COLLEGE OF MEDICINE AND HEALTH SCIENCE

DEPARTMENT OF NURSING

FULL VACCINATION COVERAGE AND ASSOCIATED FACTORS AMONG CHILDREN AGED 12–23 MONTHS IN WOLKITE TOWN, SNNPR, ETHIOPIA, 2022.

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Acronym and Abbreviation

BCG	Bacillus Calmette Guerin
DPT	Diphtheria, Pertussis, Tetanus
EDHS	Ethiopian Demographic and Health Survey
EPHA	Ethiopian Public Health Association
EPI	Expanded Program of Immunization
GAVI	Global Alliance for Vaccine and Immunization
MOH	Ministry Of Health
OPV	Oral Polio Vaccine
PHC	Primary Health Care
PCV	Pneumococcal conjugate vaccine
TB	Tuberculosis
UNICEF	United Nation International Children Educational Fund
WHO	World Health Organization
WHOM	World Health Organization Member

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Abstract

Background: Immunization coverage in many parts of the Ethiopia is still found to be less than desired one and under-five mortality is also higher. Besides this there is a considerable regional discrepancy in terms of immunization coverage. Particularly, in SNNPR had a low level of full immunization coverage by far less than the global and national target. So, the aim of this study was to assess full vaccination coverage and associated factors among children aged 12–23 months in wolkite town, SNNPR, Ethiopia

Methodology: A community based cross-sectional study was conducted from May 09 to 29; 2022. Systematic sampling technique was employed to select 323 mothers/care givers with children aged 12-23 months. Data was collected by face-to-face interview and observation checklist. Data was entered and analyzed using SPSS statistical package Descriptive statistics was done to assess basic respondent characteristics. Bivariable logistic regression was used to identify candidate variables, and multivariable logistic regression was employed to identify independent predictor. P- value<0.05 considered as statistically significant.

Results: A total of 323 mothers to children pairs were interviewed. Based on vaccination card and mothers recall, about (92.0%) of the children took at least a single dose of vaccine. About (79.6% with CI= 73.0-83.9)of children were fully vaccinated. The odds of full immunization was 0.310 times less than among children whose mother has no knowledge of importance of childhood immunization than children whose mother has knowledge of importance of immunization service {AOR0.310(95%CI=0.132-0.726)}.The odds of full immunization was 0.184 times less among children whose parents walk greater than or equal to thirty minutes to reach the nearest health facility as compared to children whose parents walk less than thirty minutes to reach the nearest health facility {(AOR 0.184(95%CI=0.011-3.123)}. Mothers who had no postnatal visit after delivery were 0.351 times less likely to vaccinate their children compared to mothers who had postnatal visit after delivery {(AOR 0.351(95%CI=0.152-0.808)}. Another predictive factor for full vaccination was ANC follow up during pregnancy. Mothers who had no antenatal care visits during pregnancy were 7.765 times less likely to vaccinate their children compared to mothers who had ANC visits during pregnancy[AOR 7.765(95% CI=2.571-23.450)]..

Conclusion and recommendation: Efforts should be made to promote women's awareness on the importance of child's vaccination service to improve vaccination coverage through health development army and health professionals working at antenatal care and vaccination units. Vaccination sites should also be further expanded and accessible to the community.

Keywords: Full vaccination, Children aged 12–23 months, Ethiopia

1. Introduction

1.1 Background

Expanded Program on Immunization (EPI) has been one of the world's most cost effective public health strategies to reduce morbidity and mortality associated with infectious diseases in children(1),

The Expanded Program on Immunization (EPI) was initiated in 1974 with the goal of providing universal immunization with essential vaccines(2). They have enabled the eradication of smallpox, lowered the global incidence of polio by more than 99% and neonatal tetanus by 94%, and achieved dramatic reductions in illness, disability and death from measles, diphtheria, pertussis, hepatitis B, rotavirus, yellow fever and invasive bacterial causes of pneumonia and meningitis(3)

In Ethiopia, the Expanded Program on Immunization was launched by providing six traditional antigens in 1980. The Program was reset subsequently and was capable of providing 10 vaccines to under 1 year of age at the moment (4).These vaccines are financed by the GAVI, the National and sub national Government, UNICEF, and WHO and are given without payment in immunization clinics nationwide. World health organization estimated that if all the vaccines currently available against childhood diseases are widely adopted, and if immunization programs can raise vaccine coverage to a global average of 90%, vaccines would prevent an additional two million deaths a year among children under five years(5).

Immunization is one of the most powerful and cost-effective public health tools available, and ensuring its benefits are extended to all is fundamental to achieving the goals set out in UNICEF's Strategy for Health, 2016–2030 – which aims to end preventable maternal, newborn and child mortality – and promoting the health and development of all children(6).

Studies evidenced that vaccine -preventable diseases are still responsible for about 25% of deaths occurring annually among children under five years of age and it is estimated that between two and three million child deaths are averted annually through vaccination against diphtheria, tetanus, pertussis and measles(7)

1.2 Statement of problem

Globally, immunization is the most widely accessed and successful child health intervention in use today.During the period 2000–2015, measles deaths among under-five children declined by 79 per cent, and deaths from neonatal tetanus fell by 83 per cent(8).Despite this progress, global vaccine coverage has stagnated, increasing by only 1 percentage point since 2010(9).

By 2014, one third of the world's 194 countries are not achieving the GVAP goal of 90% DTPc3 national coverage(10). High national immunization coverage rates often mask inequities at the subnational level. For example, while 131 countries achieved at least 90 per cent coverage with DPT3 immunization in 2016, only 52 of these countries could reach at least 80 per cent coverage in all districts(11).

In 2017, 85 per cent of children aged 1 year had been vaccinated with three doses of diphtheria, pertussis and tetanus (DPT3) vaccine. Every year, more than 19 million children miss out on the benefits of complete vaccination and many children receive no vaccines at all(12) This results in more than 1 million deaths from vaccine-preventable diseases each year(13). Nearly 30 per cent of deaths among children under 5 years of age are the result of vaccine-preventable diseases(14).

A report from WHO revealed that around 60% of children's who were not reached with routine immunization services are from 10 countries where majority are from sub-Saharan African countries (15). And five of those African regions including Ethiopia were the region that continues to even increase further the pool of unimmunized children(16).

Immunization has impacts beyond SDG 3. Immunization directly contributes to 14 of the 17 SDGs, as it helps to alleviate poverty (SDG 1), improve education outcomes (SDG 4), foster industry and innovation (SDG 9) and reduce inequalities (SDG 10), and can only be achieved by working in partnership (SDG 17)(17).

Recognizing the role that vaccines and immunization can play in reducing under-5 mortality, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), in consultation with other partners, developed the Global Immunization Vision and Strategy (GIVS) as a framework for protecting children from vaccine-preventable childhood

diseases(18)To ‘translate’ the strategies summarized in the GIVS into practical steps, countries are encouraged to develop comprehensive Multi-Year Plans (cMYP) for immunization(19).

In this regard, the primary objective of the Ethiopian comprehensive multiyear plan is to achieve at least 90% national coverage of immunization and 80% in every district with all vaccines by 2020(4). Moreover, several interventions were also considered to strengthen immunization coverage in Ethiopia. Among them, the introduction of new approaches known as Reaching Every Districts and Sustainable Outreach Services for immunization , expansion of primary health care service, implementation of an integrated health extension package, and training of front line health extension workers are the major interventions done(20).Despite the implementation of these strategies, to accomplish universal coverage in the EPI and reduce under-five mortality, vaccination coverage in Ethiopia was found to be less than the expected one and under-five mortality is also higher. According to the Ethiopian Mini Demographic and Health Survey (EMDHS) report, in 2019 showed that under-five mortality rate was 55 deaths per 1000 live births, close to 2 in 10 children (19%) have not received any vaccinations at all and only 4 out of 10 children (43%) have received all basic vaccinations(21).

Stagnating global immunization coverage rates in many countries led global partners of the Decade of Vaccines Collaborationto initiate the Global Vaccine Action Plan (GVAP) in 2012(22). The Global Vaccine Action Plan 2011–2020 declared by the World Health Assembly in 2012, calls on all countries to reach >90% national coverage for all vaccines in the respective countries’ routine immunization schedule by 2020.This plan states in its mission “to extend, by 2020 and beyond, the full benefits of immunization to all people,regardless of where they are born, whothey are, or where they live”. (23). Moreover, Ethiopia has envisioned to -end all preventable newborn and child deaths by 2035. To this end in 2012, Ethiopia has led the development of the “Promise Renewed Child survival Roadmap” with a commitment to end preventable child death to drop the under-five mortality rate to less than 20/1000 live births by 2035)(24).

Numerous studies documented that socio-economic status of the household, mother’s age, level of education particularly mothers’ education, History of ANC attendance, child’s age, sex of the child, birth place, birth order, place of residence, mother’s knowledge about immunization, mother’s TT status, health workers house holdvisit, missing opportunity, distance to health

institutions, perception about benefit of immunization, and misconception about vaccine contraindication are factors associated with immunization(25–27).

2. Literature review

2.1 magnitude of full immunization

According to WHO reports; by the year 2011 worldwide coverage of three doses of DTP, one dose of measles and three doses of polio vaccine were 83%, 84%and 84% respectively. However, more than one-fifth of the world children were still not fully vaccinated at 12 months of age and remained at risk for vaccine-preventable morbidity and mortality in low income countries [25).

The cross-sectional study conducted in 2018 Ethiopia showed that the prevalence of full immunization was 29.7% by card only and 41.4% by history/recall plus card

According to the 2016 EDHS of Ethiopian: children aged 12-23 months to have received all recommended vaccination they must receive: one dose of each BCG and measles, three doses of each of DPT and polio (excluding polio given at birth).

Vaccination coverage is more than twice high as in urban areas as in rural areas (48%vs20%). Regional variation of vaccination coverage shows highest in A.A(89%),and lowest in Afar(15%). The percentage of children receiving all vaccines increased among both rural and urban areas; however, the percentage was higher in rural than urban(65% vs35%).Vaccination coverage increased gradually over time from 14% in 2000 EDHS to 20% in 2005 EDHS and 24% in 2011 EDHS to 39% in 2016 EDHS. However, the proportion of children aged 12-23 months with no vaccination decreased from 24% in 2005 EDHS to 16% in 2016 EDHS (6).

Cross sectional study conducted in Tigry region, western zone shire Indasselasie town in 2000 shows measles coverage (75.5%), but (15.5%) were not vaccinated for measles. among the vaccinated children most of them are vaccinated at nine month (50%), others vaccinated a after the age of one year (10%) and vaccinated before nine months of age (25.4%). Measles defaulter rate was 23.9% (23).

community based cross sectional study done in Ambo Woreda, Central Ethiopia in 2011,most of the children aged 12-23 months were fully vaccinated(63.7%). and 23.7% of children were unvaccinated (3). In another cross sectional study conducted in Arba Minch Town, Zuria District, Southern Ethiopia in 2013. 73.2% of children aged 12-23month were fully vaccinate, 20.3% were partially vaccinated, and 6.5% received no vaccine at all(18).

A cross sectional study done in MizanAman Town, Bench Maji Zone, South West Ethiopia in 2016 show that about 42.2% of children aged 12-23 months were fully vaccinated, 49.4% were partially vaccinated and 8.4% were not vaccinated at all (19). whereas, a community based cross sectional study done in DebreMarkos Town, Amhara Regional State, Ethiopia in 2016 show that almost all were fully vaccinated (91.7%), others were partially vaccinated (6.6%) and not vaccinated at all (1.7%). The overall dropout rate was 5%(20).

Community based cross sectional study done in Lay Armachiho District, North Gonder Zone, North West Ethiopia in 2014 show that about 76% of children aged 12-23 months were fully vaccinated,8.2% were partially vaccinated and 15.8% were not vaccinated at all. Dropout rate was 6.5%(21). In another mixed cross sectional study done in Woldia Town, Northeast Ethiopia, 2018 shows that 87.7% of children aged 12-23 months were fully vaccinated,11.3% were partially vaccinated and 1% were not vaccinated at all. Dropout rate was 9% (22).

2.2. Factors Affecting Full Vaccination

There are many factors that affect vaccination acceptance either positively or negatively independent of whether vaccination services are easily available or not. Understanding the total structural, environmental and socio cultural context within which a vaccination program is meant to function helps to have clear pictures of the issue at stake. Among the methods utilized to promote vaccination acceptance, social mobilization and mass media have been exercised in many developing countries (26).

A cross sectional study conducted among children age from 12-23 months in Hosanna Town, South Ethiopia in 2014 showed that children are more likely to be fully vaccinated if mothers/care takers attended greater than three ANC follow up, vaccinated tetanus toxoid, mothers who have good knowledge about EPI, age to begin, finish and session needed for vaccination. On the other hand, children are less likely to be fully vaccinated if mothers have poor knowledge of expanded program immunization; mothers knew two or less vaccine preventable disease (24).

In another cross sectional study conducted in MizanAman Town, Bench Maji Zone, South West Ethiopia, among children age from 12-23 months in 2016 show that out of the total children who were not ever vaccinated, due to fear of side effects of vaccination (44.8%), lack of awareness (31%), their belief that vaccination has no benefit (20.7%), and religious & custom restriction(3.4%) . Also this study show that forgetting appointment date (41.8%) and absence of health worker on health facility on the day of appointment (1.2%) were the major reasons for vaccine drop out. This study also identified that those children whose fathers were literate had 2.42 times more likely to be fully vaccinated than those of illiterate, children who were born at health institution were 2.4 times more likely to be fully vaccinated than those who were born at home, and children whose mothers had good knowledge on vaccination and vaccine preventable disease were 6.18 times more likely to be fully vaccinated than children whose mothers have poor knowledge (19).

A cross sectional study done in Lay Armachiho District North Gondar zone, North West Ethiopia, 2014 showed that the main reasons for not completing vaccination were: being busy in other tasks(24.9%),considering that the vaccines can be given in the future(22.3%), absence of vaccinators(6.5%), not knowing when to come back(4.1%), not knowing the schedule and place

of vaccination(3.2%), vaccination site was far(0.92%), and the child was sick during the schedule(9.7%) .whereas factors associated with full vaccination of children were residence/mothers knowledge of sessions needed to complete child vaccination, sex of the child being male, mothers knowledge of the age at which the child to be fully vaccinated, and having tetanus toxoid vaccination (21)

In another study done in DebreMarkos Town, Amhara Regional State, Ethiopia, 2016 among children aged 12-23 months show that factors associated with full vaccination were the child's sex being male(males were three times more likely to be fully vaccinated when compared to females),the type of pregnancy(wanted pregnancy were two times more likely for complete vaccination), ANC follow up during pregnancy(mothers who had at least two ANC follow up during pregnancy were four times more likely to vaccinate their children), and distance from vaccination site(parents who were less than or equal to twenty minutes away from the vaccination site three times more likely to vaccinate their children as compared to parents found more than twenty minutes away from the vaccination site) (20).

1.3 Significance of the study

The current study was intended to inform a need for credible attention by showing the coverage of full vaccination and identifying significant contributors for coverage of full vaccination. There are many expected benefits in conducting this study. Among those benefits, findings of the study will be an important input in preventing vaccine related health problems and promoting health and safety of children for Gurage zone health and wolkite town health unit. This study also enables concerned body (wolkite town health department) to give more attention to new generation (children), prioritize the problem and design effective interventions .Additionally it will serve as a baseline document by giving prompt ideas on full vaccine coverage, for scholars or students and offer important information's for further studies.

2.3 Conceptual Framework

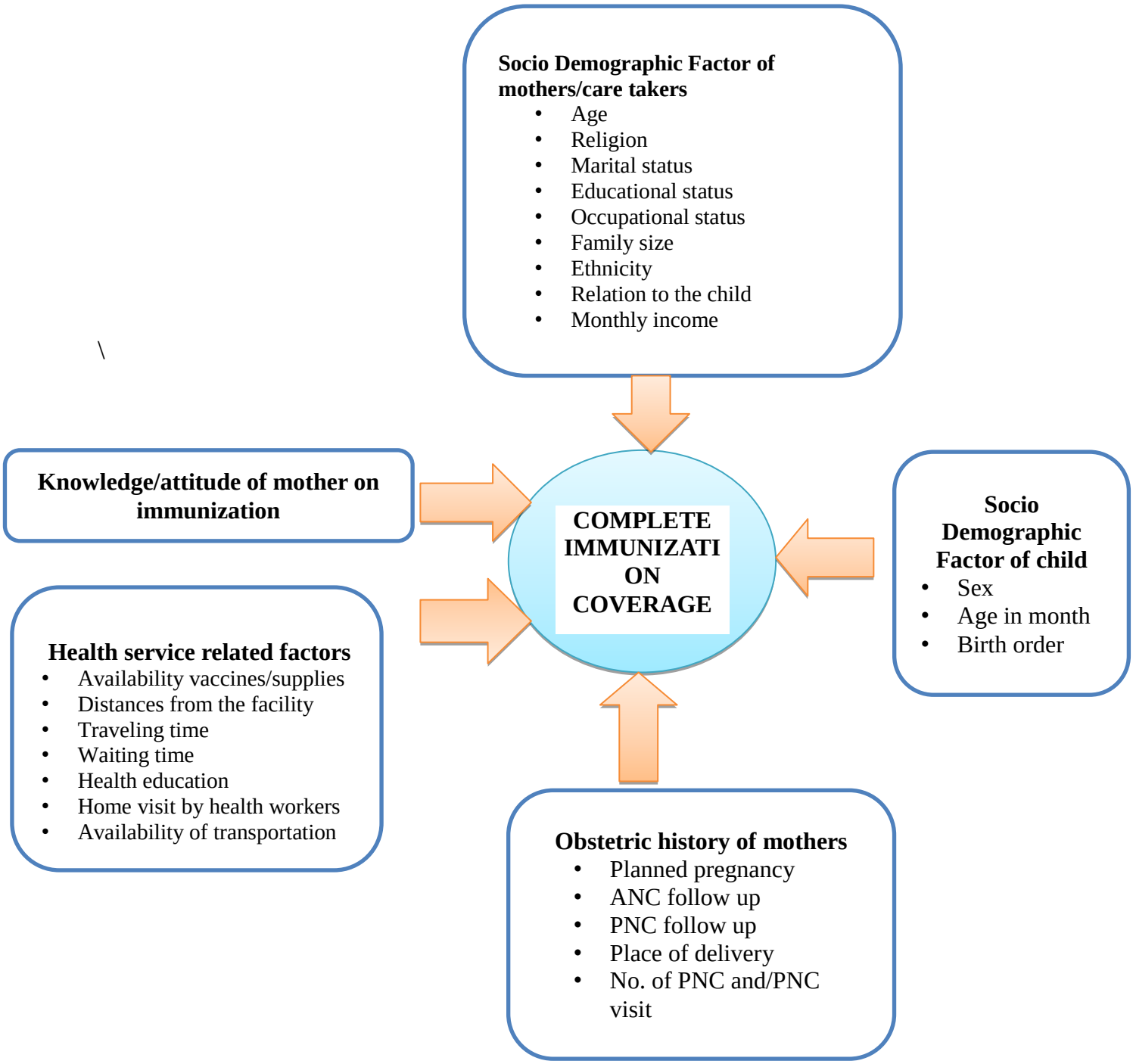

Figure 1: Conceptual framework for full immunization coverage and associated factors among mothers and children aged 12-23 months pair adapted from literatures

3. Objectives

3.1 General objective

- To assess full vaccination coverage and associated factors among 12-23 months old children in Wolkite town SNNPR, Ethiopia 2022.

3.2 Specific objective

- To assess full vaccination coverage among 12-23 months old children in Wolkite town
- To assess factors associated with full vaccination among 12-23 months old children in Wolkite town.

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4. Methodology

4.1 Study area

Wolkite town is the capital city of Gurage zone which is located at 155 km to the south of Addis Ababa & 430 km from Hawassa. The town is bordered by kebenaWoreda from north, south & north east &AbeshigeWoreda from south east and west

The town has total population of 43,455 population (21,293(49%) male and 22,162(51%) female) with 8611 reproductive age group women and women who gave birth within the last 12 month in the town is 1433 (Data from town health office).

The town has 3sub cities and 6 kebelle. It has also 2 governmental health center, 9 medium private clinics, 13drug stores, and18health extension worker. (Wolkite municipality)

The study was conducted in Wolkite town which has three sub cities. Bekur, Addis and Gubrye.Bekur sub city has two Keble known as Edigetber and Addishiwot. Edigetber has a total population of 7952 of them 3639 are males and 4038 of them are females. Edigetber also has 1559 household. AddishiwotKeble has a total population of 7336 with 1525 households. It is also divided into 5 villages. (Bekur sub city municipality office, 2017)

Addis sub-city comprises three Keble (Menaheria, Selamber and Edigetchora),The total population of the sub-city is about 21237 with 10340 males & 10897 females. There are 4303 households.(Addis sub city municipality office, 2017)

4.2 Study design and period

A community based cross sectional study was conducted in wolkite town from May 09-29, 2022.

4.3 Source population

Allhouseholds having 12-23months old children, residing wolkite town was our source population.

4.4 Study population

All randomly selected 12-23 months old children in the selected kebele in wolkite town who fulfill the inclusion criteria was study population.

4.5 Sampling unit
Those households with 12 -23 months old children in selected kebele.

4.6 Study unit
The study unit was all selected mothers/care givers with 12-23months old children in the selected households

4.7 Inclusion criteria
The inclusion criteria were all mothers' who have 12-23months old children and care givers whose age is above15 years old living in wolkite town more than six months.

4.8 Exclusion criteria
Critically ill mothers or care givers, mothers/ care givers who was/ were not at home during data collection and care givers age below 15 years old.

4.9 Sample size determination
The required sample size was determined using single population proportion formula with the assumption of 95% Confidence interval land the key proportion of the prevalence of vaccination coverage (p) is 27.7% which is conducted in SNNPR in Hosana town (24) with 5% marginal error.

$ni=z^2 (1-p)p/w^2$, where p=proportion of immunization coverage.

(1-p)=proportion of underutilization of immunization.

W =marginal error,

Z =confidence interval

ni=sample size

$ni= (1.96)^2(1-0.277)(0.277)/(0.05)^2$

ni=307.7 (=308), adding 5% of non-response rate (=15)

=308+15=323

=323

The total sample size was 323

4.10 Sampling technique

By using random sampling technique 3 kebelles was selected from a total of 6 kebelles and In order to get the samples, the sample size is proportionally allocated to each of three kebelles and after samples proportionally allocated the “k” value was fixed. Finally participant mothers/care givers was selected using systematic sampling methods. The first household was identified by lottery method. If two eligible children are present at the household level one was selected by simple random sampling method.

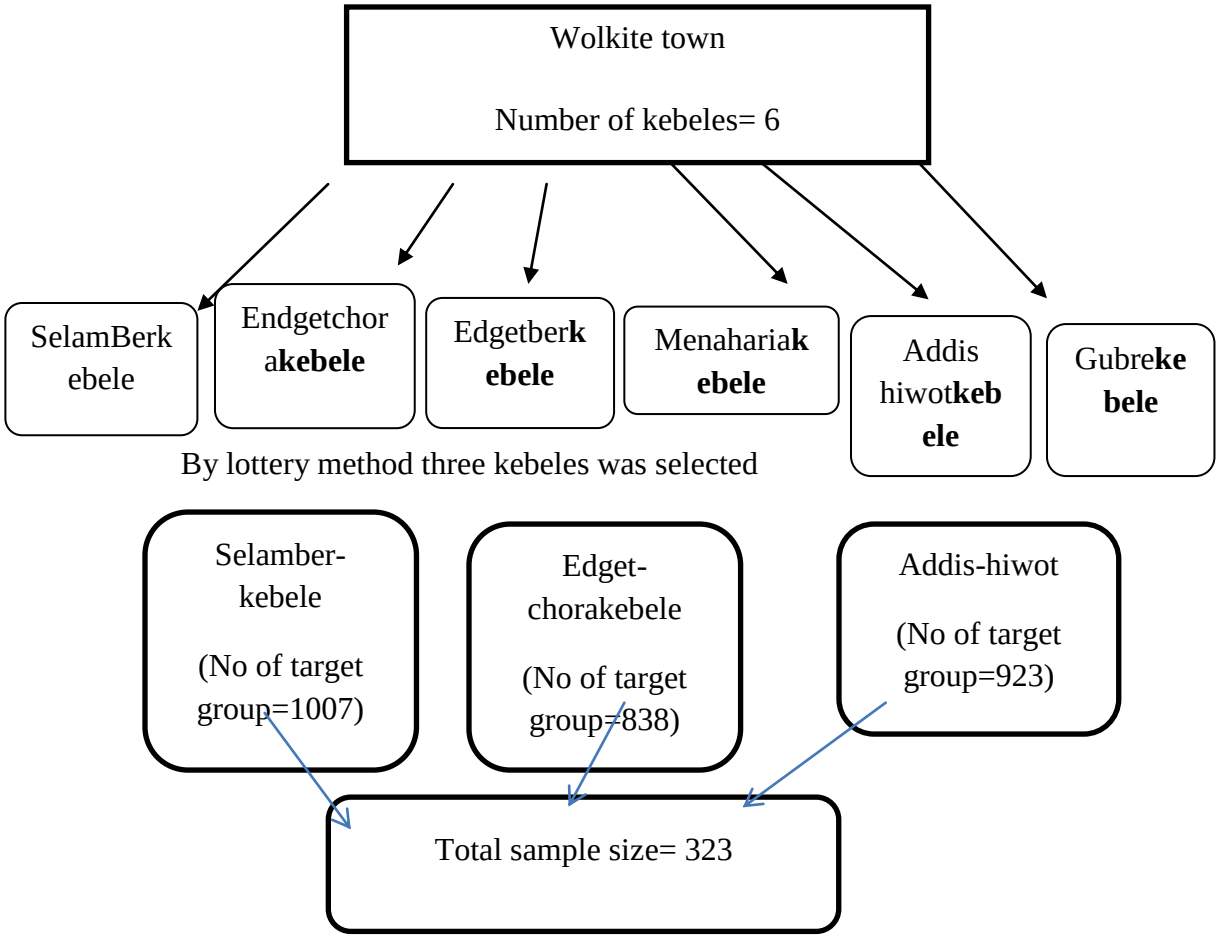

Figure 2: Diagrammatic representation of sampling procedure wolkite town Gurage zone, Ethiopia, 2022.

The total number of targeted groups three kebeles given as N= 1007+838+923= 2768. The number of targated groups from SelamberKebele calculated as n1=1007/2768*323, for Edget-chora n2= 838/2768*323 and for Addis-hiwot n3=923/2768*323

4.11 Study variables

Dependent variable:-Full vaccination coverage

Independent variables:-Socio-demographic factors of the mother/caregivers(Age, sex, martial status, religion), Socio demographic factors of the child(Sex, age in month and birth order), Knowledge/attitude of the mother on immunization, Obstetrics history of the mothers(Planned pregnancy, ANC follow up, PNC follow up, place of delivery and number of PNC and /PNC visit) and Health service related factors(Availability vaccines, distances from the facilities, traveling time, waiting time, health education, home visit by health workers and availability of transportations).

4.12 Operational definitions

Fully Vaccinated:- A 12 to 23-month-old child who received one dose of BCG ,at least three doses of pentavalent, at least three doses of OPV, one dose of IPV, two doses of Rota, and one dose of measles vaccine by card and information from the mother.

Non-Vaccinated:- A child 12 to 23 months old who did not get any vaccine

Partially Vaccinated: - A child 12 to 23 months old who had missed any of vaccine out of the total given vaccines.

4.11 Data collection tools and procedures

Semi structured interviewer administered questionnaire was used to collect the data. The questionnaire first prepared in English and translated to Amharic. Data was collected by fourth year nursing students and collected by house to house visit and checking the vaccination card as well as BCG scar. For those whose vaccination cards were not available or lost the mothers/care givers will be asked on vaccination status of their children. For instance, in case of DPT and polio, the mothers/care givers were asked to report the number of vaccines that the child has received. In order to reduce the recall bias, different recalling techniques such as route of administration, (checking injection site, presence of scar on upper arm whether the child has taken vaccine orally) was used. The household members, who were not available in the first visit, will revisit for two or more times.

4.12 Data quality and control

Data quality was controlled by discussing on questionnaires with principal investigators and advisors about the overall data collection procedures before starting the actual data collection and finally an ongoing supervision was made by revising the data before analysis to avoid error and misunderstanding of data collection. The collected data was checked for completeness, consistency, accuracy and clarity by principal investigators on a daily base.

4.13 Data processing and analysis

Data was checked for completeness, coded and, finally it was entered, cleaned and analyzed by using SPSS version 20. Descriptive statistics like frequency, percentage and tables was used. Finally, variables that had significant associations with full immunization was identified based on the adjusted odd ratio (AOR) with a 95% CI and p-value <0.05.

4.15 Ethical consideration

Data was collected after getting written permission from the district health office and each selected kebeles administrators. Study participant (mothers\care givers) was requested to give their informed verbal consent after receiving adequate explanation about objective, purpose, confidentiality, benefit and risk in participating in this study. The respondents, rights to refuse or withdraw from participation in the study were also fully acknowledged and strict confidentiality was assured.

5. Result

5.1. Socio-demographic characteristics of children and mothers

A total of 323 pairs of mothers/care givers and child aged 12-23 months old were interviewed with response rate of 100%. The age of mothers in this study was ranged from 20-42 Years with mean and median of 28 years and 27 years, respectively. Most of the respondents (85.7%) have at least primary education. About 93% of the respondents were married. More than 60% of the households have family size of below 5 (64.1%).About 59.1%of respondents walk 30-60 minutes to reach the nearest health facility and 50.8% of them were males (Table 1).

Table 1: Socio-demographic characteristics of children and mothers in wolkite town, Gurage Zone, Ethiopia, 2022 (n =323).

Variable		Frequency	%
Child sex	Male	164	50.8
	Female	159	49.2
Mothers Age	20-24	75	23.2
	25-29	158	48.9
	30-34	28	8.7
	>=35	62	19.2
Mothers Educational Status	No Education	46	14.2
	Primary	157	18.6
	Secondary	64	19.8
	College &Above	56	17.3
Marital status	Single	10	3.1
	Married	298	92.3
	Divorced	9	2.8
	Widowed	6	1.9
Family size	<5	207	64.1
	>=5	116	35.9
Time to reach the nearest health facility	<30 min	114	35.3
	30-60min	191	59.1
	>60 min	18	5.6

5.2. Maternal and child health characteristics

About 272(84.2%) of the mothers have attained antenatal care at least twice during their pregnancy.About 293(90.7%) of children delivered in the health institution (Table 2).

5.3. Mothers' awareness on importance of vaccination service and documentation (card)

Most (95.3%) of the mothers replied that vaccination service is important for preventing childhood vaccine preventable diseases. 205(63.5%) of the respondents said that vaccination documentation is important for identifying which vaccination is given and due(Table 2).

Table 2T:- Maternal and child health characteristics in wolkite Town, Gurage zone, SNNPR, Ethiopia, 2022 (n=323)

Variables		Frequency	%
ANC Follow up	Yes	272	84.2
	No	51	15.8
Number of ANC visits	≤3	37	13.6
	>3	236	86.4
vaccination service is important for	Preventing childhood vaccine preventable diseases	308	95.3
	Do not know	15	4.6
Place of child's delivery	Health facility	293	90.7
	Home	30	9.3

5.4. Vaccination coverage by card plus recall method

Among the total, 257 (79.6%) with (p=.000 and CI .133,.444) of children were fully vaccinated based on vaccination card and mothers recall method and about (92 %) of children took at least a single dose of vaccine. About 66(20.4%) of children were partially vaccinated. Dropout rate, the proportion of children who started a certain vaccine but not complete the next intended vaccine was 12% for BCG to measles, 4.9% for OPV1 to OPV3.

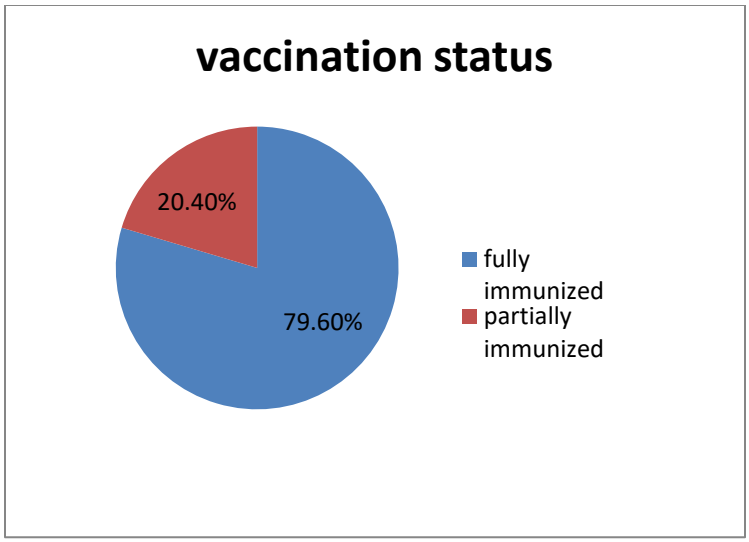

Figure 1: Vaccination status children from 12-23 months old in wolkite town Gurage zone, SNNPR, Ethiopia 2022.

Table 3: Vaccination Coverage of children aged 12–23 months based on child vaccination card and mothers recall, in wolkite town, Gurage Zone, SNNPR, Ethiopia, 2022

	Coverage by card	%	Coverage by recall	%	By BCG scar	
						%
BCG	297	92.0	247	76.4	297	92.0
OPV0	26	7.9	27	8.4		
OPV1	263	87.4	58	18.0		
OPV2	258	85.4	137	42.4		
OPV3	251	83.1	57	17.6		
Pentavalent1	263	87.4	92	28.0		
Pentavalent2	258	85.4	57	17.4		
Pentavalent3	251	83.1	118	36.0		
PCV1	263	87.4	92	28.0		
PCV2	258	85.4	57	17.4		
PCV3	251	83.1	118	36.0		
Rota1	263	87.4	183	55.8		
Rota2	258	85.4	86	26.2		
IPV	**231**	**79.6**	**129**	**39.9**		
Measles	262	81.1	220	67.1		

Table 4: Factors associated with full immunization status of children in Gurage Zone, Ethiopia, 2022.

Variables	Variable category	fully immunized		COR(95% CI)	P -value	AOR(95% CI)	P-value
		Yes	No				
Maternal educational status	Not read & write	11 (3.4%)	4 (1.2%)	1.000			
	Read & write	24 (7.4%)	7 (2.1%)	1.528(0.430-5.430)	0.512	0.937(0.214-4.103)	0.931
	Primary education	126 (39.0%)	31 (9.5%)	1.905(0.698-5.197)	0.208	2.062(0.597-7.118)	0.253
	Secondary education	60 (18.5%)	4 (1.2%)	2.258(1.152-4.427)	0.018	2.070(0.903-4.747)	0.086
	College and above	36 (11.1%)	20 (6.1%)	8.333(2.638-26.326)	0.000	6.690(1.695-26.401)	0.007
Marital status	married	242 (74.9%)	56 (17.3%)	1.00	0.097		
	single	6 (1.8%)	4 (1.2%)	4.321(0.850-21.979)	0.078		
	Divorced	6 (1.8%)	3	1.500(0.195-11.536)	0.697		
	Widowed	3	3	2.000(0.241-16.612)	0.521		

ANC visits	Yes	230 (71.2 %	42 (13.0 %)	1.000			
	No	27 (8.3%)	24 (7.4%)	4.868(2.565-9.238)	0.000	7.765(2.571-23.450)	0.000
Family size in the house hold	<5	165 (51.0 %)	42 (13.0 %)	1.000			
	>= 5	92 (28.4 %)	24 (7.4%)	1.025(0.584-1.799)	0.932		
Family living condition	Both alive	212 (65.6 %)	56 (17.3 %)	1.000	0.150		
	Mother only alive	33 (10.2 %)	4 (1.2%)	1.893(0.680-5.260)	0.222		
	Father only alive	12 (3.7% 0	6 (1.8%)	4.125(0.990-17.190)	0.052		
Sex of the child	Male	126 (39.0 %)	38 (11.7 %0	1.00			
	Female	138 (42.7 %)	28 (8.6%)	0.709(0.411-1.223)	0.216		
Place of birth	Health institution	241 (74.6 %)	52 (16.0 %0	1.00			
	Home	16	14	4.055(1.864-8.823)	0.000	2.068(0.529-8.087)	0.296

		(4.9%)	(4.3%)				
Time taken to reach the immunization facility from home	Less than 30 minutes	79 (24.4%)	35 (10.8%)	1.00	0.003		
	30-60 minutes	161 (	30 (	7.532(.964,58.838)	0.054	0.104(0.006-1.704)	0.113
	More than 60 minutes	17 (5.2%)	1 (0.3%)	0.316(0.040-2.462)	0.271	0.184(0.011-3.123)	0.241
Do mother know vaccination schedule	Yes	127 (39.3%)	46 (14.2%)	1.00			
	No	127 (39.3%)	19 (5.8%)	0.413(0.229-0.744)	0.003	0.310(0.132-0.726)	0.007
Was pregnancy planed	Yes	252 (78.0%)	56 (17.3%0	1.00			
	No	5 (1.5%)	10 (3.0%0	9.000(2.960-27.361)	0.000	6.581(1.696-25.540)	0.006
Post natal follow up	Yes	38 (11.7%)	19 (5.8%)	1.00			
	No	218 (67.4%0	47 (14.5%0	0.443(0.235-0.833)	0.012	0.351(0.152-0.808)	0.014

6. Discussion

This study tried to assess level of vaccination coverage among children aged between 12-23 months living in 3 kebeles. Full vaccination status of children was confirmed using vaccination card of children and mothers recall method. This study found that the level of vaccination coverage in the study area using either vaccination card or maternal or care giver recall method was 79.6%. Coverage for each vaccine was 92.0% for BCG, 87.4% for OPV1, 85.4% for OPV2, 83.1% for OPV3, 87.4% for pentavalent1, 85.4% for pentavalent2, 83.1% for pentavalent3, 87.4% for pneumococcal conjugated vaccine (PCV1), 85.4% for PCV2, 83.1% for PCV3, 87.4% for Rota1,85.4% for Rota2, and 80.9% for measles vaccine.

Dropout rate from BCG to measles was higher than dropout rate from pentavalent1 to pentavalent3 and from PCV1 to PCV3. Because of the relatively longer interval from BCG to measles, a number of children may not return for measles vaccine and this make the coverage rate for this antigen to be lower than other vaccines. However, this finding is better when compared to other studies such as EDHS 2016, MizanAman town, Bench Maji Zone, South West Ethiopia, Bench Maji Zone, Debremarkos town, Amhara regional state Ethiopia in 2016 and other studies done in different regions of Ethiopia [21,22]. This study showed that there is decline in coverage of vaccination from BCG (92.0%) at birth or at 6 week of birth to measles (81.1%) and the proportion of fully vaccinated children (79.6%) which indicated that there was significant proportion of defaulting children. Regarding factors associated with full vaccination status of children, time taken to reach the nearest health facility, postnatal visit after delivery, ANC visit, maternal knowledge on vaccination schedule and maternal educational status were found to be significantly associated with the outcome variable. The odds of full immunization was 0.184 times less among children whose parents walk greater than or equal to thirty minutes to reach the nearest health facility as compared to children whose parents walk less than thirty minutes to reach the nearest health facility{(AOR 0.184(95%CI=0.011-3.123)}. This finding is consistent with study done in DebreMarkos Town, Amhara Regional State, Ethiopia (20). It was identified that full vaccination status of children was 0.310 times less among mothers who have no knowledge on the vaccination schedule as compared to mothers who have knowledge on vaccination schedule{(AOR 0.310(95% CI=0.132-0.726)}. This kind of knowledge can change mother's health seeking behavior which in turn enhances vaccination coverage of a given area. This finding was similar with study done in MizanAman Town, Bench Maji Zone, South West, and Ethiopia (19). Another predictive factor for full vaccination was postnatal visit after delivery. Mothers who had no postnatal visits during pregnancy were 0.351 times less likely to

vaccinate their children compared to mothers who had postnatal visit after delivery {AOR 0.351(95% CI=0.167-0.820)}. This might be because mothers during postnatal visit would receive counseling and education about the importance of childhood vaccination which enhances mothers to vaccinate their children. This finding was similar with study done in debremarkosAmahara regional state, Ethiopia 2016(20). Another predictive factor for full vaccination was ANC follow up during pregnancy. Mothers who had no antenatal care visits during pregnancy were 7.765 times less likely to vaccinate their children compared to mothers who had ANC visits during pregnancy[AOR 7.765(95% CI=2.571-23.450)]. This might be because mothers during ANC visit would receive counseling and education about the importance of childhood vaccination which enhances mothers to vaccinate their children. This finding was similar with study done in debremarkoseAmahara regional state, Ethiopia 2016(20).

Maternal education level was another predictive factor for full vaccination of children. The odds of full vaccination was 1.905 times less among children whose parents had primary education as compared to children whose parents had no primary education AOR 1.905(95%CI=0.698-5.197)} .This might be because educated mothers have more work load and responsibility as compared to non-educated mothers . This finding was similar with study done in Arba Minch Town, Zuria District, Southern, Ethiopia (18). In this study marital status, family size, family living condition and sex of the child have no significant effect on vaccination status of the children.

Strength and Limitation of the study

Strength of the study

We try to assess the level of vaccination coverage based on vaccination card as well as maternal recall method.

Limitation of the study

Regarding limitation of this study, vaccination coverage might have been under reported or over reported by mothers/care givers. Because, mothers may not remember the numbers of vaccine that the child took due to recall bias. As a consequence, recall bias may affect the quality of data. Since the outcome and factors were assessed simultaneously, it may not be possible to establish cause effect relationship between outcome variable and associated factors

7. Conclusion and Recommendation

Vaccination coverage in the current study found to be higher among children aged 12–23 months in Wolkite Town compared to the previous study done in MizanTepi Town, Bench Maji Zone in South West Ethiopia. Time taken to reach the nearest health facility, educational status of care giver/ mother, place of birth, ANC follow up during pregnancy, planed pregnancy, postnatal care and maternal knowledge of vaccine schedule, were found to be significantly associated with full vaccination status of children.

Recommendation

Generally, the findings of this study have important policy implications for health intervention programs and underline the view that encouraging awareness of the community on the importance of the recommended vaccination may have a considerable importance on children's' health. Therefore, the following recommendations were forwarded based on the findings of this study.

- Health extension workers encourage mother to have ANC and PNC follow up
- Efforts should be made to promote women's awareness on the vaccination schedule to improve vaccination coverage through health development army and health professionals working at antenatal care and vaccination units.
- Vaccination sites should also be further expanded and accessible to the community.
- Effort should be done to promote health institution delivery

Reference

1. Waisbord S, Larson H. Why Invest on Communication for Immunization? Evidence and lessons learned. A joint publication of the Health Communication partnership based at Johns Hopkins Bloomberg School of Public Health Center for Communication Program and UNICEF. New York; June 2005.

2. Basu RN (1982) Expanded programme on immunization and primary health care. J Commun Dis 14(3):183–188.

3. Global Routine Immunization Strategies and Practices (GRISP): a companion document to the Global Vaccine Action Plan (GVAP).2016.

4. "Ethiopia National Expanded Programme on Immunization; Comprehensive Multi-Year Plan 2016–2020," Addis Ababa: Federal Ministry of Health, Ethiopia, 2015.

5. United Nations. The Millennium Development Goals Report. New York: 2006. United Nations; October, 2006.

6. Ozawa, S., et al., 'Return on Investment from Childhood Immunization in Low- and Middle-income Countries, 2011–20', Health Affairs (Millwood), vol. 35, no. 2, 2016, pp. 199–207.

7. Yenit MK, Assegid S, Abrha H (2015) Factors Associated With Incomplete Childhood Vaccination among Children 12-23 Months of Age in MachakelWoreda, East Gojjam Zone: A Case Control Study. J Preg Child Health 2: 180. doi:10.4172/2376-127X.1000180.

8. United Nations Children's Fund, 'UNICEF reaches almost half of the world's children with life-saving vaccines', UNICEF, New York, 26 April 2017, <www.unicef.org/media/media_95895.html>, accessed 17 October 2017.

9. Strategic Advisory Group of Experts on Immunization, 2016 Midterm Review of the Global Vaccine Action Plan, 2016.

10. World Health Organization. 2014 Assessment Report of the Global Vaccine Action Plan. http://www.who.int/immunization/global_vaccine_action_plan/SAGE_DoV_GVAP_Assessment_report_2014_English.pdf?ua=1.

11. United Nations Children's Fund, 'Millions of children are still not reached by potentially life saving vaccines', UNICEF, <https://data.unicef.org/topic/child-health/immunization/>, accessed 24 May 2018.

12. World Health Organization, 'Vaccination coverage', Global Health Observatory data, <www.who.int/gho/immunization/en/>, accessed 17 October 2017.

13. World Health Organization, 'Immunization coverage', WHO, 16 July 2018, <www.who.int/mediacentre/factsheets/fs378/en/>, accessed 16 August 2018.

14. United Nations Children's Fund, 'Child Survival: Under-five mortality', March 2018, <https://data.unicef.org/topic/child-survival/under-five-mortality/>, accessed 16 August 2018.

15. A. Gentile, "Pediatric disease burden and vaccination recommendations: understanding local differences," International Journal of Infectious Diseases, vol. 30, pp. 1019–1029, 2010.

16. World health organization (WHO), Children and the millennium development goals progress towards a world fit for children, 2007.

17. United Nations Children's Fund (UNICEF). UNICEF IMMUNIZATION ROADMAP 2018–2030. 2018 Sep;

18. Global Immunization Vision and Strategy 2006–2015. Geneva: WHO and UNICEF. Online at: http://www.who.int/immunization/givs/en/index.html, accessed August 2011.

19. WHO-UNICEF guidelines for developing a comprehensive multi-year plan (cMYP). Geneva: WHO Department of Immunization, Vaccines and Biologicals. Document WHO/IVB/05.20. Online at: http://www.who.int/immunization_financing/tools/en/, accessed August 2011.

20. EFMOH, Ethiopia National Expanded Programme on Immunization; Comprehensive Multi-Year Plan 2011 – 2015, Federal Ministry of Health, Addis Ababa, 2010.

21. EPHIEE, ICF. Ethiopia Mini Demographic and Health Survey 2019: Key Indicators. USA: EPHI and ICF; 2019.

22. World Health Organization (2013) Global vaccine actionplan2011–2020.

23. Gavi The Vaccine Alliance (2019) Gavi's strategy phase IV(2016–20)andV(2021–25).

24. IA2030 Consortium (2019) Immunization Agenda 2030. A global strategy to leave no one behind. W. IVB, Editor.WHO,Geneva.

25. Rahman M, Obaida-Nasrin S (2010) Factors affecting acceptance of complete immunization coverage of children under five years in rural, Bangladesh.

26. Tadesse H, Deribew A, Woldie M (2008) Predictors of defaulting from completion of child immunization in south Ethiopia,A case control study.

27. Maekawa M, Douangmala S, Sakisaka K, Takahashi K, Phathammavong O, et al. (2007) Factors affecting routine immunization coverage among children aged 12-59 months in Lao PDR after regional polio eradication in Western Pacifi c Region.

28. United Nations Children's Fund Programme Division Health Section, UNICEF Approach to Health Systems Strengthening: A resource paper for the UNICEF Strategy for Health 2016-

2030, UNICEF New York, June 2016, <www.unicef.org/health/files/UNICEF_HSS_Approach_-_8Aug16.pdf>, accessed 18 October 2017.

29. Centers for Disease Control and Prevention CDC Global Immunization Strategic Framework 2021–2030 Atlanta, GA: May 2021 www.cdc.gov/globalhealth/immunization CDC Info: (800) 232-4636.

30. World Health Organization. Regional Office for Africa.Regional Strategic Plan for Immunization. 2014 2020;

Annex

Informed Consent form

WOKITE UNIVERSITY COLLEGE OF MEDICINE AND HEALTH SCIENCE

DEPARTMENT OF NURSING RESEARCH QUESTIONNAIRE FORMAT

We are wolkite university 4th year Nursing students in Wolkite University, working as a data collector in this study to assess the prevalence of full vaccination among children in Wolkite Town .On this questionnaire we are going to ask some questions and the answer will be kept completely confidential. You can refuse to answer; even you may end this interview any time you want too. However, your honest answer to this questions will helps us to understand better about how children are vaccinated and what the associated factors that affect its utilization are. In order to develop good strategies and solve the problems to the future, we would greatly appreciate your truth full and active participation for responding to this questionnaire.

Would we precede the interview a) yes b) no

Thank you!

8.2 Questionnaire

Annex II. A: - English Version Questionnaire

S.No.	Question	Response	Skip
Part I: Socio-Demographic Characteristics of mothers or caretakers			
101	Age	/_____/ complete in year	
102	Relations of the respondent to the child	1. Biological 2. Not biological	
103	Ethnicity	1. Gurag 2. kebena 3. Amhara 4. Oromo 5. Tigre 6. Others (specify)…….	
104	Marital status	1. Marrie 2. Divorced 3. Widowed	

		4. Single 5. Separated	
105	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others(specify)_____	
106	Occupational status	1. Housewif 2. Merchant 3. Government employed 4. Daily worker 5. Other (specify)……	
107	Educational status of mother	1. Not read and writ 2. Read and write 3. Primary school(1-8) 4. High school (9-12) 5. College/university	
108	Numbers of family live in the household	… … . . / in number	
109	Family living conditions	1. Both father and mother aliv 2. Mother only 3. Father only 4. Both not alive	
Part II socio-demographic characteristics of the child			
201	Sex of the child	1. Male 2. Fema	
202	Age of the child	_____ in months	
203	What is the birth order of the child?	1. Firs 2. Second 3. Third 4. Fourth 5. Other(specify)_____	

204	Places of birth	1. Health facility 2. Home	
Part III: Questions related to maternal health care utilization			
301	Did you attend ANC follow up during your pregnancy?	1. Yes 2. No	If "No" skip to Q. 304
302	How many visits you have?	Specify number of ANC	
303	Did you have postnatal care (PNC) follow up?	1. Yes 2. No	If "No" skip to Q. 306
304	How many visits you have?	Specify numbers of PNC	
305	Are you vaccinated for tetanus toxoid vaccine?	1. Yes 2. No	If "No" skip to Q. 308
306	If "yes" for Q306 how many times?	1. One 2. Two 3. Three or more	
307	Was your pregnancy planned?	1. Yes 2. No	
Part- IV- Questions Regarding Vaccination			
401	Has the child taken any vaccination?	1. Yes 2. No	If "No" skip Q402- 412
402	If "yes" does your child took all vaccinations?	1. Ye 2. No	
403	If 'Yes' Do you have a vaccination card of your child?	1. Yes 2. No	If "yes" go to Annex II. B and fillby observing from the card
404	If "Yes" for Q401, was he/she taken BCG vaccine?	1. Ye 2. No	
405	Was he/she taking polio vaccines?	1. Yes 2. No	If "No" skip to Q. 407
406	Which doses of polio vaccine were taken?	1. Polio zero 2. On 3. Two 4. Three	
407	Was the child take IPV at 14 week of age?	1. Ye 2. No	

408	Was the child toke pentavalent vaccine and pneumococcal conjugated vaccine (PCV)?	1. Yes 2. No	If "No" skip to Q. 410
409	Which doses of Penta and PCV was taken?	1. One 2. Two 3. Thre	
410	Was the child toke Rota vaccines?	1. Yes 2. No	If "No" skip to Q. 412
411	If "YES" for Q407 Which dose was taken?	1. Rota one 2. Rota two	
412	Was your child took Measles I vaccines?	1. Yes 2. No	If no skin to Q416
413	At what age of the child was vaccinated? Multiple answers are possible.	1. At 9 months 2. At one year 3. At 15 months 4. Do not remember 5. Other, specify	
414	Was your child took Measles II vaccines?	1. Yes 2. No	
415	At what age of the child was vaccinated? Multiple answers are possible.	1. At 9 months 2. At one year 3. At 15 months 4. Do not remember 5. Other, specify	
416	Was your child fully immunized with the appropriate schedule?	1. Ye 2. No	
417	If "No" what was your reason? Multiple answers are possible.	1. Being busy with other asl 2. By assuming it could be given fo 3. Fear of side effects 4. No vaccine at a health facility 5. Do not know schedule and place 6. Distance of the health facility	

		7. The child was sick 8. Others (specify…….)	
Part- V- Knowledge of mother on vaccine and vaccine-preventable Disease and Health facility-related factors			
5 0 1	Have you ever heard about immunization?	1. Y e s 2. No	If "No" skip to Q 503
5 0 2	If yes for Q No.501, what From where you get the information? (More than one answer is possible)	1. H e a l t h w o r k e r 2. Radio and/or TV 3. Friends 4. School 5. Other(specify)----------	
5 0 3	What is the aim of immunization?	1. T o p r e v e n t d i s e a s 2. For healthy child 3. It has no benefit 4. Do not know	
5 0 4	How many numbers of vaccine-preventable diseases do you know?	1. K n o w o n 2. Know two 3. Know three 4. Know four 5. Know five and above 6. I do not know	
5 0 5	Do you know the vaccination schedule?	1. Y e 2. No	If "No" skip to Q507
5 0 6	At what age of the child starts to get EPI services?	1. J u s t a f t e r b i r t 2. Any time 3. After one month 4. I do not know	
5 0 7	How many vaccination sessions needed for complete immunization?	1. O n 2. Two 3. Three 4. Four	

		5. Five 6. I do not know	
508	At what age the vaccination must complete?	1. Four week 2. Ten weeks 3. After 14 weeks 4. Nine months 5. At 15 months 6. I do not know	
509	How much it takes from your house to the vaccination site in munities?	……in minutes	
510	How much you stay or wait at the health facility?	……in minutes	
511	Is there any health education at the health facility related to vaccination?	1. Yes 2. No	
512	Is there any home visit by health workers?	1. Yes 2. No	
513	Was there readiness of vaccines/supplies at the health facility	1. Yes 2. No	

Annex II. B: - Immunization status with a card checklist

Data collection tool for children's immunization status with a documented source of information (card)

Vaccine/Dose	Visit/round	Vaccinated		Time took	Source of information		Presence of BCG scar	
		Yes	No		By history	By card	YES	NO
BCG	1							
OPV 0	1							
DTP-HepB1-Hib1	2							
PCV 1	2							
OPV 1	2							
Rota 1	2							
DTP-HepB2-Hib2	3							

O P V 2	3						
R o t a 2	3						
P C V 2	3						
DTP-HepB3-Hb3	4						
I P V	4						
O P V 3	4						
P C V 3	4						
M e a s l e s I	5						
M e a s l e s I I	6						

a) Fully vaccinatedb) Partially vaccinatedc) Not vaccinated

<u>Key</u>: - Put 1 for those immunized according to Ethiopian EPI schedule time and 0 for out of that schedule

Source of vaccination service a) Outreach b) Hospital c) Health center d) Private clinic e) NGO

Annex III: Amharic version consent form

የፍቃደኝነትመጠየቂያቅጽ

ጤናይስጥልኝ

ስሜ.....ይባላል።እኛየወልቂጤዩኒቨርስቲ፣

የነርሲንግተማሪስንሆንየዚህጥናትአላማበወልቂጤከተማውስጥከአስራሁለትወርእስከሃያሰስትወርእድሜያላቸዉህፃናትሁ ሉ ን

ም የ ህ ጻ ና ት ክ ት ባ ት መ ከ ተ ባ ቸ ዉ ን እ ና ተ ያ ያዥነትያላቸውጉዳዮችላይመረጃለመሰብሰብነው።።ይህጥናትእድሜዉከ12

እስከ23

ወርየሆነልጅያላቸውእናቶችንያጠቃልላልስለሆነምእ ርስዎበዚህጥናትከሚመለከታቸውእ ናቶችአንዷበ መሆነዎተ ካተዋል፣

ስለዚህእንዲሳተፉበ ትህትናእ ንጠይቀዎታለን።።የእርስዎሰምበጥናቱአይጻፍም፣

እንዲሁምማንኛውምየነገሩኝመረጃሚስጥራዊነቱበተጠበቀሁኔታየሚያዝይሆናል፣

በመሆኑምከዋናአጥኝውበስተቀርማንኛውምግለሰብመረጃውንእንዲያገኝወይምእንዲመለከትአይፈቀድም።።

በጥናቱመሳተፍወይምያለመሳተፍመብትዎየግልምርጫዎብቻይሆናል፣

እንዲሁምመመለስየማይፈልጉትንጥያቄካለእንዲመልሱአይገደዱም።።

ለእርሶዎልናስገነዝቦዎትየምንፈልገውነገርበጥናቱመሰረትለቀረበለዎትጥያቄዎቸየሰጡትንመረጃዎችበሙሉእናቶችስለክትባት ያላቸዉንግንዛቤእናተያያዥተግባራትንለማሻሻልይረዳል።

እስካሁንበነበረንቆይታይሳተፉበትዘንድስለተጠየቁበትፕሮጀክትወይምጥናትአስፈላጊነትየተባሉትንመረጃዎችበሙሉገልፀንለ ዎታል፣በቂመረጃእንዳገኙናእንደተረዱትእናምናለን።

ቀደምብለንእንደገለፅንልዎትበዚህጥናትውስጥተሳታፊበመሆንዎየሚያጋጥዎምንምአይነትተጋላጭነትወይምየጎንዮሽጉዳትየ ለምየሚስጥራዊነቱየተጠበቀሲሆንየሚወስደውጊዜም**20 እስከ 30** ደቂቃዎችንብቻነው።ስለአዳመጡኝአመሰግናለሁ!!

በዚህጥናትለመሳተፍፍቃደኛነዎት?

አዎፈቃደኛነኝ ☐ ፍቃደኛአይደለሁም ☐

የመረጃሰብሳቢውስም.....ፊርማ ----------

መጠይቅየተካሄደበትቀን..... መጀመሪያስአት..... የጨረሰበትሰዓት--------

የተቆጣጣሪስም..... ፊርማ.....

ተ.ቁ	ጥያቄዎች	ለተጠየቁጥያቄዎችመልስሊሆኑየሚችሉአማራጮች	አቅጣጫ
ክፍልአንድ:- የተሳታፊእናቶችዲሞግራፊያዊእናማህበራዊሁኔታዎች			
101	እድሜዎስንትነው?	----------ዓመት	
102	ከህፃኑጋርያለዎትዝምድናምንድንነው?	1. የስጋዝምድ 2. የስጋዝምድናየለኝም	
103	ብሔረዎምንድንነው?	1. ጉራ 2. ቀቤና 3. አማራ 4. ኦሮሞ 5. ትግሬ 6. ሌላ(ይገለፅ)----------	
104	የጋብቻሁኔታ?	1. ያገባ 2. ያላገባች 3. ባሏንየፈታች 4. ባሏየሞተባት	
105	ሀይማኖትዎምንድንነው?	1. ኦርቶዶክስክርስቲያ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ	

		5. ሌላ (ይገለፅ)----------	
106	የሚሰሩትየስራአይነት?	1. የቤትእመቤ 2. የመንግስትሰራተኛ 3. የግልሰራተኛ 4. ነጋዴ 5. ሌላ (ይገለፅ)----------	
107	የትምህርትደረጃዎስንትነው	1. ማንበብናመጻፍየማትችል 2. ማንበብናመጻፍየምትችልነገርግንመደበኛያልሆነ 3. የመጀመሪያደረጃያጠናቀቀች 4. 9-12 ክፍልያጠናቀቀች 5. ሰርትፍኬትእናከዚያበላይ	
108	በቤትዉስጥአብሮየሚኖርየቤተሰብብዛትስንትነዉ?	---------- በቁጥር	
109	የቤተሰብሁኔታ	1. ሁለቱምበህይወትያ 2. አባትብቻበህይወትያለ 3. እናትብቻበህይወትያለች 4. ሁለቱምበህይወትየለሉ	
ክፍልሁለት:- የተሳታፊህጻናትዲሞግራፊያዊእናማህበራዊሁኔታዎች			
201	የህፃኑ/ኗፆታምንድንነው?	1. ወንድ 2. ሴ	
202	የህፃኑ/ኗእድሜስንትነው?	... ... ወር	
203	ህፃኑ/ኗስንተኛልጅወነዉ?	1. የመጀመሪ 2. ሁለተኛ 3. ሶስተኛ 4. አራተኛ 5. ልላ(ይጠቀስ)_____	
204	ልጀዎንየትነዉየዎለዱት?	1. ጤናድርጅ 2. ቤተዎ	
ክፍልሶስት:- የተሳታፊእናቶችየጤናአገልግሎትአጠቃቀምእናየእርግዝናታሪክ			
301	የቅድመዎሊድክትትልነበረዎት?	1. አ 2. አልነበረኝም	አልነበረኝምካሉወደቁጥር 304 ይሂዱ
302	ስንትጊዜነበረዎት?	_____----------	
303	የድህረዎሊድክትትልነበረዎት?	1. አ 2. አልነበረኝም	አልነበረኝምካሉወደቁጥር 306 ይሂዱ
304	ስንትጊዜነበረዎት?	----------	
305	የመንፆቆልፍክትባትተከትበዋል?	1. አ 2. አልነበረኝም	አልነበረኝምካሉወደቁጥር 308 ይሂዱ

306	ስንትጊዜተከትበዋል?	1. አንድ 2. ሁለት 3. ሶስትናበላይ	
307	እርግዝናዎንአቅደዉትነበር?	1. አዎ 2. አይባጋጣሚነዉ	

ክፍልአራት:-የልጆችየክትባትሁኔታእናተያያዝነትያላቸዉመጠይቆች

401	ህጻኑ/ኗከዚህበፊትተከትባ/ቦያዉቃል?	1. አዎ 2. አያዉቅም	አያዉቅምካሉቁጥር402- 412 ይለፉት
402	አዎካሉልጆዎሁሉንምክትባቶችተከትባለች/ቢል?	1. አዎ 2. አልተከተበም/ችም	
403	የክትባትካርድአለዎት	1. አዎ 2. የለኝም	ማየትእችላለዉወደአኔክስሁለት B ይሂዱ
404	እንደተዎለደ/ችየሳንባነቀርሳመከላከያክትባትተከትቧል/ለች?	1. አዎ 2. አልተከተበም/ችም	
405	የልጅነትልምሻመከላከያክትባትተከትቦል/ለች?	1. አዎ 2. አልተከተበም/ችም	አልተከተበም/ችምካሉወደቁጥር406 ይሂዱ
406	ስንትጊዜተከተበ/ች?	1. አንድጊ 2. ሁለትጊዜ 3. ሶስትጊዜ 4. አራትጊዜ	
407	ልጀዎበ 14 ሳምንቱየመርፌዉንየልጅነትልምሻክባትተከትቦል/ለች?	1.አዎ 2.አልተከተበም/ችም	
408	የአምስቱንጸረተላላፊእናየሳንባምችክትባትተከትቦል/ች?	1. አዎ 2. አልተከተበም/ችም	አልተከተበም/ችምካሉወደቁጥር 410 ይሂዱ
409	ስንትጊዜተከተበ/ች?	1. አንድጊ 2. ሁለትጊዜ 3. ሶስትጊዜ	
410	ልጀዎየተቅማጥመከላከያክትባትተከትቦል/ለች??	1. አዎ 2. አልተከተበም/ችም	
411	ስንትጊዜተከተበ/ች?	1. አንድጊ 2. ሁለትጊዜ	
412	ልጀዎ**የመጀመሪያ**ኩፍኝመከላከያክትባትተከትቦል/ለች?	1. አዎ 2. አልተከተበም/ችም	

4 1 3	ልጀዎክትባትሲጀምርእድሜዉ/ዋስንትነበር?	1. በ 9 ወ 2. አንድአመትላይ 3. በ15 ወር 4. አላስታዉስም 5. ሌላ(ይገለፅ)-----	
4 1 4	ልጀዎ**ሁለተኛ**ኩፍኝመከላከያክትባትተከትበል/ለች?	1. አ 2. አልተከተበም/ችም	
4 1 5	ልጀዎክትባትሲጀምርእድሜዉ/ዋስንትነበር?	1. በ 9 ወ 2. አንድአመትላይ 3. በ15 ወር 4. አላስታዉስም 5. ሌላ(ይገለፅ)-----	
4 1 6	ልጀዎበክትባትመርሀግብሩመሰረትሁሉንምክትባትተከትባለች?	1. አ 2. አልተከተበም	አ ል ተ ከ ተ በ ም ካ ሉ
4 1 7	ሙሉዉንለምንአልተከተበም? ከአንድበላይመመለስይቻላል	1. ስ ራ ስ ለ ሚ በ ዛ ብ 2. ሌላጊዜይደርሳልብየ 3. የጎንዮሽጉዳቱንፈርቸ 4. መድሀኒትስላልነበር 5. ጊዜዉንስለማላዉቅ 6. ርቀትስላለዉ 7. ሀመምላይስለነበር 8. ሌላ (ይገለፅ)---------	
ክፍልአምስት፡- ስለክትባትእናጥቅማቸዉየተሳታፊእናቶችንእዉቀትየሚለኩ፤እንዲሁምከጤነተቋምአገልግሎትጋርተያያዥነትያላቸዉመጠይቆች			
5 0 1	ከዚህበፊትስለክትባትሰምተዉያዉቃሉ?	1. አ 2. አላዉቅም	አላዉቅምካሉወደቁ. 503 ይሂዱ
5 0 2	የ ት ነ በ ር የ ሰ ሙ ት ? (ከአንድበላይመመለስይቻላል)	1. ከ ጤ ና ባ ለ ሙ 2. ራዲዮ/ቴሌቪዥን 3. ከጉአደኛ 4. ትምህርትቤት 5. ሌላ(ይገለጽ)--------	
5 0 3	የ ክ ት ባ ት አ ላ ማ ም ን ድ ን ነ ዉ ?	1. በ ሽ ታ መ ከ ላ ክ 2. የታመመዉንለማከም 3. ምንምጥቅምየለዉም 4. አላዉቅም	
5 0 4	ስንትአይነትህመምንበክትባትመከላከልይቻላል?	1. አ ን ድ 2. ሁ ለ 3- ሶስት 4. አራት 5. አምስትእናበላይ 6. አላዉቅም	

505	ልጆዎትንመችእንደሚያስከትቡያዉቃሉ?	1. አ 2. አላዉቅም	አላዉቅምካሉወደቁ. 507 ይሂዱ
506	አዎካሉመችነዉየሚጀመረዉ?	1. እንደተዎለደ 2. በማንኛዉምጊዜ 3. ከአንድወርበሃላ 4. አላዉቅም	
507	አንድልጅሙሉክትባትለመከተብምንያክልየክትባትፕሮግራምያስፈልጋል?	1.አንድ2. ሁለት 3.ሶስት 4.አራት 5. አምስት6. አላዉቅም	
508	አንድልጅክትባቱንመጨረስያለበትመችነዉብለዉያስባሉ?	1. አራትሳምን 2. አስርሳምንት 3. አስራአራትሳምንት 4. ዘጠኝወር 5. አላዉቅም	
509	ከቤትእስከክትባትቦታዉምንያክልይዎስዳል?	..... በደቂቃ	
510	ለማስከተብጤናተቁምላይምንያክልይጠብቃሉ?	..... በደቂቃ	
511	በጤናድርጅቱስለክትባትትምህርትተሰጦዎትያዉቃል?	1. አ 2. አያዉቅም	
512	የጤናባለሙያቤትለቤትመጥቶያዉቃል?	1. አ 2. አያዉቅም	
513	ልጀዎትንየሚያስከትቡበትየጤናተቋምየአገልግሎትእናየአቅርቦትዝግጀትአለዉብለዉያስባሉ?	1.አዎ 2.አላስብም	

ክፍልሯ፡የህፃናትክትባትክትትልውጤትመሰብሰቢያቅፅ

የህፃኑየክትባትሁኔታከክትባትካርድ/ከክትባትመዝገብአንፃርይረጋገጥ።

መደበኛክትባቶችየተሰጡበትንቀናትይመዝግቡ?

የክትባትካርድ/መዝገብክትባትመሰጠቱንየሚያሳይሆኖቀኑካልተፃፈ 99 ይፃፉ።

የክትባትአይነት	ዙር	ህጻኑክትባትወስዱል/ዳለች	ክትባቱየተሰጠበትጊዜ	የመረጃምንጭ	የቢሲጂጠባሳ

		አዎን	አይደለም		ከእናትመረጃ	የክትባትካርድ	አዎን	የለም
ቢሲጂ / BCG	1							
ፖሊዮ 0 /OPV 0	1							
ዳፒቲ-ሄፕ-ሂብ 1/ DPT-HepB-Hib1	2							
ፒሲቪ 1/PCV1	2							
ፖሊዮ1/ OPV 1	2							
ሮታ 1/Rota1	2							
ዳፒቲ-ሄፕ-ሂብ 2/DPT-HepB-Hib2	3							
ፖሊዮ 2/ OPV 2	3							
ሮታ 2/Rota2	3							
ፒሲቪ 2/ PCV2	3							
ዳፒቲ-ሄፕ-ሂብ 3/ DPT-HepB-Hib3	4							
የተዳከመበመርፌየሚሰጥፖሊዮ /IPV	4							
ፖሊዮ 3/ OPV	4							
ፒሲቪ 3/ PCV3	4							
ሜዝልስ 1/Measles I	5							
ሜዝልስ 2/Measles II	6							

ጥያቄዎችንጨርሻለሁ

እጅግበጣምአመሰግናለሁ !!!

አስተያየትካለዎት…….