

**ASSESSMENT OF EXISTING SITUATION OF HEALTH INFORMATION SYSTEM OF
EXPANDED PROGRAM ON IMMUNIZATION REGARDING WITH INPUT AND
OUTPUT SYSTEM IN KOSTI LOCALITY, WHITENILE STATE, 2018****Ustaz: Alnour Bashir Mohammed Hassan*¹ and Dr. Gurashi Gabr Alla Hamad*²**¹Lecturer – Faculty of Public & Environmental Health- West Kordofan University.²Assistant Professor – Faculty of Public & Environmental Health- West Kordofan University.***Corresponding Author: Ustaz: Alnour Bashir Mohammed Hassan**

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ABSTRACT

Background: Immunization services are confronted by the barriers and challenges faced by the health sector as a whole. Poor quality and lack of analysis or use of surveillance and management information are compounded by inadequate training on effective use of data for planning and action in particular in such domains as human resources, financing, disease surveillance and strengthening of laboratory networks and management information systems (WHO, 2004). **Objectives:** The main objective of study was to describe the existing situation of health information system of expanded program on immunization. **Methodology:** A descriptive cross sectional study was carried out in Kosti locality, White Nile State, 2018. The study area was fixed immunization sites in Kosti locality. This was achieved through assessing reporting system with a prepared questionnaire focused on knowledge, data collection, data analysis, data flow, data management, feedback, supervision, and retrieval by using checklist was used about availability of resources which required for effective use of Expanded Program on Immunization health information system, focus group discussion and in-depth interview were also done. The total coverage had been chosen for the fixed sites and staff. **Results:** The results indicated that the most of health workers (92%) were vaccinators. 100% of them had received basic training on Expanded Program on Immunization. 54% of them didn't received training course of registration and health information system. 100% of monthly reports prepared by vaccinators and sent to Expanded Program on Immunization operation officer at locality level. The majority of vaccinators (79.17%) had received feedback on a regular basis either verbally or written, while (20.3%) didn't receive feedback. **Conclusion:** The study concluded that the main problems facing existing HIS were absence of HIS department, presence of untrained persons, lack of effective coordination, communication and sharing of information with related ministries, and None Governmental Organizations at the locality level.

KEYWORDS: The study area was fixed immunization sites in Kosti locality.**1.1 INTRODUCTION**

Immunization program save millions of lives every year worldwide. Vaccine preventable diseases killed nearly 3 million people, most of whom were children, every year. The worldwide eradication of smallpox and near eradication of polio from many countries provide excellent example of the role of immunization in disease control. Early immunization of infant and the completion of the full schedule of vaccination up to and through adulthood contribute to reducing the incidence and burden of vaccine preventable diseases (Hassan, 2002).

Good management is a prerequisite for increasing the efficiency of health services. The need to do more with less is especially important because the health sector faces ever increasing demands while receiving stagnant or decreasing resources (WHO, 2000).

The primary objective of a health information is to provide reliable, relevant, up-to date, adequate, timely and reasonably complete information for health managers at all levels (i.e., central, intermediate and local) and sharing of technical and scientific (including bibliographical) information by all health personnel participating in the health services of a country; and also to provide at periodic intervals, data that will show the general performance of health services and to assist planners in studying their current functioning and trends in demand and work load (BHANOT, 2007). Health information is produced and used in many different situations (including ministries of health, national statistic offices, the private sector, civil society organizations, donors and development agencies) (WHO, 2008). Health planning is the process of defining community health problems, identify needs and

resources, establishing priority goals, and setting out the administrative action needed to reach those goals (Initiative, 2004).

1.2-Justifications and problem state

Kosti locality health information systems, like many other localities in the White Nile State, appear to be of wide variation between EPI facilities in quality of data regarding recording mistakes and presentation. Also a lack of communication between vaccinators who are the milestone and responsible for data and information, and administrative personnel who are the decision makers and planners. The report completion and timeliness is not systematic due to inadequate transportation and communication materials. There should be agreement among program managers to improve registration and reporting data set. In the absence of this, health workers at the facility level are likely to have to cope with such situation and their primary objective is providing EPI services. Adding to that there are some reasons.

1. Lack of training on information systems and lack of sharing information and communication with related sectors.
2. The widespread of expanded program on immunization services throughout the locality and its rural areas need the information system to be vivid.

OBJECTIVE

To assess the existing situation of health information system of expanded program on immunization regarding with input and output system in Kosti locality, White Nile State, 2018.

3. MATERIAL AND METHOD

Study design: This is a descriptive cross-sectional facilities based study.

Location: The study was carried out in health facilities EPI in Kosti locality, White Nile State, about 312 Kilometers from Khartoum (capital of Sudan), it is located at the western bank of the White Nile River opposite Rabak (the capital of White Nile State), where there is a bridge between them. The locality is served by railway station and boarded by other localities, viz Gulli locality from the north, Al-Salam locality from the south and Tandalty locality from the west (Locality, 2004).

Health services in Kosti locality are one teaching hospital, two military hospitals, 19 health centers, 29

primary health care units and other private dispensaries. Ten of them are fixed sites which providing EPI services (EPI, 2018). The locality is divided into two administrative units, they are kosti administrative unit and Um-Hani administrative unit, the total number of population in the locality is 349740 (Locality, 2004).

Study population: The study population is the health workers of expanded program on immunization at the locality level and fixed sites, these fixed sites are operated by (24) vaccinators. The EPI staff comprises of 27 persons classified as 2 public health officers, 1 statistician and 24 vaccinators. In addition Director of preventive medicine, Pediatrician and Director of statistics at White Nile State ministry of health.

METHODOLOGY

Sampling

Sample size: Total coverage.

Sampling Procedures

1. Questionnaire for health workers.
2. Check list for fixed sites and locality level.
3. Focus group discussion for vaccinators.

3.6 Data Collection

Data was collected with questionnaire for health workers (public health officers and statistician and vaccinators, check list for fixed vaccination sites ,checklist for locality level focus group discussion with vaccinators and in-depth interview.

Data Analysis

The data which was collected with questionnaire and checklist had been analyzed by using Statistical Package for Social Science (SPSS) program, versions 16. While the data which was collected by FGD and in-depth interview had been summarized and consolidated.

Ethical Considerations

The study has been ethically reviewed and approved from relevant authorities by letter of ethical clearance made by ministry of health in White Nile state and Kosti locality.

Participants were informed about the study and consent was obtained. Confidentiality was insured and all data collected has been protected during study.

4. RESULTS

Table 1: The needs of improving the existing health information system of EPI at fixed sites in kosti locality, White Nile State, 2018.

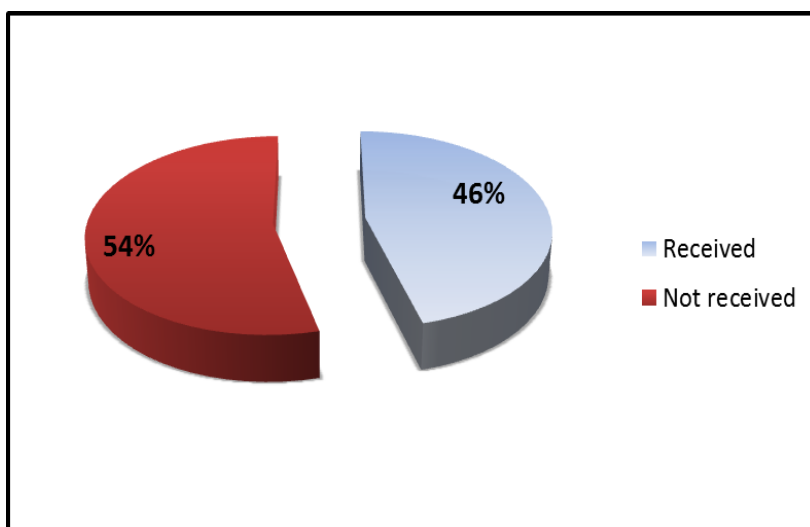
(N= 24)

The needs	Frequency	Percent
Note books, file boxes, cupboard, paper and related stationeries and plenty of cards	15	62.5
Specialized training course in registration and HIS	4	16.7
Specialized training course in communication and community mobilization	4	16.7
Training course in monitoring and evaluation	1	4.2
Total	24	100.0

Table 2: Availability of copies kept from monthly reports in archive file at fixed sites in Kosti locality, White Nile State, 2015.

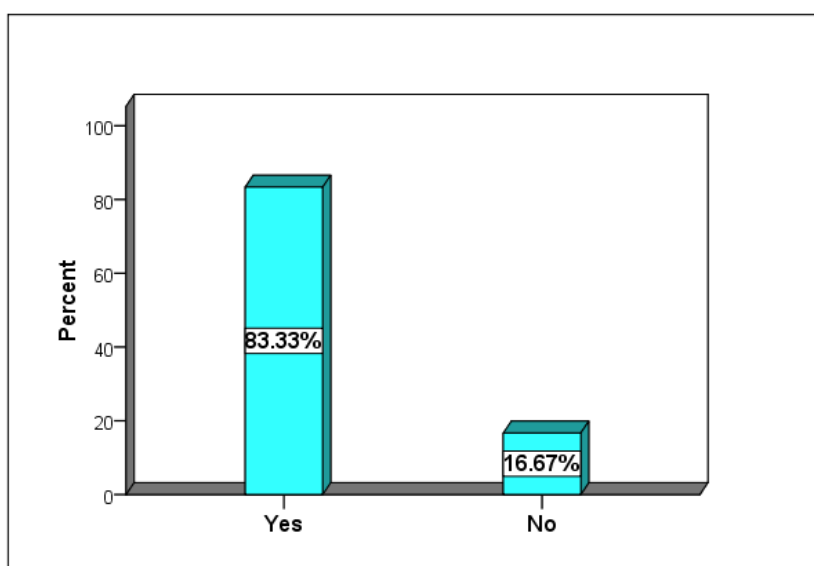
(N= 24)

Keeping copies	Frequency	Percent
Yes	23	95.8
No	1	4.2
Total	24	100.0

**Figure 1: Distribution of vaccinators according to received specialized training course about registration and information system at fixed sites in Kosti locality, White Nile State, 2018.**

n = 24

Figure explains that 46% of vaccinators had received specialized training course of registration and information system and 54% did not received.

**Figure 2: Presence of shortage of vaccination cards in the fixed sites in Kosti locality, White Nile State, 2018.**

(N = 24)

Figure shows that there is shortage of vaccination cards in 83.33% of fixed sites, while none in only 16.67% of them.

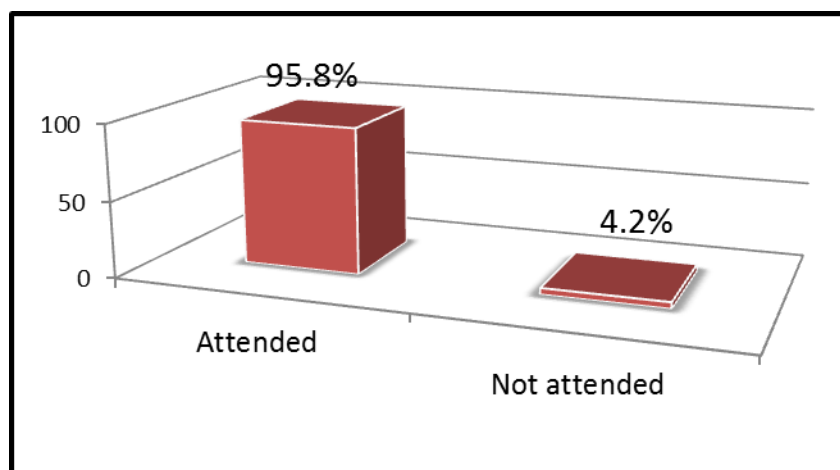


Figure 3: Refreshing training course attendance at fixed sites in Kosti locality, White Nile State, 2018.

n = 24

Figure shows that 95.8% of vaccinators had attended refreshing training course and 4.2% of them did not attend.

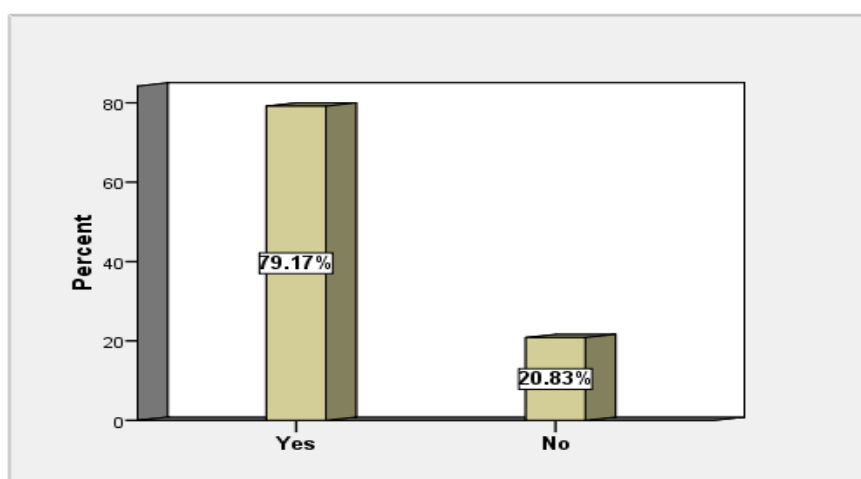


Figure 4: Received feedback on a regular basis at fixed sites in Kosti locality, White Nile State, 2018.

n = 24

Figure shows that 79.17% of fixed sites had received feedback on a regular basis from upper level about reports, while 20.3% of them were not received.

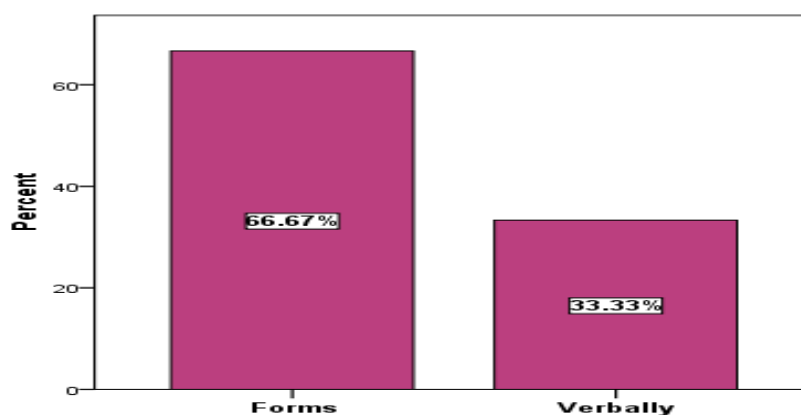


Figure 5: Methods of data collection at fixed sites in Kosti locality, White Nile State, 2018.

n = 24

Figure shows that 66.67% of data collection methods were forms and 33.33% was verbally in fixed vaccination sites.

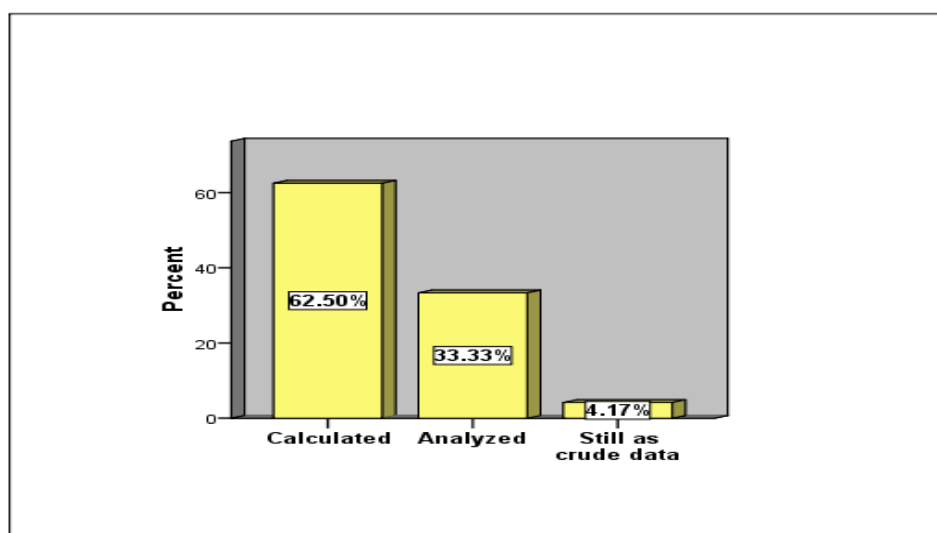


Figure 6: Methods of data processing by vaccinators at fixed sites in kosti locality, White Nile State, 2018.

n = 24

The figure shows that 62.7% data was calculated, 33.33% analyzed and 4.17 still as crude data in fixed vaccination sites.

DISCUSSION

The study found that 100% of vaccinators had attended the basic training course of EPI, while 95.8% of them had attended refreshing course.

The study showed that 54% of vaccinators didn't receive specialized training course of registration and health information system, while only 46% had been trained. This is agreed to what stated by Mr. Mohammed (2004-2005) "the study found that there is high need for training and building capacity for the staff".

The study found that there was shortage of vaccination cards in 83.33% of fixed sites, this is similar to what Mr. Mohammed (2004-2005) stated that "in his discussion with vaccinators as problems there is shortage of immunization cards, shortage of equipment's which can help in the session conduction like seats, tables, and so on".

It was found in the study that 95.8% of vaccinators kept copies from monthly reports in archive files at fixed sites. This is in line with what Dr. Zeinab (2003-2004) mentioned "most of respondents in our study kept copies of the monthly report, there was no suitable place for good storage. These make the system of retrieval of past reports inadequate". And disagreed with Dr. Hammam (2000) who showed in his study "the file keeping system was poor and 75% of the health facilities had no places to keep the records".

The study indicated that 79.17% of vaccinators at fixed sites had received feedback on a regular basis from higher level about their monthly reports and supervisory visits, while 20.3% didn't receive. From FGD most of

participants said they had received feedback either verbally or written by EPI operation officer. This agreed with what Dr. Zeinab (2003-2004) reported "most of the respondents in our study cited that they received feedback reports during the last 6 months of this year (at time of interview) and most of them mentioned that it was received either in the monthly meeting or in the supervisory visit (especially the oral feedback), a point which indicated an absence of systematic way of feedback". Also this agreed with the assessment study done in BHUs which stated "there is a lack of systematic feedback especially written feedback from DHSO to BHUs".

From in-depth interview which conducted at SMOH the study found that there is supervision from federal and state level to all health facilities and programs which belonged to the State Ministry of Health. The federal supervision was made quarterly and the state supervision frequency depend on availability of funds.

Through in-depth interview the study stated that the health system in White Nile State is bad, no organized, even within hospitals, furthermore the HIS in White Nile State is very bad, because HS and HIS are not separated and each of both depends on other, as well as need to be improved in order to be more effective, actually there is lack of record in hospitals and HCCs. It is very important to activate this system so to be better than recent situation, so far to safe the potential records and information by computer.

Regarding problems and challenges facing HIS, planning and decision-making, the study found there was no scientific basis for planning and there was lack of trained personnel. There was discrimination in choosing health workers for training courses without taking qualifications and specialization in consideration. This is similar to what Ms. Ibrahim G. (2015) mentioned "in interview

with a decision maker said: the priorities setting are not well developed.

CONCLUSIONS

A descriptive cross sectional study was carried out in kosti locality, White Nile State, 2018. This study aimed to assess the existing situation of health information system of expanded program on immunization regarding with input and output system in locality.

The study indicated that there was shortage of forms, vaccination cards, stationeries and supplementary materials in 83% of fixed sites.

There was lack of specific training courses for 54% of health workers at lower level in registration, data management and health information system.

There was no coordination, communication and sharing information with related ministries and different organizations.

There was lack of utilization of health information in planning and decision-making. There was no department of health information system with clear plan, objectives and trained persons at fixed sites, locality level and SMOH. EPI at state level is an exception have clear plan, broad objectives, pointed and trained persons.

Recommendation

The following recommendations were made.

1. Ensure availability of resources (trained manpower and equipments) for improving the existing health information system.
2. Conduct specific training courses of health workers in registration and information system.
3. Encourage and establish effective coordination, communication and sharing information with related ministries and different organizations.
4. provide regular and continuous technical and financial supports at locality and vaccination sites levels.
5. Increase use of information availed by health information system in planning and decision-making.

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