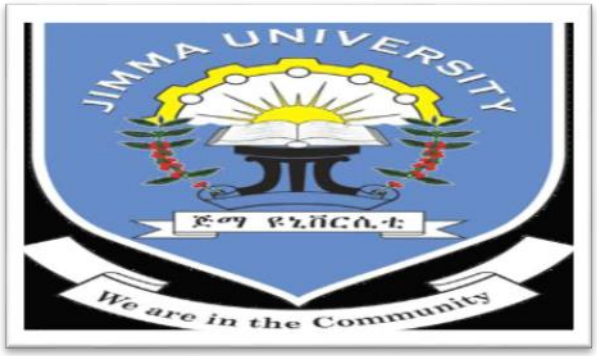


Implementation Evaluation of IMNCI Program at Public Health Centers of Soro District, Hadiya Zone, Southern Ethiopia, 2017

Evaluation Thesis Submitted to Jimma University, Institute of Health, Public Health Faculty, Department of Health Economics, Management and Policy, Health Monitoring and Evaluation Post Graduate unit for Partial Fulfillment of the Degree of Master of Science in Health Monitoring and Evaluation

Principal Evaluator: Binyam Gintamo (BSc)

Jimma University, Ethiopia

June, 2017

Implementation Evaluation of IMNCI Program at Public Health Centers of Soro District, Hadiya Zone, southern Ethiopia

Evaluation Report Submitted to Jimma University, Institute of Health, Public Health Faculty, Department of Health Economics, Management and Policy, Health Monitoring and Evaluation Post Graduate unit for Partial Fulfillment of the Degree of Master of Science in Health Monitoring and Evaluation

Principal Evaluator: Binyam Gintamo(BSc)

Advisors:

- Yohannes Ejigu (MSc, PHD candidate)
- Yisalemush Assefa (BSc, MSc)

Jimma University, Ethiopia

June, 2017

Abstract

Background: *Integrated Management of Neonatal and childhood illnesses an integrated approach to child health that focuses on the wellbeing of the whole child. The program aims to reduce death, illness and disability, and to promote development of under-five child. Since implementation status of IMNCI is not known in the study area, this evaluation study assesses the program implementation from the dimension of availability, compliance and satisfaction of Care takers in selected health center of Soro district, Hadiya zone, southern Ethiopia.*

Objective: *To assesses the implementation of IMNCI program in public health centers of Soro district, Hadiya Zone, Southern Ethiopia, 2016/17.*

Methods: *Facility-based cross-sectional study design with both qualitative and quantitative data collection methods was used in 9 HCs from March5-April 3,2017 in Soro District. A total of 390(92%) care givers were included by proportion of under-five outpatient coverage of HCs.19 key informants for in-depth interview were selected purposely, and 18 health workers observed for 90 observation sessions. Data was collected through face to face interviewer-administered questionnaires, document review checklist, observation checklist and In-depth interview guide. Qualitative data were coded, thematized and categorized manually based on dimensions of study. Formative approach was used. Quantitative data were analyzed using SPSS version 20. Logistic regression was used to identify factors associated with satisfaction of care takers.*

Result: *Based on agreed criteria resources availability were 80.11%, and judged as fair. Less than50% of HCs had Cotrimoxazol and Gentamycin drug than others. Compliance of health workers was 85.79%, and judged as good. About 85% of prescribed drugs were provided correctly for classified disease. Counseling on medication and follow up date were given for less than 80 percent of care takers. Overall satisfaction of clients on IMNCI was 79.5 percent according to the judgment criteria. Care taker who took less than 30 minute to reach health center on foot(AOR=7.7, 95% CI [3.787- 15.593]), caretakers who waited for less than 30 minute to see the health care provider (AOR=2, 95% CI[1.00- 3.77]),care taker who found prescribed drugs in HCs pharmacy(AOR = 3.7,95% CI [1.91-7.34]), care takers who have less than four family size (AOR=2, 95% [1.109-4.061])to be more satisfied in IMNCI service, whereas, care givers who measured weight of child were negatively associated to satisfaction on(AOR= 0.24, 95% CI [0.13-0.45]).*

Conclusion and recommendation: *this study found that overall implementation of Integrated Management of Neonatal and childhood illnesses was judged as good. Availability and compliance were good in health, but still there were gaps observed on correct assessment, classification and treatment of diseases. Care taker satisfaction was fair. Zonal health department, Soro district, and Development partners continue their effort to strengthen the program with trained man power, supplies and improve HWs compliance. Health center have to find different mechanisms to address satisfaction of care givers on availability of drugs, medical equipment's, and waiting time.*

Key word*: implementation status, satisfaction, compliance, availability, Jimma University*

Acknowledgement

I would like to thank my Advisors Yisalemush Assefa and, Yohannes Ejigu for devoting their time in correcting, guiding and shaping my Evaluation Report. I am grateful to Health Monitoring and Evaluation Unit staff for their limitless support.

I also thankful for all Soro district health office staff and health centers professionals who participated in this evaluation and provide important materials for tool preparation.

I would also like to extend my heartiest appreciation to Jimma University to do this evaluation and my deep appreciation also extended to my friends and classmate who support my Thesis on comments and suggestions, I appreciate all your kindness and helpfulness.

Table of content

Contents **page number**

List of tables

List of figures

List of abbreviations

HIV	Human immune virus
AIDS	Acquired immune deficiency syndrome
IMNCI	Integrated management of neonatal and childhood illness
SNNPR	Southern nation nationality people region
IMCI	Integrated management of childhood illness
MDG	Millennium Development Goal
SDG	Sustainable development goal
HSTP	Health sector transformation plan
EDHS	Ethiopian demographic health survey
EA	Evaluability assessment
NMR	Neonatal Mortality Rate
UNICEF	United Nations
WHO	World health organization
HCs	Health centers
ORS	Oral Rehydration Sachets
HWs	Health Workers
IFHP	Integrated Family Health Program
MUAC	Mid Upper Arm Circumference
PFSA	Pharmaceutical Fund and Supply Agency
ZHD	Zonal Health Department

Operational definition

Availability: is the need of clients on the type of services and volume of resources that meet with program users.

Availability of essential drugs: the drugs must not stock out for the last three months in HCs before study period (1).

Availability of Trained HW: at least one IMNCI trained HW in the HC.

Availability of medical Equipment: medical equipment's available at least one functional in number for each kind of medical equipment's during visit day in the HCs (2).

Evaluation judgment matrix: a matrix that shows the list of indicators to be evaluated, and the criteria for giving judgment depending on the finding of the evaluation.

Client satisfaction: it is depending on the perception of clients on the service that provided by the health center have fully addressed in different section of the service.

Drug with right dose: Drug prescribed by HWs for specific common childhood illness to sick under-five child in certain amount according to the national IMNCI guideline recommendation.

Drug with right time: Drug prescribed by HWs for specific common childhood illness given for sick child in certain period of time according to the national IMNCI guideline recommendation.

Right drug: Drug prescribed by HWs for specific common childhood illness to sick under-five child according to the national IMNCI guideline recommendation.

Compliance: adherence to some predetermined standards or guideline. In this context it refers to the compliance of health workers to national IMNCI implementation guideline while assessing, classifying, treating, counseling, and referring; providing follow-up care.

Correct assessment: Assessment agreed with IMNCI guideline assessment chart booklet, including asking caregivers, observing, testing for appetite, checking for pitting edema and measuring for (MUAC, weight, height and temperature).

Correct classification: Classification of specific common childhood illness of sick child that agreed with assessment of that illness according to national IMNCI guideline.

Correct treatment: The treatments given to sick child agreed with IMNCI guideline treatment algorism which includes correct dose, duration, and frequency.

Correct follow-up Dates: Health workers give recommended date of appointment for specific childhood illness based on the agreed IMNCI guideline to return back the sick child for check up on the treatment and recovery.

General danger signs: Are signs (not able to drink/breastfeed, vomits everything, has/had convulsions, and lethargy or unconscious) that are observed by caregiver and health worker.

Chapter 1: Introduction

1.1. Background

Globally more than 5.9 million children under age five died in 2015, nearly 16,000 every day.83% of deaths in children under age five are caused by infectious, neonatal or nutritional conditions (3). World health organization report in 2013 indicates that neonatal sepsis (0-27days) death due to 15% prematurity intra-partum-related complications including birth asphyxia, 11% related to neonatal sepsis, 7% congenital anomalies, 4% neonatal tetanus and 1% are related to other injuries (4).In Canada and United States Countries in which 27% of the births occur, only 7% of the deaths of children under one occur. In contrast, in four countries (Bolivia, Haiti, Nicaragua and Peru), in which only 8% of the births occur, 17% of deaths of children under one are registered (5). Infectious diseases are still the cause of 27% of deaths. Pre-neonatal infections are the cause of 58% of deaths of under five children in American region(5, 6). The major health problems of these countries are largely preventable communicable diseases and nutritional disorders. More than 90% of child deaths are due to pneumonia, diarrhea, malaria, neonatal problems, malnutrition and HIV/AIDS, and often as a combination of these conditions(7).

In Tanzania IMNCI improved the quality of care provided by health workers, it lowered under-five mortality by 13%. IMCI has been named a national child health policy since 1995. However, since national roll out in 1998, research has started to point out implementation challenges (8). Under-five mortality decreased from 191 per thousand live births in 1990 to 133 in 2005 and further to 81 in 2010 in Tanzania Mainland. This is a decrease of 58% but still short of the 66% target. Nevertheless, a number of challenges related to IMCI implementation remain, in particular non-adherence to IMCI guidelines among health care workers. Addressing those challenges could further reduce the child mortality and lead to achievement of MDG 4(9). Despite remarkable progress, Rwanda still has significant rates of under-five mortality (76 per 1000 live births) and infant mortality (50 per 1000 live births), making improving IMCI a national priority(10).

Ethiopia has one of the highest under-five mortality rates with more than 321,000 children under the age of five dying every year. More than 70% of these child deaths are due to five diseases, namely pneumonia, diarrhea, malaria, measles and malnutrition, and often to a combination of

these conditions (11). Infant mortality rate was 48 deaths per 1,000 live births. The child mortality rate was 20 deaths per 1,000 children surviving to age 12 months, while the overall under-5 mortality rate was 67 deaths per 1,000 live births. The neonatal mortality rate was 29 deaths per 1,000 live births, and the post-neonatal mortality rate was 19 deaths per 1,000 live births. The findings further indicate that all childhood mortality rates have declined over time (12).

IMNCI is an integrated approach of child health that focuses on the wellbeing of the whole child. IMNCI aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age. IMNCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities (13). The 2013 global LiST estimates for Ethiopia showed that neonatal complications (prematurity, asphyxia, neonatal sepsis, neonatal tetanus, neonatal pneumonia, and other neonatal causes) are the leading causes of under-five mortality in Ethiopia. Pneumonia and diarrhea remain to be leading causes of death for children who passed their neonatal period. Pneumonia, diarrhea and the three newborn conditions account for nearly 90% of childhood lives to be saved during 2015-2020 by implementing the package of newborn and child survival interventions (14, 15). Ethiopia endorsed IMNCI in 1996 and started to implement it soon after.

1.2. Statement of the problem

The majority of under-five mortality is from preventable causes. IMCI strategy was adapted to IMNCI in India, based on the recognition that, globally, a limited number of childhood illnesses, such as pneumonia, diarrhea, measles, malaria, and malnutrition, kill 70% of under-five children (13). Compliance is the major problem in implementation of the program specially observed on 6 key sections of the protocol, such as adjacent seating of the child/ care taker, obtaining history, checking immunization status, measuring temperature, checking weight, and counseling care takers. Similarly, study in Kenya indicates that very few children were checked for general danger signs and less than a half of total service user had their weights checked against the growth chart. The majority of trained health workers observed adhered to other sections of the protocol (16).

Knowledge of mothers on identifying the illness of their children that relate with poor counseling as major impact on under-five mortality. Studies in Egypt indicate that mother's satisfaction with

care in IMNCI clinics revealed that most challenging part was long waiting time before examination. Other problems in the care giver satisfaction were shortage of availability of drugs in the facility (17).

Neonatal mortality in Ethiopia accounts for 42% of the under-5mortality. Pregnant mothers were delivered by a skilled provider (28 percent) or in a health facility (26 percent). Majority of infants and neonate exposed to disease during the early period of their life (12). There is limited newborn care in health facilities and newborn care seeking practice the scaling up essential newborn care in communities and primary health facilities is critical. Overall, 7 percent of children under age 5 had ARI symptoms, 14 percent had a fever, and 12 percent experienced diarrhea in the 2 weeks. The mothers perception of knowing the symptoms of the disease were very limited or their acceptance of the service was questionable (12).

According to Ethiopian service provision assessment in 2014, in Ethiopia, 69 percent of facilities offering outpatient curative care for sick children have IMNCI guideline and 41percent have Growth monitoring service. Forty-eight and 47 percent have at least one staff member who received training in IMNCI and growth monitoring respectively during 24 months before the survey. Moreover, more than 50 percent of facilities have physical examination related equipment's with the exception of infant scale (39 percent) and length for height or board (44 percent) (2). The challenges of IMNCI implementation at health center were the availability of drugs and supplies in Lanfero and Shebedino Districts, SNNPR according to the save children evaluation of IMNCI report. Because of lack/shortage of budget and some drugs like Zink and antibiotics were not part of regular supply of FMOH and also the referral system from health post to health center were large constraints for the service implementation, in addition to this, the ambulance service that is not enough for communities to address all the catchments of kebele in the district (18).

The Health facility surveys carried in Amhara, Oromia and Southern Nations and Nationalities Peoples '(SNNP) of Ethiopia: indicated low coverage of IMNCI in the regions. The coverage on IMNCI in the region was 20% for Amhara, 4% for Oromia, and 25% for SNNPR. The proportion of under-five cases assessed by IMNCI trained health workers ranged from 0% in Oromia, to 16% in Amhara and 32% in SNNP region. The percentage of trained targeted health workers in the three regions was even lower than the IMCI coverage (19).

Compliance of service providers have its own influence on implementation of IMNCI program, End line survey in 2008 revealed that most children were not checked for general danger signs, nutritional status or vaccination. There was over classification of pneumonia and under classification of malaria in all three regions and the percentage of children treated correctly was low. Consultation time was lower than recommended by IMCI guidelines (15 to 20 minutes) although it was higher for IMCI trained health workers (13 minutes in average). Supplies were available for most health facilities but there was inadequate supervision (19).

According to EDHS (2016) report the health facilities in SNNPR who are giving treatment for under five year children from symptoms of ARI, fever and diarrhea was 43.2, 36.7 and 46.5 respectively (12). This shows that from the total under five children who have the symptoms of those disease percentage were assessed and treated in the health facility with IMNCI/IMCI program were very low. The implementation of IMNCI program in SNNPR program was active on 684 health centers in 2016 (20). However, there is still gap on addressing of the program to all the case of under five children.

The main problems of care seeking behavior of care giver in Hadiya zone, Shashago district were reported for not seeking health care from health facilities were lack of money, expensiveness of the treatments and not considering the illness as serious. The possible explanation for this finding might be families with lower economic status have no resources and the limited mothers' ability to recognize when children need treatment (21).

According to Hadiya zone 2008 annual report, Soro district had only 45% of under-five case were seen at health centers and IMNCI implementation constrains were shortage of essential drugs in HCs, shortage of IMNCI trained health professional specially in 3 health centers like Akama, Humaro HCs (22). However, this data indicates the annual report of ZHD from supportive supervision and inventory assessment. The assessment carried out from only availability dimension, which means it doesn't show implementation status of program from different dimension like satisfaction of Care takers/ mothers and compliance.

There was no similar research conducted in the study area, so it will be a useful contribution for further studies as base line information for researchers and to provide program improvement. This evaluation was assessed implementation of IMNCI program from the dimension of

availability, acceptability/ satisfaction and compliance of the program in Soro District health centers.

1.3. Significance of the evaluation

This study finding will provide basic information for RHB, Hadiya zone and Soro district to make informed decision. Soro district health centers managers to fill gaps for improvement of program to meet the client need. Based on the finding it gives an input for stakeholders to support the program for improvement, also this evaluation provided baseline information on the program for the other researcher, additionally it will use for health centers to improve the program that helps to meet their client need in different aspect of evaluation finding.

Chapter 2: Description of the IMNCI program

2.1. Stakeholder identification and analysis

IMNCI stakeholders identified during EA after discussion with key stakeholders and it ensure that the evaluation findings to be utilized, the role they have in programs and evaluation, the interest they have on evaluation and the level of importance of stakeholder is presented in the table below:

Table 1; Stakeholder analysis of IMNCI program in Soro District, Hadiya zone, 2017

S/No	Stakeholder	Role in the program	Interest/perspective on evaluation	Role in the Evaluation	Communication strategies	Level of importance H,M,L
1	Hadiya zone health department	• Provide technical support through setting standard and providing the necessary components for IMNCI program • Participate in supportive supervision • Monitoring and evaluation of the program	Accountability and Program improvement	• decision maker • Raise evaluation questions	Phone, meeting & official letters	H
2	Soro district admin	• Advocate for IMNCI programme.	Accountability and Program improvement	• Raise evaluation questions	Oral communication Formal letter Phone	M
3	Soro district(district) health office	• Program implementer • planning, monitoring, guidance and supportive supervision • Sensitize parents and communities about IMNCI programme. • Build capacity for the	Accountability and Program improvement	• Primary user of evaluation finding, • source of information • financial support for health facility	Face to face meeting, phone call Formal letter	H

		implementation of IMNCI programme. • Ensure adherence to guidelines in health facility while implementing the IMNCI programme. • give technical support • Report regularly on the financial and operation of the program				
4	Health centers	• Mobilize the Community to advance the IMCI Program • Participate in monitoring and evaluation of IMCI programme. • Report regularly on the financial and operation status, community leaders, gov't bodies and funders. • Planning • Implementation	Accountability Program improvement Users of evaluation findings	Source of information	Oral communication Formal letter Face-face meeting phone	H
5	Care takers/ mothers	• Service user	Accountability and Program improvement	• Raise evaluation questions • Source of data	Oral communication Formal letter Phone	H

6	Kebele leaders	• Community mobilize	Accountability	• Raise evaluation questions	Oral communication	L
7	District finance office	• Support financial resource • Supply equipment's for the program • Participate in evaluation of finance	Accountability and Program improvement	• Raise evaluation question	• Formal letters • Oral communication	M
8	Soro district Women's and children's affair	• Participate in evaluation of performance	Program improvement	• Raise evaluation question	• Formal letters • Oral communication	M

2.2. IMNCI Program objectives

2.2.1. Goal

To contribute for reduction of under-five mortality and morbidity associated with the major causes of disease in children less than five years of age in Soro District (14).

2.2.2. Objectives

General objectives

To contribute for the reduction of mortality from 2013 level of 64/1,000 to 29/1,000, infant mortality rate from 44/1000 to 20/1000 and NMR from 28 to 11/1,000 by 2019by 2020 in Soro district (11).

Specific Objectives

1. To increase percentage of IMNCI trained health worker in the health centers from 60% to 100% in 2020.
2. To provide health centers with essential drugs80% to 100%.
3. To increase percentage of care of sick under-five children based on the guidelines from 45% to 100% in HCs.
4. To provide counseling service for care takers based on guideline 100%.
5. Increase satisfaction of caretakers on IMNCI service from level of 55% to75% by giving appropriate service.
6. Increase awareness of mothers / care giver on sign and symptoms of under-five diseases 100%
7. To provide 100% referral service for severely ill children between HP to HCs and Hospital

2.3. Major strategies

- Adoption of guidelines and consensus on the approach
- Provide training (pre-service and in-service) to strengthen the capacity of health workers to properly assess, classify and manage common childhood illnesses at a health facility level
- Referral and linkage
- Ensure availability of drugs and supplies

- IMNCI planning and management
- Organization of work environment for IMNCI at health facility level
- Health management information systems strengthening
- Health sector reform

2.4. Program activities and resources

The implementation of IMNCI program includes different activity and resources. The components of the IMNCI strategy work together, to ensure child assessing, classifying and Identifying the appropriate treatment and follow-up care.

Program Resources

- Drugs availability Amoxacillin, Ampicillin, Erythromycin, ciprofloxacine, Metronidazole Cloxacillin syrup, Co-trimoxazole), Iron, coartum, Quinine, vitaminA, vitamine K Mebendazole, zinc, paracetamol, Gentamicine, ORS, Tetracycline eye ointment.
- Guidelines, IMNCI chart booklets, registers, tally, report format.
- Medical Equipment (Refrigerator, serialization materials, Syringe and needles, chart booklet, weight and height scale, timer, Stethoscope, thermometer, MUAC, ORT corner (ORS, cups, water container and spoons)).
- Infrastructure: water, electricity, service room.
- Human resource: IMNCI Trained professionals.

Program activities

- Assessing the children condition according to the guideline.
- Classifying cases based on the sign and symptoms of under-five children
- Identifying the treatment for the specific disease.
- Give treatment for the child based on the guideline.
- Give follow up care for the child based on the type of disease treated.
- Council the Care takers/ mothers/ mothers about feeding recommendations, her own health and assess of sick under five children
- Giving appointment date for the mothers to bring the child for follow up.
- Conducting supportive supervision
- Give training on IMNCI program

2.5. Program logic model

Problem of statement: overall under-5 mortality rate was 64 deaths per 1,000 live births. The coverage of IMNCI program in SNNPR was25%, IMNCI trained staff 25% in SNNPR (19). The challenges of IMNCI implementation in Hadiya zone health centers were the shortage of drugs and supplies(23). IMNCI service compliance of service providers have its own influence on implementation, most children were not checked for general danger signs, nutritional status or vaccination (19).

Goal: To contribute for reduction of under-five mortality and morbidity associated with the major causes of disease in children less than five years of age in Soro District (14).

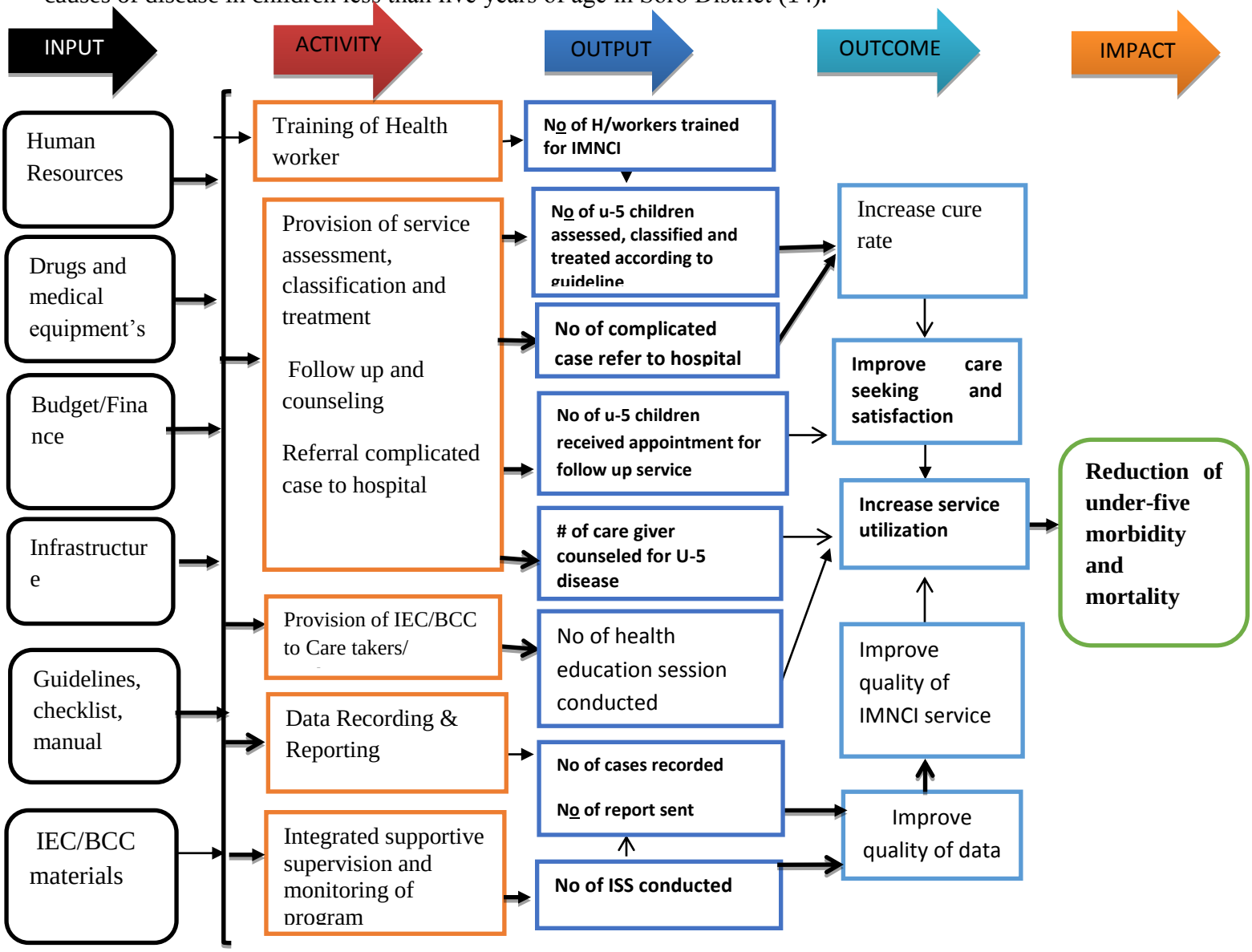


Figure 1: program logic model of IMNCI program of Soro District, Hadiya zone, SouthernEthiopia, 2017

2.6. Stage of program development

To reduce child mortality in developing countries, the World Health Organization (WHO) and other partners developed the Integrated Management of Childhood Illness (IMCI) strategy in the mid-1990s. Integrated Management of Neonatal and Childhood Illness (IMNCI), adapted from the global Integrated Management of Childhood Illness to enhance the focus on newborns and on community health workers, is the central strategy within the National Reproductive and Child Health Programme to address high infant mortality(4). During the mid-1990s, the World Health Organization (WHO), in collaboration with UNICEF and many other agencies, institutions and individuals, responded to this challenge by developing a strategy known as the Integrated Management of neonatal and Childhood Illness (IMNCI)which is composed of preventive and curative interventions that aims to improve practices and the quality of Management of Neonatal and childhood illness linking the programs, such as immunization, nutrition, control of malaria and other infectious disease in health facilities, the health system and at home to be implemented in an integrated manner. Treating medical condition, the strategy insists that each contact with the child can be utilized for preventive and promote health interventions. Ethiopia adopted the Integrated Management of Neonatal and Child hood illness strategy in 1996 with the aim of reducing the unacceptably high child hood mortality and morbidity and to promote child health and development(24).

Chapter 3: Literature Review

3.1. Implementation of program

IMNCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities(13). At the health facility, each sick child is assessed for general danger signs, classified and treats with IMNCI Guidelines through main symptoms (cough or difficulty breathing, fever, diarrhea, ear problem), nutritional status, immunization status and any other complaint. Each child's condition was classified and treatment was provided based on the classification (assess, classify and treat).

3.2. Availability dimension

The main challenges identified in the implementation of IMCI are low initial training coverage among health care workers, lack of essential drugs and supplies, lack of onsite mentoring and lack of refresher courses and regular supportive supervision. Supporting the healthcare workers through training, onsite mentoring, supportive supervision and strengthening the healthcare system through increasing access to essential medicines, vaccines, strengthening supply chain management, increasing healthcare financing, improving leadership & management were the major interventions that could assist in IMCI implementation(16).

Constraint factors mainly included lack of clear understanding of the strategy, poor planning for IMCI implementation, ambiguity in defined roles and responsibilities among stakeholders, and insufficient essential supplies and drugs at PHC. Health facilities' survey findings, which indicated that none of the facilities had 100% stock of essential supplies and drugs. Only one out of all 16 surveyed health centers had 75% of the total supplies, while 4 out of 16 facilities had 56% of the required IMCI drug stock. The mean availability of supplies ranged from 36.6 to 66%, while the mean availability of drugs ranged from 45.8 to 56.7% leading to ambiguous roles and responsibilities among stakeholders which manifest as inadequate availability of supplies and drugs at PHC facilities. Addressing these barriers is likely to have a cumulative effect on facilitating IMNCI implementation(12).

The 2014 ESPA+ assessed the readiness through availability of equipment, supplies, guidelines and health system components necessary to adhere to IMNCI guidelines and to support quality out-patient care for sick children. In Ethiopia, 69 percent of facilities offering outpatient curative care for sick children have IMCI guideline and 41percent have Growth monitoring service. Forty-eight and 47 percent have at least one staff member who received training in IMCI and growth monitoring

respectively during 24 months before the survey. Moreover, more than 50 percent of facilities have physical examination related equipment's with the exception of infant scale (39 percent) and length for height or board (44 percent). Government managed facilities have greatest service readiness in terms of availability of guidelines and trained staff. For example, among all governmental facilities offering outpatient curative care service for sick children, 79 percent have IMCI guideline and 55 percent have at least one trained child health service provider in IMCI during the 24 months preceding the survey(2).

National Survey of the Integrated Pharmaceutical Logistics System Ethiopia, 2015 assess stock availability at health facilities, the survey collected data on stock on hand on the day of the visit and measured both the frequency and duration of stock outs during the six months prior to the survey. The survey collected data on 27 essential pharmaceuticals reported that overall, the majority of the health facilities had most of the essential pharmaceuticals in stock on the day of the visit: average availability was 89 percent for the basket of commodities, for all facilities. Of the 27 items assessed, availability was at 90 percent or greater for 18 items and 81 percent or greater for all but three items above 95 percent availability at both hospitals and health centers were amoxicillin, co-trimoxazole, oral rehydration salt (ORS), paracetamol(1).

There were an improvement of access of IMNCI service in two district, the entire HP have started 100% the service. The turnover of trained staff was the major problems of implementation of IMNCI service especially in Lanfero District. Approximately 90% of HW was trained in IMNCI. One of the challenges for the program was the transfer of trained HW from one HC to other that had unable to perform this program effectively. The other key Problem of implementation IMNCI program is availability of supplies in the HCs, from the finding in the report shows only 37% of HC had all basic neonatal and delivery supply(18).

Descriptive cross-sectional study design was employed in Hadiya zone, Shashogo district, SNNPR, Ethiopia, District during January 2012, on care seeking behavior of Care takers/ mothers for common childhood illness on under five children have a valuable effect on mortality and morbidity of the child. Assessment of care giver knowledge revealed that 68.4% of them had poor knowledge about the childhood illnesses. Out of the 907 children under the age of five who had illnesses two weeks prior to the study. The study also found that the major reasons reported for not seeking health care from health

facilities were lack of money, expensiveness of the treatments and not considering the illness as serious (21).

3.3. Compliance of HWs

Study in Afghanistan on quality of outpatient care for children under five years indicates that caretakers were counseled about feeding during illness in only 18% of consultations, but 87% of children requiring vaccination were sent for immunization. In the exit interview, 56% of the caretakers were able to provide correct responses on how to administer medication at home. The assessment of sick under five child was checked temperature if not already done 39.2%, Assessed fontanels 13.2%, Assessed for rash 48%, Cough, diarrhea and fever 36.2%, Child weighed 26.4%, Weight checked against a growth chart 56.7%, Palmer pallor 31%, Vaccination status checked 35.2% (25).

An evaluation of Integrated Management of Childhood Illnesses Initiative in the Republic of Moldova Years 2000-2010 Final Report indicates that, satisfaction of majority of caregivers thought the services they receive in IMNCI were average (39.5%) or good (37.9%), while 16.8% thought they were excellent and 5.3% thought they were poor, showing a rather good level of care giver satisfaction. As for what needs to improve, 38.0% mentioned better communication with physicians, 34.9% better management of services and no waiting time and lines, 30.7% access to a wider range of fee waiver and only 4.8% mentioned informal payments, while 37.4% respond other reasons for their satisfaction (18).

An Evaluation of the Quality of IMCI Assessments among IMCI Trained Health Workers in South Africa Observed health workers had been trained in IMCI for an average of 32.2 months, and were observed for a mean of 17.7 consultations; 50/77(65%) HW's had received a follow up visit after training. In most cases health workers used IMCI to assess presenting symptoms but did not implement IMCI comprehensively. All but one health worker referred to IMCI guidelines during the period of observation. 9(12%) observed health workers checked general danger signs in every child, and 14(18%) assessed all the main symptoms in every child. 51/109(46.8%) children with severe classifications were correctly identified. Nutritional status was not classified in 567/1357(47.5%) children. Health workers are implementing IMCI, but assessments were frequently incomplete, and children requiring urgent referral were missed (26).

Another study in India which was An evaluative approach was undertaken to assess feeding problem that assesses the IMNCI guideline that contribute for effectiveness of feeding practice of infants show

that among 50 young infants (0-2months) admitted in IMS &SUM Hospital, Bhubaneswar. The study design adopted was quasi experimental with one group pre-test and post-test design. The samples were selected by non-probability convenience sampling. Finding of the study shows that, comparison of pre-test and post-test assessment was 5.8which were significant at $p<0.05$ level. It revealed that feeding problem among young infant were improved after administration IMNCI guideline (27).

A cross-sectional study design was use in to identify factors influencing the implementation of IMCI in the health facilities in Mwanza, Tanzania since reports indicates that the guidelines are not full adhered to by the healthcare workers. Only 51% of healthcare workers interviewed had been trained. 69% of them understood of the IMCI approach. (77%) had a positive attitude that IMCI approach was a better approach in managing common childhood illnesses especially with the reality of resource constraint in the health facilities.

The health facility case study in Kenya sampled 50 facilities and conducted 289 case management observations of IMCI trained and untrained health workers in facilities with at least one trained health worker. The results indicated low levels of implementation at the facility level. For example, health workers were given a score out of 10 for checking three general danger signs, diarrhea, cough, fever, palmar pallor, vaccination of the child, the weight of the child and the child's weight alongside growth chart (index of integrated assessment), giving an average score of only 5.29. Very few children (11.1%) were checked for general danger signs and less than a half (40.5%) had their weights checked against the growth chart. Children with pneumonia, dehydration and malaria were correctly treated in 63.3%, 76.5% and 41.6% respectively (16). Although in case of Factors leading to low level of IMCI Implementation at Homa Bay and Malindi in Kenya health facilities study finding IMCI shows that factors that affect the IMCI implementation at the health worker level, health worker perceptions of IMCI like skill uptake and attitudes towards policy. At the facility level, two sets of factors, related to time constraints like time taken to complete the guideline, short staffing, medical equipment's, drugs, limited supportive supervision and facility supports that may have negative effects on implementation. Finally, at the community level, broader health systems and context issues like long waiting time, cost, non-compliance by Care takers/ mothers that have potential to influence policy outcomes(16).

The study in India on assessment of Implementation of IMNCI and progress of the program to identify bottlenecks, effect on coverage of key newborn and childcare practices. Programme data were analyzed to ascertain the implementation status; rapid programme assessment was conducted for

identifying the programme bottlenecks; and results of analysis of two rounds of district-level household surveys were used for comparing the change in the coverage of child-health interventions in IMNCI and control districts. Of the reported births 65.5% were visited by a trained worker within 24 hours, and 63.1% were visited three times within 10 days. Poor supervision and inadequate essential supplies affected the performance of trained workers. During 2004-2008, 12 early-implementing districts had covered most key newborn and child practice indicators compared to the control districts; however, the difference was significant only for care-seeking for acute respiratory infection (net difference: 17.8%; 95% confidence interval(26).

The cross-sectional study was conducted in Raipurrani, India in the outpatient departments of the community health center and one primary health center in 2010 on assess the skills; IMNCI trained worker completely agreed in 45 % child observations, but non trained HWs all symptoms were asked only in 15 % skills were poor overall for young infants. For children between 2m to 5 y, danger signs, neck stiffness, edema, wasting and pallor were checked in <40 % observations. Immunization card was asked for in 20 % observations, whereas IMNCI trained workers performed well in all aspects of counseling, except follow up(31).

Comparative cross sectional study in Dabat district on community integrated management of Neonatal and childhood illness improve child health shows that IMNCI implementation has positive effects on child feeding, disease prevention, health care seeking practices and these practices are expected to improve child health and survival(29).

3.4. Acceptability of program/satisfaction

Cross sectional study in Egypt on Care takers/ mothers knowledge and attitude after care in IMCI clinic in an Egyptian primary health care setting indicates that care takers knowledge correlate with their educational status. The care taker satisfaction on service depends on good childhood treatment and proper clinical examination. In the study result 55.5% care taker reported unsatisfied with long waiting time and drug unavailability in the health facility (17).

Another study in Egypt on implementation of IMNCI strategy impact on child mortality which is a retrospective study looks for care giver satisfaction and improvement of Knowledge after the counseling shows that proportion of caregivers of a child prescribed an antibiotic who knew how to give the treatment rose from 7% before IMCI introduction to 67% or above when the child was seen by an IMCI-trained healthcare provider Similarly, caregivers advised by an IMCI trained provider had

much better knowledge on how to prepare and give ORS and how to care for the sick child at home than those advised by a non-IMCI-trained provider. The result from pre-assessment and post-assessment shows that caregivers noted difference in quality of care in the health facility. The proportion of caregivers who reported satisfied with the services received from 56% before IMCI introduction to 99% 6 months after IMCI was implemented(28).

A descriptive cross sectional study in Nigeria in 2013 based on health seeking behavior of Care takers/ mothers for under-5 children 0f 370 caregivers participated in the study. Almost 82% of participants did not know Danger sign that able to come their child immediately to the health facility like not eat/drink, fast breathing, blood in stool and convulsion, respectively, were symptoms of a child not feeling well. The service fee and long waiting time were major reasons for not seeking behavior in health facilities(30).

Facility based cross sectional study that used to measure level of satisfaction and associated factors among patients receiving health services in outpatient departments at Wolayita Sodo University Teaching Hospital, Southern Ethiopia reported that perceived medium empathy by the provider were found to be more satisfied as compared those who were perceived low empathy(AOR:2.39(1.32-4.33). The respondents waited less than or equal to 30 minutes in waiting area preceding consultation were to be more satisfied than those who were waited 60 minutes and above (AOR: 3.16(1.37-7.25). Respondents who reported that the waiting area was clean were more satisfied as compared to those who reported waiting area not clean (AOR: 2.53(1.44-4.47).Overall patient satisfaction with the health care service provided at OPD clinics of the hospital was 54.2% at 95% CI(49.4%-59%) (32, 33).

Client satisfaction in Hosanna town public health facilities, southern Ethiopia study by facility based cross sectional study indicates that satisfaction of clients was higher for women's who reported their waiting time to be 30 minute and less AOR= 5.5 95%**CI (1.918, 15.77** client who perceived health facilities were not clean were less likely to be satisfied as compared to those who perceived the facilities to be clean **AOR= 0.19(0.056-0.658) (32)**

A study about patient satisfaction with outpatient health services in Hawassa University Teaching Hospital, Southern Ethiopia A cross sectional study was conducted to assess factors associated with it. Multiple logistic regressions were used to assess the relationship between patients' satisfaction and possible predictors. Overall satisfaction was (80.1%) of patients reported to be satisfied with the hospital's outpatient services. Respondents who claimed to have had a long stay in the hospital were

found to be more satisfied than those who claimed to have had a very long stay (adjusted odds ratio (AOR) = 4.54, 95% CI: 2.38, 8.65). the study reported that a negative association between patients' satisfaction and not getting required services in the hospital (AOR = 0.78, 95% CI: 0.41,0.96), lack of privacy (AOR = 0.52, 95% CI: 0.27, 0.78), and absence of good dialogue with outpatient service providers (AOR = 0.28, 95% CI: 0.12, 0.41) (34).

3.5. Conceptual framework of IMNCI program

This conceptual framework was indicated that factors associated with care takers satisfaction from different literature.

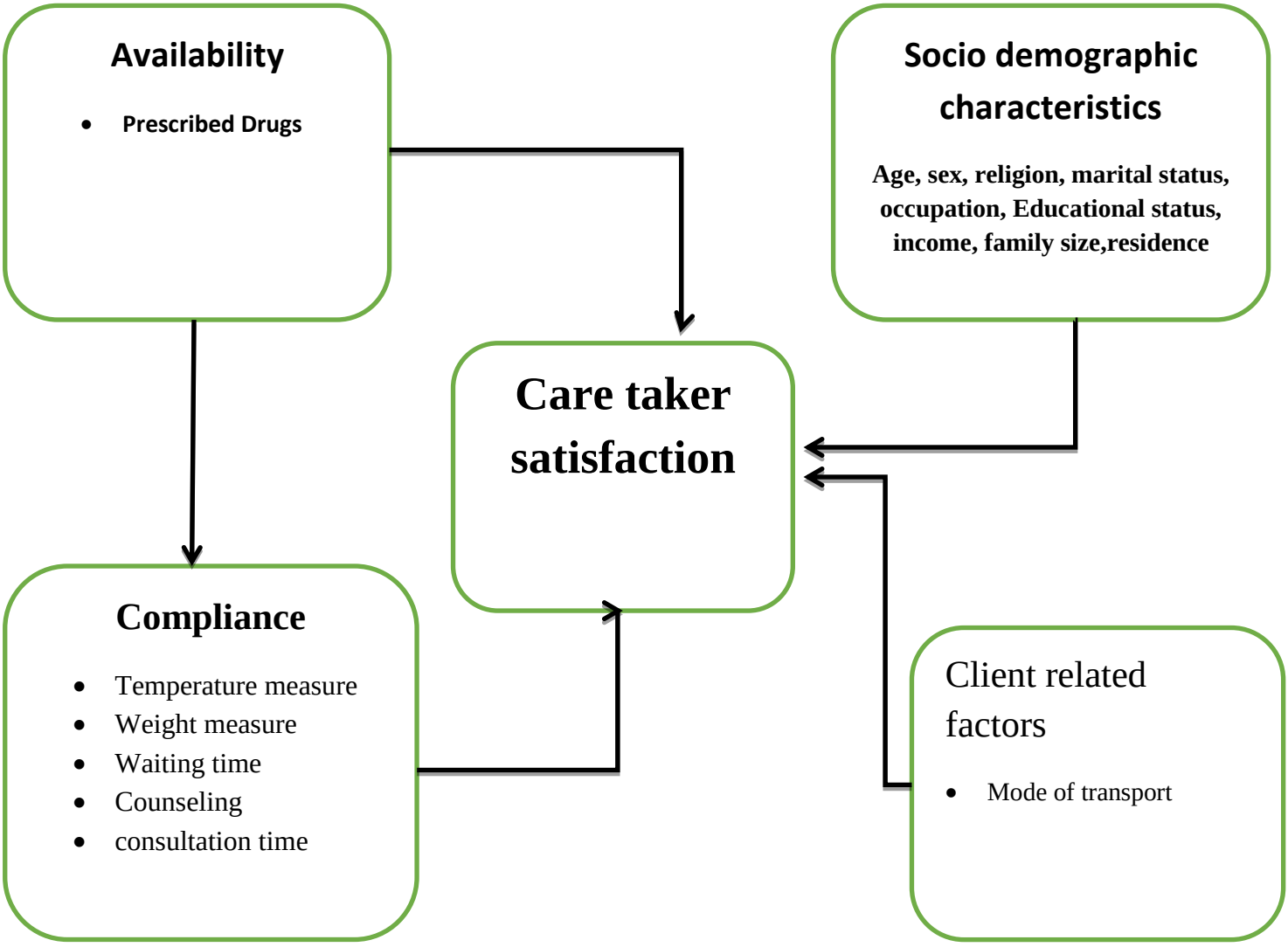


Figure 2: Conceptual Framework for implementation evaluation of IMNCI program in Soro district, Hadiya zone, Southern Ethiopia, adapted from IMNCI guideline 2011.

Chapter 4: Evaluation Questions and Objectives

4.1. Evaluation questions

1. Are resources required for IMNCI services available? If not, why?
2. Are activities of IMNCI services implemented according to the National Guideline? If not, Why?
3. Are care takers satisfied with the service provided by IMNCI program in the health center? If not, why?
4. What are factors that associated with client's satisfaction?

4.2. Objectives

4.2.1. General objective

To assesses the implementation of IMNCI program of Soro district public health centersin2016/17

4.2.2. Specific objectives

- To assess the availability of resources for implementation of IMNCI program in Soro district health centers.
- To describe health workers' compliance with the procedures set in the National IMNCI guideline.
- To determine the satisfaction level of client's towards IMNCI service.
- To identify factors that associated with care taker satisfaction on IMNCI services.

Chapter 5: Evaluation Methods

5.1. Study area

The study was conducted in Soro district Hadiya zone, southern Ethiopia. Soro district is one of 10 districts in Hadiya zone, which is located 32 kilo meter far from zonal town, Hosanna235 kilometer from Addis Ababa, the capital city of Ethiopia; and 194 kilometer from regional city, Hawassa. It is bordered by Lemo district in the East, Duna district in the North, Gombora district in the South and Oromia region &Yem Special district in the west. The district is administratively divided in to 45 rural and 3 urban kebeles. 2009 Finance & economy bureau records indicated that the district has a total population of 241,577 from which120,305 male and 121,271 females, under five year children 33,047, survival infant 7,525, 49,301households. The district has 9 governmental health centers, and 46 health posts. It also has 1 middle clinic, 5 lower clinics and 3 drug stores which are privately owned.

Figure 3: Map of Soro District, 2017

5.2. Evaluation Period

This Evaluation was conduct from March 5- April 3, 2017.The Evaluability assessment was conducted from December 5-15prior to this implementation evaluation.

5.3. Evaluation approach

Formative evaluation approach was employed. Formative evaluation is used to improve programs that were delivered to clients according to predetermined standards. It compares service provision with the program standards or manuals (35). So this evaluation was identified the client satisfaction level on the service provided by health centers and assesses the availability of resource that meet standards of the program, also health worker's compliance to national IMNCI guideline.

5.4. Evaluation design

Facility-based cross-sectional study design was employed.

This design helps to measure the attitudes & behaviors of care takers/ mothers towards the program or service and measure implementation of the program. It is possible to use larger sample size in specific period of time.

Mixed method of evaluation was applied. Explanatory concurrent triangulation was used as complementarities purpose. Qualitative and quantitative data were collected concurrently, but quantitative data was weighted more heavily in the analysis than the qualitative (36).

5.5. Focus of evaluation and dimensions

This evaluation focuses on the process of the program implementation, which helps to evaluate the implementation as well satisfaction of care takers after the use of IMNCI service on the health centers to determine the level of their satisfaction. Client satisfaction is universally accepted as one of several necessary measures to evaluate the program (35). The three dimensions used for this evaluation were availability, compliance and satisfaction.

Availability: deals with the physical existence of health resources with sufficient capacity to produce services. It is the relationship among volume of the resources to the volume of clients. It is mostly about the adequacy of resources (37). This evaluation assesses availability of drugs, guidelines, infrastructures, trained health professionals, medical equipment's, recording and reporting materials per health centers.

Compliance; look for whether the program was delivered to clients or program users according to standards or national guideline. It measures how program were going to achieve toward the objective of the program (37).

Satisfaction: whether available health care services were appropriate to the norms, expectations and cultural behaviors of the population. It deals with the fitness between services and clients need (37). This dimension was helps to assess the satisfaction of care takers/ mothers who were attended in the health center for IMNCI service. It focused on their perception of care giver to the service (35).

5.6. Indicators/Variables

Indicators

Table 2: Indicators for IMNCI program in Soro District, Hadiya zone, southern Ethiopia 2017

Dimensions	Indicators	
	Numerators	**Denominators**
	Number of health center with at least one trained health care providers on IMNCI	Number of health center in district
	Number of health center with functional ORT corner	Number of health center in district
	Number of health center with functional medical equipment(weight scale, stethoscope, MUAC, thermometer) for under five clinic	Number of health center in district
	Number of health center with essential drugs (ORS, oral antibiotics, paracetamol, zinc, Mebendazol, coartum, broncho-dialators, iron, vit A,) for under five clinic.	Number of health center in district
	Number of health center with Case management guidelines/ chart booklet.	Number of Health center in the district
	Number of health center with IMNCI registration Book.	Number of Health center in the district
	Number of health center with IMNCI service room.	Number of Health center in the district
Compliance	Number of u-5 children correctly assessed for disease according to the national IMNCI guideline.	Total number of u-5 children who came to IMNCI service.
	Number of u-5 children correctly classified for disease according to the national IMNCI guideline.	Total number of u-5 children who were assessed
	Number of u-5 children correctly treated for disease with right drug, right dose, and right time according	Total number of u-5 children who were treated

	to the national IMNCI guideline.	
	Number of u-5 children given appointment for Follow up according to the National IMNCI Guideline.	Total number of u-5 children who need appointment.
	Number of Care takers/ mothers/mothers who received Counseling	Total number of u-5 children who came to IMNCI service.
	Number of u-5 children Referred to hospital according to the national IMNCI guideline	Number of u-5 children who need referral
Satisfaction	Proportion of caretaker/ mother satisfied with approach of service provider.	Total number of Care takers/ mothers/mothers attended
	Proportion of care taker satisfied with counseling service received on how to give medicine to child.	Total number of Care takers/ mothers/mothers attended
	Proportion of care takers satisfied with counseling service received on when to give medicine.	Total number of Care takers/ mothers/mothers attended
	Proportion of care takers satisfied with the given date of appointment to be back at HC.	Total number of Care takers/ mothers/mothers attended
	Proportion of care takers who decide to come back to HC next time.	Total number of Care takers/ mothers/mothers attended
	Proportion of care takers satisfied with the time dedicated to their child	Total number of Care takers/ mothers/mothers attended
	Proportion of Care takers/ mothers who satisfied with availability of drugs in HCs	Total number of Care takers/ mothers/mothers attend
	Proportion of Care takers/ mothers who satisfied with availability of medical supplies for IMNCI service.	Total number of Care takers/ mothers/mothers attend
	Proportion of Care takers/ mothers/ mother who satisfied with overall service provided.	Total number of Care takers/ mothers/mothers attend
	Proportion of Care takers/ mothers/ mother who satisfied with waiting time to get service.	Total number of Care takers/ mothers/mothers attend

Variables

Dependent variable

- Satisfaction

Independent variable

  - Availability of prescribed drugs
  - Availability of medical equipment's
  - Waiting time
  - Consultation time
  - Assessment of temperature
  - Assessment of weight
  - Age
  - Sex
  - Marital status
  - Educational status
  - Family size(child)
  - Counseling received giving extra fluid and continue feeding
  - Time to reach HC on foot(walking)
  - Mode of transport

5.7. Populations and sampling

5.7.1. Target population

- All public health centers in Soro district.
- All under five year's age child care takers/mothers found in Soro district.

5.7.2. Source population

All health centers found in Soro district, all mothers /care takers who accompany the under-five child attended in selected health centers, all under-five child who get the IMNCI program, all documents related to IMNCI program in the health centers, all health workers in selected HCs of Soro district, all HCs managers in Soro District and all case team leaders in Soro district HCs were source of population

5.7.3. Study population

For quantitative:

- Under-five year's age care takers/mothers who come to IMNCI service in selected HCs during study period for exit interview.
- Selected under-five year's age cases from documents of IMNCI register book in selected health center.
- Selected health workers who implement IMNCI program in selected HCs.

For qualitative:

- Head of HCs in selected HCs.
- Case team coordinator in selected HCs.
- District health office maternal and child health focal person

5.7.4. Study units and sampling unit

5.7.5. Study unit

For quantitative:

- Under-five year's age care takers/mothers visiting IMNCI clinic during study period was study unit for Exit interview.
- Cases of under-five year's age from IMNCI register book was study unit for document review.
- IMNCI services providers

For qualitative:

- WoHO MCH focal person, Health center head and case team leader at each level was the study units for in-depth interview.

5.7.6. Sampling units

Primary unit- Health centers

Secondary unit- Care takers, health workers

5.7.7. Sample size determination

All nine health centers that were found in Soro district were selected for this evaluation.

For Qualitative method

In-depth interview: Two key informants per health center and one district health office focal were selected for this evaluation.

Quantitative Method

Direct observation: Total of 90 observations were conducted. Two health workers were observed per health center who specifically involved in IMNCI service. Eighteen IMNCI service providers were observed when they provided the service for five clients consecutively starting from the first client during observation sessions.

Resource inventory: accompanied with interview for assessing availability of resources in the health center.

Documents review: For each observed cases of under-five year's age reviewing their cards on IMNCI register books to support observation results.

Exit interview: The sample size was determined using single population proportion formula by considering 50% population proportions. 95 % confidence level and 0.05 margin of error used for sample size determination. 50% was considered because of no study done in the study area on IMNCI implementation evaluation.

$$n = \frac{(z_{\alpha/2})^2 p(1-p)}{d^2} \qquad = 3.8419 \times \frac{0.5(0.5)}{0.0025} = \mathbf{384}$$

Where: -

- n = the minimum possible sample size
- $Z_{\alpha/2}$ = standard score value for 95 % confidence level of two sides normal distribution
- p = the population proportion which is 50%**.**
- d is margin of error (5%)

The actual sample size was 384, considering 10% of non-response rates, total sample size were**422** caregivers.

5.7.8. Sampling procedure/technique

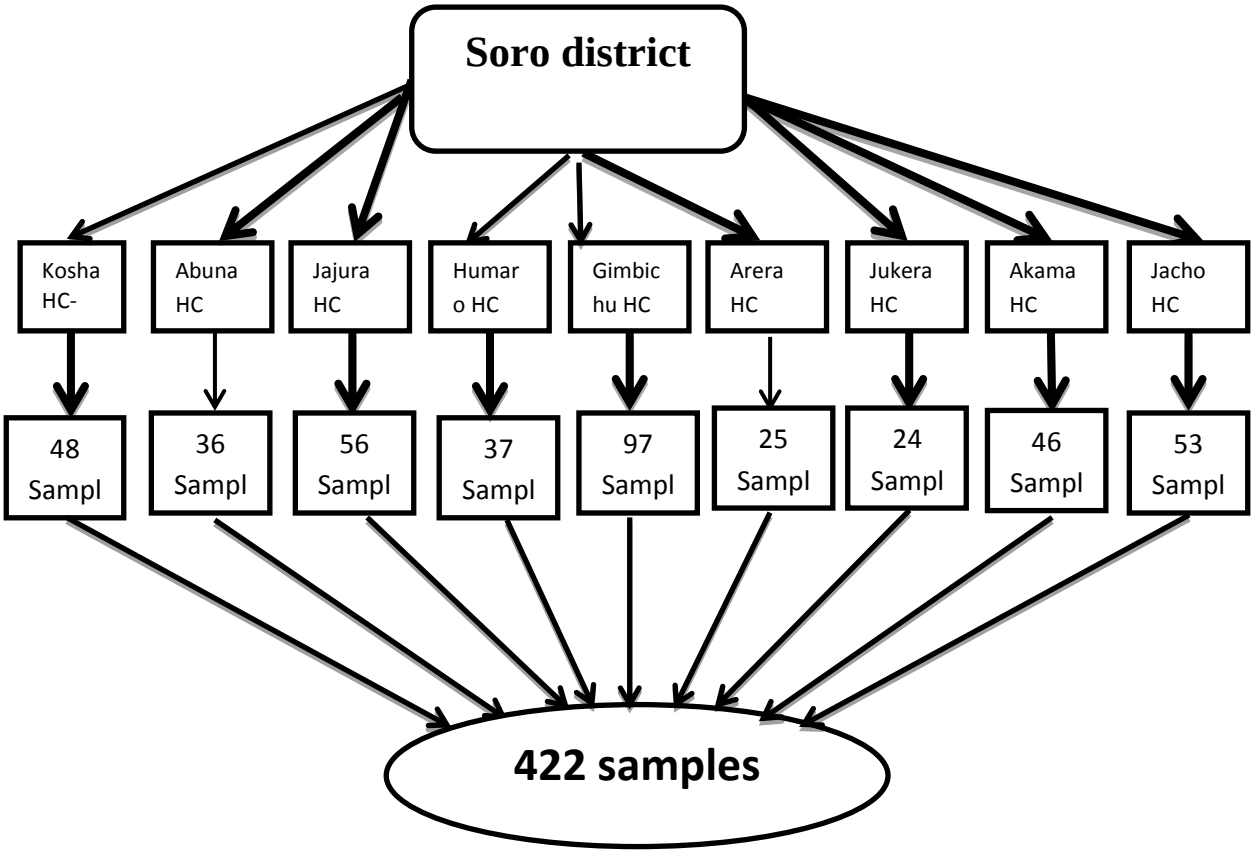
Quantitative study

Hadiya zone have 11 districts, from which Soro district was selected with non- probability sampling method purposively because of large population size and high disease burden of under-five cases than other districts. Soro district have 9 public HCs and all 9 HCs were selected for this study.

The sample for exit interview was selected from each health center drawn by proportional outpatient coverage of under-five clinic in each health center.

Mothers/care giver were included for exit interview after completed the service. The first case was selected conveniently, and the rest cases were included consecutively in to study until sample size reached.

Figure 4: Sampling technique of the selected sample size



Example;

Kosha health center = 3789outpatient coverage of under-five, proportional sample from the 422 sample size to the total under five populations in the district was: 41698

3789*422/33047 = 48 sample

Document review: The document review was used to support observation study, six observed under-five child card were selected during observation and reviewed from IMNCI register book per health center.

Observation: Two HWs that provided IMNCI service were selected conveniently at time of study per HCs. In case of two or more health workers found in IMNCI service room; two of them were selected randomly by lottery method and then observed one after the other consecutively. The selected HWs were observed for 5 cases for their performance on compliance of IMNCI guideline.

Qualitative study

In-depth interview: Two key-informants per health center and one from WoHO MCH coordinator were selected purposely. The purposes of selection for key informants were based on having more information about the program related to their position.

5.7.9. Inclusion and exclusion criteria

Inclusion criteria: all health care providers specifically working in IMNCI were involved.

Exclusion criteria: service providers less than 3 month of service year, documents did not full information due to physical damage, care giver who did not able to respond due to health problems and care takers less than 15 years old were excluded from the study.

5.8. Data Collection

5.8.1. Development of data collection tools

The tools for data collection developed based on evaluation objectives and questions. Document review and observation checklist was adapted from national IMNCI guideline(38) and UNICEF survey checklist(39).The structured questionnaire for exit interview were adapted from program evaluation books basically related to the satisfaction of clients(35). This tool was written in English and translated to Amharic and then retranslated to English to check consistence.

Document review checklist

The checklist included questions about assessment, classification, treatment, counseling, follow-up and referral of the child according to guideline recommendation.

Key informant interview guide

It includes general questions about how IMNCI implementation was going on. Questions related with availability of resources, compliance of health workers and satisfaction related to client side.

Structured questionnaire

Tool for structured question contain Socio demographic characteristics and general information on their satisfaction regarding to IMNCI program.

Observation checklist

This checklist used to assess the service providers' compliance based on the guideline and to check whether service was properly addressed to child.

Resource inventory checklist: was used to collect data on availability of resources, which includes Drugs, medical equipment, guidelines, human resource and infrastructures.

5.8.2. Data collectors

Data collectors and supervisors were selected from Duna district, which were not the study area (district). The data collectors and supervisors were no relation to the study facilities. The data collectors and supervisors had degree in health profession. Prior to data collection, training was given for one day on how to fill and handle the questionnaire. Pretest of the questionnaire was done by those selected data collectors to check the quality of data collection tools. In-depth interview for Key informants and observation was done by PI using interview guides and observation checklist respectively. Review of IMNCI register book was done by trained BSC nurses with document review checklist.

5.8.3. Data collection field work

Availability of all necessary materials for data collection was assured. Data collectors were each the study subject on time. The process of data collection was supervised for each data collector per week. Daily performance of the way of the data collection process was assessed and appropriate correction was taken for the next day in case when problem occurs.

5.8.4. Data quality assurance

For quantitative

Pretest was done for 21(5%) of total sample size. It was applied prior to actual study and then based on the result of pretest further adjustment was made. Some variables are included and adjustment of questioners takes place that helps to keep reliability of the data. Checking of internal reliability was

made by using Cronbach's alpha (0.873) for exit interview questionnaires. This shows that items were internally consistent. Document review and observation checklists were checked by manually, some variables and terminologies were adjusted.

For Qualitative

The transcribed data reports were checked by pear debriefing to obtain the perceptions of results and conclusion of the study. Member check was also used to confirm the information. The purpose of doing member checks is to eliminate researcher bias when analyzing and interpreting the results. The result was sent back to the participants for them to evaluate the interpretation made by the inquirer and to suggest changes if they were unhappy with it or because they had been misreported(40).

5.9. Data management and analysis

5.9.1. Data entry

For quantitative

The collected data was reviewed and checked for completeness before data entry. Any problems encountered were discussed among the data collectors. Data was coded and entered to Epi-data version 3.1then transported to SPSS version 20 for processing. The questionnaires and soft copy of data with multiple backups was kept in proper places.

For qualitative

The data mainly recorded with recording tape and then transcribed to word documents word by word.

5.9.2. Data cleaning

The data was cleaned by visualizing. Corrections were made according to the original data handled carefully but incomplete, inaccurate, inconsistent or invalid data obtained, it was detected and corrected.

5.9.3. Data analysis

The Quantitative data collected from Exit interview, document review and observation was entered in to SPSS version 20 for analysis. Both descriptive and analytical method was employed to analyze the data. To analyze the satisfaction level of care taker with five points of likers items with 1 and 5 shows the least and highest level of satisfaction respectively. (Strongly dissatisfied= 1, dissatisfied= 2, Neutral= 3, 4= satisfied, 5= strongly satisfied)

The care taker overall satisfaction level was calculated by threshold formula which was classified in to two categories. The satisfied categories were taken from threshold score 45 and above, and dissatisfied categories were registered from threshold score lower than 45 (32).

$$\frac{\textbf{Highest total score - lowest total score}}{\textbf{2}} \textbf{ + lowest score}$$

Binary logistic analysis was used to check for association with the single variable with outcome variable, also using cross tab check whether the variables were correct with two by two tables. A backward stepwise procedure based on the likelihood ratio was used to select the variables included in the final model. The significance for variables removal and entry were set to 0.10 and 0.05, respectively. Hosmer and Lomeshow test was used to check the goodness-of-fit of the model. Odds ratios and 95% confidence intervals were derived from each variable coefficient.

Variable who had an association with dependent variable P< 0.25 were selected for multivariate logistic regression analysis and used to assess the statistical significance (adjusted odds ratio). The strength of association was measured by AOR at 95% CI, and significance variables was less than p-value 0.05($P<0.05$).

Logistic regression was used to identify factors that associate with satisfaction of Care takers/ mothers. Consequently, the results were presented by using frequency tables and graphs.

The qualitative data was analyzed manually using thematic analysis with particular dimensions and results were presented in narrative form.

5.10. Ethical Consideration

Ethical clearance was obtained from Jimma University Institutional review board. Permission letter was obtained from Soro district health office and informed consent was obtained from a respondent who were participated in the study. The participation of this study was voluntary. Study participants and respondents had the right to withdraw at any time from the study when they feel uncomfortable. Confidentiality was maintained by omitting their name and personal identification.

5.11. Evaluation dissemination plan

The final evaluation report will be presented to Jimma University and valuable comments will be taken. Hard copy and soft copies of the final report will be disseminated to stakeholders.

Chapter 6: Result

The study was carried out from March 5 – April 3, 2017 in Soro district, Hadiya zone, southern Ethiopia to assess the implementation of IMNCI program. A total of 390(92.4%) data were collected for this facility-based cross-sectional study to get evaluation findings. Among total sample size 32(7.6%) was non-response rate for interviewer administer questionnaire. Ninety (100 percent) direct observation were undergone for 18 HWs of nine health center and supported by document review of observed cases. Fifty-four observed cases were analyzed and recruited to this evaluation finding.

6.1. Availability of IMNCI program resources

The resource availability for IMNCI program evaluated in nine health centers of Soro district, Hadiya zone.

6.1.1. Human resource

Total of 38 health workers were trained in IMNCI service. At least 9 IMNCI trained health workers have to be availed in HCs, however, all of nine health centers had more than one IMNCI trained health workers, but 11(28.9%) IMNCI trained health worker were taken the training before two years.

30 years' male health center head said that

"…we have good proportional HWs that trained in IMNCI program because here, there are NGO's that support the program like IFHP and IMC in current situation…"

6.1.2. Drug and medical supplies

Availability of medical equipment's was assessed by inventory checklist in 9(100%) of health center during the day of evaluation. MUAC was the only Medical equipment found more than one in all health centers. At least one functional thermometer, weight scale, stethoscope and timer were available in 8(88.9%), 8(88.9%), 7(77.8%) and 7(77.8%) of the health centers respectively. Supplies for ORT corner to mix ORS, cups, spoon and plastic bugs were available in all HCs.

Drugs available for last three months in all health centers were vitamin A, ORS, Zinc Sulphate and paracetamol, whereas, Oral antibiotic like amoxicillin, ciprofloxacin, Cotrimoxazol and cloxacillin were available in8(88.9%), 5(55.6%), 4(44.4%) and 1(11.1%) of HCs.

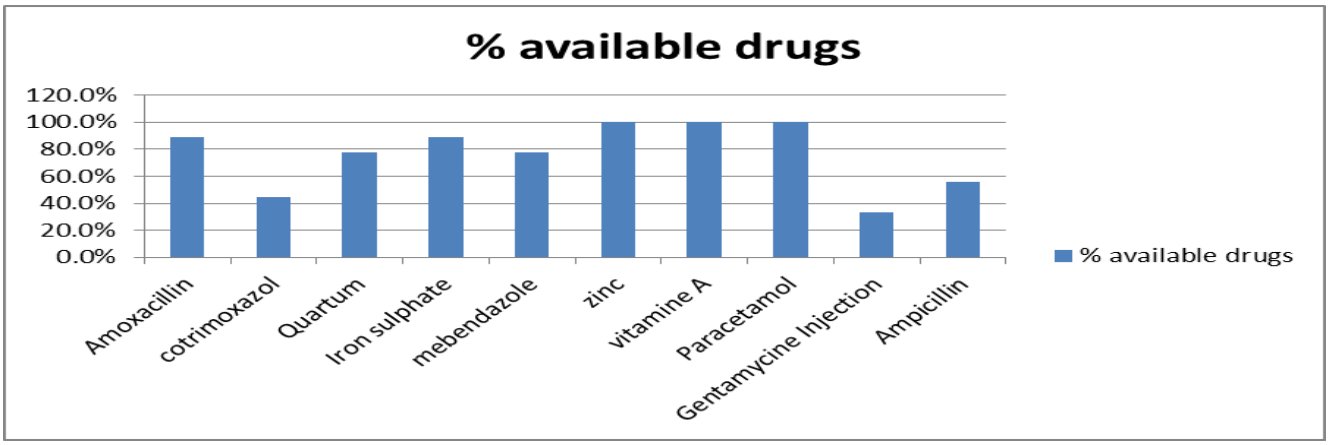


Figure 5: percentage of available drugs in Soro district HCs, 2017

29 years' Male health center head said that

"... So much difficult to avail all types of drugs in the health centers because this health center had limited budget, which is generated from the client based income, we give cost free service for clients by purchasing from ours that is why we face stock out drugs in our store ..."

30 years' male district health office focal said that

"...irregular supply of essential IMNCI drugs and medical supplies from zonal health department, PFSA was one of the problems for unavailable of some drugs like cotrimoxazol..."

26 years' Female case team coordinator said that

"... sometimes health workers prescribe other drugs out of the national guideline recommendation because of unavailability of recommended drugs in the health center pharmacy..."

6.1.3. Infrastructure of the health centers

Based on observation of infrastructure, all health centers had separate consultation room for under-five child with electric power or solar energy. Functional piped water source available in 8(88.9%) of health centers, from which only 2 (22.2%) of HCs had water source inside under-five room.

6.1.4. Recording and reporting

All 9 (100%) of health center have IMNCI register book and chart booklet in the table for health worker to use for sick child for implementation of IMNCI program.

Table 3: Analysis and judgment matrix for availability dimension of IMNCI program at public health centers of Soro district, Hadiya Zone, SNNPR 2017

Indicators	Weight given	Observed Value	Score	Agreed criteria	Judgmental	
Proportion of health center with functional ORT corner	4	4	100	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with functional thermometer	4	3.556	88.9	>=90%	V. good	Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with amoxicillin drug	5	4.445	88.9%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Good
				<=59.9%	Poor	
Proportion of health center with cotrimoxazol drug	4	1.776	44.4%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Poor
				<=59.9%	Poor	
Proportion of health center with Gentamycin drug	4	1.332	33.3%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Poor
				<=59.9%	Poor	
Proportion of HC with Quartum drugs	5	3.89	77.8%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Good
				<=59.9%	Poor	
Proportion of health center with Quinine drug	5	4.445	88.9%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Good
				<=59.9%	Poor	
Proportion of HCs with Mebendazol drugs	4	3.112	77.8%	>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	Good
				<=59.9%	Poor	
Proportion of HCs with zinc Sulphate	5	4.445	88.9%	>=90%	V. good	
				75-89.9%	Good	

				60-74.9%	Fair	Good
				<=59.9%	Poor	
Proportion of HCs with Paracetamol drug	5	5	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of HCs with Tetracycline eye ointment	5	2.22	44.4%	>=90%	V. good	Poor
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of HCs with vitamin A drug	5	5	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with functional Materials to mix ORS, cups and spoons.	5	5	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with functional weight scale	5	4.445	88.9%	>=90%	V. good	Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with source of water in health center.	5	4.445	88.9%	>=90%	V. good	Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with water source inside IMNCI room	5	1.11	22.2%	>=90%	V. good	Poor
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with functional stethoscope	5	3.89	88.9%	>=90%	V. good	Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with at least one trained health care	5	5	100%	>=90%	V. good	
				75-89.9%	Good	

providers on IMNCI				60-74.9%	Fair	V. Good
				<=59.9%	Poor	
Proportion of health center with Case management guidelines/ chart booklet.	4	4	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with IMNCI registration Book.	4	4	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of health center with IMNCI service room.	5	5	100%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Over all Availability dimension	100%	80.111				Good
Average score of Availability	(30%)	***24.033***				

6.2. Compliance with the IMNCI guideline

This evaluation was assessed health care provider's compliance to national IMNCI guideline through observing 90 participants during data collection period from which 54 participants were included for this evaluation. All observed under-five cards were reviewed from IMNCI register book to support findings.

Direct observation of health workers

Compliance of the health workers to IMNCI guideline evaluated through direct observation of 18 health workers. Each health worker assessed for five cases. Out of ninety (90) direct observations 54 cases were included for this evaluation finding.

Out of 18 (100%) observed health workers 9.6 (53.7%) were female and all 18(100%) health workers were trained with IMNCI guideline.

6.2.1. *Assessments* of sick under five children's

About 47(87%) and 38(70.4) of clients were measured for their weight and temperature respectively. All clients were correctly assessed for danger sign, respiratory problem, diarrhea, ear problems and

HIV status, whereas, immunization, anemia and feeding were 42(83.3) percent), 52(96.3 percent) and 49(90.7%) correctly assessed.

Only three cases were observed for infant less than two months, from which all of them were correctly assessed for breathing count in one minute, sever chest indrawing, Umblical cord reddiness and draining pus, skin pustules, movement of child, Juandice, diarrhea and feeding problems, however, one infant did not measured for axillary temperature and immunization status.

From observed three cases very sever disease and local bacterial infection were correctly classified, also two jaundice cases were correctly classified but misclassified for one local bacterial infection and one local infection. Considering that one case was classified for two or more diseases at a time.

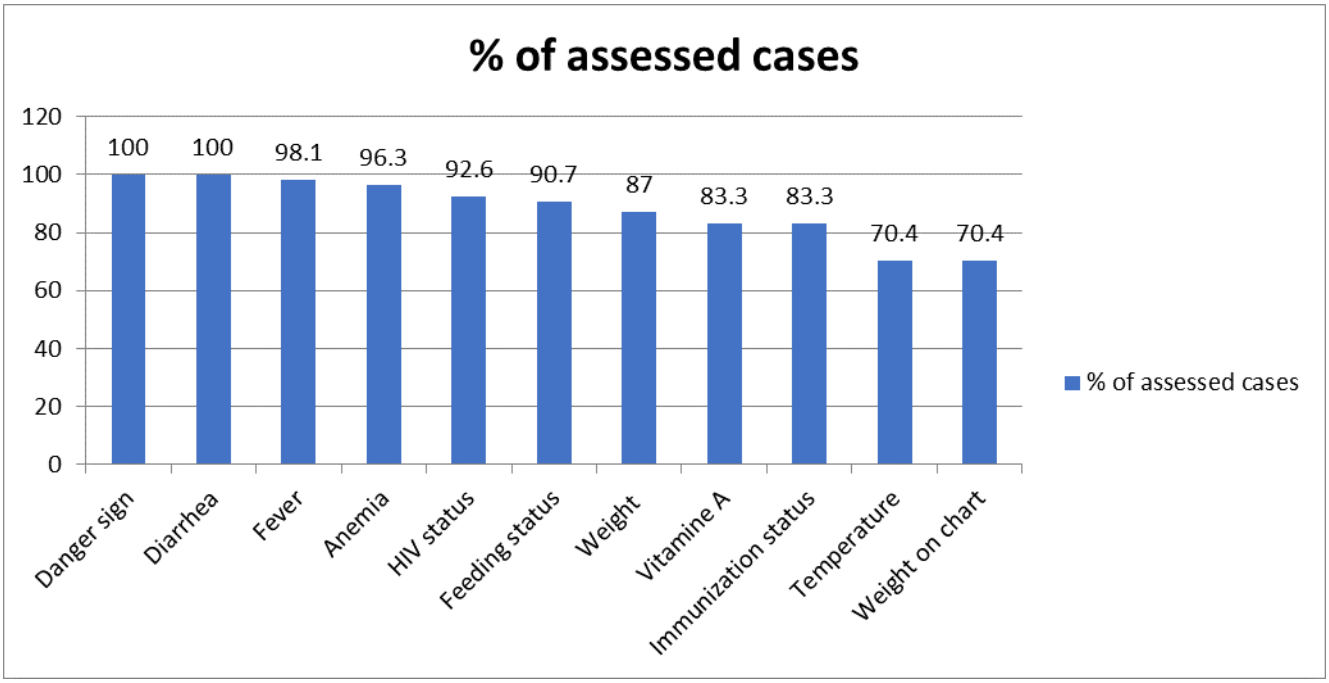


Figure 6: Assessment of sick under five children in Soro district, 2017

6.2.2. *Classification and treatment* of sick under five children's

Health workers were correctly classified Malaria, dehydration, diarrhea, malnutrition and anemia for50(92.6 percent) 48(88.9%),49(90.7%), 48(89%) and 50(92.6%) of sick under-five child respectively.

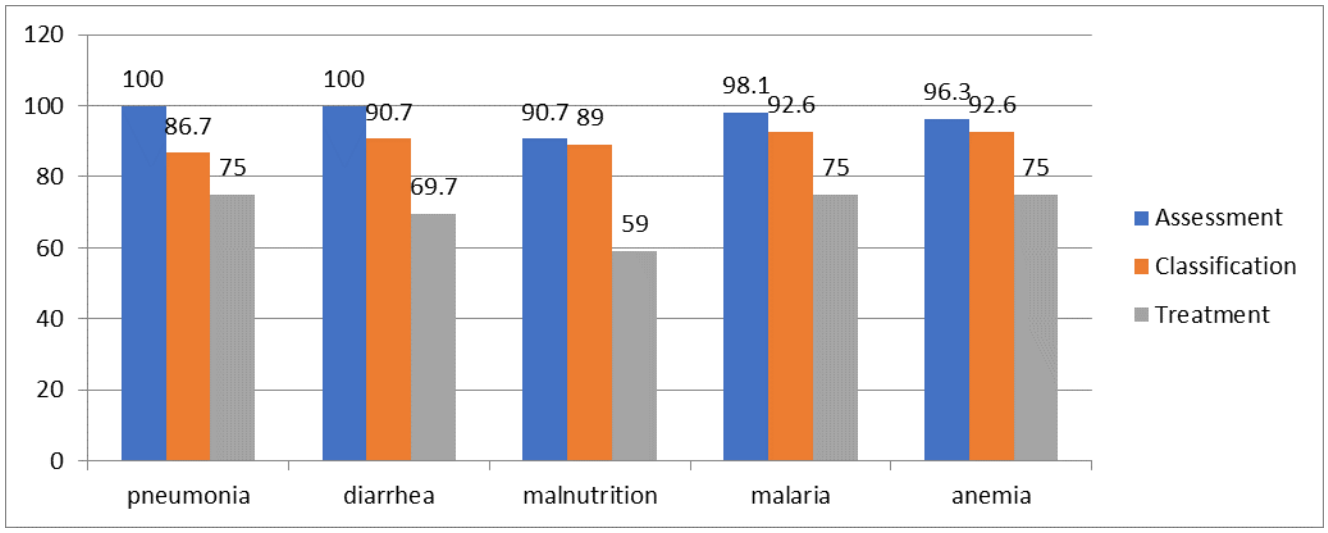


Figure 7: percentage of sick under-five child assessment, classification and treatment for selected diseases.

HWs correctly prescribed oral antibiotics ORS and Zinc for 40(74.1%), 39(72.2%) and 17(72.2%) respectively.

6.2.3. Counseling of Care takers/ mothers

Care taker counseled on how to administer medication were 39(72.2%), and 39(72.2%) were received counseling on when to give medication. About 36(66.7%) of cases were given first dose medication at health center. Follow up date were given for about 42(77.8 percent) sick child. HWs Observed for using chart booklet while giving the service were 53(98.1 percent)

.

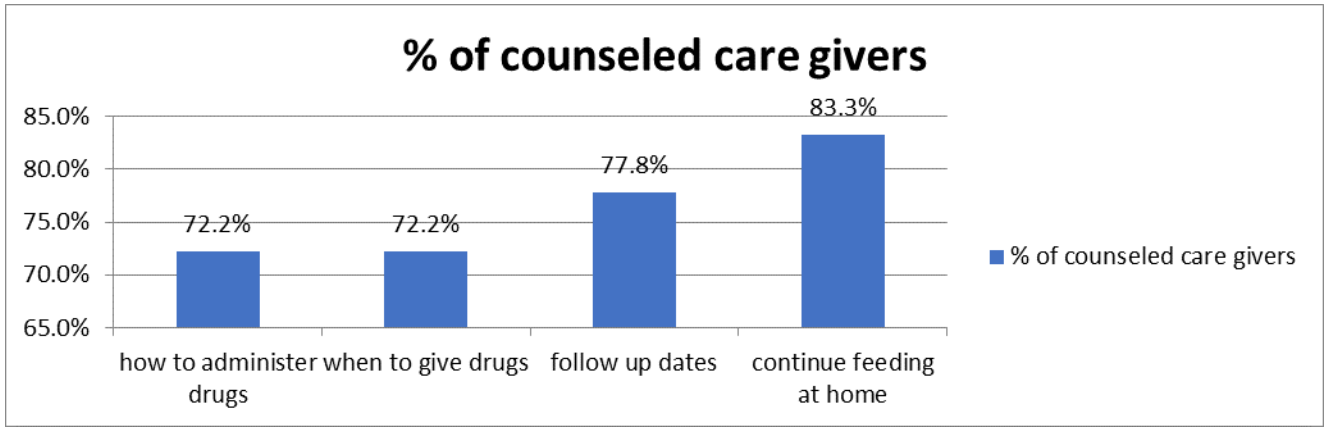


Figure 7: percentage of Care takers/ mothers received counseling according to guidelines in Soro district health centers

27 years' Male health center head said that

‘‘…. *problems of health worker for missing the steps of IMNCI guideline are mainly lack refreshment training on the program with in short period of time, most of our health workers were trained on IMNCI program guidelines but still there are problems on assessment and classification of disease based on guidelines and standards’’*

35 years’ female case team coordinator said that

“…assessment of sick child was sometimes missed with unavailability of some medical equipment. It is so difficult to follow the steps in the guideline without availability of medical equipment’s.”

31 years’ male case team coordinator said that

“*…health workers may make mistakes on assessing, classifying and treating of sick child with lack of continuous supportive supervision from the district which is a very helpful thing to maximize the capacity of health worker efficiency to comply with the program”*

Table 4: Analysis and judgment matrix for compliance dimension of IMNCI program at public health centers of Soro district, Hadiya Zone, SNNPR 2017

Indicators	Weight given	Observed Value	Score	Agreed criteria	Judgmental parameter	Findings
Proportion of sick children who were correctly assessed weight according to IMNCI guideline	3	2.61	87%	>=90%	V. good	GOOD
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children who were correctly assessed temperature according to IMNCI guideline	3	2.112	70.4%	>=90%	V. good	FAIR
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked for danger signs according to IMNCI guideline.	3	3	100%	>=90%	V. good	V.GOOD
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for fever according to IMNCI guideline	3	2.943	98.1%	>=90%	V. good	V.GOOD
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for				>=90%	V. good	V

diarrhea according to IMNCI guideline	3	3	100%	75-89.9% 60-74.9% <=59.9%	Good Fair Poor	GOOD
Proportion sick children Assessed for ear problem according to IMNCI guideline	3	3	100%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. GOOD
Proportion sick children Assessed for anemia according to IMNCI guideline	3	2.889	96.3	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V.GOOD
Proportion sick children checked for immunization status according to IMNCI guideline	3	2.499	83.3%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	GOOD
Proportion sick children checked for vitamin A supplementation status according to IMNCI guideline.	3	2.499	83.3%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Good
Proportion sick children assessed for HIV status according to IMNCI guideline.	3	3	100%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. Good
Proportion sick children assessed for movement of child according to IMNCI guideline.	3	3	100%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. Good
Proportion sick children assessed for umbilical cord of child according to IMNCI guideline.	3	3	100%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V.GOOD
Proportion sick children assessed for Jaundice of child according to IMNCI guideline.	3	3	100%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. Good
Proportion of sick children with				>=90%	V. good	V.GOO

correctly classified of pneumonia according to IMNCI guideline	3	2.7	86.7%	75-89.9%	Good	D
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with correctly classified of anemia according to IMNCI guideline	3	2.7	86.7%	>=90%	V. good	V.GOOD
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of malnutrition who were correctly treated according to IMNCI guideline	3	1.77	59	>=90	V. Good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of diarrhea who were correctly classified according to IMNCI guideline	4	3.628	90.7%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malaria who were correctly classified according to IMNCI guideline	4	3.704	92.6%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malnutrition who were correctly classified according to IMNCI guideline	4	3.56	89%	>=90%	V. good	Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of pneumonia who were correctly treated according to IMNCI guideline	4	3.704	92.6%	>=90%	V. good	V. Good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of diarrhea that were correctly treated according to IMNCI guideline.	3	2.721	90.7	>=90%	V. good	V. good
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children correctly referred to another health facility	3	0.75	25%	>=90%	V. good	V. good
				75-89.9%		
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with				>=90%	V. good	POOR

classifications of anemia who were correctly treated according to IMNCI guideline	3	2.25	75%	75-89.9% 60-74.9% <=59.9%	Good Fair Poor	
Proportion of sick children with classifications of malaria who were correctly treated according to IMNCI guideline	3	2.52	84%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. Good
Proportion of zinc correctly prescribed for sick children according to guideline	3	2.166	72.2%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Fair
Proportion of ORS correctly prescribed for sick children according to guideline	3	2.166	72.2%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Fair
Proportion of caretakers received counseling on how to administer medication of their sick child	3	1.944	64.8%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Fair
Proportion of caretakers received counseling on when to administer medication for their sick child	3	2.166	72.2%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Fair
Proportion of sick child who received follow up date correctly	3	2.334	77.8%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Good
Proportion of sick child who get IMNCI service by HWs along chart booklet	6	5.886	98.1%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	V. Good
Proportion of care taker who received counseling on continuing feeding and breastfeeding for sick child based on guideline	3	2.499	83.3%	>=90% 75-89.9% 60-74.9% <=59.9%	V. good Good Fair Poor	Good
Over all compliance dimension	**100**	**85.72/ 30**	**85.72**	>=90%	V. good	**Good**

				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	

6.3. Satisfaction dimension

6.3.1. Socio demographic characteristics of the study participants

Exit interview of care giver were conducted for 390 caretaker of sick child in 9 health center of Soro district, Hadiya zone. The response rate of study subjects was 92.9%. Among total respondents 346(83.8%) were female. Majority of care taker age range about 186(45%) lies between 26-30 years old. More than half 270(65.4%) of the care takers were living in rural areas. Majority of care taker 282(68.3%) were protestant.

Table 5: Socio-demographic characteristics of the participants for evaluating Implementation of IMNCI services in Soro district, Hadiya zone health centers, 2017 (N=390)

Variable	Category	Frequency	Percentage
Age	15-20years	14	3.4
	21-25years	71	17.2
	26-30years	186	45.0
	31-35years	82	19.9
	36-40years	38	9.2
	Above41years	22	5.3
Sex	Male	67	16.2
	Female	346	83.8
Educational status	Illiterate	165	42.3
	Primary school	180	46.2
	Above secondary school	45	11.5
Religion	Orthodox	73	17.7
	Muslim	9	2.2
	Protestant	282	68.3
	Catholic	47	11.4
	Other	2	.5
Address	Rural	270	65.4
	Urban	143	34.6
Marital status	Currently married	346	88.7
	Currently unmarried	44	11.3
Family size	three and less	300	76.9
	four and above	90	23.1
Occupational status	Farmer	102	24.7
	Housekeeper	168	40.7

	Merchant	81	19.6
	Gov't employee	41	9.9
	Private employee	10	2.4
	Other specify	11	2.7

6.3.2. Health care service related with Care takers

Majority of care takers 345(83.5%) were come to health center on foot as mode of transport. Above quarter of care takers were came to Health center for the first time.

Table 6: Health Care service related to care takers for Implementation of IMNCI program in Health centers of Soro district Hadiya zone, 2017, 2017(N=390)

Variable	Category	Frequency	Percentage
Mode of transport to HC	By foot	345	83.5
	By motor bicycle	37	9.0
	By car	2	.5
	Horse	26	6.3
	Other	3	.7
Time to reach HCs	greater than 30 min	90	23.1
	less than 30 min	300	76.9
Frequency to attend this health center for any service.	First time	124	30.0
	Twice	106	25.7
	Three	93	22.5
	Four	46	11.1
	Above five times	44	10.7

6.3.3. Health center attendance of sick child

About 163(41.8% percent) of care takers responded that child sickness frequency with any case of under-five disease since birth were three time.

Table 7: Health center attendance of sick child for IMNCI program in Health centers of Soro district Hadiya zone, 2017, 2017(N=390)

Variables	Category	Frequency	Percentage
frequency of child sickness with any case of under-five disease	once	32	8.2
	Twice	119	30.5

	Three	163	41.8
	Above four	43	11.0
	Not ever sick	33	8.5
Frequency of sick under-five child to attend IMNCI service since birth	once	86	22.1
	Twice	116	29.7
	Three	75	19.2
	Above four	20	5.1
	Not ever sick	93	23.8

6.3.4. Service related with IMNCI program

Greater than half of care takers 271(69.5%) were responded that waiting time stayed to get the service were less than 30 minute. Temperature was taken for 249(63.8%) of sick child and who get the prescribed drugs inside health center pharmacy were 205(52.6%).Only 220(56.4%) of total respondents were received counseling service on providing extra fluid and feeding for their sick child

Table 8: service related with IMNCI program in Soro district health centers, 2017

Variables	Category	Frequency	Percentage
Temperature taken	Yes	249	63.8
	No	141	36.2
Waiting time	1-30min	271	69.5
	Greater than 30 min	119	30.5
Availability of prescribed drugs	Yes	205	52.6
	No	185	47.4
Consultation time	1-30min	220	56.4
	Greater than 30min	170	43.6
Counseling given on extra fluid and feeding	Yes	220	56.4
	No	170	43.6
Weight measured	yes	106	27.2
	no	284	72.8

6.3.5. Satisfaction level of care takers on IMNCI services

The overall satisfaction of IMNCI services were 80.9 percent calculated by demarcation threshold. More than two- third (78.5%%) of care takers/ mothers were satisfied on Waiting time of IMNCI service and 82.6% of caregivers were satisfied about getting counseling on identifying danger sign of

sick under-five child to return HCs immediately. About 84.4 % of care giver was satisfied with overall service to decide to come to this health center by next time. Care takers/mothers were satisfied on consultation time, availability of drugs in HC pharmacy and availability of medical equipment's 91.5%, 62.3% 73.6% respectively.

Table 9: Table 9:Table 3: Analysis and judgment matrix for Satisfaction dimension of IMNCI program at public health centers of Soro district, Hadiya Zone, SNNPR 2017 (N=390)

Indicators	Weight given	Observed Value	Score	Agreed criteria	Judgmental Parameter	Findings
Proportion of Care takers/ mothers satisfied with waiting time for service in the health center.	7	5.495	78.5%	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with time dedication for sick child by HWs	6	5.49	91.5%	>=90%	V. good	V. good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by counseling of HWs to identify Danger sign and symptoms of sick child to bring back to HC.	6	4.956	82.6%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied way that the child was examined	6	5.322	88.7%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with treatment medication given by HWs?	6	5.136	85.6%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by health worker approaches	6	5.274	87.9%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by the availability of drugs that you want in HC	7	4.361	62.3%	>=90%	V. good	Poor
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver	7	5.152	73.6%	>=90%	V. good	Fair

satisfied with availability of medical equipment's that used to sick child				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with counseling of feeding for sick child	7	5.761	82.3%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/ mothers satisfied with counseling on how to give the medicine to sick child	7	5.348	76.4%	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/ mothers/ mother counseling of giving when to give medicine to sick child	7	5.278	75.4%	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/mothers satisfy with fee paid for the service.	7	5.691	81.3%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with distant of HC for the service	7	5.082	72.6%	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with the date given for appointment	7	5.222	74.6%	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with overall service to decide to come to this health center by next time	7	5.908	84.4%	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Overall satisfaction	**100/35**	**27.8**	**79.5%**			**Fair**

6.3.6. Factors associated with care takers satisfaction on IMNCI services

6.3.6.1. Bivariate analysis of variables associated with IMNCI service satisfaction

To assess the association of different independent variables with outcome variable (client satisfaction), bivariate logistic regression analysis was carried out and for crude association all variables with p-

value less than 0.25 were become candidate for multivariate logistic regression. Based on the binary logistic regression analysis Educational status, Weight measured, waiting time, Available of prescribed drug, Consultation time, Family size(child), Counseling received giving extra fluid and continue feeding, Time to reach HC on foot(walking) were variables selected for multivariate analysis of client satisfaction on IMNCI services.

Variables		Frequency				P-value	COR	CI	
		dissatisfy		satisfy					
		#	%	#	%				
Family size	three and less	47	15.7%	253	84.3%	0.034	1.848	1.048	3.257*
	four and above	23	25.6%	67	74.4%		1		
Counseling service for sick child	1-30min	30	13.6%	190	86.4%	0.12	1.949	1.155	3.289*
	greaterthan30min	40	23.5%	130	76.5%				
Availability of prescribed drug	Yes	23	11.2%	182	88.8%	<0.001	2.695	1.562	4.651*
	No	47	25.4%	138	74.6%		1		
Waiting time to get HWs	1-30min	40	14.8%	231	85.2%	0.014	1.95	1.14	3.32*
	greaterthan30 min	30	25.2%	89	74.8%		1		
Weight measured	Yes	34	32.1%	72	67.9%	<0.001	0.307	0.18	0.53*
	No	36	12.7%	248	87.3%		1		
Temperature taken	Yes	51	20.5%	198	79.5%	0.085	0.65	0.34	1.07
	No	19	13.5%	122	86.5%		1		
time to reach HC	greater than 30 minute	29	32.2%	61	67.8%	<0.001	3.00	1.73	5.212*
	less than 30 min	41	13.7%	259	86.3%		1		
Marital status of caretaker	currently married	59	17.1%	287	82.9%	0.19	0.62	0.26	1.29
	currently unmarried	11	25.0%	33	75.0%		1		
educational status	illiterate	25	15.2%	140	84.8%	.037	2.275	1.051	4.925*
	primary school level	32	17.8%	148	82.2%	.099	1.879	.888	3.975*
	above secondary education	13	28.9%	32	71.1%	0.11	1		*
3 SEX Care taker sex	Male	23	23.7%	74	76.3%	0.09	0.62	0.35	1.100
	Female	47	16.0%	246	84.0%		1		
Consultation time of for sick child	1-30min	30	13.6%	190	86.4%				
	Greater than 30 min	40	23.5%	130	76.5%	0.012	1.949	1.155	3.289*
Frequency of sick	First	20	23.3%	66	76.7%	0.226	1		

under-five child to IMNCI service since birth	Second	17	14.7%	99	85.3%	0.914	0.962	0.479,	1.93
	Third	10	13.3%	65	86.7%	0.142	1.699	0.837,	3.45
	Above four	2	10.0%	18	90.0%	0.128	1.896	0.831	4.32
	Never came before	21	22.6%	72	77.4%	0.219	2.625	0.563	12.2

(*) referees to variables significant in bivariate logistic regression analysis with p value (p< 0.25)

6.3.6.2. Multivariate analysis of variables associated with IMNCI service satisfaction

On multivariate analysis, five variables were found to be associated with client satisfaction. Care takers who were Measured their weight of sick child were 58% less satisfied than from those who measured their child weight **AOR=0.42, CI 95% (0.19, 0.94).** Caretakers who waited less than 30-minute preceding to consultation with health care provider were 2 times more satisfied than waited more than 30 minute **AOR= 2, CI 95%(1.01, 3.77)**. Care takers who got prescribed drugs from health center pharmacy were nearly 4 times more satisfied than those who did not got **AOR= 3.7, CI 95% (1.91, 7.34)**. Care taker who took less than 30 minute to reach health center were7.7 times more satisfied than compared to those who took greater than 30 minute **AOR=7.7, CI 95% (3.79, 15.59).** Caretaker who had three and less family size were more satisfied than compared to those who had larger than three family size **AOR=2 CI, 95% (1.10, 4.06).**

Table 10: Variables showed Adjusted crude association with overall care taker satisfaction on IMNCI services in Soro district, Hadiya zone, 2017(N=390)

Variables		Frequency				P-value	AOR	CI	
		Dissatisfy		satisfy					
		#	%	#	%			upper	l
Family size	three and less	47	15.7%	253	84.3%	0.023	2.122	1.11	4.06**
	four and above	23	25.6%	67	74.4%		1		
Availability of prescribed drug	Yes	23	11.2%	182	88.8%	<0.001	3.74	1.91	7.34**
	No	47	25.4%	138	74.6%		1		
Waiting time to get HWs	1-30min	40	14.8%	231	85.2%	0.04	1.95	1.00,	3.77**
	greaterthan30 min	30	25.2%	89	74.8%		1		
Weight measured	Yes	34	32.1%	72	67.9%	<0.001	0.24	0.13	0.45**
	No	36	12.7%	248	87.3%		1		
time to reach HC	greater than 30 minute	29	32.2%	61	67.8%	<0.001	7.68	3.78,	15.59**
	less than 30 min	41	13.7%	259	86.3%		1		

(**) referees to variables significant in multivariate logistic regression analysis with p value (p< 0.05)

6.4. Judgment matrix for overall Implementation of IMNCI Program

IMNCI service was measured by looking at three dimensions (availability, compliance and satisfaction) .From 100%, availability(30), compliance(35) and satisfaction(35) were given and the result found was 24.033%,30.44% and 27.8% for the above three dimensions respectively. Percentage found in each dimension was converted to their respective weight and summation was made.

Table 11:Overall judgment matrix for implementation evaluation of IMNCI program at Soro District, Hadiya zone, SNNPR 2017.

Dimensions	Weight given	Value obtained	Score	Agreed criteria	Judgmental Parameter	**Findings**
Availability of program resources as per to the national guideline (summary of 21 indicators)	30	24.033	80.11	>=90%	V. good	GOOD
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Compliance to national guideline in delivery of IMNCI services (summary of 30 indicators)	35	30.44	85.72	>=90%	V. good	GOOD
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Satisfaction of Care takers/ mothers to IMNCI services (summary of 15 indicators)-	35	27.8	79.5	>=90%	V. good	Fair
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Overall implementation of IMNCI program	100	82.3	82.3	>=90%	V. good	Good
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	

Chapter 7: Discussion

7.1. Availability dimension of IMNCI program

Vitamin A and paracetamol and ORS were the only available essential drugs found in all health centers. Antibiotic drugs like Amoxicillin and Cotrimoxazol syrup were available in 89.9% and 44.4% of HCs respectively. More than three quarter of health centers were available in quartum and mebendazole. This finding is different from the study conducted in Ethiopia service provision assessment, 2014, which indicates that Mebendazol, Zinc and Quartum were available in less than 65% of health center except vitamin A and ORS in SNNPR(2). Another study finding in Ethiopia, report of IPLS, 2015 shows that Products with above 95%availability at health centers were amoxicillin, co-trimoxazole, oral rehydration salt (ORS), and Paracetamol on visit day. Whereas, Mebendazol 92%, Iron sulphate 86%, Arthemeter 89% were available in the day of visit(1). This finding is different from the study conducted in Soro district were less available than compared to IPLS report specially Cotrimoxazole. The qualitative finding shows that unavailability were related with purchasing capacity of each health center and varies from one HC to another, also irregularity of essential drugs distribution from PFSA.

At least one IMNCI registry book, chart booklet and IMNCI trained staff were found 100% in all health centers for IMNCI service. This finding is different from the study conducted in Ethiopia, survey provision assessment, 2014 which indicates that percentage of IMNCI trained HW were found at least one in HCs were (53%), availability of guideline and chart booklet 65%. This finding was almost similar with the study in Rwanda, 100% of under-five sick child were seen by trained health worker (42). Study in Tanzania shows that only fifty-one percent of IMNCI trained health worker were found in primary health care unit (40). Regarding from WHO recommendation at least 60% of under- five sick children seeing under-five clinic would have been seen by trained health worker (46). However, Soro district health centers had above the WHO standards. This might be related with availability of NGO's that works in under- five years' child program like IMC and IFHP.

Above 75 % of health centers had medical supplies like functional stethoscope, thermometer, measuring weight, timer, and MUAC. These finding is similar to the result of Ethiopian survey provision assessment report except weight scale which was found only in 54% of Health center of SNNPR. The reason for this difference as evidenced from qualitative finding showed that there were irregular distribution of essential drugs and medical supplies from PFSA, zonal health department and

district health offices to health centers. In addition to that purchasing capacity of Health center was different from one to another(2).

7.2. Compliance dimension of IMNCI program

Based on sated judgment criteria over all compliance of health workers with national IMNCI guide line was good. The observation finding indicate that above 80% of sick child were correctly assessed for all three danger sign, weight, and child complain except temperature, which was measured for only 66.7% of sick child. This finding is almost similar to study in Rwanda, 2016 indicated that except temperature measurement HWs were assessed for all three danger sign, weight, temperature and child problem for 99.8 %, 100%, 86.7% and 99.5% respectively(5).

Document review result indicated that checked immunization, Vitamin A, feeding and other problem were assessed for 91.1%, 82.2%, 73.3% and 88.9% respectively. This finding is better than study done at Rwanda 2009 on IMNCI evaluation, in which malnutrition, Immunization status and vitamin A supplementation were assessed for 63%, 85% and 72%of under-five child respectively(42).

Among assessed sick child who were correctly classified to pneumonia 86.7%, dehydration 88.9 %, diarrhea without dehydration 90.7%, malnutrition 89% and Anemia 92.6%. This finding are better from the report of Ethiopian service provision assessment, 2014 where dehydration 33%, anemia 45%, diarrhea without dehydration 58%, malnutrition 65% and pneumonia 66% were reported in southern nation nationalities region(2). The improvement might be related with IMNCI trained health workers were available in each health centers.

Among sick children with classifications of diseases who correctly treated for anemia, diarrhea, pneumonia, malaria and malnutrition were75%, 69.7%, 75%, 84% and 59% according to national IMNCI guide line respectively. These results was lower than study done in Ethiopia to assess quality and use of IMNCI program in three regions, which indicates correctly treated for diarrhea malaria and pneumonia are 86%, 91% and 87% respectively.

About 90.9 % cases were correctly prescribed oral antibiotics for classified diseases. Both ORS and Zinc correctly prescribed for 72.2% of cases. The study in morocco indicates correctly prescribed antibiotics were 64.4% which is lower than this finding (43). Study in Rwanda, 2016 indicates that overall correctly treated child was 98.2% with trained HWs specifically pneumonia 98.6% and malaria 100% according to IMCI guideline(5). This report is higher than current evaluation. However, from

the qualitative finding indicates that HWs were prescribing out of the guideline recommendation due to unavailability of drugs in the HCs.

About 64%of care takers were received counseling on how to administer medicine to their sick child at home and health workers were explained for 72.2% of care taker on when to give medication and 83.3% of care taker also counseled for giving liquid or continuing home feeding and breast feeding, care giver received correct follow up date for immediate cases according to the guideline were 77.8%.

This finding was different from the study conducted in under five health care in each region by FMOH 2014 report of SNNPR, giving extra fluid for sick child were 40%, continue feeding 45%, follow up for immediate case 67% (2).Similarly, study done in India on evaluation of IMNCI Practices among Health Care Providers in a District of North India,2012 indicates that 40 percent of Care takers/ mothers were advised to give extra feeding/extra fluids to the children, 66.7% of the mothers were advised to give ORS. Preparation of ORS was demonstrated to only 26.7% of the mothers and 21.4% of the mothers were advised about how much ORS should be given. The children who had diarrhea were managed only for 46.7 % of cases, and 53.3% of cases were counseled along with medicines (44).

7.3. Satisfaction of care giver in IMNCI program

In this evaluation, acceptability of IMNCI services of caregivers was measured by satisfaction. overall satisfaction level of care giver in IMNCI service of Soro district, Hadiya zone was80.9%.Studies in Ethiopia have reported overall satisfaction levels ranging from 52% to 57% in 2006(8).(41).

Predictor of care giver satisfaction were waiting time, availability of prescribed medications, time taken to reach health center from home on foot, Family size and weight measurement of sick child were found to have a statistically significant association with the care taker satisfaction.

Care taker who took less than 30 minute to reach the health center on foot were nearly 8 times more satisfied than from those who took more than 30 minute. Similar finding were observed in jimma zone on health service utilization indicated that clients who were shorter distance to health center were 2.9 times higher chance to get health service(47)(47).

Care takers who waited less than 30 minute to get service of IMNCI in HCs were 2 times more satisfied than from those who were waited greater than 30 minute**.** This finding was consistent to study finding in wolayta teaching hospital on satisfaction of Care takers/ mothers in outpatient service

including under five clinic indicates that care takers waiting time less than or equal to 30 minutes in waiting area preceding consultation were to be more satisfied than those who were waited 60 minutes (33). Care takers were more frustrated proceeding to consultation with health workers about to know their Childs health status. The studies used to compare with this finding were not conducted specifically in under-five children, but it assessed satisfaction in all outpatient services including under-five services.

Regarding to Availability of prescribed drugs for sick child, care takers/ mothers who were got all prescribed drugs in health center pharmacy were 3.7times more satisfied than from those who did not found prescribed drugs in the health center pharmacy, this finding is almost similar when compared with another study finding on Associated Factors Among Outpatient Department in Wolayita Sodo university teaching hospital, southern Ethiopia, 2015, nearly two third (64.3%) of the respondents did get all prescribed drugs from the hospital pharmacy were more satisfied **(33).**

Care takers whose sick child's weight measured were 76 percent less likely satisfied than from those who were measured**.** As the evaluators best knowledge there was no studies were found for this finding, but it needs further research to explain the finding.

Care givers who had three and less family size were 2 times more satisfied than from those who had four and above family size. This might be related with economic status of care giver. As the best knowledge of researcher there were no similar finding was available for this finding, so further studies will be necessary to prove it.

Chapter 8: Conclusions and Recommendations

8.1. Conclusions

Based on judgment criteria over all implementation of Integrated Management of Neonatal and Childhood Illness program evaluation was judged as good. There were good availability of resources which includes infrastructure, essential drugs and medical supplies. All health centers had trained health worker, ORS, Paracetamol, Vitamin A, Chart booklet and IMNCI guideline were available, however, Cotrimoxazole, Gentamycine, Ampiciline and Mebendazole were less abundant drugs in health centers. Medical equipment's like thermometer, weight scale and stethoscope were not available in all health centers. All health centers had trained health worker on IMNCI program but one third of them did not taken refreshment training with in two years.

Compliance of health workers toward IMNCI guideline was judged as good. Missed assessment of weight and temperature of sick child were observed. Health workers less comply to counseling of care givers on feeding, prescribing drugs and follow up dates, also, there were over and under classification, treatment and follow of pneumonia, diarrhea, anemia, malaria and malnutrition were observed

According to judgment criteria satisfaction of care givers in IMNCI service were fair. Care takers were fairly satisfied with counseling of prescribed drugs, distant of HCs, appointment dates, availability of medical equipment's and waiting time. Factors that affect care givers satisfaction in Soro district health centers by multivariate analysis were long waiting time to get consultation to health workers in health center, availability of prescribed drugs in health center pharmacy, long walking time to get service of IMNCI, family size and Weight measurement for the child.

8.2. Recommendation

Soro district Zonal health department communicating with regional health bureau and development partners

- Decrease the time to reach of health centers with accessing service near to clients.
- Continue to strengthen the program with availability of medical equipment.
- Refreshment training has to be considered to maximize the compliance of health worker toward the guidelines.
- Continue their effort to strengthen the program with trained man power, supplies and improve HWs compliance.

Health center

- Find ways to minimize waiting time of Care takers/ mothers before getting service
- Health center have to find different mechanisms to address satisfaction of care givers on availability of prescribed drugs, medical equipment's, and waiting time.

For Researchers:

- I recommend in future studies to address gap and identify all possible predictors of care takers' satisfaction.

8.3. Limitations of this evaluation

- Hawthorn effect would cause health workers to improve performance solely as a result of being observed. However, the bias would have been minimized by increasing the number of observation session and those extra observations were not included in this analysis.
- Care takers/ mothers satisfaction was mainly related with their perception to the service that might not related to the standards of national guideline or policy of the nations.
- Social disability bias due to consecutive sampling of care givers.

Chapter 9: Meta evaluation

Meta evaluation was carried out by external evaluator using four standards: utility, propriety, feasibility and accuracy. Good evaluation requires that evaluation themselves be evaluated in order to check evaluations for problems such as bias, technical error, administrative difficulties and misuse. This will help to improve ongoing evaluation activities and to assess the merits of completed evaluation efforts. The evaluator set judgment criteria as [85-100-Very good, 75-84.9 good, 60-74.9 poor, lowest 59.9 Critical]. According to the judgment this evaluation was scored 82% and judged to be good.

9.1. Utility standards

Key stakeholders was involved and communicated during Evaluability assessment and during the whole process of evaluation. The evaluation questions and judgment criteria was set by stakeholders. The finding at the end was distributed timely in relation to the concern of the stakeholders.

9.2. Feasibility standards

This standard seeks to ensure that an evaluation was realistic, political and economic. This means the evaluation political viability and support, practical procedure and its cost effectiveness. The IMNCI implementation guidelines exist and logistics support from Jimma University for the study to be practical. Time allocated for data collection was adequate to assure data quality.

9.3. Propriety standards

To maintain ethical procedures ethical clearance obtained from college of public health and medical science of Jimma University ethical clearance committee and letters was provided to legal ground on each level of data collection. The data collection tools are designed considering contextual norms and Stakeholders assurance and consent to do this process evaluation before starting evaluation research.

9.4. Accuracy standards

The program is expressed in clear and understandable way and the context in which the program were being implemented. The step and sources of information was cited by following the scientific design of Jimma University and the consistency strength of the information produced were clearly described in method part.

Reference

1. Ethiopia TFDRo, Pharmaceuticals Fund and Supply Agency; USAID | DELIVER PROJECT. Ethiopia: National Survey of the Integrated Pharmaceutical Logistics System. FEBRUARY 2015.
2. Ethiopian Public Health Institute (EPHI) FMoHF, ICF International: Ethiopia Service Provision Assessment Plus Survey. Ethiopia Service Provision Assessment Plus (ESPA+) Survey. October, 2014.
3. Sarah Ashley M. World Health Organization Integrated Management of Childhood Illness (IMCI) 14 October 2015.
4. <Learning from Implementation - Process Monitoring and Evaluation II of Zimbabwe's Results-Based Financing Project.pdf>.
5. Magge H, Anatole M, Cyamatare FR, Mezzacappa C, Nkikabahizi F, Saleh Niyonzima, et al. Mentoring and quality improvement strengthen integrated management of childhood illness implementation in rural Rwanda 2016.
6. WHO. Integrated Management of Childhood Illness (IMCI) Implementation in the Western Pacific Region IMCI Monitoring and Evaluation. 2010.
7. BANK UUW. Evaluation of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Program in India: An IPEN Study Evaluation of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) program in India: An IPEN Study Operational ManualOperational Manual. 2007.
8. A. B. The quality of hospital services in eastern Ethiopia: Patient's perspective. Ethiop J Health Dev. ;20:199–200 2006.UNDP:. MDGs in Tanzania: Series on the internet 2010.
10. Alexander K Rowe SYR, 2 Kathleen A Holloway,. Does shortening the training on Integrated Management of Childhood Illness guidelines reduce its effectiveness? A systematic review 2012.
11. FMOH:. Integrated Management of Newborn and Childhood Illness, Part 1 Blended Learning Module for the Health Extension Programme. 2011.
12. Agency CS. Ethiopia Demographic and Health Survey Key Indicators. 2016.
13. SSESSMENT OF HEALTH SEEKING BEHAVIOR AND ASSOCIATED FACTORS FOR GENERAL DANGER SIGNS AMONG MOTHERS OF UNDER FIVE CHILDREN IN BISHOFTU TOWN, EAST SHOA ZONE, OROMIYA, ETHIOPIA, 2016.
14. Directorate FM. National Newborn andChild Survival StrategyDocument Brief Summary2015/16-2019/20. June 2015.

15. Benguigui DY. THE 1st GLOBAL CONGRESS FOR CONSENSUS IN PEDIATRICS AND CHILD HEALTH February 17-20, 2011 Paris, France "The model and implementation of IMCI: Integrated Management of Childhood Illness" 2011.

16. k Mullei, F Wafula, Goodman C. A Case Study of Integrated Management of Childhood Illness (IMCI) Implementation in Kenya. October 2008: .

17. Ahmed Aly El Ayady, Dorreya Elsayed Meleis, Marwa Mostafa Ahmed, Ismaiel RS. Care-Givers' Knowledge and Attitude After receiving Care in Integrated Management of Childhood iIllness Clinics in an Egyptian Primary Health Care Setting. International Journal of Preventive Medicine Research. 2015;Vol. 1, No. 4, 2015, pp. 227-231.

18. unicef:. Evaluation of Integrated Management of Childhood Illnesses Initiative in the Republic of Moldova Years 2000-2010 Final Report. 2011.

19. WHO:. Snow J. Health facility End-line Survey .synthesis report. ADDIS ABEBA; . 2008.

20. FMOH:. HEALTH SECTOR DEVELOPMENT PROGRAMME IV ANNUAL PERFORMANCE REPORT EFY 2007 (2014/15);VERSION 1.

21. Demissie1 B, Ejie1 B, Zerihun H, Tafese Z, Gamo G, Tafese T, et al. Assessment of health care seeking behavior of caregivers for common childhood illnesses in shashogo District, Southern Ethiopia. The Ethiopian Journal Of Health Development. 2014;Volume 28, Special Issue, 2014, 1-43(Academic-Private Sector Collaboration in Public Health Operations Research (School of Public Health, Addis Ababa University & the Integrated Family Health Program (IFHP))).

22. Soro District health office. Health sector program annual report 2008.

23. CHILDRENS: ST. Enhancing Ethiipian Health Extesion Package in SNNPR Shebedino and lanfuro district: report on Final Evaluation on IMNCI program. 2012.

24. IFOR:. Federal Democratic Republic of Ethiopia Ministry of Health POLICY AND PRACTICE. . 2014.

25. LIND A, EDWARD A, BONHOURE P, MUSTAFA L, HANSEN P, BURNHAM G, et al. Quality of outpatient hospital care for children under 5 years in Afghanistan. 2010.

26. Mohan1 P, BK, SS, RB, AP, aRK. Assessment of Implementation of Integrated Management of Neonatal and Childhood Illness in India 2011.

27. Nayak: G. Effectiveness of IMNCI guideline on feeding problem among young infants (0-2 months) admitted in a selected hospital at Bhubaneswar, Odisha. . 2014.

28. Mona Ali Rakha A-NMA. Does implementation of the IMCI strategy have an impact on child mortality? A retrospective analysis of routine data from Egypt 2013.

29. Tigist G/Selassie, Fantahun M. In what ways can Community Integrated Management of Neonatal and Childhood Illnesses (C-IMNCI) improve child health? 2007.

30. Adesuwa Q. Aigbokhaode1 ECI, Alphonsus R. Isara1. Health seeking behaviour among caregivers of under-five children in Edo State, Nigeria 2013.

31. & HDSAKA, Bharti B. Integrated Management of Neonatal and Childhood Illness (IMNCI): Skill Assessment of Health and Integrated Child Development Scheme (ICDS) Workers to Classify Sick Under-five Children. 2012.

34. Anteneh A, Andargachew K, Muluken D. Patient satisfaction with outpatient health services in Hawassa University Teaching Hospital, Southern Ethiopia. Journal of Public Health and Epidemiology. 2014;6(2):101-10.

35. David_Royse, Thyer BA, K.Padgett D. Program Evaluation an Introduction. six edition ed2010.

36. Bamberger M. Introduction to Mixed Methods in Impact Evaluation.Impcat Evaluation Notes. . August 2012.

37. WHO. Measuring health systems performance. 2009.

38. WHO;UNICEF. Integrated Managment of Childhood Illness. 2006.

39. UNICEF. CHILD HEALTH / IMCI HOUSEHOLD BASELINE SURVEY DRAFT GENERIC TOOL. 28 September 1999.

40. Anney VN. Ensuring the Quality of the Findings of Qualitative Research: Looking at Trustworthiness Criteria School of Education - University of Dar es Salaam, Tanzania. 2014.

41. Fekadu A. AM, Yohannes H/M. . Assessment of clients' satisfaction with health service deliveries at Jimma University Specialized hospital. Ethiop J Health Sci. ; 21(2):101–9. 2011.

42. USAID. Evaluation report of the Integrated Management of ChildhoodIllness (IMCI) strategy in the District of Kirehe, Eastern Province in Rwanda. 2009.

43. F J, NAIMOLI, ROWE3 AK, LYAGHFOURI A, LARBI4 R, LAMRANI ALA. Effect of the Integrated Management of Childhood Illness strategy on health care quality in Morocco 2006.

44. Venkatachalam J, Aggarwal AK, Gupta M, G.R.Sathya. Evaluation of IMNCI Practices among Health Care Providers in a District of North India. 2012.

45. QATARI GA, HARAN D. Determinants of users' satisfaction with primary health care settings and services in Saudi Arabia 2009.

46. Gezahegn Gebrekidan, * Gezahegn Tesfaye, 2 Mitiku Teshome Hambisa, 2 and Negussie Deyessa 3. Quality of Tuberculosis Care in Private Health Facilities of Addis Ababa, Ethiopia. 2011.

47. Girma F, Jira C, Girma B. Health Services Utilization and Associated Factors in Jimma Zone, South West Ethiopia. Ethiopian Journal of Health Sciences. 2011 Aug;21(Suppl 1):85-94. PubMed PMID: 22435012.

48. LIND A, EDWARD A, BONHOURE P, MUSTAFA L, PETER HANSEN, BURNHAM G, et al. Quality of outpatient hospital care for children under 5 years in Afghanistan. 2010.

Annex I

Matrix of analysis and Judgment

Table 12: Information matrix of IMNCI program in Soro District

Evaluation question	Dimension	Indicators	Source of data	Methods	Tools
Are the resources required for IMNCI services available?	Availability	Proportion of health center with functional ORT corner	• Resource inventory documents • Human resource doc • Reports	Observation	Inventory checklist
		Proportion of health center with amoxicillin drug		observation	Inventory checklist
		Proportion of health center with cotrimoxazol drug		observation	Inventory checklist
		Proportion of HC with Quartum drugs		Observation	Inventory checklist
		Proportion of HCs with mebendazol drugs		Observation	Inventory checklist
		Proportion of HCs with zinc sulphate		Observation	Inventory checklist
		Proportion of HCs with paracetamoldrug		Observation	Inventory checklist
		Proportion of HCs with Tetracycline eye ointment		Observation	Inventory checklist
		Proportion of HCs with vitamin A drug		Observation	Inventory checklist
		Proportion of HCs with vitamin K		Observation	Inventory

					checklist
		Proportion of health center with functionalMaterials to mix ORS, cups and spoons.		Observation	Inventory checklist
		Proportion of health center with functional weight scale		Observation	Inventory checklist
		Proportion of health center with source of clean water		Observation	Inventory checklist
		Proportion of health center with functional stethoscope		Observation	Inventory checklist
		Proportion of health center with trained health care providers on IMNCI		Observation	Inventory checklist
		Proportion of health center with Case management guidelines/ chart booklet.		observation	Inventory checklist
		Proportion of health center with IMNCI registration Book.		observation	Inventory checklist
		Proportion of health center with IMNCI service room.		observation	Inventory checklist
Are the activities of IMNCI services	Compliance	Proportion of u-5 children correctly assessed for disease according to the national IMNCI guideline.	• IMNCI register book • Individual	Document review and observation	Structured checklist

implemented according to the National Guideline? If not, Why?		Proportion of u-5 children correctly classified for disease according to the national IMNCI guideline.	patient folder	Document review and observation	Structured checklist
		Proportion of u-5 children correctly prescribed for disease with right drug according to the national IMNCI guideline.	• IMNCI register book • Individual patient folder	Document review and observation	Structured checklist
		Proportion of u-5 children correctly prescribed for disease with right dose according to the national IMNCI guideline.		Document review and observation	Structured checklist
		Proportion of u-5 children correctly treated for disease with right time according to the national IMNCI guideline.		Document review and observation	Structured checklist
		Proportion of u-5 children given appointment for Follow up according to the National IMNCI Guideline.		Document review and observation	Structured checklist
		Proportion of Care takers/ mothers/mothers who received Counseling		Observation and observation	Structured checklist
		Proportion of u-5 children Referred to hospital according to the national IMNCI guideline		Document review and observation	Structured checklist

Does the mothers/care giver satisfy with the service given by IMNCI program? What are the factors that associated with the care giver satisfaction due to implementation of IMNCI program	Satisfaction	Proportion of Care takers/ mothers/ mother perceived approach of service provider was fair.	• Care takers	Exit-interview	Structured questionnaire
		Proportion of care giver perceived counseling service received on how to give medicine to child was fair.		Exit-interview	Structured questionnaire
		Proportion of care giver perceived counseling service received on when to give medicine was fair.		Exit-interview	Structured questionnaire
		Proportion of care giver perceived the health worker give the date of appointment to be back at HC was fair		Exit-interview	Structured questionnaire
		Proportion of care giver decided to come back to HC next time		Exit-interview	Structured questionnaire
		Proportion of care giver satisfied with the time dedicated to their child		Exit-interview	Structured questionnaire
		Proportion of Care takers/ mothers/ mother who perceive fair with the availability of drugs		Exit-interview	Structured questionnaire
		Proportion of Care takers/ mothers/ mother who perceive fair with the availability of		Exit-interview	Structured questionnaire

		medical supplies.			
		Proportion of Care takers/ mothers/ mother who perceive fair with the service provided.		Exit-interview	Structured questionnaire
		Proportion of Care takers/ mothers/ mother who perceived waiting time to service is fair.		Exit-interview	Structured questionnaire

Standard and judgment matrix

Dimensions with indicators

Table 13: Dimensions with Availability indicators of IMNCI program in Soro district Hadiya Zone, SNNPRS, Ethiopia

Indicators	Weight given	Observed Value	Score	**Agreed criteria**	**Judgmental parameter**	**Findings**
Proportion of sick children who are correctly assessed weight according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children who are correctly assessed temperature according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked				>=90%	V. good	

for danger signs according to IMNCI guideline.				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for fever according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for diarrhea according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for ear problem according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
. Proportion sick children Assessed for anemia according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked for immunization status according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	

				<=59.9%	Poor	
Proportion sick children checked for vitamin A supplementation status according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for HIV status according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for movement of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for umbilical cord of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for Jaundice of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with				>=90%	V. good	

correctly classified of malnutrition according to IMNCI guideline				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion Care takers/ mothers counseled about food, fluids, home care and when to return according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of diarrhea who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malaria who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malnutrition who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of pneumonia who are correctly treated according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	

				<=59.9%	Poor	
Proportion of sick children with classifications of diarrhea that are correctly treated according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children correctly referred to another health facility				>=90%	V. good	
				75-89.9%		
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children who was given pre transfer treatment correctly.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of oral antibiotics correctly prescribed for sick children according to guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of zinc correctly prescribed for sick children according to guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of ORS correctly				>=90%	V. good	

prescribed for sick children according to guideline				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of caretakers received counseling on how to administer medication of their sick child				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of caretakers received counseling on when to administer medication for their sick child				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick child who received follow up date				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick child who get IMNCI service by HWs along chart booklet				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of care taker who received counseling on continuing feeding and breastfeeding for sick child based on guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	

				<=59.9%	Poor	
Over all compliance dimension				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	

Table 14: Dimensions with compliance indicators of IMNCI program in Soro district Hadiya Zone, SNNPRS, Ethiopia

Indicators	**Weight given**	**Observed Value**	**Score**	**Agreed criteria**	**Judgmental parameter**	**Findings**
Proportion of sick children who are correctly assessed weight according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children who are correctly assessed temperature according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked for danger signs according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	

Proportion sick children Assessed for fever according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for diarrhea according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children Assessed for ear problem according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
. Proportion sick children Assessed for anemia according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked for immunization status according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children checked for vitamin A supplementation status according to IMNCI				>=90%	V. good	
				75-89.9%	Good	

guideline.				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for HIV status according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for movement of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for umbilical cord of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion sick children assessed for Jaundice of child according to IMNCI guideline.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with correctly classified of malnutrition according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	

Proportion Care takers/ mothers counseled about food, fluids, home care and when to return according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of diarrhea who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malaria who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with assessment of malnutrition who are correctly classified according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of pneumonia who are correctly treated according to IMNCI guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children with classifications of diarrhea that are correctly treated according to				>=90%	V. good	
				75-89.9%	Good	

IMNCI guideline.				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children correctly referred to another health facility				>=90%	V. good	
				75-89.9%		
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick children who was given pre transfer treatment correctly.				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of oral antibiotics correctly prescribed for sick children according to guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of zinc correctly prescribed for sick children according to guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of ORS correctly prescribed for sick children according to guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	

Proportion of caretakers received counseling on how to administer medication of their sick child				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of caretakers received counseling on when to administer medication for their sick child				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick child who received follow up date				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of sick child who get IMNCI service by HWs along chart booklet				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Proportion of care taker who received counseling on continuing feeding and breastfeeding for sick child based on guideline				>=90%	V. good	
				75-89.9%	Good	
				60-74.9%	Fair	
				<=59.9%	Poor	
Over all compliance dimension				>=90%	V. good	
				75-89.9%	Good	

				60-74.9%	Fair	
				<=59.9%	Poor	

Table 15: Dimensions with satisfaction indicators of IMNCI program in Soro district Hadiya Zone, SNNPRS, Ethiopia

Indicators	Weight given	Observed Value	Score	Agreed criteria	Judgmental Parameter	FINDING
Proportion of Care takers/ mothers satisfied with waiting time for service in the health center.				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with time dedication for sick child by HWs				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by counseling of HWs to identify Danger sign and symptoms of sick child to bring back to HC.				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied way that the child was examined				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	

Proportion of care giver satisfied with treatment medication given by HWs?				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by health worker approaches				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied by the availability of drugs that you want in HC				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with availability of medical equipment's that used to sick child				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with counseling of feeding for sick child				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/ mothers satisfied with counseling on how to give the				>=90%	V. good	
				80-89%	Good	

medicine to sick child				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/ mothers/ mother counseling of giving when to give medicine to sick child				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of Care takers/ mothers satisfy with fee paid for the service.				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with distant of HC for the service				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with the date given for appointment				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	
Proportion of care giver satisfied with overall service to decide to come to this health center by next time				>=90%	V. good	
				80-89%	Good	
				70-79%	Fair	
				<=69%	Poor	

Overall satisfaction						

Table 16: Overall analysis and judgment matrix of IMNCI program in Soro district Hadiya Zone, SNNPRS, Ethiopia

Dimension	Agreed Score	Observed %	Weight from __ %	Evaluation rate
Availability	30%			(90 –100) -V. Good (75 – 89.9) -Good (60-74.9) - Fair (< 60) – Poor
Compliance	35%			
Satisfaction	35%			
Total score	100%			

ANNEX II

This questionnaire is prepared for IMNCI program implementation evaluation in Soro district public health centers for requirement of Jimma University Institute of Health Faculty of Public Health, Health Economics, Management and Policy, Health Monitoring and Evaluation Post Graduate Training Coordination Unit in Partial Fulfillment of the Requirements for the Degree of Masters in Health Monitoring and Evaluation

INSTRUCTION: This checklist used to conduct document review of under-five years child from IMNCI register book at health center, which will be assessed compliance of health worker. Mark the table sign of (x) whether the assessment, classification and treatment applied or not, If procedure does not apply for those age group please mark on the (not appl.) part.

Name of HC: ---------- child sex M __ F -- Child's code: _____ Age (month): _____

Sr n	I. Assessment of the IMNCI register book	Yes	No	Not appl.
1.	Does the HW worker Write the Child weight?			
2.	Does the HW worker Write Temperature?			
3.	Does the health worker write about the child's problems?			
4.	Does the health worker write on child's symptoms			
	a) Can drink			
	b) Vomits all that he eats			
	c) Had convulsions			
5.	Does the health worker write if the child is lethargic or unconscious?			

6.	Does the health worker write the problem cough or respiratory problems?			
7.	Does the health worker write the evaluation of diarrhea?			
8.	Did the health worker evaluate fever?			
9.	Did the health worker evaluate ear problems?			
10	Did the health worker search for			
	a) sever pallor			
	b) some pallor			
	C) No pallor			
11	Did the health worker write on check malnutrition of the child			
12	Did the health worker write on HIV/AIDS infections?			
	a) Mother AB pos/neg/unk			
	b) child AB pos/neg/unk			
	c) child DNA/PCR			
	d) Br F in 6 last 6 weeks			
13	Did the health worker write about the serological status of the mother?			
14	Did the health worker write check of the child's Immunization status?			
15	Did the health worker write on vitamin A/ mebendazol/ albendazole			
16	Did the health worker write on evaluation of the child's feeding?			
17	Did the health worker evaluate other problems?			
Assessment for young infant aged up to 2 month				
18	Does the HW write on very severe disease and local bacterial infection			
	a) Count the breath in one min			

	b) assess sever chest in drawing			
	c) measure axillary temperature			
	d) assess umbilical cord redness or draining pus			
	e) assess skin pustules			
	f) assess the movement of the child			
19	Does the HW write for Jaundice			
	A, palm and soles at any age yellow eye or skin age less than 24 hr			
	B, yellow eye or skin age after 24 hr but palms and soles not yellow			
20	Does the HW write on infants have diarrhea?			
21	Does the HW write on checking of feeding problem?			
22	Does the HW write on checking of immunization and vitamin A status			
23	Does the HW assess other problems?			
II. Classification of disease according to chart booklet		Yes	No	Not appl.
24	General Danger signs			
	Does the HW write on Cough or respiratory problems			
	a) Serious Pneumonia or very serious disease			
	b) Pneumonia:			
	c) No pneumonia : cough or cold :			
	Does the HW write on Dehydration			
	a) Severe dehydration			
	b) some dehydration			
	c) No dehydration			

25	Does the HW write on Diarrhea for 14 days or more			
	a) Severe persistent diarrhea with dehydration			
	b) Persistent Diarrhea with no dehydration			
	c) Bloody Diarrhea (blood in stool)			
26	Does the HW write on Fever			
	For high Malaria risk			
	a) Very sever febrile disease			
	b) Malaria			
	For low malaria risk			
	a) Very sever febrile disease			
	b) Malaria			
	c) Fever-malaria unlikely			
27	Does the HW write on Fever and measles			
	a) Severe complicated measles			
	b) Measles with eyes and/or mouth complications			
	c) Measles			
28	Does the HW write on Ear problems			
	a) Acute Ear infection			
	b) Chronic ear infection			
	c) No ear infection			
29	Does the HW write on Malnutrition			
	a) Severe Malnutrition (visible sever wasting or edema of both feet)			

	b) very low weight			
	c) Not very low weight (no other sign for malnutrition)			
30	Does the HW write on Anemia			
	a) Severe anemia (sever palmar pallor)			
	b) anemia (some palmar pallor)			
	c) No anemia (no palmar pallor)			
31	Does the HW write on Immunization, Vitamin A and Deworming correctly evaluated and possible appointment recorded?			
sick young infant aged up to 2 months				
32	Does the HW classify the sick infant infection as			
	a) Very sever disease			
	b) Local bacterial infection			
33	c) Sever disease or local infection unlikely			
34	Does the HW write on Jaundice			
	a) Sever jaundice			
	b) Jaundice			
	c) No jaundice			
III. Treatment of sick children according to chart booklet		Yes	No	Not app
35	Severe case need referral			
	a) very sever febrile illness			
	b) severe complicated measles			
	c) sever pneumonia or very sever disease			

	d) severe dehydration			
	e) Mastoiditis			
	f) severe malnutrition			
	g) severe anemia			
	h) very sever disease			
	i) sever Jaundice			
	j) severe dehydration			
	k) some dehydration			
	l) have a danger sign(unable to drink, vomit everything, convulsion, lethargic or unconscious)			
36	Did the health worker correctly prescribe the pre-transfer treatment?			
37	Did the health worker correctly prescribe oral anti-malaria (medicine)?			
38	Did the health worker correctly prescribe an oral antibiotic?			
39	Did the health worker correctly prescribe the ORS?			
40	Did the health worker correctly prescribe zinc sulphate?			
41	Did the health worker correctly treat anemia?			
42				
IV. Communication and counseling of care giver		Yes	No	Not app.
43	Did the health worker write correct oral treatment?			
	a) Antibiotic			
	b) Anti-malaria			
	c) ORS			

	d) Zinc sulphate			
44	Did the health worker write the date for child follow up visit?			
45	After how many days did the health worker write for caretaker to come back?			
	A. Immediately (breast feeding poorly, reduce activity, become sicker, develops a fever, feels unusually cold, fast breathing, difficult breathing, palms and soles appear yellow.			
	B. 1 day (month Jaundice)			
	a) 2 days(> 2 pneumonia, dysentery, malaria, fever malaria unlikely, measles with eye or mouth complications b) (< 2 months - local bacterial infection, feeding problem, thrush, diarrhoea			
	c. 5 days(cough or cold, some dehydration, persistent diarrhea, acute ear infection, chronic ear infection, not very low weight, no anemia, feeding problem			
	d. 14 days (Anemia), (<2 months low weight for age)			
	e. 30 days (very low weight)			
	f. Other: Correct?			

Closing: Thanks the health care provider and then finish your document review!!

Document reviewer name: ---------- **Review date**---------- **signature:** ----------

Checked by/supervisor name: ---------- **checked date**: ---------- **signature**: ----------

Questionnaire II: Direct observation check-list (Guide)

An observation checklist used to assess the compliance of health worker in IMNCI service delivery at health center

Instruction: This checklist will be used to conduct direct observation of health worker at health center while assessing, checking, classifying, treating and counseling services; providing follow-up with regards to IMNCI guideline.

Consent form between health care provider and data collector

I want to thank you for taking time to meet with me today. My name is _____from Jimma University and I am here by to observe the IMNCI sessions at this unit. This is part of the overall program evaluation and it will help to improve the implementation status of IMNCI program services delivered at this health center. The observation will be conducted while the health worker delivering services and all findings of the observation will be kept confidential (i.e. shared only between evaluation team). Further we will ensure that any information we include in our report does not identify you as the respondent. Remember, everything will be undertaken with your agreement and your willingness will be respected.

Are you willing to participate in this interview?

_____ _____ _____

Interviewee observer Date

Consent form between health care provider and Care takers/ mothers

Thank you for visiting our health center for receiving services. Today I will provide you services in collaboration with my colleagues. He is hereby to observe the process and provide additional support which will help me to provide you better services. During the overall process your information will be kept confidential as previous and no one will identify you as part of the observation or respondent. Remember, everything will be undertaken based on your will.

Are there any questions about what I have just explained?

Are you willing to participate in this interview?

_____ _____ _____

Interviewee observer Date

Direct Observation checklist of service provider for sick child

Name of health center---------- **observation date----------**

Time to start---------- **Time to end----------**

Sex of HW ---------- **Child age----------**

HW age---------- **Service year of HW----------**

IMNCI Trained YES NO **HW Field of study----------**

---------- INSTRUCTION: This checklist used to conduct Observation of health worker while giving service to the sick under-five children at health center, which will be assessed compliance of

health worker. Mark the table sign of (**x**) whether the assessment, classification and treatment applied or not. If the procedure does not apply for the age group please mark on the (Not appl.) part.

Sr.no_	I. **Assessment of the child**	Yes	No (2)	Not app.
1.	Does the HW measuring Child weighed?			
2.	Does the HW measuring temperature?			
3.	Did the health worker inquire about the child's problems?			
4.	Did the health worker ask if the child:			
	a) Can drink			
	b) Vomits all that he eats			
	c) Had convulsions			
5.	Did the health worker check if the child is lethargic or unconscious?			
6.	Did the health worker ask if there is cough or respiratory problems? For how long?			
7.	Did the health worker ask if there is diarrhea? For how long?			
8.	Did the health worker ask if there is fever? For how long?			
9.	Did the health worker evaluate ear problems?			
10	Did the health worker search for:			
	a) severe pallor			
	b) Some pallor?			
	c) No pallor?			
11	Did the health worker classify the child's weight on the growth chart?			
12	Did the health worker search for signs of HIV infections?			
	a) Mother AB pos/neg/unk			

	b) child AB pos/neg/unk			
	c) child DNA/PCR			
	d) Br F in 6 last 6 weeks			
13	Did the health worker inquire about the serological status of the mother?			
14	Did the health worker check the child's Immunization status?			
15	Did the health worker evaluate the child's feeding?			
Assessment for young infant aged up to 2 month				
	Does the HW assesses very severe disease and local bacterial infection			
	a. Count the breath in one min			
	b) assess sever chest in drawing			
	c) measure axillary temperature			
	d) assess umbilical cord redness or draining pus			
	e) assess skin pustules			
	f) assess the movement of the child			
	Does the HW assess for Jaundice			
	A, palm and soles at any age yellow eye or skin age less than 24 hr			
	B, yellow eye or skin age after 24 hr but palms and soles not yellow			
	Does the HW ask on infants have diarrhea?			
	Does the HW ask on checking of feeding problem?			
	Does the HW ask on checking of immunization and vitamin A status			
	Does the HW ask other problems?			
	II. Classification of disease according to chart booklet	Yes	No	Not appl.

	General Danger signs			
	1. Does the HW ask on Cough or respiratory problems			
	a) Serious Pneumonia or very serious disease			
	b) Pneumonia			
	c) No pneumonia : cough or cold			
	2. Does the HW ask on Dehydration			
	a) Severe dehydration			
	b) some dehydration			
	c) No dehydration			
	Does the HW ask on Diarrhea for 14 days or more			
	a) Severe persistent diarrhea with dehydration			
	b) Persistent Diarrhea with no dehydration			
	c) Bloody Diarrhea (blood in stool)			
	3. Does the HW ask on Fever For high Malaria risk			
	a) Very sever febrile disease			
	b) Malaria			
	For low malaria risk			
	d) Very sever febrile disease			
	e) Malaria			
	f) Fever-malaria unlikely			

	Does the HW ask on Fever and measles			
	a) Severe complicated measles			
	b) Measles with eyes and/or mouth complications			
	c) Measles			
	Does the HW ask on Ear problems			
	a) Acute Ear infection			
	b) Chronic ear infection			
	c) No ear infection			
	Does the HW ask on Malnutrition			
	a) Severe Malnutrition (visible sever wasting or edema of both feet)			
	b) very low weight			
	c) Not very low weight (no other sign for malnutrition)			
	Does the HW ask on Anemia			
	a) Severe anemia (sever palmar pallor)			
	b) anemia (some palmar pallor)			
	c) No anemia (no palmar pallor)			
	4. Does the HW write on Immunization, Vitamin A and Deworming correctly evaluated and possible appointment recorded?			
sick young infant aged up to 2 months				
	Does the HW classify the sick infant infection as			
	a) Very sever disease			
	b) Local bacterial infection			
	c) Sever disease or local infection unlikely			

	Does the HW look for Jaundice			
	a) Sever jaundice			
	b) Jaundice			
	c) No jaundice			
5.	Does the HW look for diarrhea			
	a) Severe dehydration			
	b) Some dehydration			
	c) No dehydration			
6.	Does the feeding problem assessed			
	a) Feeding problem or low weight for age			
	b) No feeding problem			
7.	Does the HW check the immunization and vitamin A			
	III. Treatment of sick children according to chart booklet	Yes	No	Not app.
1.	Does the HW decides refer to another health facility?			
2.	Did the HW give a pre - transfer treatment at HC?			
3.	Did the health worker correctly prescribe the pre-transfer treatment?			
4.	Did the health worker correctly prescribe oral anti-malaria (medicine)?			
5.	Did the health worker correctly prescribe an oral antibiotic?			
6.	Did the health worker correctly prescribe the ORS?			
7.	Did the health worker correctly prescribe zinc sulphate?			
8.	Did the health worker correctly treat anemia?			
	IV. Communication and counseling of care giver	Ye	No	Not

		s		app.
1.	Did the health worker explain how to administer an oral treatment?			
	a) Antibiotic			
	b) Anti-malaria			
	c) ORS			
	d) Zinc sulphate			
2.	Did the health worker show how to administer oral treatment?			
	a) Antibiotic			
	b) Anti-malaria			
	c) ORS			
	d) Zinc sulphate			
3.	Did the health worker ask questions in order to know if the person who accompanied the child has understood how to administer			
	a) Antibiotic			
	b) Anti-malaria			
	c) ORS			
	d) Zinc Sulphate			
4.	Did the health worker give or ask the mother to give the first dose of medicine at the health center?			
	a) Antibiotic			
	b) Anti-malaria			
	c) Zinc sulphate			
5.	Did the health worker write or tell the person who accompanied the child the date for child follow up visit?			

6.	After how many days did the health worker ask the accompanying adult to come back?			
	a) Immediately (breast feeding poorly, reduce activity, become sicker, develops a fever, feels unusually cold, fast breathing, difficult breathing, palms and soles appear yellow.			
	b) 1 day (month Jaundice)			
	c) 2 days(> 2 pneumonia, dysentery, malaria, fever malaria unlikely, measles with eye or mouth complications d) (< 2 months - local bacterial infection, feeding problem, thrush, diarrhea			
	c) 5 days(cough or cold, some dehydration, persistent diarrhea, acute ear infection, chronic ear infection, not very low weight, no anemia, feeding problem			
	e) 14 days (Anemia), (<2 months low weight for age)			
	f) 30 days (very low weight)			
	f. Other			
d)	Did the health worker explain the importance of giving liquids or continue home breastfeeding?			
e)	Did the health worker explain to the accompanying parent or adult the importance of continuing feeding and breastfeeding when the child is sick?			
f)	Did the health worker provide appropriate advice on the child's feeding according to the child's age?			
g)	Did the health worker correctly explain when to bring back the child immediately at HC?			
h)	Did the health worker provide advice to parents on birth spacing?			
i)	Did the health worker use the booklet of tables all along the consultation?			

Closing: Thanks the health care provider as well as the client and then finish your observation!!

Observer name: ---------- Observation date---------- signature: ----------

Checked by/supervisor name: ---------- checked date: ---------- signature: ----------

Inventory checklist on equipment's, drugs and health system support for treatment of children aged less than five years.

Health center Code: _____

Equipment's and materials

Sr.n		Yes(1)	No(2)
1.	Does the HC have the following equipment and materials :		
	a) Working stethoscope?		
	b) MUAC?		
	c) Thermometer		
	d) Working weighing scale for babies?		
	e) Timer for each health worker providing care to the child?		
	f) Materials to mix ORS, cups and spoons?		
	g) Source of clean water?		
	h) Stock cards/registers?		
	i) Chart booklets for tables?		
2.	Does the HC have appropriate syringes and needles for vaccination?		
3.	Does the health center have working/in good condition sterilization materials?		
4.	Does the health center have a working/in good condition fridge?		
5.	Does the health center have the following medicines on the observation day?		
	a) ORS new formula		
	b) Recommended antibiotic for pneumonia (Amoxicillin) :		

	c) Another antibiotic for pneumonia (Erythromycin):		
	d) An antibiotic for bloody diarrhea (Ciprofloxacin) :		
	e) An antibiotic for cholera (Co-trimoxazole)		
	f) An antibiotic for local bacterial infection (Cloxacillin syrup) for infants and newborn		
	g) A recommended anti-malaria		
	h) Vitamin A		
	i) Iron sulphate		
	j) Mebendazole		
	k) Zinc sulphate		
	l) Paracetamol /Aspirin		
	m) Tetracycline ophthalmic ointment :		
6.	Does the HC have the following injectable on the visit day?		
	a) Ampicillin		
	b) Gentamycin		
	c) Quinine :		
	d) Diazepam		
	e) Lactated ringer's solution		
	f) Sterile water for injection		
7.	Is the center open all the days during planned hours?		
8.	Is there a specific room for the consultation of children less than five years old?		
9.	Is the pharmacy open all the days?		
10.	Is the ORT available all the days?		

11.	Did the health center supervised during the last six months in IMNCI?		
12.	Does the HC have Proportion of health workers trained in IMNCI?		
13.	Does the HC have electricity/ solar?		
14.	Does the HC have water pipe source?		

የተቀናጀ ከአምስት አመት በታች ህክምና አገልግሎት ሂደትን በተመለከተ በሶሮ ወረዳ ላይ ለሚደረገዉ ጥናት የተዘጋጀ መጠይቅ

የጠያቂዎች መመሪያ፡

ከአምስት አመት በታች ህጻናት ህክምና አገልግሎት ወሰደዉ እንደተመለሱ ቅረባቸዉና ዛሬ ስለተሰጣቸዉ አገልግሎት አንድዳንድ ጥያቄዎችን ለመጠየቅ ያላቸዉን ፈቃደኝነት ጠይቅ ቀጥሎም ፈቃደኛ ከሆኑ ያላችሁበት ቦታ ለተገልጋዩዋ ምቹ መሆኑን በማርጋገጥጥ ያቄዎችን ቀጥል፡፡ከነዚህ እናቶች መካከል ለመጠየቅ ፈቃደኛ የሆኑትን ብቻ ነዉ መጠየቅ ያለብህ/ሽ፡፡

<u>የተገልጋዮች ፈቃደኝነት መጠየቅያ ፎርም፡፡</u>

ስሜ ---------- ይባላል፡፡

እዚህ የምሰራዉ በሶሮ ወረዳ ላይ በሚገኙ ጤና ጣቢያ ላይ የተቀነጀ የህጻናት ህክመና አገልግሎት ህደት ላይ በሚደረገዉ ጥናት እንደ መረጃ ሰብሳቢ በመሆን ሲሆን ይህ ጥናት የሚደረገዉ በሁሉም ጤና ጣቢያዎች ላይ የአገልገለሎትና አሰጣጥ ህደት ለመለየት ነዉ፡፡ ከዘህ ጥናት የሚገኝ መረጃ ለህደት ላለዉ የተቀነጀ የህጻናት ህክምና አገልግሎት እንዴት መሰጠት እንደለበት እንድንጠቁም ይረደናል ፡፡ እንደ ጥናቱ አካል አድርገን ዛሬ ወደዚህ ጤና ጣቢያ አገልጎሎት የመጡትን እናቶች ስለተሰጣቸዉ አገልግሎት መረጃ

በአገልግሎቱ ላይ ስለነበራቸዉ እርካታና እንዳናድ የጤና ተጓዳኝ መጠይቆችን እያደረግን ነዉ ። የምናገረገዉ መጠይቅ ያለርስዎ ፈቃድ ለማንም የማይነገር ከመሆኑም ባሻግር እረስዎን ያዩዎት ባለሞያዎችም ቢሆኑ አንዳቸዉም እዚህ ሊገኙ አይችሉም ። ነገር ግን በጥናቱ ላይ የርስዎ ተሳትፎ በፈቃደኝነት ላይ የተመሰረተና በጥናቱ ላይ ላለመሳተፍ ከፈለጉ ጥያቄዎችን እንዳልጠይቅዎ ማስቆም ይቸችላሉ ። በጥናታችን ላይ ባይሳተፉ ምንም አይነት የሚደረስብዎ ቅጣት የለም ነገር ግን የርስዎ መሳተፍ ለጥናታችን ከፈተኛ አስተዋፆ አለዉ ። ለመሳተፍ ፈቃደኛ ከሆኑ በኋላ እንኳ ሀሳብ መቀየር ቢፈልጉ መሀል ላይ ሊያስቆሙኝና ከጥናቱ ራስዎን ሊያገሉ ይችላሉ።

ጥያቄዎቹን መቀጠል እችላለሁ?

1. አዎ 2. እይደለም

መጠይቁ

የተጀመረበት ሠዓት---------

1. ተጠናቋል 3. ተቋርጧል

የጤና ጣቢያዉ መለያ ቁጥር----------

የተጠያቂዉ መለያ ቁጥር----------

የተገልጋይዋ አጠቃላይ ታሪክ

1. የተገልጋይ ጾታ

1. ወንድ 2. ሴት

2. እባክዎ እድሜዎን ሊነግሩን ይችላሉ

1. 15-20 ዓመት 2. 21-25 ዓመት 3.26-30 ዓመት 4.31- 35 ዓመት 5. 36-40 6. 41 ዓመትበላይ

3. የተገልጋይ ሀይማኖት

1. ኦርቶዶክስ 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌላ

4. የተገልጋይ አድርሻ

1. ገጠር 2. ከተማ

5. የተገልጋይ የትምህርት ደረጃዎ

1) አልተማረኩም)
2) መጀመሪያ ደረጃ(1-4)
3) መጀመሪያ ደረጃ(5-8)
4) ሁለተኛ ደረጃ
5) መሰናዶ
6) ኮሌጅ ዲፕሎማ
7) ዩኒቨረሲቲ የጨረሰ/ች
8) (ሌላ ካለ)

6. የተገልጋይ የመግባቢያ ቋንቋ

    1. አማርኛ 2. እንግሊዘኛ 3. ሀድይስ 4. ከምባቲኛ 5. ጉራጌ 6. ሌላ

7. የተገልጋይ የጋብቻ ሁኔታ

1. ያገባ/ች 2. ያለገባ/ች 3. የፈታ/ች 4. የትዳር አገሯ የሞተባት/ችበት

8. የተገልጋይ የአሁን የሚሰሩት ስራ ድርሻ

    1) አርሶ አደር
    2) የቤት እመቤት
    3) ነጋዴ
    4) የመንገስት ሰራ ተቀጣሪ
    5) የግል ስራ ተቀጣሪ
    6) ሌላካለ

9. የአመት ገቢዎ ምን ያክል ብር ሊሆን እንደ ሚችል ሊነገሩን ይችላሉ (በምርት ከሆነ ወደ ብር ይለዉጡት)

1 5000 በታች

2 5001-8000

4 8001-11000

4 11001-14,000

5 14000 በላይ

10. በእግር ወደ ጤና ጣቢያዉ ለመምጣት ምን ያክል ጊዜ ይወስድቦታል

    1. ከ2:00 ሰዓትበላይ
    2. 1:30- 2:00ሰዓት
    3. 1-3 1:30 ሰዓት መካከል
    4. - 1 ሰዓት
    5. ከ 30 ደቂቃ

11. ወደ ጤና ጣቢያ ሲመጡ የተጠቀሙት የመጓጓዣ በታች አገልግሎት ምን ነበር

1 በእግር 2 በሳይክል 3 በመኪና 4 በፈረስ 5 ሌላ

12. ወደ ጤና ጣቢያ ሲመጡ ምን ያክል ሰዓት ወሰደቦት 1 ከ 30 ደቂቃ በላይ 2. ከ 30 ደቂቃ በታች

የህክምና አገልግሎትን በተመለከተ

13. ሃኪሙን ለማግኘት በጤና ጣቢያዉ ምን ያክል ጠበቁ 1. ከ 30 ደቂቃ በታች 2 ከ30 ደቂቃ በላይ

14. ከህክምና ባለሙያዉ ጋር ለምክር ምን ያክል ጠበቁ 1. ከ 30 ደቂቃ በታች 2 ከ30 ደቂቃ በላይ

15. የልጅዎ ክብደት በምርመራ ወቅት ተመዝኗል 1 አዎ 2 አይደለም

16. የልጅዎ የሙቀት መጠን በመሳሪያ በምርመራ ወቅት ተለክቷል 1 አዎ 2 አይደለም

17. ለልጅዎ የታዘዘዉን መድሀኒት በጤና ጣቢያዉ አግኝተዋል 1 አዎ 2 አይደለም

18. ለታመመዉ ህጻን ስለተጨማሪ ምግብና ፈሳሽ አሰጣጥ ምክር አግኝተዋል 1 አዎ 2 አይደለም

19. ምን ያክል ጊዜ ከዚህ በፊት በዚህ ጤና ጣቢያ ተገልግለዋል

1. ተገልግዬ አላዉቅም 2. አንድ 3 ሁለት 4.ሶስት 5.አራት 6.ከአምስት በላይ

20. ተገልጋዩ/ዋ ለምን አገልግሎት ነዉ የመጡት (ከአንድ በላይ መመለስ ይፈቀዳል)

1. ለእናቶች አገልግሎት 2.ተመላላሽ ህክምና 3.ድንገተኛ ህክምና ለማሳከም 4. ለሌላ

21. ይህ ልጅዎ ከዛሬ በፊት ስንት ጊዜ ህመም አጋጥሞታል

1. አንድ 2. ሁለተኛዉ 3. ሶስተኛ 4ከአራትበላይ 5. ታሞአያዉቅም

የ13ኛ ጥያቄ መልስዎ ታሞ አያዉቅም ከሆነ ወደ ጥያቄ 17 ይለፉ

22. ልጂዎት ከተወለደ ጊዜ ጀምሮ ምን ያክል ጊዜ በህመም ወደ እዚህ ጤና ጣቢያ ለህክምና አገልግሎት መጥቷል

1. አንድ 2. ሁለተኛዉ 3. ሶስተኛ 4 ከአራት በላይ 5. ወደ እዚህ ጤና ጣቢያ መጥቶ አያዉቅም

ለ 15 ኛ ጥያቄ መልሱ 5 ቁጥር ከሆነ ይቀጥሉ ካልሆነ ወደ ጥያቄ ቁጥር 17 ይለፉ

23. ልጅዎ ታሞ ሳለ ለምንድ ነዉ ወደ እዚህ ጤና ጣቢያ ለህክምና ይዘዉት ያልመጡት (ከአንድ በላይ መመለስ ይፈቀዳል)

1. አገልግሎቱ አዚህ እንደሚሰጥ አላዉቅም ነበር
2. ቤቱ ለጤና ጣቢያዉ ስለሚርቅ
3. በጤና ጣቢያዉ ባለሙያዎች ብቃት ስለ ማልተማመን
4. የሚያስከፍሉት ክፍያ ከፈተኛ ስለሆነ
5. መድሀኒትና የህክምና መሳሪያ እጥረት እንዳለባቸዉ ስለ ምሰማ
6. ሌላ

24. ልጅዎን ሲያመዉ ከጤና ጣቢያ ዉጪ የት ነበር ለማሳከም የወሰዱት (ከአንድ በላይ መመለስ ይፈቀዳል)

1 የባህል ህክምና

2 መድሃኒት መደብር

3 የግል ክልኒክ

4 ጤና ኬላ

5 ሆስፒታል

6 ሌላ

25. ይህ ልጅዎ የት ነዉ የተወለደዉ

1. በቤት ዉስጥ 2. በጤና ኬላ 3.በጤና ጣቢያ 4.በሆስፒታል

26. የቤተሰብዎ (ልጆች) ብዛት ስንት ነዉ

1. አንድ 2. ሁለት 3.ሶስት 4.አራት 5. ከአምስትበላይ

ከዚህ በኋላ ላሉ ጥያቄዎች አገልግሎቱን ከወሰዱ በሓላ ወደ ቤታቸዉ ከመሄዳቸዉ በፊት ባጠቃላይ በጤና ጣቢያዉ አገልግሎቱን ሲጠቀሙ የተሰማቸዉን እርካታ በግልጽ እንዲገልጹ እና እርካታቸዉን በአምስት ደረጃ እንዲያስቀምጡ በማስረዳት ቀጥል/ጥዩ

5. በጣምረክቻለሁ 4. ረክቻለሁ 3.ገለልተኛ 2. አልረካሁም 1.በጣም አልረካሁም በማለት ይመልሱ፡፡

ተ.ቁ	ጥያቄዎች	በጣም ረክቻለሁ	ረክቻለሁ	ገለልተኛ	አልረካሁም	በጣም አልረካሁም
27.	ልጆት ህክምና ከማግኘቱ በፊት በጠበቁት ሰዓት እርካታዎን እንዴት ይመድቡታል					
28.	ልጅዎ እንደገና ቢታመም ወደ ጤና ጣቢያ በፍጥነት ለማምጣት የህመም ምልክቶቹን እንዲያወቁ በተነገሮት ምክር እርካታዎን እንዴት ይመድቡታል					
29.	ለልጆዎ የጤና ባለሙያዉ ለምርመራ በተጠቀመዉ ጊዜ እርካታዎን እንዴት ይመድቡታል					
30.	ለልጅዎ በተደረገለት አጠቃላይ ምርመራ እርካታዎን እንዴት ይመድቡታል					
31.	ለልጅዎ በታዘዘለት የህክምና መድሃኒት እርካታዎን እንዴት ይመድቡታል					
32.	የህክምና ባለሙያዉ ስለልጆዎ ሁኔታ ባስረዳዎት ሁኔታ እርካታዎን እንዴት ይመድቡታል					
33.	በጤና ጣቢያዉ ባለዉ መዳኒት የርስዎ ፍላጎት ከመሟላት አንጻር እርካታዎን እንዴት ይመድቡታል					
34.	በጤና ጣቢያዉ ለልጆት ህክምና አገልግሎት በዋለዉ የህክምና መሳሪያዎች እርካታዎን እንዴት ይመድቡታል					
35.	ከህክምና ባለሙያዉ ባገኙት የምክር አገልግሎት እርካታዎን እንዴት ይመድቡታል					
36.	በምክር አገልግሎቱ መድሀኒት እንዴት ለልጅዎ እንደሚሰጡ በቂ መመሪያ ማግኘቶን እርካታዎን እንዴት ይመድቡታል					
37.	በምክር አገልግሎቱ መድሀኒት መቼ ለልጅዎ እንደሚሰጡ በቂ መመሪያ መሰጠቱን እርካታዎን እንዴት ይመድቡታል					

38.	ለአገልግሎቱ በተጠየቁት ክፍያ እርካታዎን እንዴት ይመድቡታል					
39.	አገልግሎቱን ለመጠቀም በጤና ጣቢያዉ እና በእርስዎ ቤት መካከል ባለዉ እርቀት እርካታዎን እንዴት ይመድቡታል					
40.	በተሰጦት መመለሻ የቀጠሮ ቀን እርካታሽን እንዴት ትመድቢዋለሽ					
41.	በቀጣይ ልጅዎ ቢታመም ተመልሰዉ ወደዚህ ጤና ጣቢያ ለመምጣት እርካታዎን እንዴት ይመድቡታል					

መዝግያ፡ የህጻኑን/ዋን ተንከባካቢ በማመስገን አጠቃል/ይ

መጠይቁን የሞላዉ መረጃ ሰብሳቢ ስም ----------የተሞላበት ቀን---------- ፊርማ----------

ሱፐርቫይዘር ስም ---------- ቀን---------- ፊርማ----------

Client Satisfaction Questionnaire

Please help us improve the program by answering some questions about the services you have received. We are interested in your honest opinion, whether they are positive or negative. Please answer all of the questions. We also welcome your comments and suggestions. Thank you very much; we really appreciate your help.

Questionnaire developed to assess the implementation of IMNCI program provided in case of soro District, Hadiya zone, southern Ethiopia, 2017

Instructions for the interviewers

Approach all women as they leave the area where IMNCI services are provided, and ask them whether they are willing to be asked some questions about the services they received today. If they accept, make sure that you are in a place that guarantees privacy and where the woman is comfortable. Ask them for their informed consent to be interviewed (read the form below). Please, interview only

women who give their informed consent. For each item in the interview, circle the code of the appropriate response or describe, as appropriate.

Informed consent form for the client:

My name is _____, and I work as a data collector for the evaluation conducted on Soro district, Hadiya zone, southern Ethiopia. The study is conducted to see what services and information; clients are given during IMNCI service. This information will help us to propose ways in which to improve the services offered. As a part of this study, we are interviewing Care takers/ mothers who received IMNCI service today. In these interviews, we ask them about the services and information they obtained, their satisfaction with the services received, how they see facility and other health related issues. The interview will be private, and none of the providers that saw you today will be present. However, your participation in this study is voluntary, and you can choose not to let me interview you. If you choose not to participate in our study, you will not be penalized in any way but your participation has great contribution for the study. If you accept to participate and you change your opinion later, you can also ask me to interrupt the interview whenever you want.

Shall I proceed with the questions?

Yes----------No----------

Is the questionnaire for the client: A) Completed

B) Refused

Time at which interview started_____

Code of HC: ---------- Date of Interview: ...../...../.....

Code of Interviewee: ---------- District ----------

Socio demographic information of Care takers/ mothers

1. Care taker sex

1 . M b) F

2. Please could you tell me how old are you?

    1. 15- 20 years 2. 21-25 years 3. 26-30 years 4. 31- 35 years 5. 36-40 6. Above 41 years

3. Care taker religion

    a. Orthodox b, Muslim c, protestant d, catholic e, other

4. Care taker address

    a. Rural b, urban

5. What is the highest level of school you have complete?

    1. Illiterate

2. Primary school (1-4)
3. Primary school (5-8)
4. High school (9-10)
5. Preparatory (11-12)
6. College diploma (10+3)
7. University (12+3)
8. Other specify

6. Language for communication of the care taker
    a. Amharic b, English c, Hadiyisa d, kembatisa 5 other
7. Clients marital status
    a. Married b, single c, widowed d, divorce
8. What is your current occupation?
    1. Farmer
    2. housekeeper
    3. merchant
    4. gov't employee
    5. private employee
    6. other specify
9. How much is your estimated annual income?

1 Below5000birr

2 5001-8000birr

3 8001-11000birr

4 11001- 14,000birr

    i. above14000birr

10. How long did it take for you to travel to this health center?
    1. Above 30 min hour
    2. Less than 30 min
11. Is the sick child measured his/her weight using device 1 yes 2 no
12. Have you got the prescribed medicine for your sick child? 1 yes 2 no
13. Is the sick child measured his/her temperature using device 1 yes 2 no

14. How much time did it take for consultation with health worker

1. Is the sick child measured his/her weight 1 yes 2 no

15. How much time did you wait for meeting the HW for the IMNCI service

1. Is the sick child measured his/her weight 1 yes 2 no

16. Have you received counseling on giving extra fluid and feeding? 1 yes 2 no

17. What was your primary mode of transport you used to get this health center today?

1. By foot
2. By bicycle
3. By car
4. Horse
5. other

18. How frequent did you attend this health center before today?

1. First time 2. Two 3.Three 4.Four 5. Above five times

19. For what type of service did you came before today

1. MCH service 2. OPD service 3. Emergency service 5.Other 4. Not attend before

14. How frequent your child was sick before today?

1. once 2. Second 3.Third 4.Above four 5. Not ever sick

For Question number 14, if your answer is " NOT EVER SICK" skip to question number 18

15. How frequent did you come to this health center for your sick under-five child to IMNCI service since birth?

1. First 2 second 3 third 4 above four 5 never came before

For question number 15, if your answer "never came before" if not skip to Q 18

16. Since your child was sick, why did not come to this health center to use the IMNCI service?

1. I do not know about the service to be given here
2. My home is very far to the HC
3. The service fee is very expensive
4. I have no belief on the competence of the HW
5. Because they do not have medication and supply mostly
6. other

17. Where did you go when your child was sick other than health center?

1 Traditional healer

2 Pharmacies

3 Private clinics

4 Health post

5 Hospitals

6 other

18. Where was your child born?

1. Home 2. Health post 3. Health center 4 Hospital 5 other

19. How many Child do you have?

1. one 2. Two 3.Three 4.Four 5. Above five

S.no_	Questions	Strongly Satisfied	Satisfied	Neutral	dissatisfied	Strongly dissatisfied
20.	How have you experienced the waiting time spent before treatment of your sick child?					
21.	How have you experienced the danger signs and symptoms of your child that will make you bring back the child immediately to the HC given by the HW?					
22	How have you experienced the time dedicated to the child?					
23	How have you experienced the way that the child was examined?					
24	How have you experienced the treatment medication given by HWs?					
25	How have you experienced the health worker approaches to you?					
26	Do you satisfied by the availability of drugs that you want in HC?					
27	How have you experienced the availability of medical equipment's that used to your sick child in the HC?					

2	How have you experienced by counseling of sick child on feeding from the health care provider?					
2	How have you experienced to rate the sufficient of counseling on how to give the medicine to your sick child?					
3	How have you experienced the sufficient counseling of giving when to give medicine to your sick child?					
3	Do you perceive the health worker give you the date of appointment to be back at HC was fair?					
3	How have you experienced the fee you paid for the service?					
3	How have you experienced the distant of HC for the service?					
3	How have you experienced the overall service to decide to come to this health center by next time, if your child is sick?					

In-depth Interview guide for key informant

Form for key-interview with health center officials (IMNCI area)

1. Were conditions met to implement IMNCI program? (HC structure, drugs, equipment's, trained health workers etc.)

ለፕሮገራሙን ለመተግበር የሚያስፈልጉ ነገሮች ተሟልተዋል(መድሀኒቶች የህክምናመሳሪያዎች የሰለጠነ የህክምና ባለሙያ መሰረተልማት)

2. What are the problems that related to health professional's competence working in the IMNCI program?

ፕሮገራሙን ለመተግበር የባለሙያዎች ብቃት የፈጠረዉ ችግር ካለ

3. How was the IMNCI welcomed by clients and health professional's?

ፕሮገራሙ በተጠቃሚዎች እና በህክምና ባለሙያዉ ዘንድ ያለዉ አቀባበል ምን ይመስላል

4. What are the problems or constraints related to address the client satisfaction the application of IMNCI?

በፕሮገራሙ የተገልጋዩን ፍላጎት ከማርካት አንጻር የታዩ ችግሮች ምንድ ናቸዉ