

Supportive supervision to health facilities by WHO-EPI/surveillance officers to improve health system support, Ethiopia June –October 2009
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Abstract

Introduction: one of the high impact and cost effective intervention to improve child survival is IMNCI. Ethiopia initiated IMNCI in 1997 and the coverage of trained IMNCI health workers is improving gradually and steadily in the country. The WHO employed EPI/ surveillance officers monitoring the performance of EPI and surveillance can integrate monitoring of IMNCI support functions with their routine activity and this is an opportunity to be exploited.

Objective: identify problems that the IMNCI trained health worker face when they go to their work place after training, fix identified problems, communicate challenges to higher bodies and suggest way of improving performce and supply.

Method : officers trained on health facilities on the health system support on IMNCI and EPI , prepared check list and included it on the already prepared check list for EPI and surveillance , using the check list data was collected using PDA. The data analysed every month for monitoring of performance and evaluated at the end of the 5 month for trend of support and supply availability at the health facilities through time

Results

1086 health facility visits on 433 health center and hospitals were conducted during the five months of the project (June –October 2009). 300 /433(69%) of the health facilities visits have one or more IMNCI trained health workers. The health facility support for EPI is very good but not optimal.

The health system support: availability of vaccines, EPI supplies, management and handling of vaccines and injection safety doesn't show significant change through time. *Other IMNCI system support:* like availability of important oral drugs (ORS, cortimoxazole, amoxicillin, Coartum, paracetamol) and ORT corner and Job Aids improve with time from June to October 2009. But IMNCI health workers managing children decreased with time.

Conclusion

The findings related to health system support on IMNCI and EPI are very good. Though there is occasions of stock out, key health facility supports like vaccine and essential drugs are available, though very early WHO supervisors brought only little change on the health system support, as supervisors without decision making power have limited capacity to change the existing situation but provide information to those who need it for action. Supervision with observation of case management by the supervisors is very poor. Training is one component of IMNCI it is not the only component. Unless those trained people are assigned to work in child survival programmes, receive supportive supervision, quickly after training and regularly, and supplied with the necessary logistic support; their training will be in vain

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Introduction

Ethiopia is one of the developing countries with a high infant and under five mortality rates of 77 and 123 per thousand live births respectively (1). Each year, more than 340,806 children under five die of preventable and treatable conditions such as pneumonia, malaria, diarrhea, measles, malnutrition, and HIV/AIDS and Neonatal conditions(2).

One of the response to these child health problems is improving child survival through scaling up of implementation of the Integrated Management of Newborn and Childhood Illness (IMNCI) strategy, newborn health interventions, promoting adolescent health and strengthening partnerships for maternal, child and adolescent health(2). The Integrated Management of newborn Childhood Illness (IMNCI) strategy aims to contribute to the reduction in childhood mortality and morbidity from common childhood illnesses such as pneumonia, diarrhea, malaria, measles and malnutrition (3).

IMNCI have three components (4)

1. Improvement in the case management skills of health staff through the provision of locally adapted guidelines on integrated management of childhood illness and activities to promote their use.
2. Improvement in the health system support required for effective management of childhood illness.
3. Improvement in family and community practices.

Many health workers were trained and are being trained on cases management skill of IMNCI. According to our recent supervision, more than 60% of the health facilities have at least one IMNCI trained health workers. Though we have done well in training health workers on IMNCI,

health system strengthening and component of improving community practice is lagging behind. Only 37% of the health facilities have ORT corner and many of the trained health workers are assigned to some other places than in IMNCI. As the trained health workers go to their working places they face many challenges in starting to use the IMNCI case management approach. Their facilities may not be organized to use and support the new approach and may not have the essential drugs and supplies (5). The health worker's training may be wasted if he or she does not receive help in solving problems encountered when returning to the facility. But a number of them can be fixed at the spot during supportive supervision and some of them can be solved with dialogue with the district and provincial health authorities. Supervision plays a key role in maintaining the quality of performance of health providers and the services they deliver. It helps to reinforce health provider skills and improve health system support elements at the health facility (6, 7, 8). Findings of the visits are not only discussed with facility staff but also usually reported to district health officials for supportive action. Supportive feedback is also highly valued by health providers and helps motivate them in their work. However, routine supervision is one of the weakest areas in Ethiopia. Lack of transportation means, fuel, financial resources, as well as inadequate training in supervisory skills, approach to supervision and supervisors' attitudes are some of the constraints reported.

WHO is supporting the Ministry of health in improving the performance of health workers in EPI and surveillance by deploying medical officers to region, zone and districts. These officers are providing technical support to health facilities at each level of the health system. Though they are mainly deployed for EPI and

surveillance, there is a growing interest to include other child survival interventions including IMNCI in their activity and EPI is part of IMNCI. Therefore it is possible to integrate some of the supervisions component of IMNCI in to the surveillance activity for priority diseases. This project of monitoring IMNCI will focus on the, review of those health system elements required to support the health workers in the delivery of quality outpatient child health services according to the IMNCI strategy, and see the change of the supply of vaccines, vaccines supplies, IMNCI drugs and Job aids etc.

Objectives

1. Identify health system support problems at the health facilities
2. Help health workers to understand the importance of the problem
3. Support to fix the problem at the spot and/or Take the issue at higher level if it cannot be fixed at the facility level
4. Follow that corrective measures are taken and sustained
5. Document the trend of the health system support

Methods

WHO has EPI/ surveillance officers deployed to the regions and work by conducting supervision at the zones, districts and health facilities. Their main activity was to supervise and sensitize health workers on immunization and surveillance. As the interest to include other programs like IMNCI increases we included some variables on IMNCI, TB, and MPS in the check list for supervision. The officers were trained on the IMNCI facility support supervisory skill for a day in June 2009. The check list for facility support were included in the already prepared supervisory checklist and exported to the PDA used for collecting

the supervisory data. The supervisors review the conditions in the facility that affects the implementation of IMNCI. Examples of facility supports that were checked included: the examination area, the diarrhea treatment corner, and the immunization area. Visually check space, equipment Job aids, the availability of drugs and other supplies, immunization policies, vaccine and vaccine supplies on the day of the visit and record findings in the PDA.

There were also questions to determine who does the essential case management tasks listed on the checklist. Clinic and referral service were checked; review patient records and registers, and asked about how they are maintained. At the end of the visit, they review the problems identified in a meeting, the supervisor will facilitate a meeting with all the health facility staff (trained and untrained).

The meeting starts by acknowledging the progress they have made in implementing IMNCI. Then the supervisor will explain that the purpose of this meeting is to solve problems that they face in the implementation of IMNCI.

The health workers discuss the problems they have encountered as they attempted to implement IMNCI. After the staff have listed all the problems they have seen, the supervisor will add to the discussion any other problems identified in the facility. Together the staff can then identify how to solve each problem.

Finally With the staff, identify problems that cannot be solved at the facility level, but that must be communicated to the district or national level to request assistance.

The officer will prepare a report that contains: Strengths and problems identified during the visit, actions taken during the visit at the facility, to solve problems, and future actions needed to solve problems and the report will be shared to those concerned

During each visit the supervisors will use the same check list but also check if agreed corrective intervention measures have been taken and problem is rectified. He also informs on the response of the higher officials on the requests made during the previous visit. The supervisor also helps in transporting supplies and equipments of smaller scale during the supervisory visit. The data collected during the visit will be analyzed every 2 months to see changes with time and number of supervisory visit

This report is prepared based on the PDA data collected for 5 months (June – October 2009). The data exported to excel and analyzed using EPI INFO version 2002 and SPSS soft ware.

Results

June to October 2009, WHO surveillance officers have visited 433 health centres and hospitals two or more times. The total number of visits was 1086. 300/433(69%) of the health facilities have at least one IMNCI trained health worker. The remaining 133 health facilities have no IMNCI trained health workers. In the facilities where IMNCI trained health workers were reported to be available, we have made 720 health facility visits. In 133 health facilities where there was no IMNCI trained Health worker we made 366 visits. We compared the performance and availability of health facilities supports based on the availability of IMNCI trained health workers.

The EPI planning process (micro planning and work planning) is found to be low and more or less similar in both groups of the facilities. However other component of management of the immunization programme and monitoring of performance, (availability of updated monitoring chart, defaulter tracing mechanism, supportive supervision etc.) is better in facilities where IMNCI trained

health worker is available and the difference is statistically significant . (Table 1)

Injection safety, in both groups of facilities is reasonably high and is comparable whether there is IMNCI trained health worker available or not

Vaccines, Needles and syringes are available in both groups in more than 96 % of the visits and health workers monitor the fridge temperature twice daily, and know the action that should be taken when the power interrupts more or less similarly in both groups of the facilities.

Health workers knows the opened vial policy for liquid vaccines, but labelling the container , keeping them in a way others know when to discard them and holding vaccines of their VVM at discarding point is not satisfactory in both groups but it is worse in the non IMNCI trained facilities.

Availability of functional ORT corners and IMNCI drugs is better in health facilities where there are IMNCI trained health workers (table 1 &2)

Supportive supervision to health facilities is very low at most around 35% and most of these supervisions are not supported with case management observation and done more than 4 months after training.

Trend of IMNCI health facility support with repeated supervision by WHO EPI officers.

The availability of antibiotics and ORS is significantly higher in facilities where there is an IMNCI trained health worker (table 2)

When we see the trend of IMNCI performance with repeated visit by EPI/surveillance officers: facilities where children are managed by IMNCI trained health worker are generally decreasing (fig 1), but there is a general tendency of minimal increase in the availability of IMNCI Job aids (fig 2).

IMNCI drugs availability at the visited health facilities was improving progressively with slight fluctuation. (Fig 3)

The availability of functional ORT corner is not only better in facilities where we have IMNCI trained health workers but also improving with repeated supervisory visit by the EPI officers (table 1 &fig 4)

Table 1: Performance of facilities and availability of facility support for Immunization and IMNCI Ethiopia, June to oct 2009

	IMNCI Trained				No IMNCI trained				P-value	95%CI
	yes	No	Total	%	yes	No	Total	%		
EPI planning management and monitoring										
<i>micro plan</i>	198	443	641	31%	75	165	240	31%	0.9	0.71-1.38
<i>work plan</i>	429	212	641	67%	170	70	240	71%	0.26	0.59-1.6
<i>updated monitoring chart</i>	495	188	683	72%	180	172	352	51%	0.000	1.91-3.32
<i>defaulter tracing mechanism</i>	352	252	604	58%	148	163	311	48%	0.002	1.6-2.05
<i>supervisory visit from supervisors</i>	214	393	607	35%	41	228	269	15%	0.000	2.07-4.51
<i>send EPI report timely</i>	681	20	701	97%	328	24	352	93%	0.002	1.3-4.83
<i>interruption of Immunization session</i>	167	531	698	24%	71	284	355	20%	0.14	0.91-1.75
Injection safety										
<i>needle recapped</i>	7	675	682	1%	3	331	334	1%	0.84	0.26-6.90
<i>proper safety box use</i>	697	3	700	100%	353	7	360	98%	0.01	1.04-27.73
<i>single syringe for each vial</i>	661	18	679	97%	305	5	310	98%	0.32	0.17-1.70
Vaccine Handling and management										
<i>all vaccines ,needle and syringe available</i>	679	17	696	98%	196	8	204	96%	0.26	0.60-4.06
<i>record the fridge T twice a day</i>	596	100	696	86%	279	41	320	87%	0.50	0.58-1.31
<i>knows the action when power interrupts</i>	695	9	704	99%	346	3	349	99%	0.54	0.12-2.71
<i>label opened vial</i>	340	174	514	66%	124	126	250	50%	0.000	1.44-2.73
<i>hold vaccine VVM at discarding point</i>	39	644	683	6%	30	299	329	9%	0.04	0.36-1.03
<i>hold expired vaccine</i>	23	665	688	3%	5	327	332	2%	0.09	0.83-768
<i>keep vaccines at proper compartment</i>	670	18	688	97%	303	19	322	94%	0.009	1.14-7.49
Availability of ORT corner										
<i>ORT corner</i>	556	148	704	79%	131	160	291	45%	0.000	3.38-6.22

Table 2: Comparison of Availability of IMNCI Drugs in health facilities with and with out IMNCI trained health workers, Ethiopia, June – October 2009

<i>Type of drug</i>	<i>sites with IMNCI trained HW</i>				<i>Sites with NO IMNCI trained HW</i>				<i>P-value</i>	<i>95% CI</i>
	<i>stock out</i>	<i>No Stock out</i>	<i>total</i>	<i>% of No stock out</i>	<i>stock out</i>	<i>No Stock out</i>	<i>total</i>	<i>% of No stock out</i>		
<i>Paracetamol</i>	55	532	587	91%	28	216	244	89%	0.35	0.74- 2.07
<i>Amoxicillin</i>	55	532	587	91%	45	199	244	82%	0.0002	1.39-3.42
<i>Cortimoxazole</i>	42	545	587	93%	37	207	244	85%	0.0003	1.41-3.81
<i>ORS</i>	25	562	587	96%	45	199	244	82%	0.0000	2.96-8.87
<i>vitamin A</i>	18	569	587	97%	8	236	244	97%	0.87	0.40-2.63
<i>Coartum</i>	82	505	587	86%	27	217	244	89%	0.08	0.38-1.08

Fig 1: Children managed by IMNCI trained health worker by month, June -October 2009 Ethiopia

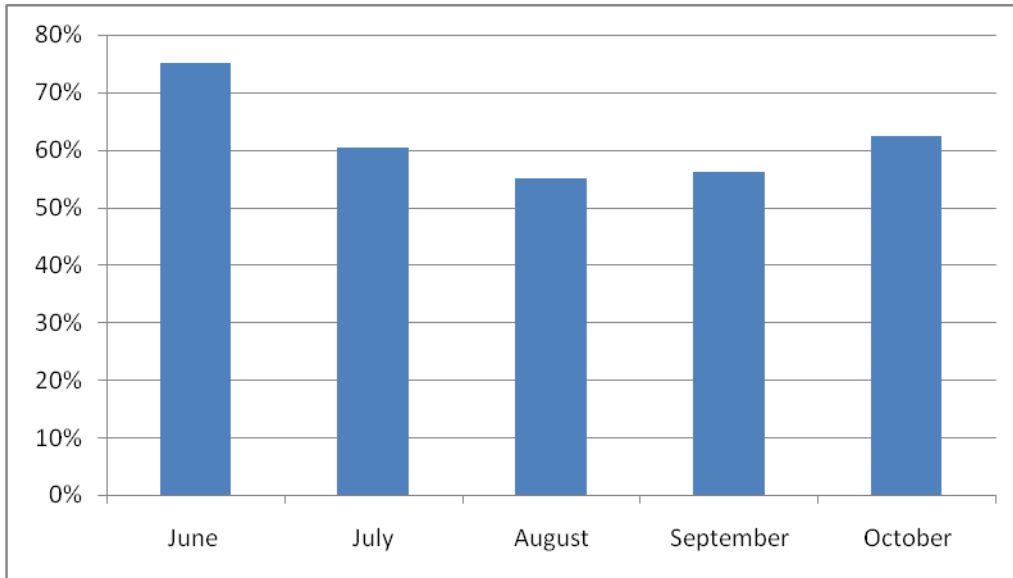


Fig 2: The trend availability of Job AIDS (chart booklet) in the health facilities where there is a trained health worker Ethiopia, June -October 2008.

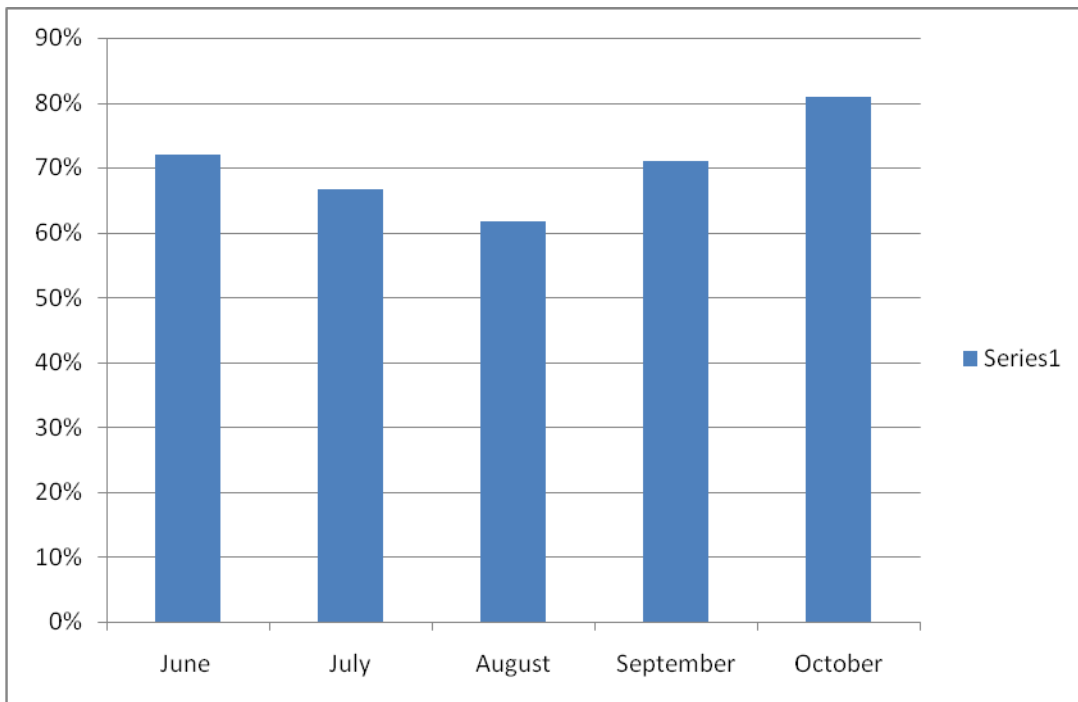


Fig 3: Trend of availability of IMNCI drugs Ethiopia, June –October 2009

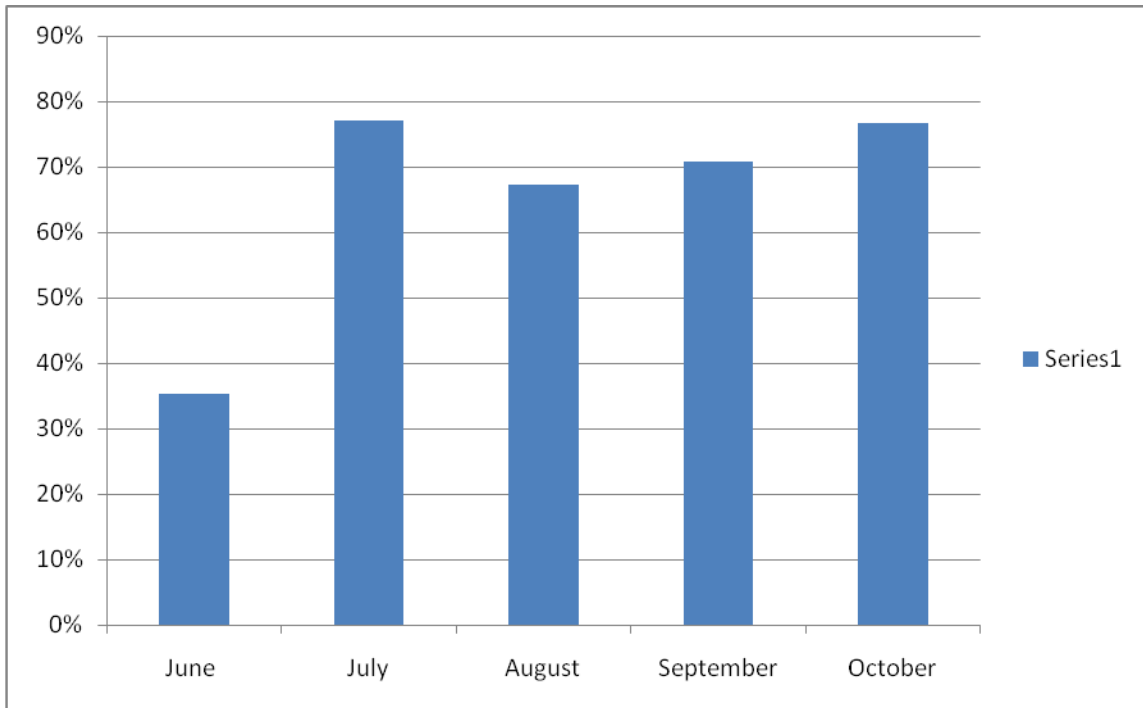
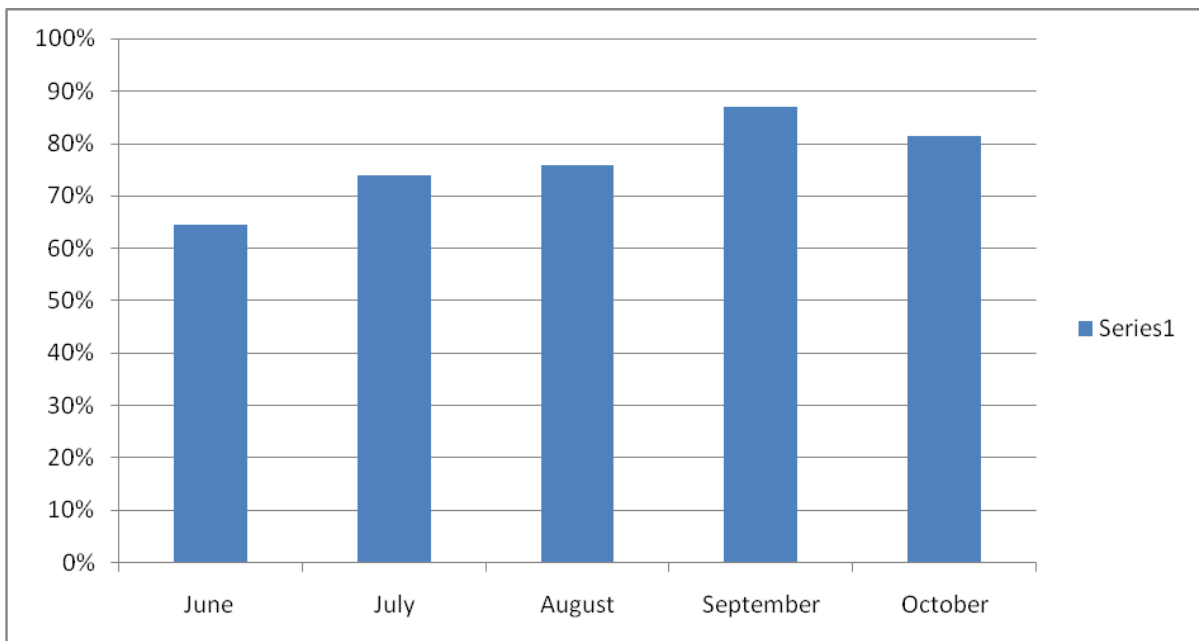


Fig 4: Trend of Availability of ORT corner where there is IMNCI trained Health worker, Ethiopia, June –October 2009



Discussions

It is unfortunate that the assessment doesn't include case management and community component of IMNCI as these supervisors don't have enough time because of competing activity. The supervisors have a priority aim of improving Immunization and vaccine preventable diseases surveillance, therefore the selection of facility visit is based on those aims not based on IMNCI. However our programme being part of child survival intervention and routine Immunization being part of IMNCI, we have made an important observation and interventions on IMNCI.

Routine Immunization – the availability of vaccines and supplies, vaccines handling and management of logistics and injection safety are at reasonably good level and are comparable in health facilities whether there is an IMNCI trained health worker or not. However on parameters where there is significant difference it is better in facilities where there is IMNCI trained health worker. There probable reason why they are at good level and comparable in both group of facilities that the Immunization programme support was being provided for a long time, is free, have a responsible trained focal person and the WHO officers are supporting the programme by directly carrying and/or supplying some of the logistics. But still, as this programmes is free has a lot of support and the primary Aim of the supervisors is to support EPI programme, it needs to be perfect and must have 100% of the supplies all the time (9,10). The support for routine immunization (RI) is far better than for IMNCI as a result it is not highly influenced by a presence or absence of IMNCI trained health workers. Moreover around 40% of the IMNCI trained health workers are not working in child healthcare, they are assigned to some other places this is an other reason in failing to

achieve the expected impact in facilities where there is an IMNCI trained health worker.

Job Aids and IMNCI drugs: observation on the health system support of facilities revealed that IMNCI registers and chart booklets were available in nearly all the facilities and there is reasonably good availability of drugs for the treatment of pneumonia and diarrhoea. However, lack of equipment like thermometers and one minute sound timer or watch with seconds' indicator may compromise the satisfactory assessment of children sick with cough or fever. The mothers card is practically non available and not used. This indicates poor emphasis given to communication with the care taker. As the mother is the main care provider in the outpatient care setting, lack of emphasis for communication is an indication of lack of patient centeredness, which may intern lead to failure of cure.

Regular supportive supervision is associated with access and higher service quality(5) The impact of EPI officers on health facility support is visible on the knowledge of the health workers and facility supports which are easily fixed at the spot, which doesn't required high level of motivation and decision from the higher authority. We didn't see any improvement in the number of health workers managing children (rather deterioration) with repeated supervision by WHO officers. . The current reform might have resulted in relocation of trained health workers to some other area of work and resulted in lowering of IMNCI trained health workers managing children after June 2009. Assigning a health worker to work based on his training, skills and competencies required decision making power(8), officers don't have decision making authority to relocate health workers based on their competencies, though they made observation of

misplacement they didn't bring much change in posting IMNCI health workers to work in IMNCI room, similarly the availability of the Job Aids didn't show remarkable change through time and visit. However having a functional ORT corner, distribution of IMNCI drugs and vaccines, measuring fridge temperature regularly have shown improvement as they are easily fixable.

As many supervisors have a lot of competing responsibilities, many of the trained health workers working in IMNCI didn't receive a supportive supervision. If at all there is supervision it is not supported with observation of case management and done long after training. It has been found in other studies that supervision conducted long after training has less impact than supervision done with in 4-6 weeks (11). We know that IMNCI is one of the high impact health interventions and training is one component of IMNCI but it is not the only component. Unless those trained people are assigned to work in child survival programmes, receive supportive supervision by decision making supervisor, quickly after training and regularly, and supplied with the necessary logistic support; their training will be in vain (12, 13, 14).

Conclusion and Recommendation

The findings related to health system support, which affect a child's health Care is important information on the health facility system support to child health care services provided at health centers and hospitals in Ethiopia. Though there is occasions of stock out, key health facility supports like vaccine and essential drugs are available, though very early WHO supervisors brought only little change on the health system support, as supervisors without decision making power have limited capacity to change the existing

situation but provide information to those who need it for action. Supervision with observation of case management by the supervisors is very poor. Training is one component of IMNCI it is not the only component. Unless those trained people are assigned to work in child survival programmes, receive supportive supervision, quickly after training and regularly, and supplied with the necessary logistic support; their training will be in vain

The recommendations given below address these serious issues and help to serve as the basis for policy decisions and to develop a plan to strengthen the quality of IMNCI services.

1. As there is frequent stock out of essential drugs, increasing budget allocation to medicines for the treatment of key under-5 illnesses and improve drug stock management
2. IMNCI training coverage is low and trained health workers are not assigned to work in IMNCI ,the process of strengthening and supporting health providers' IMNCI skills through follow-up and supervisory visits is incomplete, with inadequate resources allocated to it; therefore promoting IMNCI as the primary child health care strategy, setting clear priorities and allocating the necessary resources to achieve its objectives is necessary
3. The efficiency and effectiveness of the current supervisory system should be carefully reviewed and the information system should be improved to provide reliable information for use for planning at all levels

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