Rapid Assessment Of
District Health Information System
In Selected Districts Of Khyber Pakhtunkhwa
2013

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Disclaimer:

This report is made possible by the support of the World Health Organization. The contents are the responsibility of DHIS Cell Peshawar. Any resemblance will be just coincidence.

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Abbreviations

ANC	Antenatal Care
BHU	Basic Health Unit
CD	Civil Dispensary
DHIS	District Health Information System
DHQ	District Headquarters
DHO	District Health Officer
DEO	Data Entry Operator
EDO-H	Executive District Officer-Health
FLCF	First-Level Care Facility
FP	Family Planning
GRD	Government Rural Dispensary
HMIS	Health Management Information System
HR	Human Resources
LHS	Lady Health Supervisor
LHV	Lady Health Visitor
LHW	Lady Health Worker
LQAS	Lot Quality Assurance Sampling
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non Governmental Organization
OPD	Outpatient Department
PHC	Primary Healthcare
RHC	Rural Health Center
THQ	Tehsil Headquarters
WHO	World Health Organization

1   Introduction and background

1.1   Data and Management Information System (MIS)

Distinct pieces of information, usually formatted in a special way is called ***data.*** In other words the organize form of information is called data .***The collecting of organize information (data) plays a key role in all decision making, statistic development, analysis etc.*** Collecting good quality data plays a vital role in supplying objective information for the problems under study so that some analytical understanding of the problems and hence solutions can be obtained. Making decision on the basis of poor quality data is risky and may lead to disastrous results, as the situation may be distorted and hence all subsequent analyses and decision making will rest on a shaky ground.

Therefore a proper system is used named Management Information System (MIS) to manipulate the data precisely *"Centralized and Compiled collection of data that represent information leads to Database while single/multiple databases make Management Information System (MIS)"* A management information system (MIS) gives the decision makers the information that they need to make decisions. District Health Information System (DHIS) is one of the example of said approach.

1.2   Background

The pilot DHIS earlier know as Health Information System (HMIS), started in 1998. It has had the mandate to assist health sector in development and launch of a nationally standardized Health Information System. HMIS had a mechanism of data collection, transmission, analysis and feedback for all health related information. HMIS had become one of the major data source for the health sector in the Pakistan.

This system was remained under implementation for about 15 years in the whole country. Later on under the Tech Assistance of Japan International Cooperation Agency (JICA), HMIS was exclusively reviewed and enhanced to DHIS.

1.3   Gaps of HMIS

The **HMIS** had a lot of glitches. The main were:

- There was no place for indoor patients.
- Complex format of Forms.
- Only 18 diseases were covered.
- There was no space for Human Resource data.
- Decentralized approach/Cannot be accessed by multiple users at one time.

It was decided to enhance HMIS and remove these glitches.

1.4   District Health Information System (DHIS)

In January 2007 all Provincial Health Department & Federal Ministry of Health agreed to replace HMIS with DHIS and also it was decided that Provinces will prepare their own PC-I. JICA took the responsibility of Designing and developing of DHIS Software till June 2012.

In Khyber Pakhtunkhwa, firstly, PC-I was approved for 12 Districts in 2008 while the remaining 12 Districts were supported by Donor Agencies. Later on a revised PC-I was approved for all 25 Districts (including district of Tor Ghar), designing and developing of DHIS Software.

Currently, DHIS collects data from 09 teaching hospitals namely Khyber Teaching Hospital Peshawar, Lady reading Hospital Peshawar, Ayub Medical College, Mufti Mehboob Memorial Hospital D.I.Khan, Saidu Teaching Hospital Swat, Khalifa Gulnawaz Teaching Hospital Bannu, Mardan Medical Complex Mardan and Kohat Division Hospital Kohat. In addition, more than 1400 (96%) health facilities at primary and secondary level of healthcare, 22 DHQ's hospitals and 20 THQ's hospitals are providing data through DHIS.

1.5   Role of DHIS in Khyber Pakhtunkhwa

DHIS provides the following information which can play a key role in decisions making and helps the authorities to improve the health indications of the province.

- Outpatient department (OPD) attendance

- Indoor patient attendance

- Medicine stock record

- Immunization coverage

- TB-DOTS

- Family planning services

- Collection and compilation of community based data

- Deliveries conducted in health facilities

- Maternal and Newborn Child Health

- Neonatal deaths

- Surgeries (Local, Global, Spinal, Anesthesia etc)

- Human resource

- Diagnostic services (Laboratory/Investigations)

- Specialist doctors in secondary Hospitals

- Priority diseases

  i. Respiratory diseases

  ii. Gastrointestinal diseases

  iii. Urinary tract diseases

  iv. Other communicable diseases

  v. Vaccine preventive diseases

  vi. Cardiovascular diseases

  vii. Skin diseases

  viii. Neuro-Psychiatric Diseases

  ix. Endocrine Diseases

  x. Eye & ENT

  xi. Oral Diseases

  xii. Injuries/Poisoning

1.6   Comparison between HMIS and DHIS

The major difference between HMIS and DHIS are as under:

HMIS vs DHIS	
HMIS	**DHIS**
- Instruments of HMIS=33 - No. Sec Level Health Facilities - Reported only 18 Priority Diseases. - Decentralized Approach / Cannot be accessed by multiple users at one time. - Indicators =114	- Instruments of DHIS=25 - Sec Level H-facilities Included - Reporting 44 Diseases including Communicable/Non Com, & Priority Diseases. - Information about allocation of resources (staff positions, drugs, capital assets) - It is a purely web based system. - Indicators = 79.

2   Purpose of the Survey

Since DHIS is fully implemented and each district of Khyber Pakhtunkhwa province, thus there was a need for a quick rapid appraisal of District Health Information System mainly for improving the efficiency of DHIS.

Following were the more specific objectives;

- To realize the current situation of infrastructure & functionality
- To assess the available data quality
- To assess the DHIS operational needs

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3   Methodology

3.1   Sampling Protocol

Regarding the total number of health facilities to be surveyed per district, a convenient random sampling technique was adopted. This aimed at to consider a mixtures of various types of health facilities from a district. In total 14 health facilities and each DHO office were planned to be visited per district. Therefore a total of 110 facilities and DHOs offices were visited. From these 110 Forms (Annexure C) were finally collected.

The type/ list of these health facilities/district is as follows;

I.   Managerial Office = 1 (DHO office)

II.   Health Facilities = 14*

_____

Total =   14 + 1 (Managerial Office - DHO office) = 15*

3.2   Selection of Districts

Eight (08) districts of Khyber Pakhtunkhwa Province were randomly selected out of 25. The selected districts were:

(i)   Swabi

(ii)   Nowshehra

(iii)   Kohat

(iv)   Haripur

(v)   Bannu

(vi)   Bunner

(vii)   Peshawar

(viii) Mansehra

* = the numbers of facilities are approximated

3.3   Selection of Health Facilities

A total of 110 health facilities from each of selected district were selected through stratified random sampling technique. DHQ

Table 1: Selected Health Facilities

District	Type of Hospital								Total
	Basic Health Unit	Rural Health Center	Civil Dispensary	Maternal Children Health	Tehsil Head Quarter	Distric Head Quarter	Civil Hospital	Teaching Hospital	
Bannu	5	2	3	2	0	0	0	1	13
Bunner	6	3	2	0	0	1	2	0	14
Haripur	9	2	1	1	0	1	1	0	15
Kohat	4	3	3	2	0	1	1	0	14
Mansehra	10	1	1	0	0	1	1	0	14
Nowshera	4	2	3	2	0	1	0	0	12
Peshawar	4	2	4	3	1	0	0	0	14
Swabi	11	0	1	0	0	1	1	0	14
Total	53	15	18	10	1	6	6	1	110

Name of health facilities and their location in district is provided in annex 2.

3.4   Data Collection Tool/Questionnaire

A simple and easy to understand questionnaire was developed both for managerial and facility information. The objective of the questionnaire was based on three key areas of the District Health Information System e.g.

(i)   DHIS Infrastructure & Functions

(ii)   Data Quality

(iii)   DHIS Supply/Other Needs.

(iv)   Both close and open ended questions were included in the questionnaire. Questionnaires can be found at annexure B and C.

3.5 Data Collection
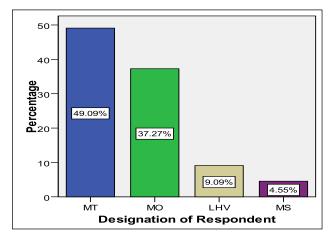
Eight members where trained for data collection. Two days training were given to enumerators at Directorate General Health Services office on data collection strategy and on the understanding of data collection tools (questionnaires) by master trainer. District Focal Person (DHIS Coordinator of the respective district helped the data collection team in preparing field visit routing plan.

4 Data analysis

The collected data was entered and analyzed in SPSS version 17. Descriptive analysis was carried out and analytical views and observations are given both in graphical as well as tabulated form.

4.1 Characteristics of respondents

Fifty percent of respondents at district health offices were DHOs while 50% (n=4) were district coordinators DHIS. The majority of the respondents at health facilities were professionals and qualifies officials which significantly compliment the credibility of data. The graph represents the designation of the respondents in this survey. About 49.09% were Medical Technicians while 37.27% were medical doctors.

4.2 Service of the respondents in the health department
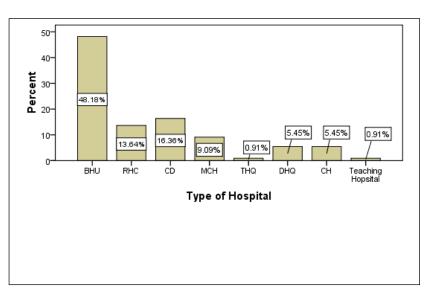
The respondents who took part in this survey were highly experienced. Sixty-four percent of the staff had more than ten years of experience, while 26.36 % had from one to five (1-5) years of experience. About 9.09 % had the experience from six to ten (6-10) years in the health

department. Twenty six percent had less than one (01) year, 37.3 % from one to three (1-3) years while 36.4 % had more than three (03) years of DHIS functioning/reporting related experience.

	Length of service in the Health Department 1-5 Year (2) 6-10 Year (3) More than 10 Year			Length of service at the facility 1-5 Year (2) 6-10 Year (3) More than 10 Year		
	1-5 Years % (n)	6-10 Years	More than 10 Years	1-5 Years	6-10 Years	More than 10 Years
BHU	43.4% (23)	11.3% (6)	45.3% (24)	81.1% (43)	7.5% (4)	11.3% (6)
RHC	6.7% (1)	6.7% (1)	86.7% (13)	60.0% (9)	26.7% (4)	13.3% (2)
CD	11.1% (2)	5.6% (1)	83.3% (15)	66.7% (12)	11.1% (2)	22.2% (4)
MCH	0% (0)	10.0%(1)	90.0%(9)	50.0%(5)	20.0%(2)	30.0%(3)
THQ	0%(0)	0%(0)	100.0%(1)	100.0%(1)	0%(0)	0%(0)
DHQ	16.7% (1)	0% (0)	83.3% (5)	50.0% (3)	33.3% (2)	16.7% (1)
CH	16.7% (1)	16.7% (1)	66.7% (4)	50.0% (3)	33.3% (2)	16.7% (1)
Teaching Hospitals	100.0% (1)	0% (0)	0% (0)	100.0% (1)	0% (0)	0% (0)
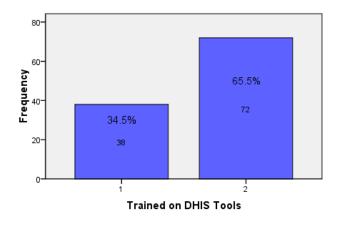
4.3   Health facilities assessed

In this survey a total of 110 health facilities and eight district health offices were visited to conduct the survey. Out of one hundred and ten health facilities, 51 (48.2%) were BHUs, 15 (13.6%) were RHCs, 8 (16.4%) were CDs, 10 (9.1%) were MCH, 6 (5.5%) were DHQs and 6 (5.5%) were CHs, 1 (0.9%) THQ and 1 (0.9%) was a teaching hospital.

4.4   DHIS Trained Staff at the Facilities

The aim and objective of the DHIS is to collect and deliver timely, precisely and continuously the absolute correct data. For this purpose the trained staff is must required. The majority of the staff who fill the DHIS forms are non-technical therefore their training becomes critical over DHIS tools and software for the said data. During the survey it was found that, out of one hundred and ten (110),
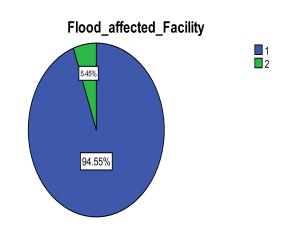
only thirty seven (37) staff members were untrained while the remaining seventy one (71) were trained over DHIS tools. In this context the percentage of trained and untrained staff is 65.5 and 34.5 respectively as shown in figure.

4.5   Flood Affected Facilities

Among total of one hundred and ten (110) health facilities, that were selected through stratified random sampling; only six (06) were found affected by flood which makes 5.5 % of the total health facilities.

All six (06) health facilities were rehabilitated after the flood.

Flood_affected_Facility
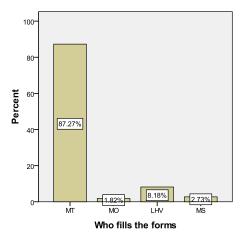
4.6   Who Fill the DHIS Form

Form filling persons are the main source of data. In other words they are the pillars of the DHIS structure because they send the actual data and the compilation taken place over this data which further can help the policy makers in their decision making. In this study it was found that the majority of the form filler were MTs (87.27%),
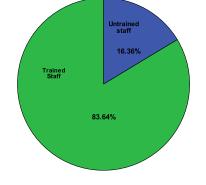
4.7   Training status of DHIS Form Filling staff

The majority 83.64 % of these officials were trained on how to fill the DHIS form while the 16.36 % of the total were untrained. However, they hadn't facing any difficulty of sending acute data. The percentage of the trained and untrained staff over DHIS form filling through graph is represented below:
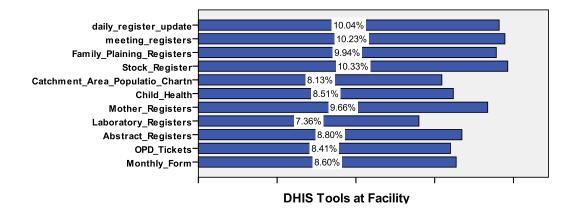
Trained/Untrained staff/person for DHIS Form filing

4.8   DHIS Tools Availability:
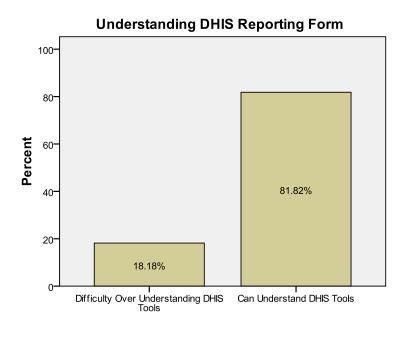
DHIS Tools are the most important aspect of district health information system. During this survey it was found that the tools availability at facility level was 100 %.

DHIS Tools at Facility

4.9 Staff Understanding Over DHIS Reporting Forms and Inconvenience:

In this survey one of the question was either the staff at facility level understand the DHIS reporting forms or not. Because if the staff does not understand the reporting form then it would be impossible to get accurate data. Therefore it was must to find out the understanding of staff over DHIS reporting form. In total of one hundred and ten (110) health facilities which were covered in this rapid assessment the staff of ninty (90) health facilities can understand the DHIS reporting form while o the staff of remaining twenty two (22) facilities it was seemed difficult

to them. Here, the majority of the staff has the difficulty in disease section of the form very few has in OPD section and similarly few claimed for almost all the section of the form. Percentage

wise the staff who understand the DHIS reporting form is 81.8 and those who have difficulty in understanding is 18.2 %. These are also shown in the graph.

4.10 Submission of Form and Reports to DHO

Out of the all health facilities that were visited in the said survey none of the single facility was found that does not submit either form or report to DHO office. All of the health facilities were submitting their reports and form to the said office.

Submission of Form to DHO

100.00%
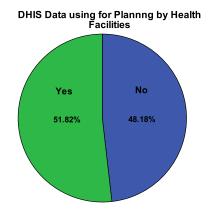
4.11 Feedback to Health Facilities:

A proper and timely feedback mechanism plays a vital role to cover the missing data that is to be reported from health facility and also to improve the services of facilities.

It was derived from this survey that out of one hundred and ten (110) stratified chosen facilities sixty (60)

Feed Back of Montly Reports

49 - Do not Receive Feedback

61 - Receive Feedback

44.55%

55.45%
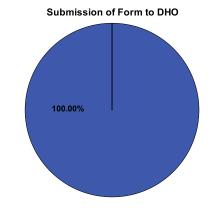
health facilities having percentage of 55.5 percent of the total percentage were receiving regularly feedback from the DHO office in the format of verbal, written, meetings, telephonically etc while the fifty facilities (50) with the percentage of 44.5 do not receive any feedback.
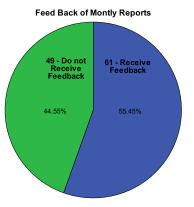
The figures are illustrated in the fig :

DHIS Data using for Plannng by Health Facilities

Yes

No

51.82%

48.18%

4.12 Using DHIS Data for Paining by Health Facilities:

Appropriate and accurate data gathering is the objective of any management information system because one of the goal can be to use this data for planning. During this survey the facility incharge was asked that either they may use the data for planning or not. The 51.8 percent of the

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respondents replied in positive while the answer of 48.2 present was no.

4.13 Using DHIS Data for what kind of Planning:
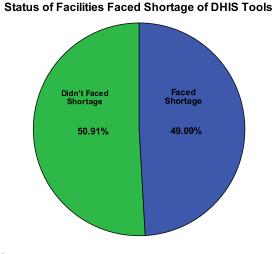
It was also asked that for what kind of planning this data is used. It was known that the data is desirable for many reasons i.e development, improvement, managing stock, report performance, OPD targets, Disease Trend Medicines, epidemics, seasonal planning, antinental, and for the improvement of efficiency.

4.14 Shortage of DHIS Tools at Facility Level:

Sufficient stock of registers and forms are required to keep and update the daily record of any health facility. Therefore it is very essential that each and every health facility must have sufficient stock of DHIs tools in order to maintain their record. For this purpose a question regarding stock was added to questionnaire to find out the status of DHIS tools and to make sure the availability of the tools at every facility in future.

Status of Facilities Faced Shortage of DHIS Tools

Didn't Faced Shortage
50.91%

Faced Shortage
49.09%

Among all the health facilities 50.9 percent have no shortage of tools. All the 100 percent of DHIS Tools were available at each facility while in 49.1 percent of the facilities have some shortage of any by any tool among all the DHIS tools.
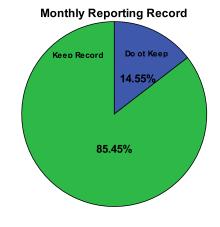
It was also observed that eight (08) health facilities have shortage for one (01) month, One (01) has the shortage for two months and forty three (43) have been facing shortage from the three (03) months or more.

The staff of the said facilities also gave suggestions to improve the DHIS tools availability. According to the compiled questionnaire sixty nine percent (69%) of the staff believe that the stock should be send to facilities for one (01) year although thity one percent (31%) thinks that in advance monthly supply can improve the DHIS tools supply.

4.15 Copy of DHIS Record keeping at Facility Level

Monthly Reporting Record
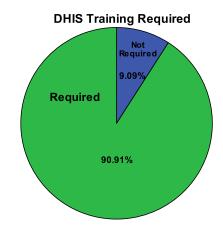
As the DHIS system is in the process of online and not fully implemented at facility level so it is desired that all the facilities should keep a copy of the record. It was noticed that ninty four (94) health facilities kept a copy of reports in their record while sixteen (16) do not having percentage eighty five point five (85.5%) and fourteen point five (14.5%) percent respectively.

Keep Record — Do ot Keep 14.55%

85.45%

4.16 DHIS Training

DHIS Training Required

It was noticed that there is a significant need of training over DHIS tools and software. Ninety point nine (90.9%) percent of the persons recommended a refresher training over DHIS tools and software while only the few nine point one percent (9.1%) said that they do not need any training regarding the said.

Not Required 9.09%

Required

90.91%

It was also known that eight point nine percent (8.9%) of the staff needs training om form filling section, three point six percent (3.6%) over LQAS check, twenty one point four percent (21%) on Indicator Analysis while the majority of the staff almost required a refresher training over all areas.

4.17 Need of other DHIS Relevant Resources

A question was asked from all the respondents in this survey that what kind of other relevant resources for DHIS functioning you need. The majority answered that they need human resource and DHIS tools while slightly few demanded for various other things.

4.18 Separate Hardware/Software

It has been also noticed that the DHIS software was installed in each office and similarly in 75% of the selected districts there were separate computer for DHIS operations. Moreover, the DHIS activities are being managed by a separate DHIS cell at DHO office level which is a positive and healthy sign.

4.19 Flood/Militancy Affected Managerial Health Offices

Out of the eight districts only district Nowshera was affected by the flood and similarly only one district named Bunner was affected by militancy insurgency in the area. While the remaining six (75%) districts were not affected by any kind of either militancy or flood.

4.20 Availability of Trained DHIS Staff

Trained staff is the essential part of the successful fully functional system. During this rapid assessment survey it was found that up to 60% of the District managerial level staff (DHO, District Coordinator, Data entry operator) were trained regarding DHIS. In which out of eight (08) DHOs, District Coordinators and Data entry operators 03 DHOs, 05 DHIS District Coordinator and 05 Data entry operator were trained.

4.21 Monthly DHIS Reporting Compliance Status and Reporting Time

The monthly DHIS reporting compliance was almost perfect in all districts which were surveyed during this assessment. All the districts were regularly sending their data to provincial DIS cell.

The 87.50% of the surveyed districts has a compliance rate from eighty one to Ninety percent (81%-90%). While the remaining 12.50% have from seventy to eighty percent (70%-80%).

Monthly Reporting Compliance

70% - 80% 12.50%

81% - 90% 87.50%

Regarding the timing of sending data to provincial DHIS cell by DHOs offices it was found that 72% districts send their report as per schedule i.e. 15th of the next month while the rest reports with the delay.

4.22 Data Accuracy

As per DHO office regarding data accuracy, the 62.5% of the health facilities achieved the level of eighty to ninety percent (80%-90%) of data accuracy. The other 37.5% reached seventy to eighty (70%-80%).

4.23 DHIS Data Quality Parameters

This survey showed that round about 68% of the district health officer offices are using LQAS method to find out the quality of data which were send to them by their field health facilities. Similarly 50% of the district offices were found giving feed back to health facilities and 50% districts were getting feedback from provincial cell.

4.24 DHIS Data for Planning
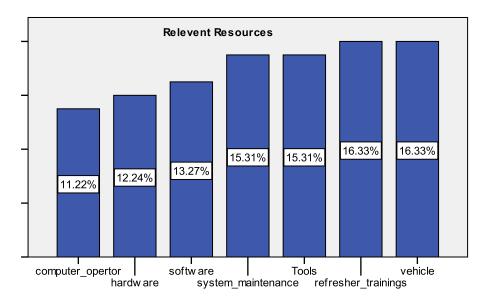
In the context of using data for planning it was revealed that all the district offices used the DHIS data for planning i.e. disease trend, purchasing of medicines and planning monthly meetings.

4.25 DHIS Training

To improve the credibility and performance of any system training/refresher are required for the staff. All the staff that is DHO, DHIS District Coordinator, Data entry operator demanded for the refresher training.

4.26 Need of Other Resources:

Seven questions were asked from the respondents in order to improve the DHIS functionality. Multiple answers were collected and after analysis it was found that 55% of the districts need a computer operator 45% needed a separate computer machine,60% needed DHIS software, 87% required maintenance, 87% needed tools,100% wanted refresher training similarly all of the districts demanded for the vehicle in order to monitor the DHIS related activities.

Relevent Resources

computer_opertor	hardware	software	system_maintenance	Tools	refresher_trainings	vehicle
11.22%	12.24%	13.27%	15.31%	15.31%	16.33%	16.33%

5   Conclusions:

The purpose of District Health Information System (DHIS) is to collect and report information so that the managers of health institutions can manage, plan, monitor and evaluate the operations and performance of the health facilities and disease patterns in their respective districts.

This study has demonstrated various encouraging findings. The findings suggest that DHIS is fully functional in selected districts, which is the most encouraging effort. However certain deficiencies had been also noticed from this survey which included non use of information for evidence based decision making especially for planning and management of health services. The said study also point out that all the districts managers demanded for a separate vehicle.

Results show that there is still a need for refresher training and a separate computer . It was encouraging to note that the reporting regularity of most of the health facilities was in optimal state Data accuracy remained with acceptable limits. The current situation of DHIS from the results of this study demands that the mechanism of feedback should be improved.

6   Recommendations

To improve the quality of Services, the District Health Managers, Medical Officers / In-charge of the Health Facilities need to be encouraged to use information generated through DHIS. For this purpose quarterly meetings / Supervisory visits and discussions among information generators and users are mandatory.

To realize the real use of information special efforts are required to establish a regular feedback mechanism between health facilities and District DHIS Cell. Basic training to the new staff, or refresher training is to be ensured. Also a vehicle should be provided to each district in order to supervise and monitor the DHIS activiies.

There is a need for improvement of DHIS Software specially for making this user friendly. It should be make sure that sufficient stock of DHIS tools should be availabe at facility level. For rapid data transmission the online DHIS reporting system should be implemented. A need was that such assessment study should become a regular feature of DHIS implementation in districts in order to improve efficiency of health.

7 Dissemination Seminar at Pearl Continental Hotel Peshawar

A seminar regarding this survey was held at Pearl Conitinental Hotel Peshawar on December 16, 2014. In which different managerial level officers including DHO's of the surveyed districts MS's and Incharges of the surveyed health facilities shared their views and thoughts.

The below pictures represent the highlites of the said survey.

Annexure

Annexure A. Selected District & Total Number of Health Facilities Visited

Districts	S. No	Name of Facility	Type:	Union Council	Tehsil
Bannu	1	Khalifa Gul Nawaz	BHU	Sil Bala	Bannu
	2	Khujari Khas	BHU	Khujari	Bannu
	3	Lewan Dardaris	BHU	Lewan	Bannu
	4	Bada Mir Abbas	BHU	Bannu	Bannu
	5	Ghoriwala	BHU	Ghoriwala	Bannu
	6	kakki	RHC	Kakki	Bannu
	7	Domel	RHC	Domel	Bannu
	8	New Bada	CD	Bada Mir Abbas	Bannu
	9	Kot Daim	CD	Fatima Khel	Bannu
	10	Chandi Chowk	CD		Bannu
	11	Mamash Khel	CH	Mamash khel	Bannu
	12	Kakki	CH	Kakki	Bannu
	13	D.H.Q Bannu	Teachingl Hospital	Bannu	Bannu
Kohat	14	Duli Banda	BHU	Sudal	Lachi
	15	Togh Bala	BHU	Togh Bala	Kohat
	16	Duoda	BHU	Duoda	Kohat
	17	Kachi	BHU	Usterzai	Kohat
	18	Lachi	RHC	Lachi	Kohat
	19	Billitang	RHC	Billitang	Kohat
	20	Ustar Zai	RHC	Ustar Zai	Kohat
	21	Shsdipur	CD	Zirat Sheiub Allah Dad	Kohat
	22	Shahdi Khel	CD	Dhoda	Kohat
	23	Kharmatoo	CD	Khairmatoo	Kohat
	24	Jangle Khel	CH	Jangle Khel	Kohat

	25	Ustar Zai	CH	Ustar Zais	Kohat
	26	Police Hospital	Civil Hospital	Urban III	Kohat
	27	DHQ	DHQ	Kohat	Kohat
Peshawar	28	Darmangi	BHU	Darmangi	Peshawar
	29	Governor House	BHU	Cantt	Peshawar
	30	Chamkani	BHU	Chamkani	Peshawar
	31	Budai	BHU	1dai	Peshawar
	32	Nahaki	RHC	Nahari	Peshawar
	33	Gara Tajik	RHC	Sufaid Dheri	Peshawar
	34	Gulbahar	CD	Gulbahar	Peshawar
	35	Irrigation	CD	Tehkal Payan	Peshawar
	36	Zaryab Colony	CD	Faqir Abad	Peshawar
	37	Husainabad	CD	Sheikh Abad	Peshawar
	38	University Town	CH	Tehkal Payan	Peshawar
	39	Civil QTR	CH	Bahani Mari	Peshawar
	40	Sifwat Ghayur	Secondary Hospital	Peshawar	Peshawar
	41	Govt .Maternity Hosp	CH	Sikander Pura	Peshawar
Mansehra	42	Gandian	BHU	Inayaaiabad	Mansehra
	43	Kotlt Bala	BHU	Ichhrian	Mansehra
	44	Tarangri	BHU	Tarangri	Mansehra
	45	Bhir Kund	BHU	Hamsheb Rian	Mansehra
	46	Panodhery	BHU	Mansehra Rural	Mansehra
	47	Bharyal	BHU	Sumelahimung	Mansehra
	48	Jabba	BHU	Attarshisha	Mansehra
	49	Sandesar	BHU	Sandesar	Mansehra
	50	Attarshisha	BHU	Attarshisha	Mansehra
	51	Daata	BHU	Daata	Mansehra

	52	Chowki	RHC	Shaukat abad	Mansehra
	53	Civil Hospital Baffa	Civil Hospital	Baffa	Mansehra
	54	Khaki	CD	Bhir Kund	Mansehra
	55	King Abdullah Teaching Hospital	DHQ	Mansehra III	Mansehra
Buner	56	Cheena	BHU	Noorazai	gagra
	57	Topai	BHU	Soray	Gagra
	58	Gokand	BHU	Gokand	Daggar
	59	Koga	BHU	Koga	Mandan
	60	Deewana Baba	RHC	Deewana baba	Gagra
	61	Nigarai	RHC	Amazai	MANDAN
	62	Jowar	RHC	Rhc	DAGGAR
	63	Cd Bagra	CD	Daggar	DAGGAR
	64	Budal	CD	Balara	GAGRA
	65	Pacha Kallay	Civil Hospital	Pacha Kallay	DAGGAR
	66	Totalai	Civil Hospital	Totalai	KHUDA KHEL
	67	Daggar	DHQ	Daggar	DAGGAR
	68	Dukada	BHU	Malik Pur	DAGGAR
Nowshehra	69	Mera Misri Banda	BHU	Misri Banda	NOWSHERA
	70	M.R.H.S Hospital	CD	Pabbi	NOWSHAERA
	71	Pashtoon Gari	CH	Paggai-3	NOWSHERA
	72	Akbar Pura	RHC	Akbar Pura	NOWSHERA
	73	Tarkha	CD	Akbar Pura	NOWSHERA
	74	Khush Maqam	BHU	Chuki Mamraz	NOWSHERA
	75	Rashakai	BHU	Rashakai	NOWSHERA
	76	Dhq Nowshera	DHQ	Nowshera Kalan	NOWSHERA

	77	Abba Khel	CH	Nowshera Kalan	NOWSHERA
	78	Pir Pai	RHC	Pir Pai	NOWSHERA
	79	Pir Sabak	BHU	Pir Sabak	NOWSHERA
	80	Nizam Pur	BHU	Nizam Pur	NOWSHERA
	81	Palosai	CD	Pahari Kathkhel	NOWSHERA
Swabi	82	Cd Helmet	CD	Batkara	TOPI
	83	Jalsai	BHU	Jalsai	LAHORE
	84	Topi Hospital	Civil Hospital	Topi	TOPI
	85	Jalbi	BHU	Jalbi	LAHORE
	86	Baja	BHU	Jhanda	SWABI
	87	Dhq Sawbi	DHQ	Sawbi Khas	SWABI
	88	Punjpir	BHU	Pujpir	SWABI
	89	Lahore West	BHU	Lahore West	LAHORE
	90	Lahore East	BHU	East Lahore	LAHORE
	91	Ambar Kunda	BHU	Ambar Kunda	LAHORE
	92	Jahangira	BHU	Jahangira	LAHORE
	93	Thordehar	BHU	Thordehar	LAHORE
	94	Beka	BHU	Beka	LAHORE
	95	Manki	BHU	Manki	LAHORE
Haripur	96	Kangra Colony	BHU	Panian	HARIPUR
	97	Dhq Haripur	DHQ	Central Haripur	HARIPUR
	98	Dheena	BHU	Dheena Haripur	HARIPUR
	99	Mch-Centre	MCH	Taloker	HARIPUR
	100	Rehana Hospital	Civil Hospital	Rehana	HARIPUR
	101	Hattar	BHU	Hattar	HARIPUR
	102	Dingi	BHU	Dingi	HARIPUR
	103	Sarai Salah	BHU	Sarai Salah	HARIPUR
	104	Shah Mohd	BHU	Ali Khan	HARIPUR

	105	Panian	BHU	Miss Aneesa Bibi	HARIPUR
	106	Koklain Piran	BHU	Baka	HARIPUR
	107	Kotnajaibullah	RHC	Kot Najibullah	HARIPUR
	108	Ghazi	CD	Ghazi	GHAZI
	109	Kotnajaibullah	RHC	Kot Najibullah	HARIPUR
	110	Bagra	BHU	Bagra	HARIPUR

Annexure B: Field Data Collection Questionnaire (Managerial Level)

REVIEW OF DISTRICT HEALTH INFORMATION SYSTEM

(In selected districts of KPK)

(District Managerial Level Questionnaire)

District: _____   Date of Visit _____

Respondent Name: _____   Designation. <u>(1) DHO, (2) Dist. Coord</u>.

PART-I	DHIS INFRASTRUCTURE & FUNCTIONING				
1.	Is DHIS implemented at your district?	Yes		No	
1.1	If YES, then tell how long (Year) it was implemented.				
1.2	Does DHIS Cell exists in DHO Office (Please observe)	Yes		No	
1.3	Is your DHIS Cell affected by recent flood (2011)	Yes		No	
1.4	Is your DHIS Cell affected by militancy in KP	Yes		No	
1.5	If YES, was it re-habilitated after flood & Militancy	Yes		No	
2.	What is your monthly DHIS reporting compliance to your Prov. DHIS Cell? 1: (81% - 100%), 2: 71% -80%), 3: 51%-70%), 4: (50% or Less than 50%)	1	2	3	4
3.	Are DHIS Instruments available (As per Requirement)?	Yes		No	
3.1	If YES, for how much Period				
4.	What is the Funding Source of DHIS Functioning?				
5.	Is a separate Hardware Computer available for DHIS?	Yes		No	
6.	Corresponding Functioning of DHIS Software Available	Yes		No	

7.	Is the Human Resources Trained on DHIS functioning?				
7.1	DHO	Yes		No	
7.2	Dist Coordinator (DHIS)	Yes		No	
7.3	DHIS Computer Operator	Yes		No	
8.	Is there a defined DHIS specific Terms of Reference / Roles & Responsibility of each level (DHO, Dist Coord., Health Facility Staff)	Yes		No	
8.1	If YES, Please provide a copy	Available		Not Available	
9.	What is the data accuracy of your field units? 1: (81% - 100%), 2: 71% -80%), 3: 51%-70%), 4: (50% or Less than 50%)	1	2	3	4
10.	When you normally send your post-month DHIS data (electronically) to the Prov. DHIS Cell? (1) As Per Schedule - 15th of the Month, (2) Not as per schedule	1		2	
10.1	Verify from software when the monthly report send electronically	As per schedule		Not as per schedule	

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PART-II	DHIS DATA QUALITY		
1.	Do you have DHIS Procedural Manual in your office?	Yes	No
2.	Does your DHIS data entry operator fully understand the DHIS reporting Forms?	Yes	No
3.	Do you check the data quality of your field units through LQAS?	Yes	No
4.	Do you send the data feedback to your health facilities?	Yes	No
5.	Do you receive regular feedback from your Prov. DHIS Cell?	Yes	No
6.	Do you analyze the monthly DHIS data for service monitoring?	Yes	No
7.	Do you use the DHIS data for your district health planning?	Yes	No
7.1	If YES, Please explain.		

8.	Please give data on following indicators and Health Facilities (last month data ----------------).					
	Name of Health Facilities (only selected for survey)	Total # of OPD	Total # of suspected Malaria	Total # Family Planning visits	Total # of 1st ANC visits	Total # of community meetings
	1.					
	2.					
	3.					
	4.					
	5.					
	6.					
	7.					
	8.					
	9.					
	10.					
	11.					
	12.					
	13.					
	14.					
	15.``					

PS. Cross check with concerned facility monthly report of the same month.

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PART-III	DHIS INFORMATION NEED		
1.	Is your Human Resource need any DHIS training?		
1.1	DHO	Yes	No
1.2	Dist Coordinator (DHIS)	Yes	No

1.3	DHIS Computer Operator	Yes	No
2.	Is the supply of DHIS Data Collection Tools needs to be improved?	Yes	No
2.1	If YES, then tell what kind of improvement. (1-In advance supply, 2-Whole year stock)	1	2
3.	Do you need relevant resources (if not available) to run DHIS?		
3.1	DHIS Computer Operator	Yes	No
3.2	Hardware	Yes	No
3.3	Software	Yes	No
3.4	System Maintenance	Yes	No
3.5	DHIS Instruments / Tools	Yes	No
3.6	DHIS Refresher Trainings	Yes	No
3.7	Vehicle for Coordinator DHIS for monitoring	Yes	No

Name of Data Collector: _____

Annexure C: Field Data Collection Questionnaire (Facility Level)

REVIEW OF DISTRICT HEALTH INFORMATION SYSTEM

(In selected districts of KPK)

(Facility Level Questionnaire)

Name of Facility _____ Facility's ID _____Type: _____

Union Council _____ Tehsil _____ District _____

R/Name (Preferably Facility In-Charge) _____ Designation: _____

Name of Data Collector _____ Date of Visit _____

Health Facility Affected by Flood 2011 <u>(Yes / No)</u>, if YES   Does it Re-habilitated   <u>(Yes/ No)</u>

PART-I DHIS FUNCTIONING			
1.	What is your length of service in the Health Department? (1) 1-5 Year (2) 6-10 Year (3) More than 10 Year	1	2	3
2.	Since how long you are working at this Facility? (1) 1-5 Year (2) 6-10 Year (3) More than 10 Year	1	2	3
3.	Since how long you have been assigned DHIS Functioning/Reporting? (1) Less than 1-Year (2) 1-3 Year (3) More than 3-Year	1	2	3
4.	Are you trained on DHIS Data Collection Instruments?	Y		N
4.1	If YES, then tell the source from where you got the training			
5.	Who fill the DHIS Monthly Reporting Form (Designation)?			
5.1	Is above staff/person trained for this task?	Y		N
6.	Are the required resources (tools) available for monthly DHIS recording and reporting?			
6.1	1. Monthly DHIS Reporting Forms	Y		N
	2. OPD tickets			

	3. Abstract register	Y	N
	4. Laboratory register	Y	N
	5. Mother Health	Y	N
	6. Child Health	Y	N
	7. Catchment Area Population chart	Y	N
	8. Stock register	Y	N
	9. Family Planning Register	Y	N
	10. Meeting & Yearly attendances register.	Y	N
6.2	Are the Registers updated on daily basis?	Y	N

PART-II DHIS DATA QUALITY				
1.	Do you have DHIS Procedural Manual at your facility?	Y		N
2.	Do you have defined DHIS related Roles & Responsibility of each staff?	Y		N
3.	Do you fully understand the DHIS reporting Forms?	Y		N
3.1	If NO, then which section you feel difficult to understand. (write Form Sec. #)			
4.	When you fill the DHIS reporting Forms for last month? (1) Within 7-Days (2) Within 15-Days (3) Within 30-Days	1	2	3
5.	From where you get the data to fill DHIS reporting Forms?			
6.	Do you submit monthly DHIS Forms to your DHO-office regularly?	Y		N
6.1	If NO, State the reason			
7.	When you submit your monthly DHIS report to your DHO ? (1) 5th of each month (2) 15th of each month (3) After 30-days.	1	2	3
8.	Do you remember how many monthly reports were not submitted by your facility to DHO office during last 12-Months? (State in numbers)			
8.1	If YES, State the reason			
9.	Do you receive any feedback of your monthly report?	Y		N
9.1	If YES, then state the kind of feedback.			

10.	Which section of the DHIS reporting form you often analyze (I-XVII)?			
11.	Is your facility using the DHIS data for planning?	Y		N
11.1	If YES, what kind of planning you usually do?			
12.	Have you ever faced any shortage of DHIS Tools at your facility?	Y		N
12.1	If YES, then state the shortage in months. (1) 1-Month (2) 2-Months (3) 3-Months or more	1	2	3
13.	Do you keep the copy of monthly DHIS reporting form?	Y		N
13.1	If YES, then check the final figures of past-month (_____) form of the facility for following indicators;			
	1. Total # of OPD			
	2. Total # of suspected Malaria			
	3. Total # Family Planning visits			
	4. Total # of 1st ANC visits			
	5. Total # of community meetings			

PART-III   DHIS INFORMATION NEED

1.	Do you need any training of DHIS on reporting mechanism?	Y		N
1.1.	If YES, then tell kind of training. (1) Form filling (2) LQAS check (3) Indicators' analysis etc.	1	2	3
2.	Is the supply of DHIS Tools needs to be improved?	Y		N
2.1	If YES, then tell what kind of improvement. (1) In advance monthly supply (2) Whole year stock	1		2
3.	Do you need relevant resources (if not available) for DHIS functioning?	Y		N
4.	If YES, state the kind of resource (1) HR, (2) Tools, (3) Others	1	2	3