiative \(GPEI\)](#), and support is channelled through Gavi, the Vaccine Alliance, WHO and UNICEF.

The vaccine is now available free of charge at all health facilities in the country.

In 7 December, 2013 - As part of the Government of Afghanistan's ongoing efforts to improve the health of the country's future generations, H.E. Hamid Karzai, President of Afghanistan, announced the introduction of the lifesaving pneumococcal conjugate vaccine (PCV) for all infants under two years of age.

With the support of the Global Alliance for Vaccines and Immunization (GAVI), the World Health Organization (WHO) and UNICEF, the Ministry of Public Health, will introduce PCV into the routine Expanded Program on Immunization and the vaccine will be available for free at all health facilities.

About 30 000 children under five in Afghanistan die because of pneumonia and it is estimated that about 150 000 children are affected by pneumonia each year. PCV will protect children from this and other diseases and is expected to significantly reduce infant mortality in the country.

of immunization regardless of available resources for immunization, while resource availability showed no relation to immunization coverage.(Mashal et al., 2007)

In 27 Jan 2017 The Government of Afghanistan introduced rotavirus vaccine to prevent the spread of rotavirus, the most common cause of severe and fatal diarrhea among infants and young children throughout the world.

The vaccine, which will be available for free in health facilities throughout the country, is the 10th vaccine to be introduced into the national schedule of the expanded program on immunization (EPI). It is administered in two oral doses for children at 6 and 10 weeks of age.

Afghanistan reports more than 100,000 cases of diarrhea annually, with 40-45 per cent related to rotavirus.

The results of the present study indicated that among the 331 districts of Afghanistan, the number of districts reporting immunization coverage increased from 223 (67%) in 2000 to 297 (90%) in 2003. The Spearman correlation coefficients between immunization coverage in both years were ≥ 0.88 for the four different immunizations, BCG, DPT3, OPV3 and measles.(Mashal et al., 2007)

Donors and partners:

WHO in Afghanistan operates through a large network of partners, including governments of Member States, civil society organizations, academic research institutions, donor agencies, private for-profit sector, national stakeholders and the

international community. WHO works with development and humanitarian partners in health to coordinate multi-agency efforts, advise on policy-setting, ensure quality, set standards, build capacity and share best practices in public health.

The following is a list of the programme areas in which WHO operates with the support of the donor community in Afghanistan.

- ✓ Expanded Program on Immunization

[GAVI Alliance](#)

- ✓ Polio Eradication Initiative

[Bill and Melinda Gates Foundation](#)

[The Government of Canada](#)

[Rotary International](#)

[U.S. Agency for International Development \(USAID\)](#)

[The United States Centers for Disease Control and Prevention](#)

[KfW Development Bank](#)

[Japan International Cooperation Agency](#)

- ✓ Malaria

[Global Fund To Fight AIDS, Tuberculosis and Malaria](#)

- ✓ Gender-based Violence

[U.S. Agency for International Development \(USAID\)](#)

[The Italian Development Cooperation](#)

- ✓ Nutrition

[The Government of Canada](#)

- ✓ Tuberculosis

[Japan International Cooperation Agency](#)

[Global Fund To Fight AIDS, Tuberculosis and Malaria](#)

- ✓ Health Cluster and Emergency Humanitarian Action (EHA)

[The European Commission's Humanitarian Aid and Civil Protection Department \(ECHO\)](#)

[U.S. Agency for International Development \(USAID\)](#)

[Central Emergency Response Fund \(CERF\)](#)

- ✓ Primary health care, health system strengthening

[The GAVI Alliance](#)

[Global Fund To Fight AIDS, Tuberculosis and Malaria](#)

- ✓ HIV/AIDS

[Global Fund To Fight AIDS, Tuberculosis and Malaria](#)

- ✓ Primary health care, development of human resources health

[Global Health Workforce Alliance](#)

- ✓ Disease Early Warning System

[U.S. Agency for International Development \(USAID\)](#)

Data Handling, Analysis, Statistical Methods:

Method of Study:

The study was descriptive community-based cross sectional household. The study aim is to estimate the levels of immunization coverage at KDH City. Specific objectives are to: establish valid baseline information to identify reasons why children are not immunized, and make recommendations to enhance access and quality of immunization services in Kandahar city. The survey will be carried out in Two HF catchment area of Kandahar city (Dr.Shams CHC and Nazo Ana CHCs), with a sample of 503 mothers and fathers of children which child age is 0-11 months. Data is collected from parents whom are present at home during interview. After collection of data, it is analyzed with SPSS version 16.0.

Study design:

This study was community base cross sectional, descriptive and analytical study. Data was collected from parents whom were interviewed and present during interview at home. Questionnaire was designed based on factors which are related low vaccine immunization coverage among under one year children. Follow up, progress in study work was monitored by our sir advisor and co- advisors and their helpful suggestion were provided by our advisor during the study and data collection.

Period of study: Expected duration of the study was from Feb 2019 till end May 2019.

Place of study: data collection take place were in two health facilities catchment areas, which located at north and west part of Kandahar city and representative for all KDH city (Dr.Shams CHC and Nazo Ana CHC).

Study population:

The cross-sectional community base study was included Parents of children whom had under one-year children's and present at home during interview in selected two health facilities catchment areas.

Inclusion criteria

Parents of all children whom age are under one year.

Exclusion criteria

Parents of children whom age are more than one year.

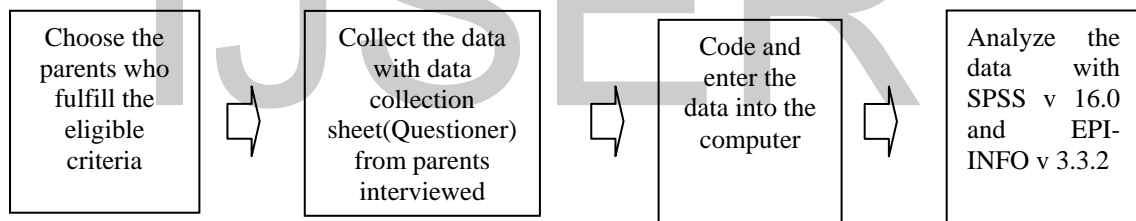
DATA ANALYSIS

Database:

Data was collected in CRF and after was entree into SPSS for analysis.

Data analysis: Collected data was put into computer for analysis. Computer programs such as Microsoft Office was used for graphic and descriptive demonstration.

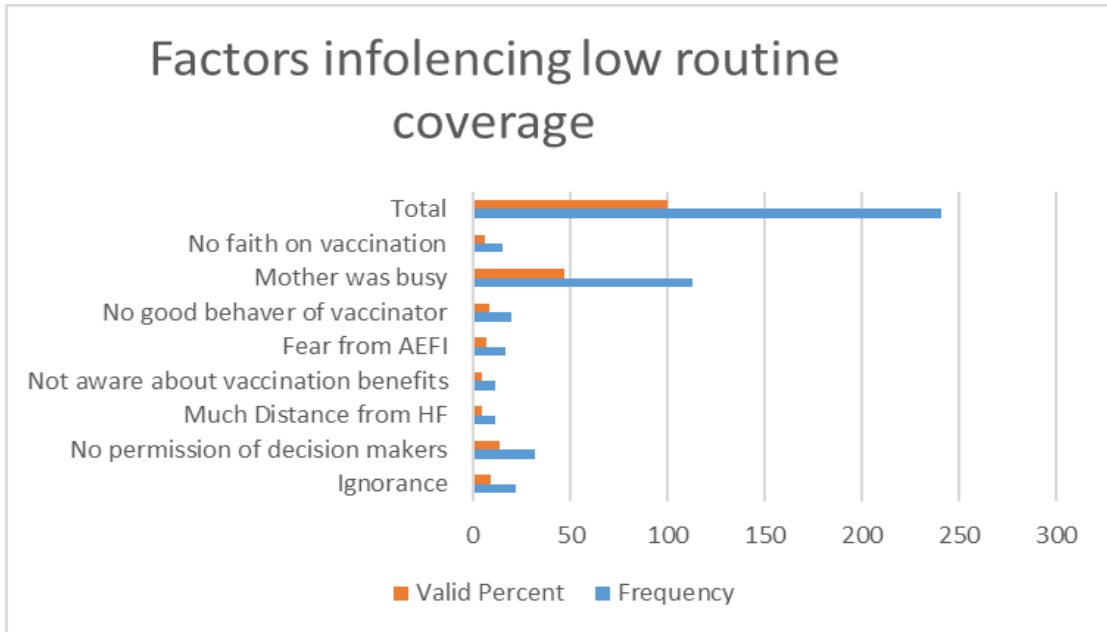
SPSS version 16.0 software was used for statistical analysis. Information obtained from the Parents whom interviewed is coded and entered into computer software. Data is checked for corrections, completeness and validity. After that, the data is analyzed with SPSS version 16.0. For analysis, association. The p- value is set at significance level of 0.05.



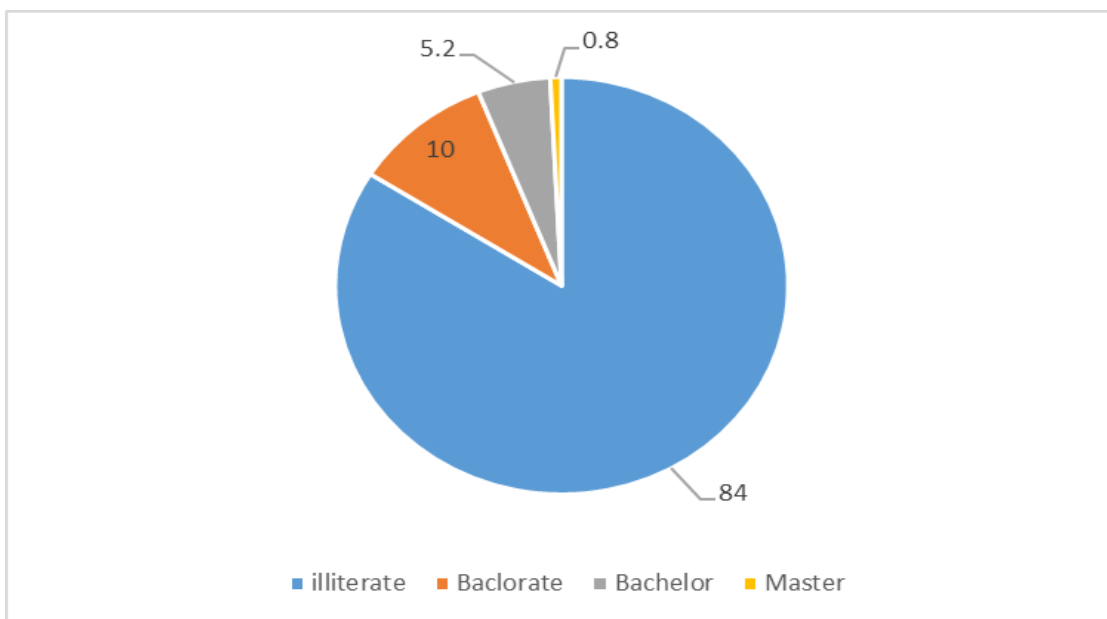
Sample size calculation:

Sample size calculation was done with using of the Software Epi Info (version 7.2.2.6). Sample size of our study was 503 children's under one year.

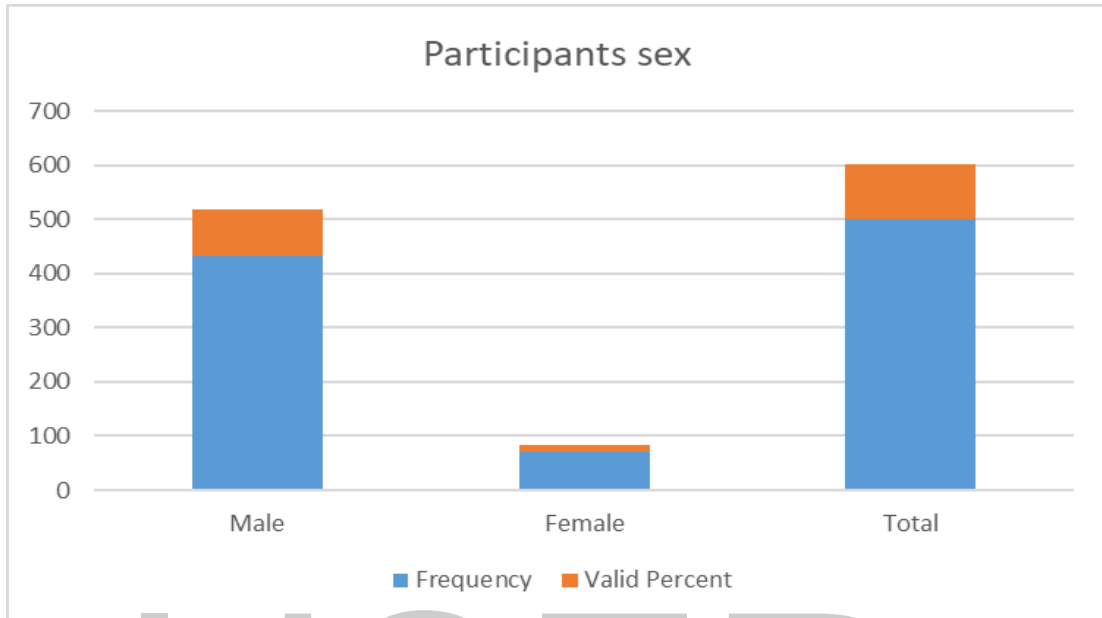
Result: This chapter presents the findings of the study. All tables and graphs in this chapter are computed from the data which were collected from parents of the under one children's in two selected HFs catchments areas. The study population consisted of 503 parents who were interviewed.



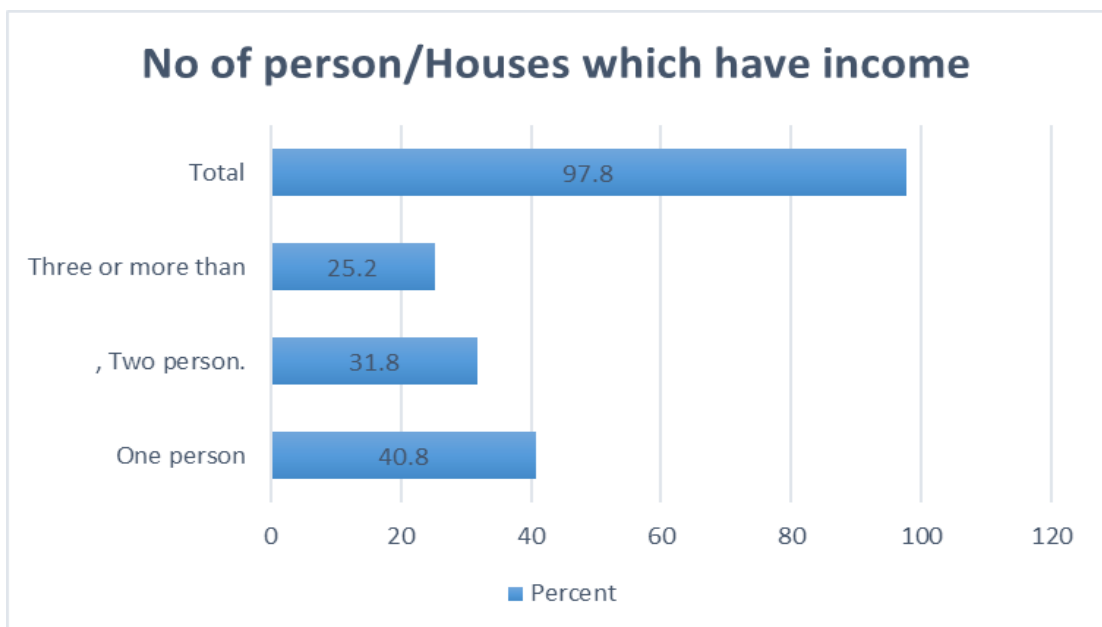
Its shown that (48) % of children was not fully immunized as per age. Mothers of children whom were not fully immunized were asked about reasons for not getting the child fully immunized. The major reasons given by Parents for not fully immunized children's included: place for vaccination being too far (5%), no faith in immunization (6%), unaware of the need for vaccination (5%), not being allowed to go to a clinic without permission of decision makers (13%). Other reasons mentioned were fear of side effects(AEFI)= (7%), Mother was busy to take the child for vaccination (47%), no good behavior of vaccinator (8%), and ignorance of vaccine was (9) %.



Out of the 503 Parents interviewed 84% were illiterate,10% were Baclorate,5.2%were bachelor and 0.8% were master.



Out of the 503 Parents interviewed 86% were male and 14% were female.



Out of the 503 Parents interviewed 41% had one person who had income per family 32% had 2 income person per family and 25 % family had 3 or more than 3 income person per each family.

	Frequency	Percent	Valid Percent	Cumulative Percent
Once.	122	24.3	25	24.8
Twice	71	14.1	15	39.3
Three time	48	9.5	10	49.1
Four times	49	9.7	10	59.1
I don't know	100	19.9	20	79.4
No any vaccine taken	24	4.4	5	84.3
Fully immunized	77	15.7	16	100
Total	491	97.6	100	
Missing System	12	2.4		
Total	503	100		

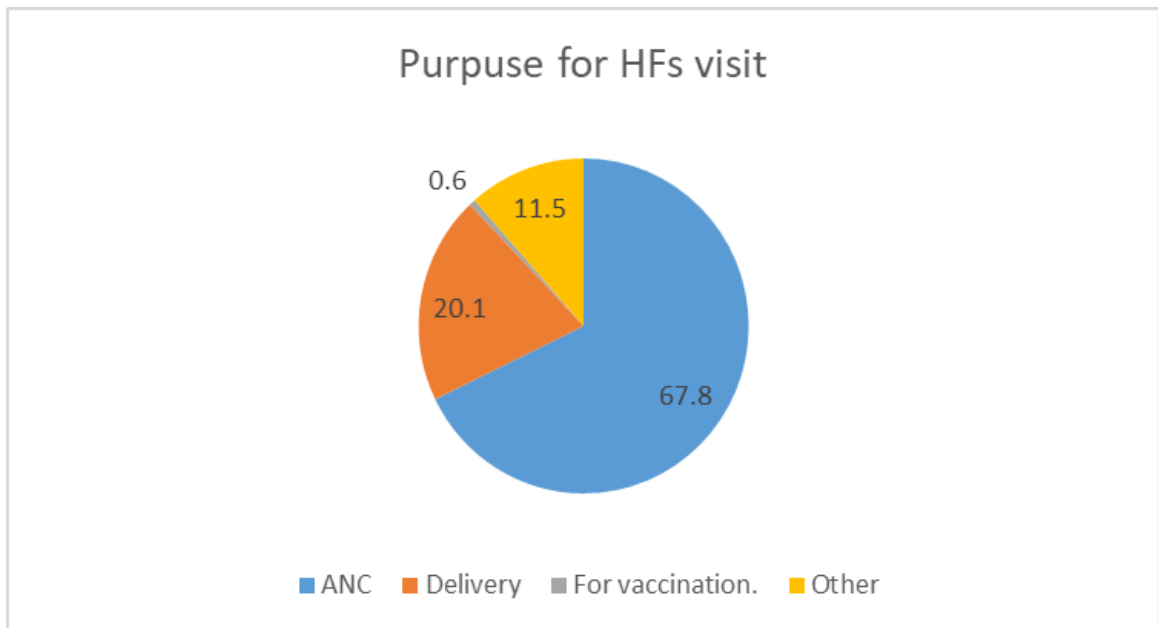
Base on parent's history 25% children's received one dose through routine programe,15% were received two doses,10% were received 3 doses, and 10% children's were received 4 doses, parents don't know 20% and no taken any dose of vaccine were 5% and fully immunized were 16%.

Which vaccine has your child gotten based on history?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-Oral Drops.	347	69	70	70.2
	2- Injection 3-in left arm after birth	61	12.1	12	82.6
	4- injection in leg.	26	5.2	5	87.9
	5-I don't know.	60	11.9	12	100
	Total	494	98.2	100	
Missing	System	9	1.8		
Total		503	100		

Base on parent's interview 70% of children's were received OPV, 12 were received BCG, 5% were received Penta and 12% were don't know about gotten doses to their children's.

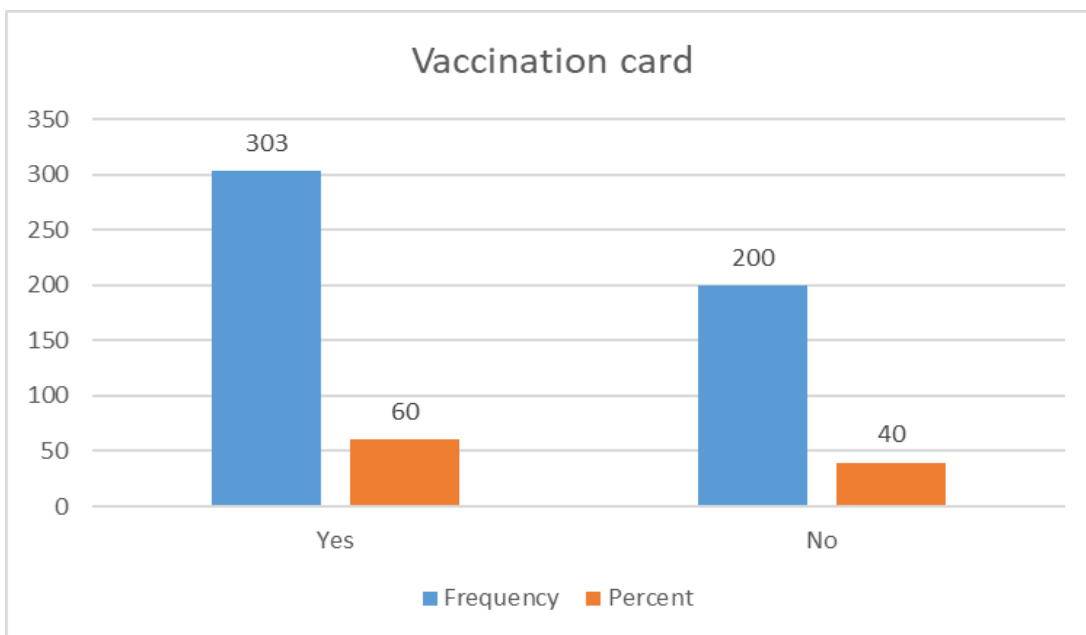
For which purpose you have visited the HF's for the last time?



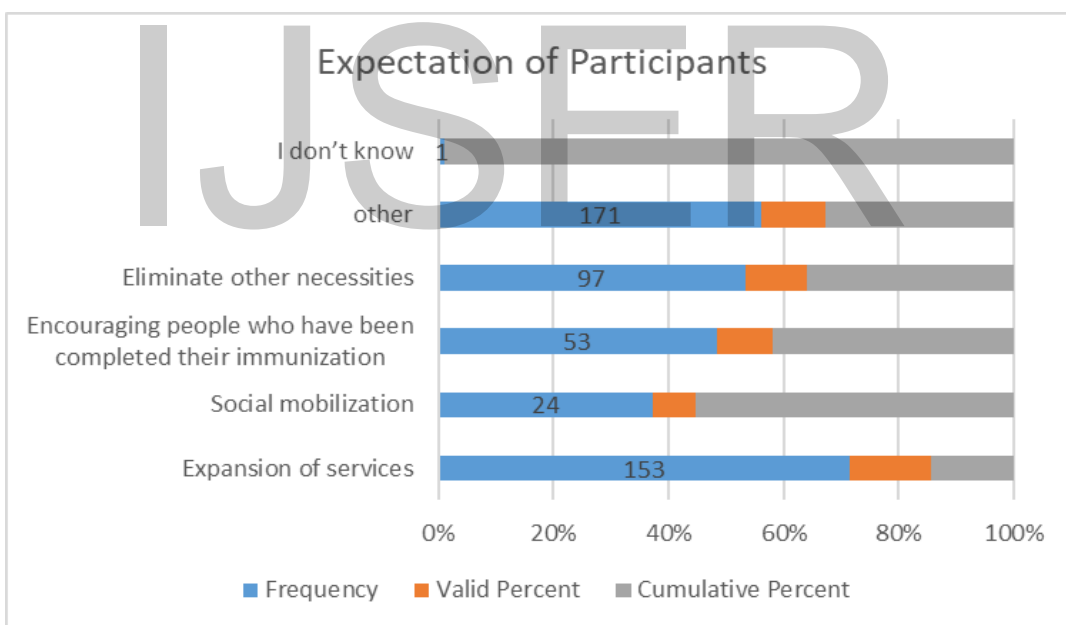
For last time the purpose of health facilities visit was 68% for ANC service,20% for Delivery services and 0.6% for vaccination its shown lack of awareness and demand for vaccine.

Case Processing Summary				Ratio Statistics for Participants _Sex / Participants _Age			
		Count	Percent	Group	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
Literacy _level	illiterate	414	84%				
	Bacloriate	50	10%				Median Centered
	Bachelor	25	5%	illiterate	1.133	0.421	155.20%
	Master	4	1%	Bioccelate	1.029	0.129	17.20%
	Overall	493	100%	Bachelor	1.032	0.14	19.40%
Excluded	10		Master	6.143	6.443	1467.40%	
Total	503		Overall	1.169	0.434	193.30%	

Out of 503 Parents interviewed 84% percent were uneducated,10% were bachlorate,5% were bachelor and 1% had master degree.



Out of 503 Parents interviewed their 60% children’s had vaccination card and 40% don’t had vaccination card.

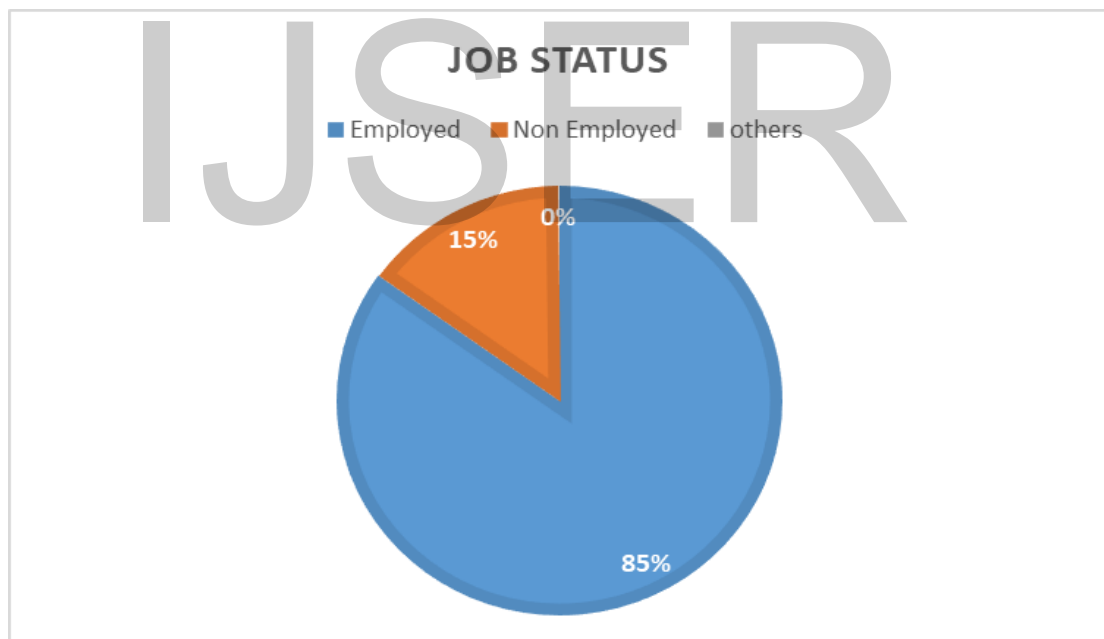


Out of 503 participant expectation from service provider were 31% expansion of service,5% social mobilization,11% encorging people in service,othre necessities were 19% ,other ned were 34% and I don’t know were 0,2%.

When have you visited clinic for the last time?

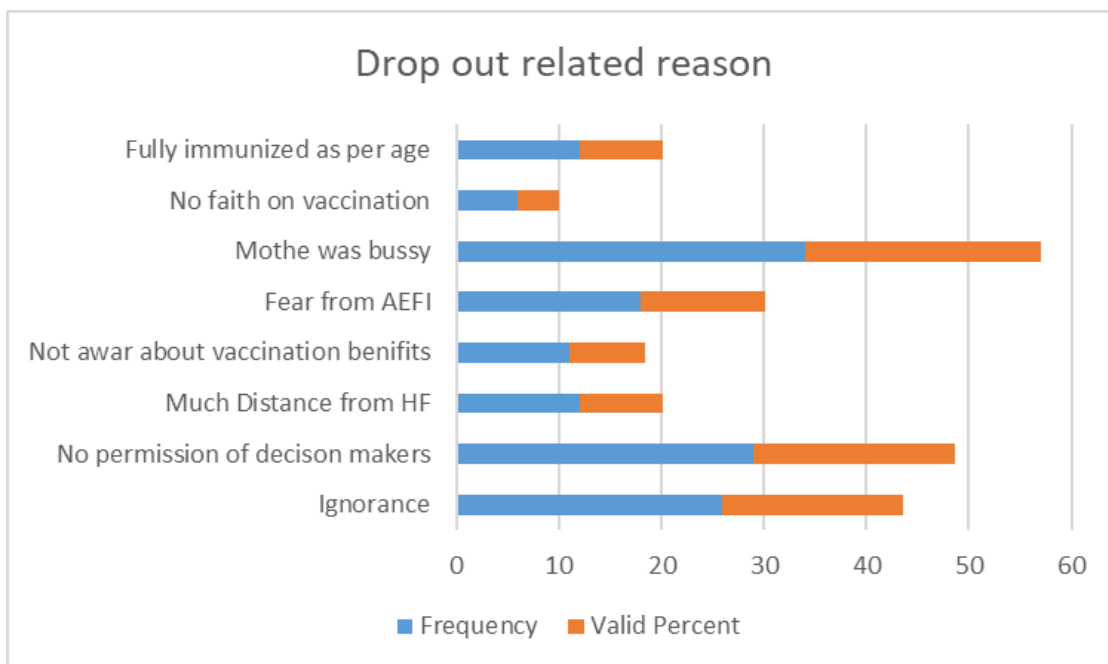
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-A day ago	12	2.4	2	2.4
	2-A week ago	91	18.1	18	20.8
	3-A month ago	261	51.9	53	73.4
	4-Last year	54	10.7	11	84.3
	5-Other (not visited HFs)	78	15.5	16	100
	Total	496	98.6	100	
Missing	System	7	1.4		
Total		503	100		

Out of 503 participants 2% were visited HFs one day ago,18% were one week ago,53% one month ago and 11% were one year ago and not visited HFs were 16%.



Out of 503 participants 85% were employed,15% were non employed.

Parallel of this interview were conducted with 150 Parents in above mentioned HF EPI fixed center the finding of mentioned study was the below.



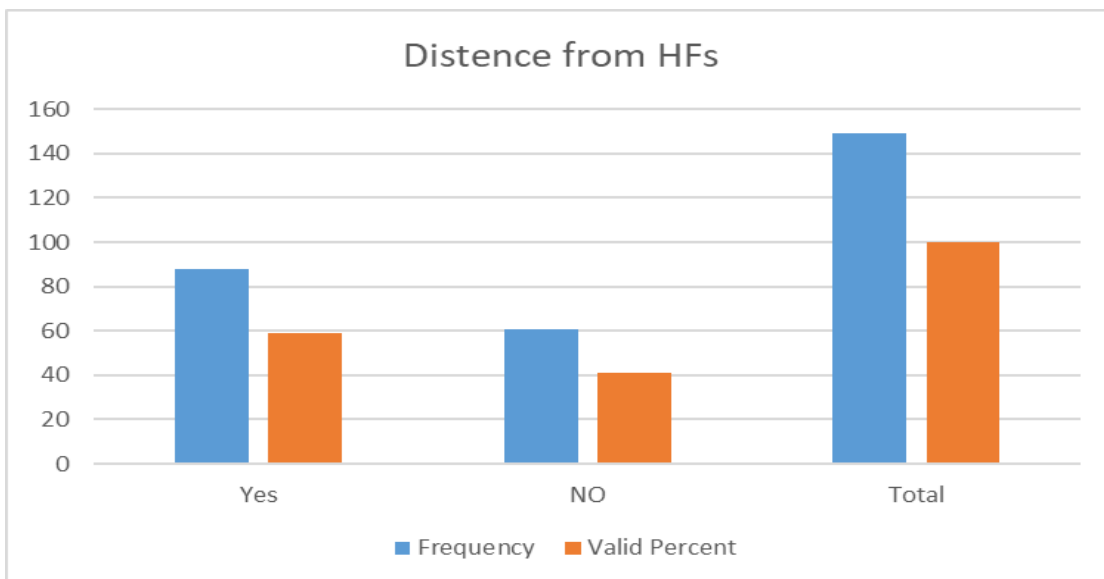
Based on 150 interview parents fully immunized children’s as per age were 18%, Not faith on vaccination program were 4%, mother was busy 23%, Fear from AEFI were 12%, not aware about vaccination benefits were 7%, much distance from health facility were 8%, no permission of decision maker was 20% and ignorance were 18%.

In present structure when every mother and child is coming to Health facilities for any service they should show their vaccination card to related branch of services, otherwise they don’t have access to health service, if they had card they should go first to EPI fixed center for follow up of vaccination doses, if don’t had the should get vaccination card and vaccine than they can utilize the service.

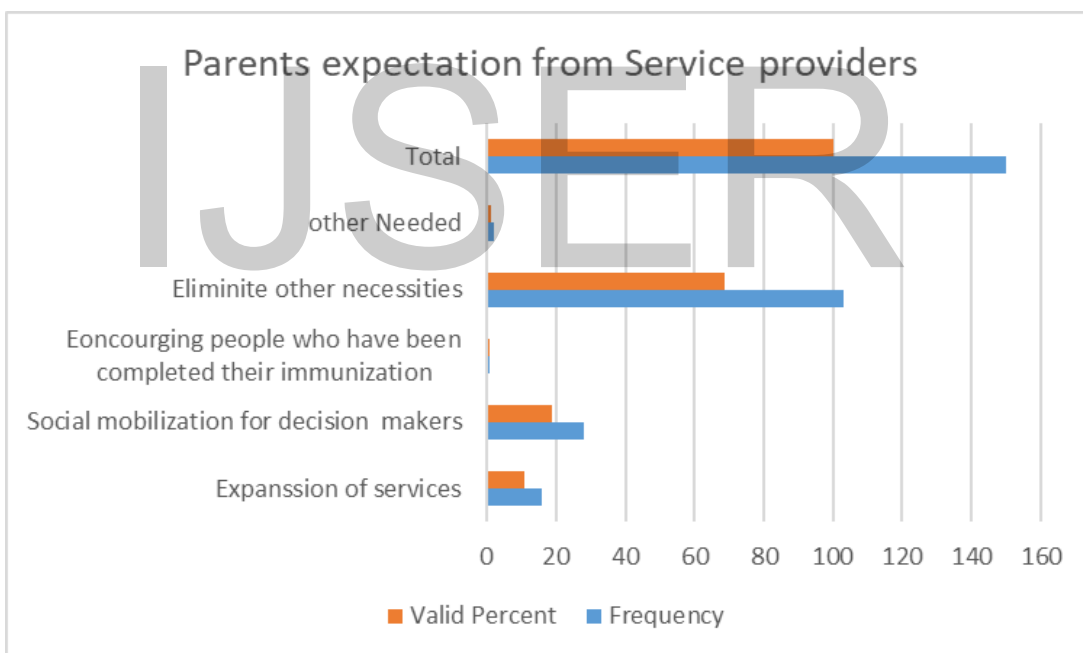
Participants_Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	38	25.3	25	25.3
Female	112	74.7	75	100.0
Total	150	100.0	100.0	

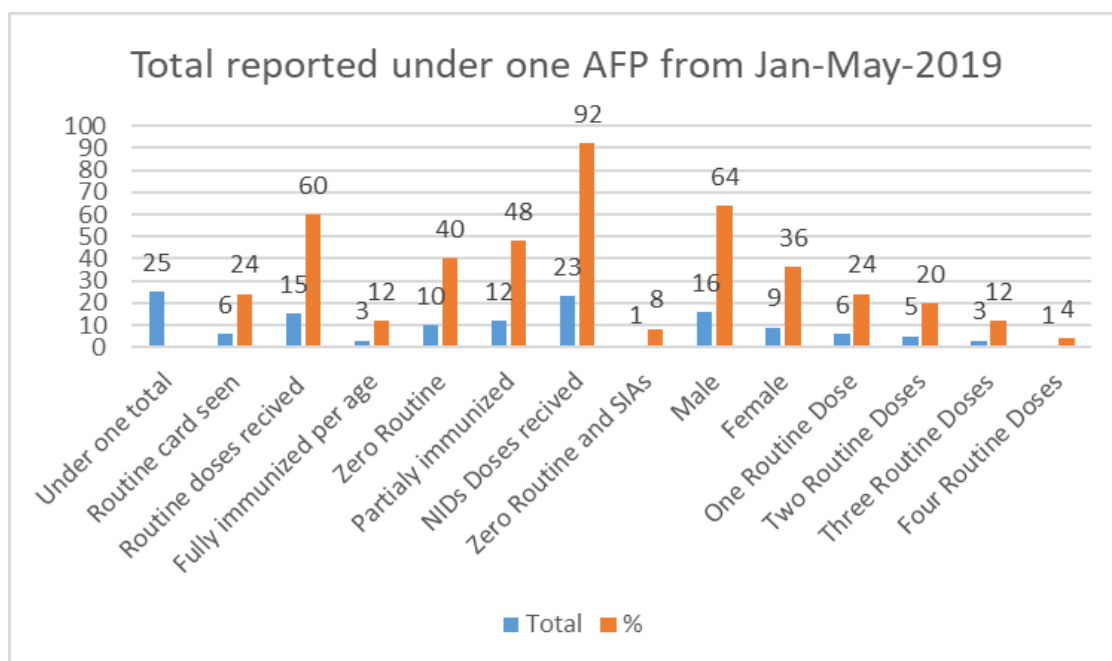
Out of 150 interviewed parent 25% were male and 75% were female.



Out of 150 interviewed parent whom were came to HFs for different purpose 41% mentioned that they have many distance from HFs and 59% mentioned that HF is near to their residence. Distance



Out of 150 participant expectation from service provider were 11% expansion of service,19% social mobilization to disession makers, 1% encorging people in service,eliminate othre necessities were 69% ,other ned were 1% .



WHO 2019 south region AFP surveillance data is shown as well that from all 25 reported under one AFP cases (24)% had routine immunization card,(60)% was received incomplet doses(partialy immunized) ,(12)% was fully immunized as per age,(40)% of reported AFP case were zero routine, NIDs doses received were (92)% ,zero routine and zero SIAs were (8)% ,out of 25 reported AFP case (64)% were male and (36)% were Female.

(24)% were received one routine dose,(20)% were received two routine doses,(12)% were received 3 routine doses and (4)% were received 4 routine doses.

ETHICS

Ethical committee approval:

- ☞ This study is approved by Institutional Review Board (IRB) of Maulana Azad University.
- ☞ This study is approved by Institutional Review Board (APHNI) Afghanistan.
- ☞ This study is approved by PHD of Kandahar Afghanistan.
- ☞ Respondent is oriented about the research process and confidential.
- ☞ Verbal consent is received from participant or the inform consent.
- ☞ The participant is oriented by researcher.

Limitation:

- Low level of participant education and cultural restrictions.

Discussion:

It is shown that (48) % of children was not fully immunized as per age. Mothers of children whom were not fully immunized were asked about reasons for not getting the child fully immunized. The major reasons given by Parents for not fully immunized children's included: place for vaccination being too far (5%), no faith in immunization (6%), unaware of the need for vaccination (5%), not being allowed to go to a clinic without permission of decision makers (13%). Other reasons mentioned were fear of side effects(AEFI)= (7%), Mother was busy to take the child for vaccination (47%), no good behavior of vaccinator (8%), and ignorance of vaccine was (9) %.

If we compare this situation of Kandahar city finding from the two important HF catchments areas with far remote villages and districts of Kandahar Afghanistan, for sure we can say that the immunization level at far area and other district health facilities will be much worse than the situation highlighted in the study. We should think about the provinces and district with very fragile condition and low level of security and we should think about the district with low level of family's income and high level of mother illiteracy. We do think that the Afghan families particularly in the rural areas are living under very bad situation and child survival issues are issue of immediate concern.

Government and Government partners must focus on girl's education. Primary and secondary health care must be extended to the rural areas. The quality of available health services should be improved. Health workers training need to be improved and training should be tailored to the problems of the country. Health Education on diseases prevention and better care during pregnancy, delivery and child immunization must address the root causes of childhood problems.

Quality assurance of the system for child and mother care as well should be improved. More important is that we must look for the opportunity that Government official and Government donors should refresh their commitment for support to the health sector and proper budget allocation should be made.

Conclusion:

The innovative mechanism of contracting out delivery of primary health care services in Afghanistan, including immunization, to non-governmental organizations is showing some positive results in quickly increasing coverage of essential interventions, including routine immunization. Much ground still needs to be covered with proper planning and management of resources in order to improve the immunization coverage in Afghanistan and increase survival and health status of its children.

- Distance to health facilities, disparity in distribution of health services are among main factors that limit access to immunization and health services.
- Low quality of mother and child care services reflects the inadequate performance of immunization and health system.
- Poverty, insecurity, socio-cultural norms (e.g. violence against women and gender disparity) are causative factors. CHW has important role for advising the mothers about vaccination.
- Children's are the most vulnerable population in Afghanistan.
- Policies alone cannot bring changes until they are implemented.
- Strong advocacy is needed to encourage the (MOPH) to formulate, implement and monitor appropriate, evidence-based policies on children's immunization as well.

Recommendations

- Improve the awareness about benefit of immunization, hygiene and child care.
- Training of the community health workers.
- Regular supervision of CHWs in the community.
- Improve the children's and neo natal care services and referral system in all HFs.
- Improve the children's survival polices for better children's health and immunization.
- Special training should be plan for community elder and household decision maker about vaccination benefits and children's care.

Thank you

Dr. Abdul Rahman.

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(Questionnaire)

Factors Affecting/Influencing Low Vaccination Coverage among Children under One year in Kandahar city Kandahar Province of Afghanistan

(Questionnaire)

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Participant code:

<p>1. First part: General information</p>	
1.1 Name: _____	
1.2 Age:	
1.3 Gender:	Male= 1 Female= 2
1.4 Literacy:	Illiterate= 1 Bioccelate=2 Bachelor= 3 Master = 4 Doctorate= 5

	higher than Doctorate=6 other=7
1.5 <u>Job:</u>	Employed= 1 Non Employed= 2 Other= 3
1.6 Marital status:	Single= 1 Married=2 Divorced= 3 Spouse separated=4 Widow/widower=5
1.7 Monthly income (AF per month)	
1.8 Monthly expenditure: (AF per month)	
1.9 Where do you live?	City= 1 Rural= 2
1.10 Address	
1.11 Your family members:	Children= Brothers and sisters= Father and mother= Nephew and Niece=

1.12 Whom do you live with in your family?	Parents= 1 Brother and sisters= 2 father and mother in law= 3 Uncle and cuisines = 4 Others=5
1.13 How many people work in your family the ones who have income?	One person= 1 Two person= 2 Three or more than= 3
1.14 For how long you are living here?	From one year= 1 2-5 years = 2 5> years= 3
2. Second part: Services related information	
2.1 Is there any near clinic to your home?	Yes= 1 No= 2
2.2 Which one is the nearest clinic to you?	Public= 1 Private=2
2.3 Do you get services from the nearest clinic?	Yes= 1 No =2 (If the answer is yes, don't ask question 4)
2.4 Why don't you utilize the services from the nearest health facility?	it's far= 1 There is no medicine= 2 There is no night duty= 3 Dr. or MW has no good behavior= 4

	<p>My family doesn't let me= 5</p> <p>No obeying Moharamyat= 6</p>
2.5 How much is the distance from your home to clinic?	<p>Half or less than half hour= 1</p> <p>From half to one hour= 2</p> <p>From one to two hours= 3</p> <p>More than= 4</p>
2.6 When have you visited clinic for the last time?	<p>A day ago= 1</p> <p>A week ago= 2</p> <p>A month ago= 3</p> <p>Last year= 4</p> <p>Other= 5</p>
2.7 Which type of clinic have you visited for the last time?	<p>Public= 1</p> <p>Private = 2</p> <p>(If the answer is Public, don't ask question 8 and go ahead)</p>
2.8 Why have you visited private clinic?	<p>services are good than Public clinic= 1</p> <p>There is no medicine in Public clinic= 2</p> <p>Public clinic personnel have no good behavior= 3</p> <p>Private clinic has better services= 4</p> <p>Private clinic has good medicine= 5</p>

	Private clinic personnel have good behavior= 6
2.9 What do you think which kind of services do the Nearest clinics provide?	Mother and child health care=1 children health care= 2 Vaccination= 3 Infectious disease, such as, TB and Malaria=4 Mental disease, like, depression, anxiety=
2.10 For which purpose you have visited the clinic for the last time ?	ANC= 1 Delivery= 2 PNC= 3 For vaccination= 4 To get family planning methods = 5 For TB treatment= 6 other disease treatment= 7
2.11 Have you gotten the needed services?	Yes= 1 No= 2
2.12 How was the behavior of clinic/hospital personnel?	Very Good= 1 Good = 2 Not good= 3 I don't know/ I have no Idea= 4
2.13 How old is your last child?	One year or smaller= 1

	<p>Two years= 2</p> <p>Bigger than 2 year= 3</p>
2.14 How many times your last child been vaccinated?	<p>Once= 1</p> <p>Twice= 2</p> <p>Three time= 3</p> <p>Four time=4</p> <p>I don't know= 5</p> <p>No any vaccine taken=6</p>
2.15 Which vaccine has your child gotten (base on History)?	<p>Oral Drops= 1</p> <p>Injection in left arm after birth = 2</p> <p>Injection in leg= 3</p> <p>Injection in legs and arm=4</p> <p>I don't know= 5</p>
2.16 Are your child have vaccination card	<p>Yes=1</p> <p>No=2</p>
2.17 Which vaccine has received to child base on Routine immunization card. (Observation of routine card)	<p>OPV0, BCG,HB=1</p> <hr/> <p>Pentavalent 1, OPV1,PCV1,Rota1=2</p> <hr/> <p>Pentavalent 2, OPV2,PCV2,Rota2=3</p> <hr/> <p>Pentavalent 3, OPV3,PCV3,IPV=4</p> <hr/> <p>Measles1, OPV4=5</p> <hr/> <p>No vaccine =6</p>
2.18 Why your child is not Fully immunized as per child age.	<p>Ignorance=1</p> <p>No permission of decision maker=2</p> <p>Much distance from HF=3</p>

	<p>not aware about vaccination benefits =3</p> <p>Fear from adverse event following immunization=4</p> <p>No good behavior of vaccinators=5</p> <p>Mother was busy =6</p> <p>no faith in vaccination=7</p>
2.19 What is your expectation from service provider about your children's immunization .	<p>Expansion of service=1</p> <p>Social Mobilization to client=2</p> <p>Encouraging people who have been completed their immunization=3</p> <p>Eliminate other necessities=4</p> <p>Other=5</p>
<p>3. Third part: If your interviewee was female, you may ask them below questions.</p>	
3.1 How many times you have delivered.	<p>1 = 1</p> <p>(2-5) = 2</p> <p>5> = 3</p>
3.2 How many times you have visited HFs for vaccination during your last pregnancy.	<p>Once = 1</p> <p>(2-4) times =2</p> <p>4> times= 3</p>
3.3 How many time You have received	<p>1= 1</p>

the vaccine ?	2= 2 3> = 3
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Study Information

Study Code.....

Questionnaire No.....

Questionnaire

پوښتنپاڼه

د هغو تاثيراتو د معلومولو لپاره كوم چي تريو كلني په كم عمره ماشومانو كي د ورځنيو واکسينونو د پوښښ د راکښته کيدلو لامل گرځي

شميره:

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دگډون کونکو مسلسله

لومړۍ برخه عمومي مالومات	
1.1 نوم	
2.1 عمر	
3.1 جنسيت:	نارينه = 1 ښځينه = 2

<p>۱ = نالوستی</p> <p>۲ = بکلوریا</p> <p>۳ = لیسانس</p> <p>۴ = ماستری</p> <p>۵ = دوکتورا</p> <p>تر دوکتورا په لوری کچی زده کری = ۶ نور:</p>	<p>۴.۱: د زده کړو کچه:</p>
	<p>۵.۱ شغل</p>
<p>۱ = واده یی کړیدی</p> <p>۲ = مجرد</p> <p>۳ = طلاق شوی</p> <p>۴ = جلا شوی</p> <p>۵ = کونډه یا کونډ</p>	<p>۶.۱ مدنی حالت:</p>
	<p>۷.۱ میاشتنی عاید (افغانی / په میاشت)</p>
	<p>۸.۱ میاشتنی مصارف (افغانی / په میاشت)</p>
<p>۱ = کلی</p> <p>۲ = بنار</p>	<p>۹.۱ تاسو په کلی کی اوسیری که په بنار کی (په حلقه کری)</p>
	<p>۱۰.۱ آدرس</p>
<p>۱: داو لادونو شمیر مو _____</p> <p>۲: دورونو او خویندو شمیر _____</p> <p>۳: دوریزونو او خوړبونو شمیر _____</p>	<p>۱۱.۱ ستاسو دکورنی دغرو شمیر:</p> <p>هغه چې ستاسو سره یوځای اوسیری اوله یو دیگ څخه ډوډی خوری.</p>
<p>۱ = یو</p> <p>۲ = دوه کسه</p>	<p>۱۳.۱ ستاسو په کورنی کی څوکسه کارکوی داسی کار چی پیسی پیداکوی؟</p>

دری کسه یا تردریوزیات = ۳	
۱= تر ۵ کاله ۲= تر ۵ کاله زیات	۱۰۱۴ د څومره مودی راهیسی تاسو دلته زوند کوی.
دوهمه برخه: د خدماتو په اړه معلومات	
۱ = هو ۲= نه	۱.۲ تاسو ته نژدی کلینک شته؟
۱ = دولتی ۲= شخصی	۲.۲ تاسو ته نژدی کلینک دولتی دی که شخصی؟
۱ = هو ۲= نه	۲.۳ آیا همدا روغتیایي کلینیک د واکسین خدمات لري؟
۱= دی ۲= هلته دوا نشته	۲.۴ ولی تاسو د نژدی کلینیک د خدماتو نه استفاده نه کوی .
-داکتر او یا قابله شه سلوک نه کوی = ۳ -کورنی اجازه نه راکوی = ۴ -داکتر بدون له محرم نه د کتلو اجازه نه راکوی = ۵	
نیم ساعت یا تر نیم ساعت کمه = ۱ له نیم ساعت څخه تر یو ساعت پوری = ۲ له یو ساعت څخه تر دوه ساعت پوری = ۳ نور = ۴	۲.۵ ستاسو دکور او کلینک ترمنځ څومره واټن یا پلي لاره ده؟
۱= یو ورز مخکی ۲= یوه هفته مخکی	۲.۶ وروستی وخت مو کله کلینیک ته مراجعه کوی وه؟

<p>یوه میاشت مخکی = ۳</p> <p>یو کال مخکی = ۴</p> <p>نور = ۵</p>	
<p>۲.۷ ولی مو شخصی کلنیک دخدمت لپاره انتخاب کری .</p> <p>-خدمات بی تر دولتی روغتون شه دی ۱</p> <p>-هلته په دولتی روغتون کی دوا نشته = ۲</p> <p>د دولتی کلنیک کار کوونکی شه سلوک نه کوی = ۳</p> <p>-د شخصی کلنیک شه خدمتونه وړاندی کوی = ۴</p> <p>شخصی کلنیک شه دوا لری = ۵</p> <p>د شخصی کلنیک کار کوونکی شه سلوک کوی = ۶</p>	
<p>د میندو دروغتیا په اړه خدمتونه = ۱</p> <p>د ماشومانو دروغتیا په اړه خدمتونه = ۲</p> <p>واکسین = ۳</p> <p>انتانی ناروغی لکه سیل ملاریا = ۴</p> <p>روانی ناروغی لکه ژورخپگان = ۵</p> <p>او داسی نور = ۶.</p>	<p>۲.۸ ستاسو په اړوند روغتیایی مرکز کی کوم روغتیایی خدمتونه وړاندی کیږی؟</p>
<p>-تر ولادت مخکی مراقبت لپاره = ۱</p> <p>-د ولادت لپاره = ۲</p> <p>تر ولادت وروسته د مراقبت لپاره = ۳</p> <p>د واکسین لپاره = ۴</p> <p>د کورنی دکنترول لپاره = ۵</p> <p>د توبرکلوز دنداوی په موخه = ۶</p> <p>نور = ۷</p>	<p>۲.۹ وروستی جل مو دکوم هدف لپاره کلنیک ته مراجعه کری وه</p>

<p>هو = ۱ نه = ۲</p>	<p>۲.۱۰ آیا د ضرورت وړ خدمات مو تر لاسه کړل؟</p>
<p>چلندی بڼه وو = ۱ چلندی بڼه نه وو = ۲ چلندی د منلو وړ وو = ۳ نه پو هیږم/ نظر نلرم = ۴</p>	<p>۲.۱۱ د کلینیک/ روغتون دروغتیایی کار کونکو چاند ستا سو سره څنگه وو؟</p>
<p>یوکلن یا تریوه کال کوچنی = ۱ دوه کلن = ۲ تر دوه کلنو لوی = ۳</p>	<p>۲.۱۲ وروستی ماشوم مو څومره عمر لري؟</p>
<p>هو = ۱ نه = ۲</p>	<p>۲.۱۳ آیا همدا ماشوم مو واکسین شوی دي؟</p>
<p>یوځله = ۱ دوه ځله = ۲ دری ځله = ۳ څلور ځله = ۴ پنځه ځله = ۵ نه پو هیږم = ۶ هیچ واکسین مو نه دی ورکړی = ۷</p>	<p>۲.۱۴ تاسو خپل وروستی ماشوم ته څو ځلی واکسینونه ورکړیدی؟</p>
<p>دڅاڅکو واکسین = ۱ دپیچکاری واکسین چي په چپه مټ کي یی وروسته تر پیدایښت ورکړ = ۲ دپیچکاری واکسین چی یی په ورانه کی ورکړ = ۳ نه پو هیږم = ۴</p>	<p>۲.۱۵ تاسو خپل ماشوم ته کوم واکسین ورکړیدی؟</p>
<p>هو = ۱</p>	<p>۲.۱۶ ستاسی ماشوم دواکسین کارت لري</p>

نه = ۲	
<p>OPV0, BCG, HB=1</p> <hr/> <p>Pentavalent 1, OPV1, PCV1, Rota1=2</p> <hr/> <p>Pentavalent 2, OPV2, PCV2, Rota2=3</p> <hr/> <p>Pentavalent 3, OPV3, PCV3, IPV=4</p> <hr/> <p>Measles1, OPV4=5</p> <hr/> <p>No vaccine =6</p>	<p>۲.۱۷ ماشوم ته دکارت له مخی کوم دوزونه رسیدلی؟</p>
<p>ردول = ۱</p> <p>۲ = تصیم نیونکی اجازه نه راکوی</p> <p>۳ = کور مو دکلتیک نه لری دی</p> <p>۴ = دوکسین په اهمیت نه پوهیدل</p> <p>۵ = دجانبی عوارضو نه بیره لرل</p> <p>۶ = دوکسیناتور سلوک شه ندی</p> <p>۷ = مور مصروفه وه</p> <p>۸ = دوکسین سره علاقه نلرل</p>	<p>۲.۱۸ ستاسی ماشوم ته ولی د عمر مطابق دوزونه ندی رسیدلی؟</p>
<p>دخدماټو توسعه = ۱</p> <p>۲ = مراجعینو ته عامه پوهاوی</p> <p>۳ = په پروگرام کی دخلکو شاملول</p> <p>۴ = نوری غوشتتی</p> <p>۵ = نور</p>	<p>۲.۱۹ دخدماټو وړاندی کونکی چخه کومه هیله لری؟</p>
<p>که مرکه کونکی مور وی</p>	

۱۷.۲ ځله مو تر وروستني ولادت مخکي د کلنيک نه دواکسين د اخيستلو په خاطر ليدنه کړي ده هغه وخت چي تاسو وروستني حمل درلود؟	۱ ځله = ۲ ځله = ۳ ځله = هيچ ليدنه مي نده کړي. = ۴
۲،۴۵ د واکسين د خدماتو د ترلاسه کولو لپاره د زوي او لور توپير کوي که نه؟	۱ هو = ۲ نه =

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Curriculum Vita



Dr. Abdul Raman (Jawad)

Phone: +93700334054

Email: drabdulrahman.
jawad@gmail.com

Address: House No 64
District 8 Sello area,
Kandahar Afghanistan

Personal Data

First name, (family) name:

Abdul Rahman (jawad)

Father Name:

Abdul Rahim

MPH Batch 2017-2019

Home address: Wardak Province, Chak District,
Baba qala village.
Work address: Kandahar province
Phone home / work Mobile: +93 (0)788 047 047
Phone other (specify): Mobile: +93 (0)700 33 40 54
E-mail(s): drabdulrahman.jawad @gmail
.com
Date of Birth: 1975
Nationality: Afghan
Passport Number: 01474899

Employment record

From : 1 Jan of 2005 up to Dec 2005
Work Period : 12 Months
Organization : AHDS
Designation : DHO in Arghistan/KDH and Chora/Urozgan District
Type of work : full time

Key duties and responsibilities:

- 1- Supervision, Monitoring and evaluation of Mention facility.
- 2- Providing Health Management trainings for all technical staff of Health facility.
- 3- Preparing monthly Progress report of supervision to Provincial Office.
- 4- Attending DHOs meeting in Provincial Office of Urozgan.

From : 1 Jan 2006 to 30 March 2006
Work Period : 3 Months
Organization : JACK (just for afghan capacity and knowledge) Urozgan

Province

Designation : CHWs Trainer in Tirin kot District

Typ of work : Full time

From : 1 April 2006 Up to 14 April 2016

Work Period : 9 years

Organization : WHO (World Health Organization)

Designation : Provincial Polio Officer of Urozgan and Kandahar Province.

Type of work : Full time.

From : 15 April 2016 Up to Now

Work Period : 2 years

Organization : WHO (World Health Organization)

Designation : ARPO (Assistant Regional Polio Officer) Kandahar Province.

Type of work : Full time.

Key duties and responsibilities

- To do surveillance activities at Provincial and regional Level.
- Training of district coordinators at Provincial level.
- Monitoring of Routine EPI activity.
- Training of District supported teams at Provincial level.
- Attended coordination committee at district and provincial level.
- Monitoring and supervision of supervisors training.
- Monitoring and supervision of Post NIDs and intra NIDs monitors.
- Micro planning.

Training of District health officers (DHOs) at provincial and regional level

Educational record

A. University Degree (MD Diploma) and Baccalaureate Certificate:

From 1997 to 2004, Kandahar Medical University, Kandahar, Afghanistan.

MD, Diploma

From 1984 to 1996, Omar e Farooq High School, Wardak Province Afghanistan.

Baccalaureate.

Specialized Training, courses

- 1- From 10 Jan 2009 to 24 March 2009, management training in Urozgan Civil Service Commission Training Center.
- 2- From 31 March 2009 to 25 June 2009, Computer and English training in Urozgan Civil Service Commission Training Center.
- 3- From 01 Feb 2005 to 25 Feb 2005 IMCI Training at Kabul.
- 4- Other short time Training.

Language knowledge

	Writing	reading	conversation
English	Excellent	Excellent	good
Dari	Excellent	Excellent	Excellent
Pashto	Excellent	Excellent	Excellent

Computer knowledge

Windows	Excellent
MS Office programs	Excellent
Other programs	Good

References

Dr.. Sailab Ayubi NHC in Southern Region
sailab.ayubi@gmail.com

0093-0787988715

Dr. Aminullah Mahbobi GEPIGO regional manager south region Kandahar
aminullahkochi@gmail.com

Financial Annex

The assessment title	Factor influencing low vaccine coverage among under one year children's of Kandahar city of Kandahar province, Afghanistan.
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The planned start date of the assessment and its duration	15th of Mar 2018 (2weeks)
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Detailed budget					
Operational Costs	Units	Unit Cost	No of Units	Total	Notes and Explanations
Direct costs					
Staff costs / salaries				36000	
Surveyors' supervisors	man/day	500	1	6000	Salary (12 working days for one supervisors)
Supervisor transport	lamp sum	200	1	2400	Transport cost for 12days for supervision
Surveyors	man/day	400	4	16000	Salary (10 working days for 4 surveyors)
Logistic materials				5000	
Stationeries	lump sum	1000	1	1000	Stationeries (printing of the survey for sharing; pains ; notebooks; other consumables needed for the survey)
Communication	lump sum	1000	1	1000	Communication cards, sim cards
Initial training for surveyors	lump sum	500	4	2000	Trainings costs (Food, transportation, for the training. 4 persons; 1 days)
Audio recorder	unit	500	2	1000	To ensure the focus groups
Grand Total Costs				70,400 AFS	



Maulana Azad University

Gain Knowledge Serve Mankind
(Established under section 2(f) of UGC Act-1956 vide Rajasthan State Act-35 of 2013)

Department of Public Health

Pal Link Road, Opp. Kamla Nehru Chest Hospital,
Kamla Nehru Nagar, Jodhpur-342008
Phone No: 0291-2750892
Email id: contact@jsph.in

Ref No.: MAUJ/DoPH/IRBL/02

Date: January 20, 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Abdul Rahman Jawad** is enrolled with us as a student in the Master of Public Health (MPH) program at Department of Public Health, Maulana Azad University Jodhpur. He is currently in his fourth semester and has to complete a dissertation in favor of completion of his course. This dissertation requires approval from the **IRB / ANPHI Afghanistan**.

His dissertation topic is "**Factors Influencing Low Vaccination Coverage among children under one year in Kandahar city, Kandahar Province of Afghanistan**". We request you to kindly provide him the required approval from the concerned IRB.

We thank you for your kind cooperation in this regard.

Bhawna Sati
Faculty and Head
Department of Public Health
Maulana Azad University
Jodhpur

ESTD. 2013 A.D. 1434 HIJRI

JODHPUR





Islamic Republic of Afghanistan
Ministry of Public Health
Afghanistan National Public Health Institute
Institutional Review Board

Date: April. 14. 2019



جمهوری اسلامی افغانستان
وزارت صحت عامه
انستیتوت ملی صحت عامه افغانستان

د افغانستان اسلامي جمهوریت
د عامې روغتیا وزارت
د انستیتوت ملی صحت عامه افغانستان



No. IRB.A.0419.0016

To: Abdul Rahman Jawad MD
Assistant Regional Polio Officer WHO Kandahar
World Health Organization WHO

Subject: Approval for proposal entitled, "Factor Influencing Low Vaccination Coverage among Children under one year in Kandahar City Kandahar Province Afghanistan".

Dear Jawad,


Institutional Review Board, Ministry of Public Health has examined and reviewed your proposal entitled, "Factor Influencing Low Vaccination Coverage among Children under one year in Kandahar City Kandahar Province Afghanistan".

We are pleased to declare that your study is approved. However, we reserve to the rights to monitor and audit your study and any violation of ethical norms during the course of study shall lead to withdrawal of given approval.

The duration of approval for a study to begin the research project is valid for one year and the implementation plan and monitoring plan should be shared to IRB secretary (irb.afg@gmail.com).

You are bound to share the result of your study with MoPH prior any dissemination plan.

Sincerely,


Bashir Noormal MD, MPH
Director General
Afghanistan National Public Health Institute (ANPHI) &
Chairman, Institutional Review Board (IRB)
Ministry of Public Health

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صفحه انټرنیټي: www.anphi.moph.gov.af
آدرس پستی: منزل پنجم و ششم تعمیر بانک خون مرکزی،
عقب به المکتبک مرکز، ساحة سینما پامیر کابل، افغانستان



Islamic Republic of Afghanistan
Minister of Public Health
Kandahar Directorate of Public Health

Dear Dr. Abdul Rahman Jawad ARPO/WHO/Kandahar!

Regarding your request study **“Factors Influencing Low Vaccination Coverage among children under one year in Kandahar city, Kandahar Province of Afghanistan”** for your finally thesis as MPH student in Jodhpur Maulan Azad University of India, technical team evaluated and it is approved by them please start your study and in case you need more support our organization will help you.

Best Regards

Dr. Abdul Qayom Pokhla

Kandahar Province Public health director

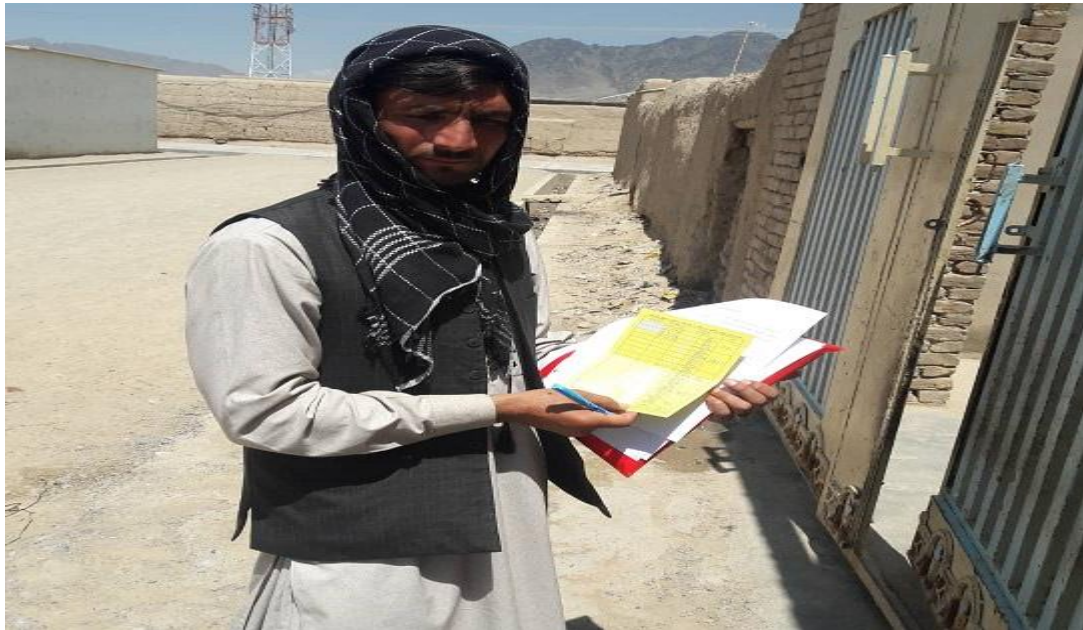


Phone No: 0700296552

Email Address: pokhla@yahoo.com

Field activities and Monitoring photos:





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