"*The Essence of Knowledge is having it to apply it"*

Confucius (200 BC)

Introduction:

The District Health Information System Project was started in the 2009 for a period of 03 years in 2009 replacing its predecessor the Health Management Information system operating at the Directorate General of Health Khyber Pakhtunkhwa with the aim of generating a reliable data regarding various aspects of the health system. The DHIS not only deals with compilation of the raw data but also to analyze it and to provide the assistance to the policy planners in managing budgets and giving priority to the most prevalent problems within the health system both in the areas of disease burden as well as presence of adequate facilities. The principal difference between the HMIS and the current DHIS is that in the previous system only covered the First Level Care Facility concentrating on the outpatient department of the Health Institutions while current program covers all outpatients departments, Indoor facilities of all the Primary Health Care centers and Tehsil and District Headquarters Hospital. This program also covers indicators of some vertical programs like the EPI, TB Dots program, MNCH, CDC, National Program for Family Planning and Primary Health Care.

This report is the first of its kind to look into the incidence and prevalence of medical illnesses and the facilities available to facilitate the public at large. It also reflects upon the seriousness with which this project and our colleagues in the field collaborate to achieve the objective of providing timely, accurate and reliable data. It is felt that several areas in the ambit of this project need further review and a flexible approach shall be needed to encourage all the stake holders to strive for constant improvement. As elucidated earlier this report by no means comprehensive but the beginning to our endeavor to strive for improvement. The lack of reporting over a long period of time from the facilities has resulted in the expected inertia and this office still is not getting reports regarding X-Rays, Laboratory Fee and other fund generating activities in various institutions but it is sincerely hoped that due course of time things should start improving. Statistics regarding the Medicine Store is also not available.
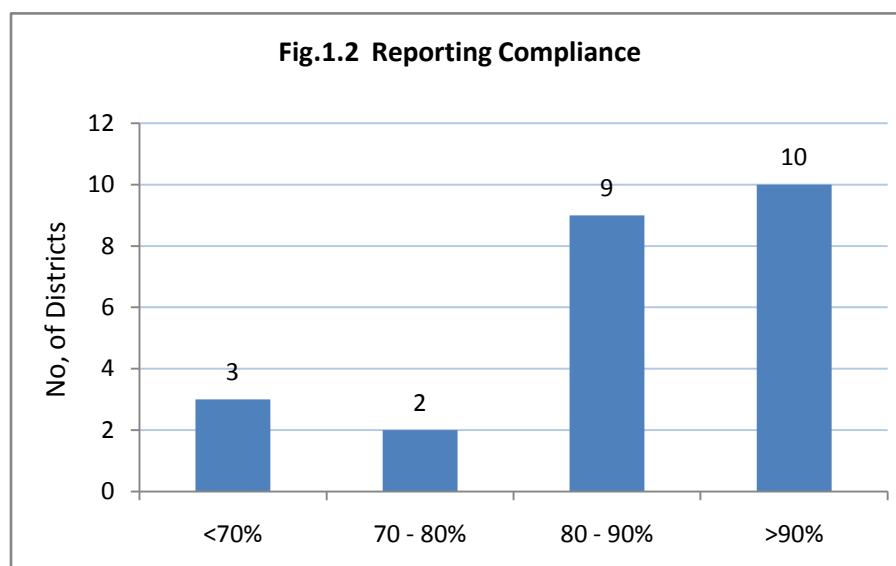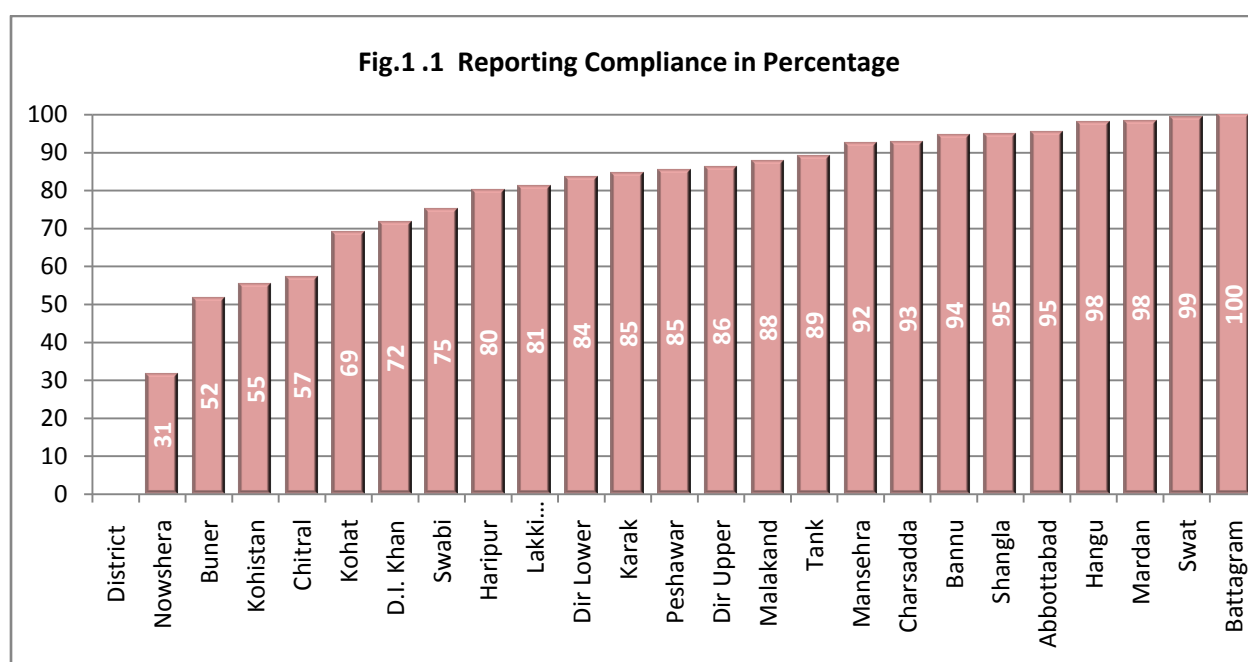
In Khyber Pakhtunkhwa this report has been generated from the data collected from 24 Districts and 75 Tehsils and approximately 1391 facilities reporting through the DHIS and is based upon the data available from OCT-DEC 2011. It is worthwhile mentioning here that the project covers only 12 districts of the province and receives reports from the other 12 without the provision of any support from this project and revised PC-1 envisages the addition of the remaining 13 districts within the framework of DHIS. It is also intended to provide extensive trainings on reporting and data management on a continual basis to ensure that the quality of the reporting improves with time and a comprehensive picture regarding the data available within the health system is of such quality that policy decisions are arrived at based on concrete facts. The DHIS would welcome suggestions

from all the readers for improvement in the reporting but it needs to be understood that this is the first ever report and we endeavor to improve with each subsequent submission.

The Indicators being used in the project are described with short narrative to highlight important issues and a brief review of the population profiles of the districts is included for understanding of the health coverage. The indicators being covered in this report are appended below.

1. *REPORTING COMPLIANCE*:

In the last quarter of 2011 it was seen that the rate of compliance of reports from the facilities was improving on a consistent basis. It ranged between 31-100% (Fig 1.1) but the districts lagging behind have shown considerable improvement and it is hoped that this trend will continue. The reports for the first quarter 2012 are improving.

Fig.1 .1 Reporting Compliance in Percentage

District	Nowshera	Buner	Kohistan	Chitral	Kohat	D.I. Khan	Swabi	Haripur	Lakki...	Dir Lower	Karak	Peshawar	Dir Upper	Malakand	Tank	Mansehra	Charsadda	Bannu	Shangla	Abbottabad	Hangu	Mardan	Swat	Battagram
	31	52	55	57	69	72	75	80	81	84	85	85	86	88	89	92	93	94	95	95	98	98	99	100

Fig.1.2 Reporting Compliance

| No, of Districts	<70%	70 - 80%	80 - 90%	>90%
	3	2	9	10

The breakup of the reporting compliance is highlighted in (Fig 1.2) and it is evident that only 3 districts are below par with a compliance rate of less than 70%. This indicator is reflective of the interest, efficiency and competence of the staff in the districts as well the quality of the trainings being provided by this project.

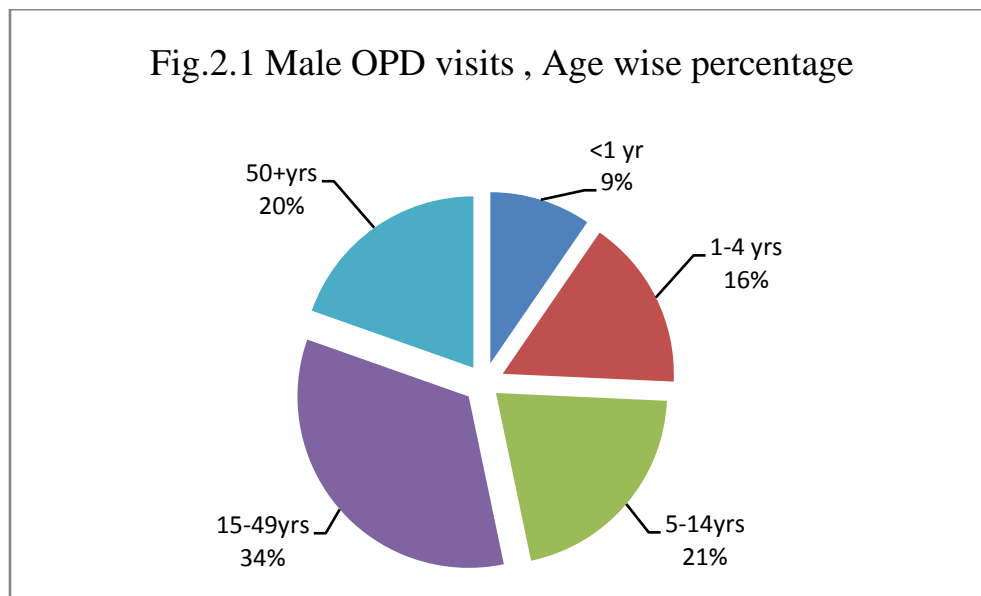Fig (1.3) shows the detailed breakup of the expected reports and the actual reports received.
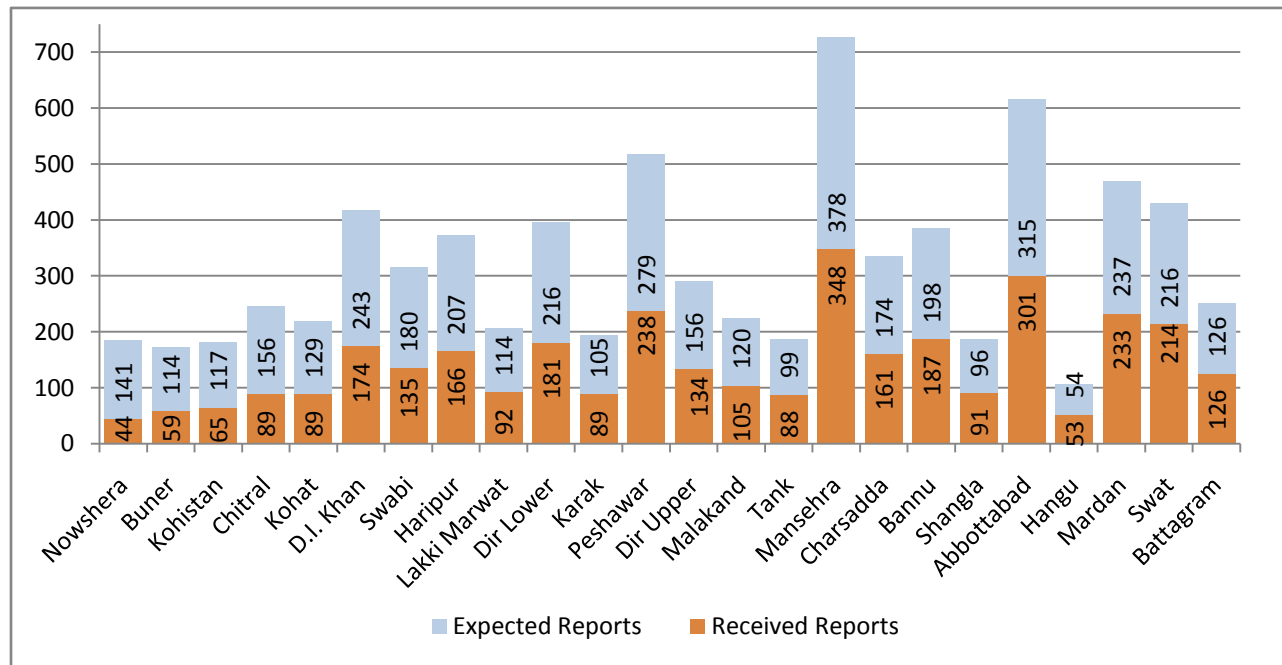

2. *GENERAL OUTPATIENT ATTENDANCE:*

Fig. 2.
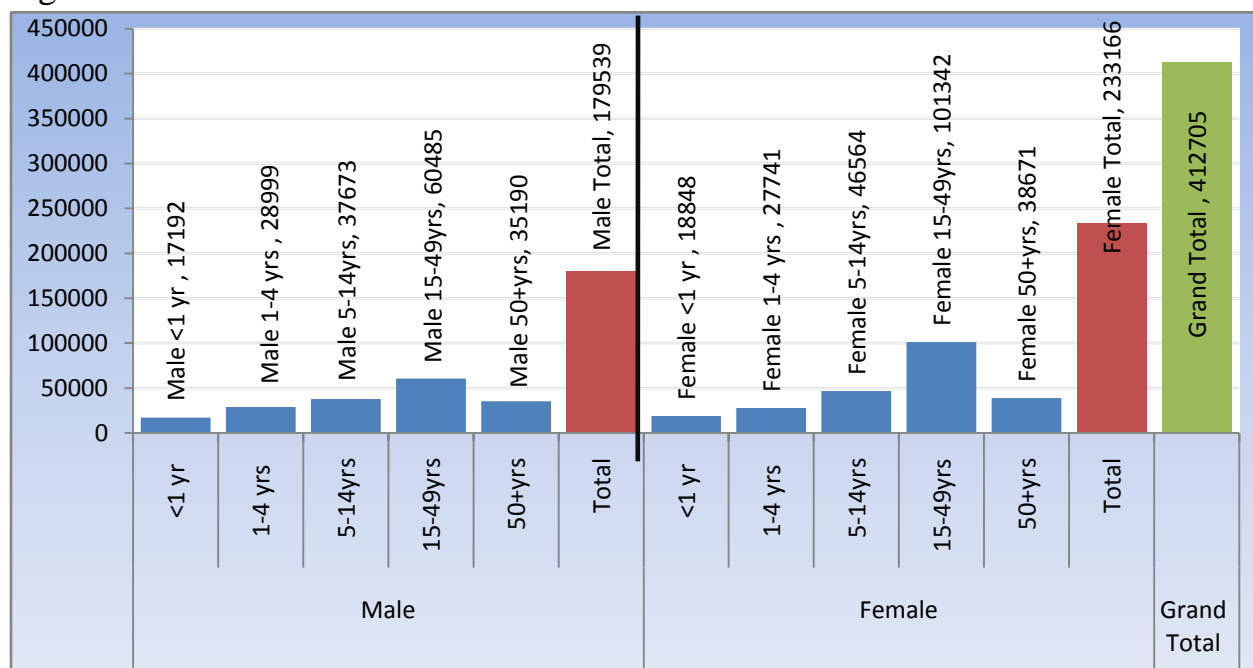
The use of the OPD by the public is reflected in Fig 2, Fig.2 (a), Fig.2 (b).

2(a) Gender & Age wise Breakup of OPD visits in Percentage (Male)

Fig.2.1 Male OPD visits , Age wise percentage

As a general trend it is quite evident that the largest group of patients both male and female patients are between the ages of 1-4 years and another significant group is those falling in the age group 5-14 years of age. The combined percentage of children up to 14 years of age is 34%. It is also worth noting that after acute emergencies, this is the largest group of patients who visit the medical OPD followed by the other specialties.

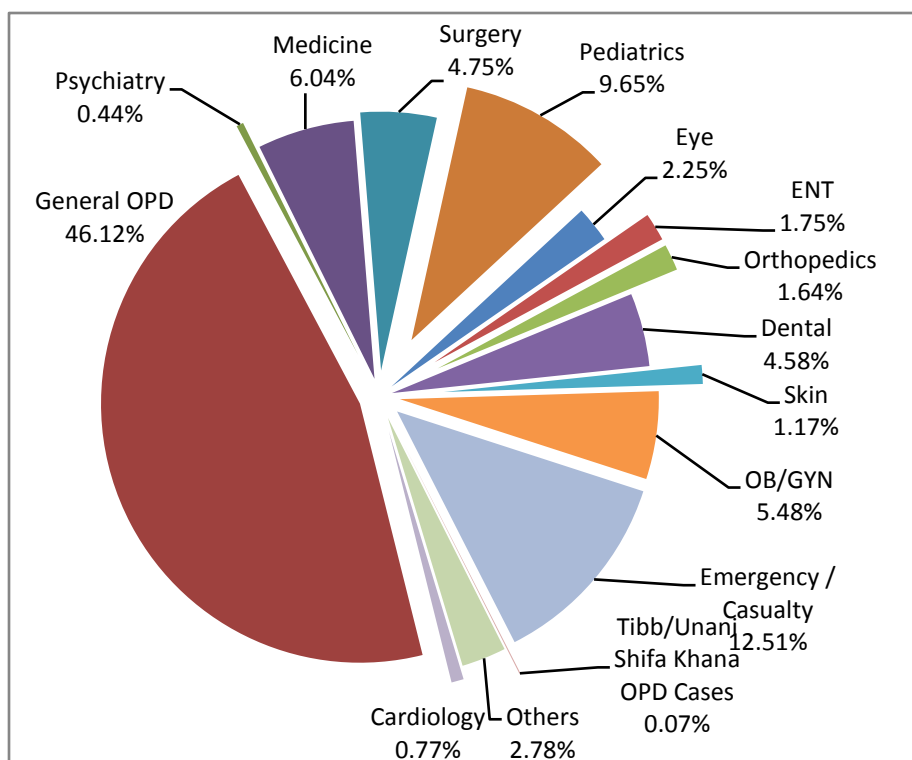*2(b) Gender & Age wise Breakup of OPD visits in Percentage (Female)*

Fig.2.2. Female OPD visits , Age wise percentage
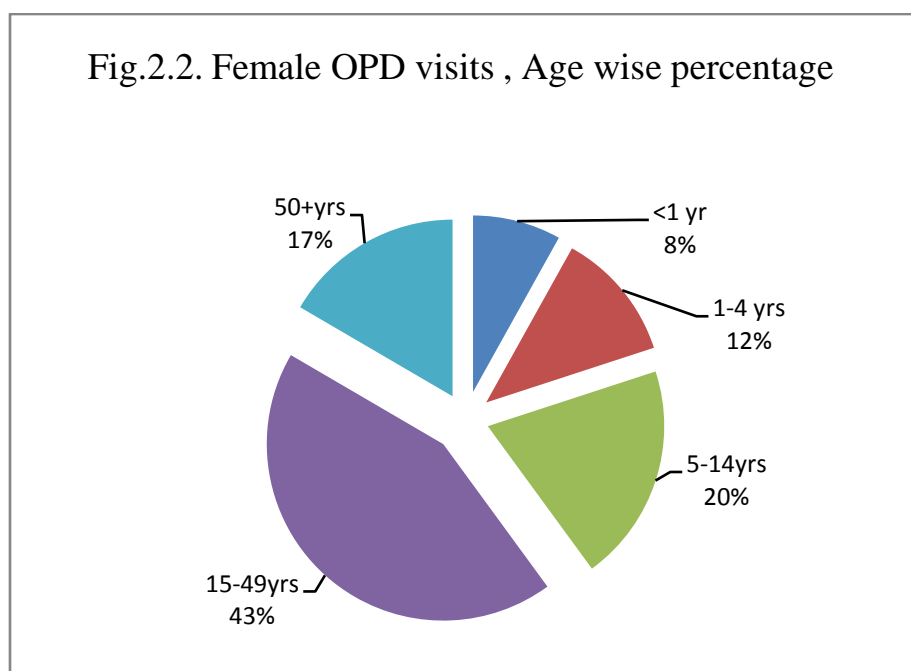
Fig.2.1
Specialty Wise Breakup
The lowest number of patients are being attended by the Hakims and Homeopaths stationed in government hospitals i.e. total patients 1601 or 0.38% of the total OPD attendance raising serious questions about the allocation of funds for a service that is hardly used by the public as evident from the figures. The other intriguing fact arising out of this data is the number of patients attending the Psychiatric

OPD i.e. 3950 patients or 0.44% even if the patients with depression are included the figure is still minuscule which look unrealistic and is against the general trend whereby a large number of patients attending the Medical OPD are in fact suffering from Psychosomatic disorders.

A graphic presentation of the disease distribution is in Fig 2.1 Fig 2.2.

Specialty	*Total Visits*
General OPD	412705
Psychiatry	3950
Medicine	54050
Surgery	42480
Pediatrics	86372
Eye	20142
ENT	15675
Orthopedics	14706
Dental	40947
Skin	10501
OB/GYN	49042
Emergency / Casualty	111946
Tibb/Unani Shifa Khana OPD Cases	603
Others	24859
Cardiology	6861
Homeo Case	998
Grand Total	895837

Fig.2.2
Since it just the beginning of data collection we feel that in due course the OPD Registers shall be filled accurately with indications of the disease instead of just mentioning that the patient has received treatment, has been admitted or has been referred and it also calls for close coordination amongst the generalist doctors in the OPD and their Specialist colleagues. It is also evident that a significant number of patients visit the Dental OPD i.e. 40947 or 4.58% and efforts are required for facilitating these patients especially when the current inflation and the cost of private dental treatment is considered.

2.3 NEW VISITS AND FOLLOW UP VISITS:

Fig.2.3 Secondary Hospital General OPD Followup Visits

New Visits 98%

Follow-up Visits 2%
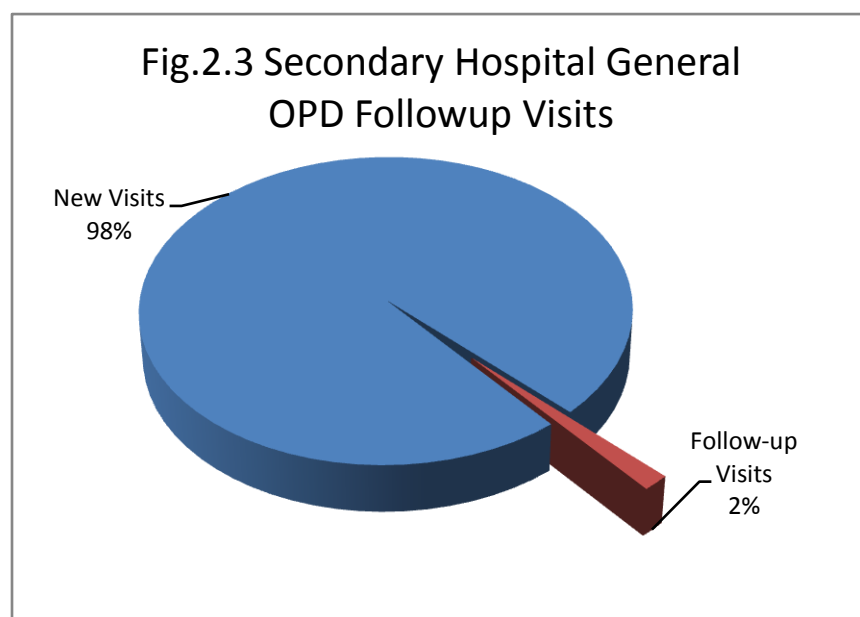
The major area of concern for policy planners would this indicator. As is evident from Fig 2.3 only *02%* of the patients are labeled as follow up patients which is highly unusual and would indicate a serious shortcoming on the part of the registration staff that each patient is treated as a new patient and hence a lopsided picture of the incidence and the prevalence of the disease appears and it would quite difficult to plan for such an inaccurate data.

Causes for this distortion need to be found out and concrete steps taken to overcome this problem. Some changes in the recording tools shall also be undertaken by this program to address some of the issues.
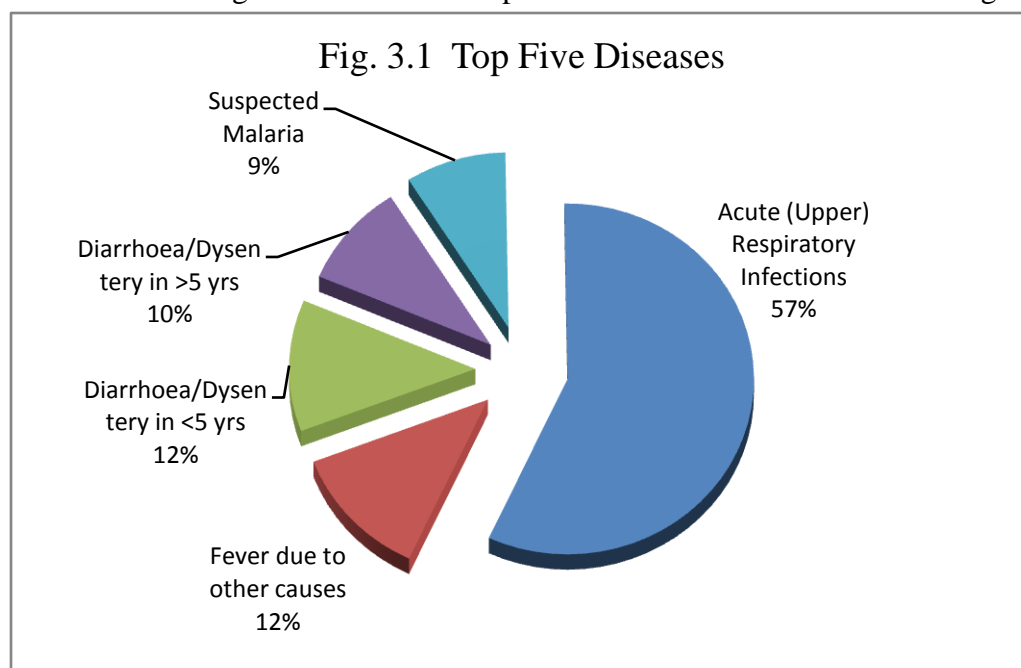
3 DISEASE PATTERN:

Forty three diseases have been included in the reporting format listed in Fig 3.

Diseases	No. of Patients
Acute (Upper) Respiratory Infections	586524
Fever due to other causes	126017
Diarrhoea/Dysentery in <5 yrs	124402
Diarrhoea/Dysentery in >5 yrs	98493
Suspected Malaria	89548
Scabies	84031
Urinary Tract Infections	71977
Hypertension	55909
Dental Caries	54428
Peptic Ulcer Diseases	49994
Pneumonia <5 years	43629
Pneumonia >5 years	38529
Worm Infestations	31201
Asthma	25765
Dermatitis	24998
Otitis Media	21328
Depression	20323
Enteric / Typhoid Fever	19896

Fig. 3

Diabetes Mellitus	17466
Road traffic accidents	13586
TB Suspects	8431
Chronic Obstructive Pulmonary Diseases	8137
Cataract	5630
Fractures	5388
Ischemic Heart Disease	4254
Dog bite	3223
Suspected Viral Hepatitis	2997
Trachoma	2627
Drug Dependence	2450
Burns	2443
Sexually Transmitted Infections	2392
Epilepsy	2290
Cirrhosis of Liver	1725
Nephritis/Nephrosis	1631
Suspected Measles	1446
Suspected Meningitis	1037
Benign Enlargement of Prostrate	1036
Cutaneous Leishmaniasis	824
Glaucoma	738
Acute Flaccid Paralysis	442
Suspected Neo Natal Tetanus	260
Snake bits	168
Suspected HIV/AIDS	97

Acute Upper Respiratory Infections constitute the bulk of the disease burden in the patients visiting government facilities. Though the detailed breakup of the age groups is not available it can be assumed that a significant number of patients would fall in the Pediatric age group. It is not clear whether a portion of these patients are suffering from chest diseases unrelated to infections, a prime example would be acute exacerbation of the disease Child Hood Asthma and Adult Asthma which have been grouped together with the ARIs.

Fig. 3.1 Top Five Diseases

Suspected Malaria 9%

Diarrhoea/Dysentery in >5 yrs 10%

Diarrhoea/Dysentery in <5 yrs 12%

Fever due to other causes 12%

Acute (Upper) Respiratory Infections 57%

These disorders constitute **57% of the total disease burden** (Fig 3.1) so a concerted effort for awareness and prevention of these illnesses is of paramount importance.

Diarrhea and Dysentery constitute another important group constituting **22% of the patients a**nd here the preventive aspects of medical practice a more significant role. A close coordination with other departments like the Public Health Engineering Department would without any doubt be fruitful. Awareness once again assumes significance and it is suggested to gear up the campaigns along with proper motivation of the staffs involved.

Suspected Malaria constitutes 9% of the patients but it is unknown what percentage of the suspected turn out to be confirmed and it is also not known what genus of the plasmodium is causing the maximum number of cases. A coordinated effort on the part of the Roll Back Malaria Program is needed to improve the significance of this raw data. The same is the case with the Suspected Tuberculosis cases where confirmation of the disease would lead to significant improvement in the quality of data. The same observation applies to the patients with suspected Hepatitis and the report misses a significant parameter by not mentioning the type and distribution of this disease along with Malaria.
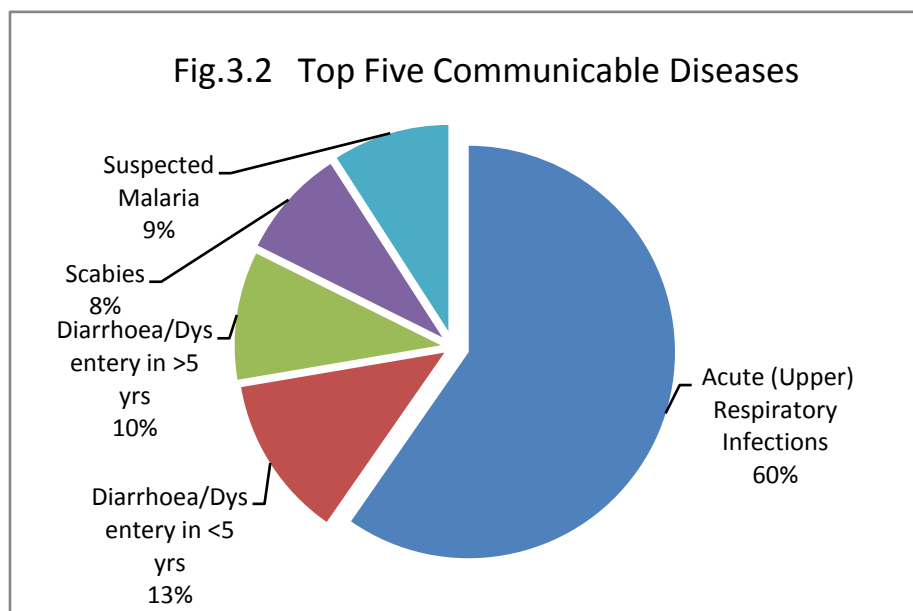
Patients with depression and other ***psychiatric illness particularly depression have been reported as 20323 through the province or 4.9% o***f the total case load which seems quite unrealistic at first glance but the figures may be low due to its overlap with diseases like Peptic Ulcer Disease and others though the figures need to constantly monitored in next quarter to ascertain a consistent pattern.

An important issue that has emerged from this report is that the cases of dog bites reporting to health facilities are ***3223 which constitutes 0.79%*** of the total patients, which would seem like a small number but it should be realized that Rabies is a disease carrying 100% mortality. The issue of availability of the latest vaccine assumes immense importance and provisions have to be made to treat this disease at the earliest and the treatment should be available at all the facilities. Eradication of stray dogs would be the ultimate solution but the department must coordinate its effort with District Administrations to achieve the desired results.

Suspected Neonatal Tetanus actually coincides with the provision of good antenatal care and shall be discussed separately. The cases of suspected hepatitis have not been classified into the type hence it is not possible to predict the outcome of the interventions in this area. Though the figures for neonatal are small it is well above the target which is 0%.

Cutaneous Leishmaniasis is quite prevalent in some areas of the province and the Afghan Refugees Health Program has done extensive work in both the curative side and the preventive side on these diseases and their inputs should be obtained to draw up a strategy.
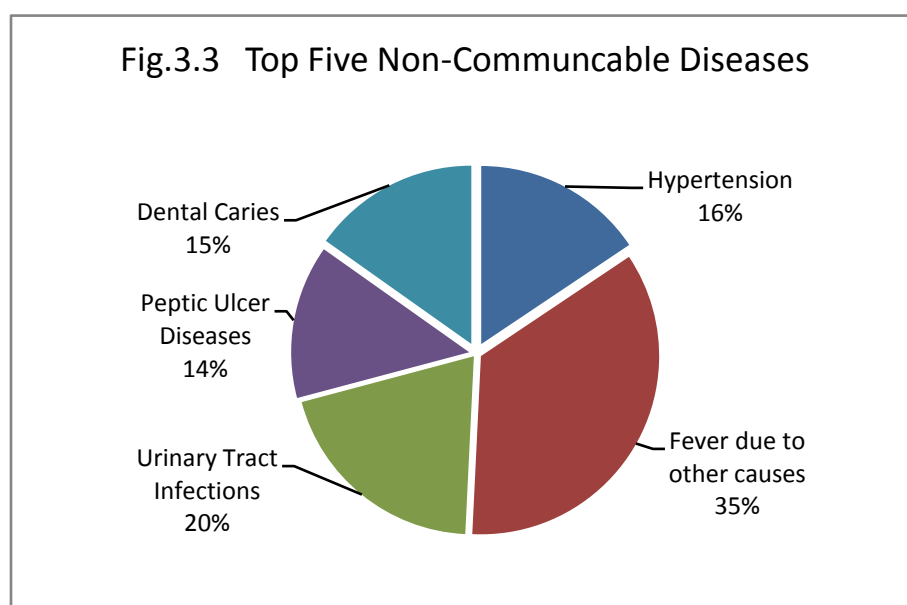
3.2   TOP FIVE COMMUNICABLE DISEASES:

Fig.3.2   Top Five Communicable Diseases

Suspected Malaria 9%

Scabies 8%

Diarrhoea/Dysentery in >5 yrs 10%

Diarrhoea/Dysentery in <5 yrs 13%

Acute (Upper) Respiratory Infections 60%

The Top Five Communicable diseases are illustrated in Fig 3.2. The other diseases in the category have already been discussed in the preceding chapters it is worth mentioning *scabies here which constitutes 8% of the case load.* This disorder though not fatal is a cause of major morbidity in all strata of the population. Here again the preventive aspect is the key in the control of the spread of the disease and once again a collaboration is required between various agencies with health education assuming a significant role. Treatment protocols also have to be changed considering the convenience of the patients and the budgetary provision must also be in line with the treatment strategy.

3.3   TOP FIVE NON COMMUNICABLE DISEASES:

Fig.3.3   Top Five Non-Communcable Diseases

Dental Caries 15%

Peptic Ulcer Diseases 14%

Urinary Tract Infections 20%

Hypertension 16%

Fever due to other causes 35%

A graphic presentation of the Top Five Non-Communicable diseases is given in Fig 3.3. *Fever due to other causes is 35% of the total case load* which is quite significant and merits further probe. With the up gradation of the hospital facilities vis-à-vis provision of equipment and staffs it is hoped that this proportion shall decrease significantly by proper diagnosis and the vagueness of this term shall gradually lose its place.

It can be seen that ***Dental Caries and Urinary Tract Infections constitute a case load of 35%.*** As elaborated earlier despite the rudimentary dental care facilities available at health outlets the

numbers are quite significant and it is high time that policy planner give dental care the importance it deserves. Urinary Tract Infections can cause a lot of morbidity and is the harbinger of chronic renal disease over a period of time. It would be worthwhile to split the patients of this disorder into specific age group to determine the extent of the interventions required. A significant proportion of adolescent males and females develop UTIs which could indicate their vulnerability to diseases like HIV/ AIDS. The categorization of UTIs into non-communicable diseases also needs to be looked into.

The figures for Ischemic Heart Disease are significantly lower than the general trend would suggest. The numbers indicated here would suggest that most patients with IHD are utilizing the services of private practitioners or go to the Tertiary Care Hospital for diagnosis. It again reflects poorly on the facilities at the district and tehsil levels where despite the deployment of Cardiologist since a long time the patients prefer to consult private medical professionals. It is worthwhile mentioning that the considering the lower than expected rates for psychiatric and cardiac patients a small survey could be conducted to assess the availability of the consultants in the concerned specialties along with the facilities so that a comprehensive picture emerges and reasons for this discrepancy are discovered.

4.   ANTE NATAL CARE (ANC)

Fig. 4 and 4.1 indicate the Antenatal coverage as reported to the DHIS during the last quarter of 2011. This indicator would reflect on the whole matrix of services being provided in the area of Antenatal Care.

Fig.4. Antenatal Care Services
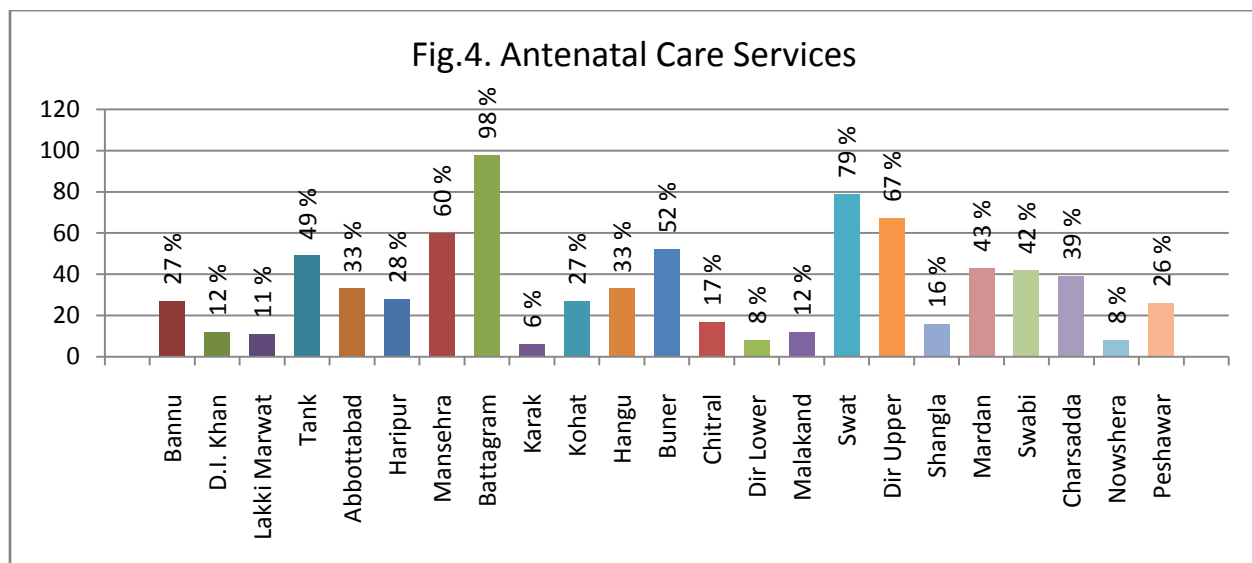
The ranges for obtaining ANC services in various districts would show an *expected 0% ANC Coverage in Kohistan* and up to 98% coverage in the adjoining district of Battagram. These figures would raise serious question regarding the approach of the department and the field staffs towards ANC services. As the reader is aware Battagram is covered by and International NGO Save the Children whereas services in the district of Kohistan are provided by the department of health.

District	Est. Population	Exp Pregnancies in a Month	% ANC for (Oct)	% ANC for (Oct)	% ANC for (Oct)	Total %age
Bannu	980000	2776.67	29.82	21.75	27.98	27
D.I. Khan	1308000	3706	10.39	12.76	14.14	12
Lakki Marwat	742000	2102.33	13.08	9.99	9.28	11
Tank	359000	1017.17	55.25	57.51	33.33	49
Abbottabad	1120000	3173.33	34.92	27.29	36.46	33
Haripur	924000	2618	30.02	23.3	29.95	28
Mansehra	1582000	4482.33	57.49	69.14	52.52	60
Battagram	422000	1195.67	103.04	94.34	97.94	98
Karak	661000	1872.83	8.12	0.96	7.53	6
Kohat	862000	2442.33	46.02	20.02	15.56	27
Hangu	482000	1365.67	25.85	23.72	48.55	33
Buner	838000	2374.33	39.38	41.53	74.13	52
Chitral	444000	1258	20.75	11.69	17.25	17
Dir Lower	1124000	3184.67	2.32	18.93	2.29	8
Malakand	703000	1991.83	12.2	12.65	10.19	12
Swat	1956000	5542	70.5	84.92	81.69	79
Dir Upper	828000	2346	62.7	53.71	85.93	67
Shangla	667000	1889.83	13.28	13.33	22.38	16
Mardan	2168000	6142.67	43.43	44.85	41.48	43
Swabi	1515000	4292.5	27.77	28.42	70.84	42
Charsadda	1493000	4230.17	33.52	35.74	47.73	39
Nowshera	1280000	3626.67	9.49	4.83	9.87	8
Peshawar	3219000	9120.5	29.11	22.4	27.05	26
Bannu	980000	2776.67	29.82	21.75	27.98	27

Fig. 4.1

Realizing the difficulties being faced by the staffs of the health department in Kohistan where the indicators for education, health and other social services are low but how could this result in such a glaring difference in ratios between the district and the adjoining district of Battagram. Another district doing abysmally bad in the ANC coverage would be *Karak with coverage of just 06%* despite the fact that it geographically far more accessible than Kohistan and has higher literacy rate and the current discovery of Oil and Gas in the area has given a boost to the socio-economic conditions of the people, so the reasons for this poor coverage are unfathomable. By the same parameters it is quite evident that the accessible district of Lower Dir has far less coverage than the relatively inaccessible district of Upper Dir which also has a serious law and order situation over the last several years.

Another glaring difference in the ANC coverage is between the district of Swat and others versus that of the provincial capital Peshawar. As the figure reveals the reported coverage in *Swat is 79%, Mansehra 60%, Dir Upper 67%,* the district of *Peshawar lags far behind at 26%* despite boasting a number of teaching hospitals, maternity hospital and many other facilities in the private sector. The figures may reflect a non-availability of data from the teaching hospital and private sector hospital and the reader assumes a charitable attitude, but on the other hand these figures would reflect very adversely on the state of the health system within the provincial metropolis if the close

scrutiny is applied. It is worthwhile to verify these figures through an independent agency preferably an INGO or the Monitoring and Evaluation Cell of the DGHS may be assigned this responsibility. The lame excuse of external support in districts like Battagram, Mansehra and Swat being the only reason for their performance would not stand the test of time and it is high time that the districts whose performance is well below including Peshawar should look back, re-focus and re-energize their efforts.

5.   ANC-1 VISITS OF WOMEN WITH HB>10G % AND <10G% TO HEALTH FACILITIES.

As the reader would realize anemia represents a major public health hazard to the community in general and pregnant women in particular resulting in widespread post partum complications in the women. Fig 5, 5.1, and 5.2 indicate the general prevalence of the disorder as well the number of women seeking help to overcome the ailment.

Fig. 5

Districts	(ANC-1)	ANC-1 with Hb. <10 g/dl	Percentage
Bannu	2209	26	1.18
D.I. Khan	1382	483	34.95
Lakki Marwat	680	70	10.29
Tank	1486	19	1.28
Abbottabad	3131	189	6.04
Haripur	2180	89	4.08
Mansehra	8030	544	6.77
Battagram	3531	321	9.09
Karak	311	244	78.46
Kohat	1993	237	11.89
Hangu	1340	24	1.79
Buner	3681	267	7.25
Chitral	625	0	0
Dir Lower	750	23	3.07
Malakand	698	0	0
Swat	13140	570	4.34
Dir Upper	4747	272	5.73
Shangla	926	110	11.88
Mardan	7971	417	5.23
Swabi	5453	396	7.26
Charsadda	4949	342	6.91
Nowshera	877	169	19.27
Peshawar	7165	598	8.35
Grand Total	77255	5410	7

Though the figures for the pregnant women visiting the facilities with a Hb of more than 10grams% is included in the figures they would be lesser importance in the narrative than the pregnant women with a Hb of less than 10g%.Though the overall figure of 9% pregnant women suffering from anemia would be acceptable a large number variations are discussed below.
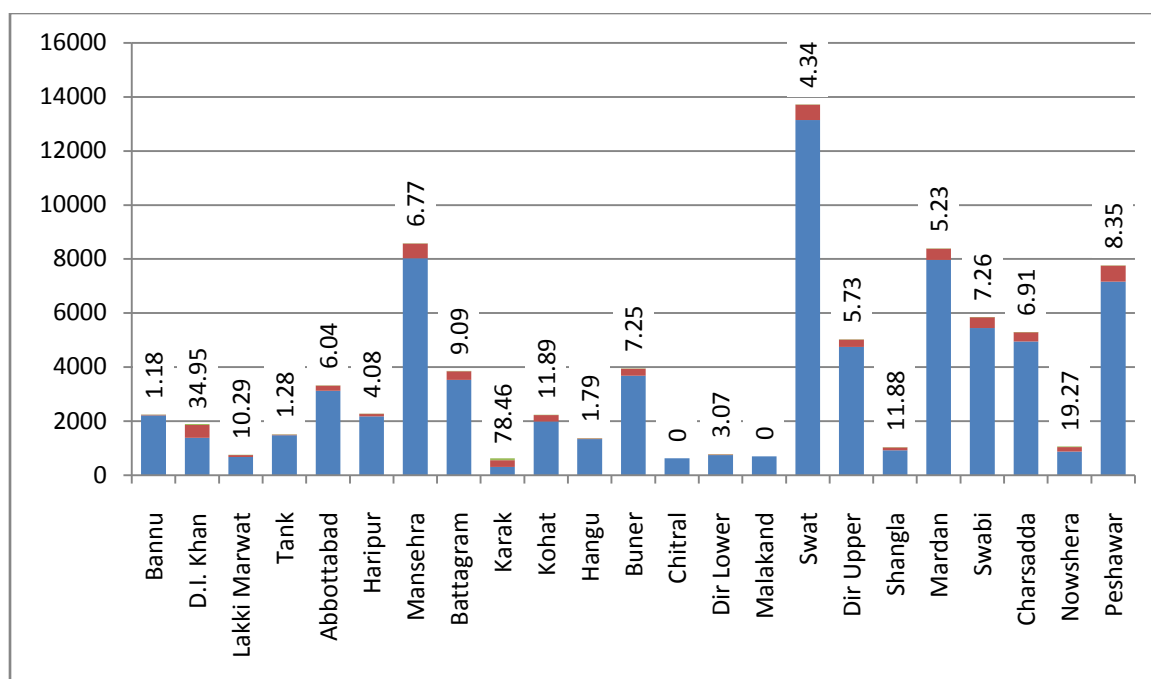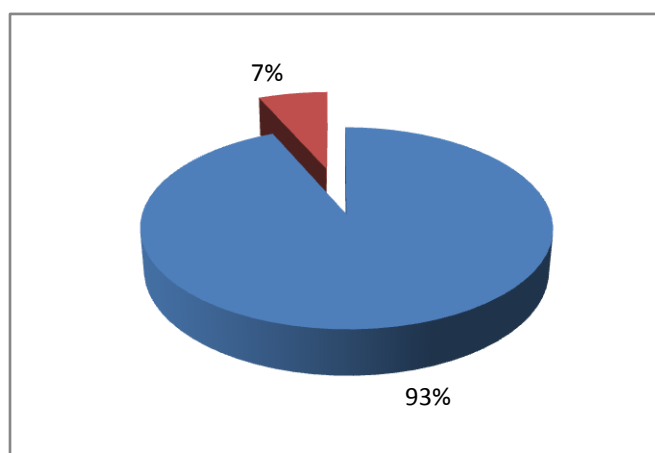
Fig. 5.1

Fig. 5.2

A quick glance at the figures reveals that the women at ANC-1 with the Hb of less than 10g% were reported the least in District Bannu where the figures stands at 1.18% and the highest being in Karak where it is 78.46 %. This discrepancy really is an eye opener since both are adjoining district with similar level of education, socio-economic status and similar social customs and dietary habits. Reasons for this have to be looked into. A very helpful survey would be to assess the prevalence of anemia in the CBA (Child Bearing Age) women in general with or without pregnancy so that it becomes possible to predict the general trends and compare it with the available data. The ideal target to achieve would be having all the CBAs to have sufficient Hb and not suffer from anemia. Though the idea would look too farfetched but at least one of the most of the commonest cause of mortality and morbidity in pregnant women could be avoided at very little expense.

6. DELIVERIES CONDUCTED IN 4TH QUARTER 2011.

Fig. 6 shows the total number of deliveries conducted in facilities reporting through the DHIS, a district wise break up is also included. From the figures it emerges that District Haripur's Health facilities have conducted the least number of deliveries. It can give rise to the conclusions either the Government Health facilities are not providing facilities or there is a robust private sector or interventions by non-governmental organizations.

Fig.6 Deliveries Conducted in 4th Quarter 2011
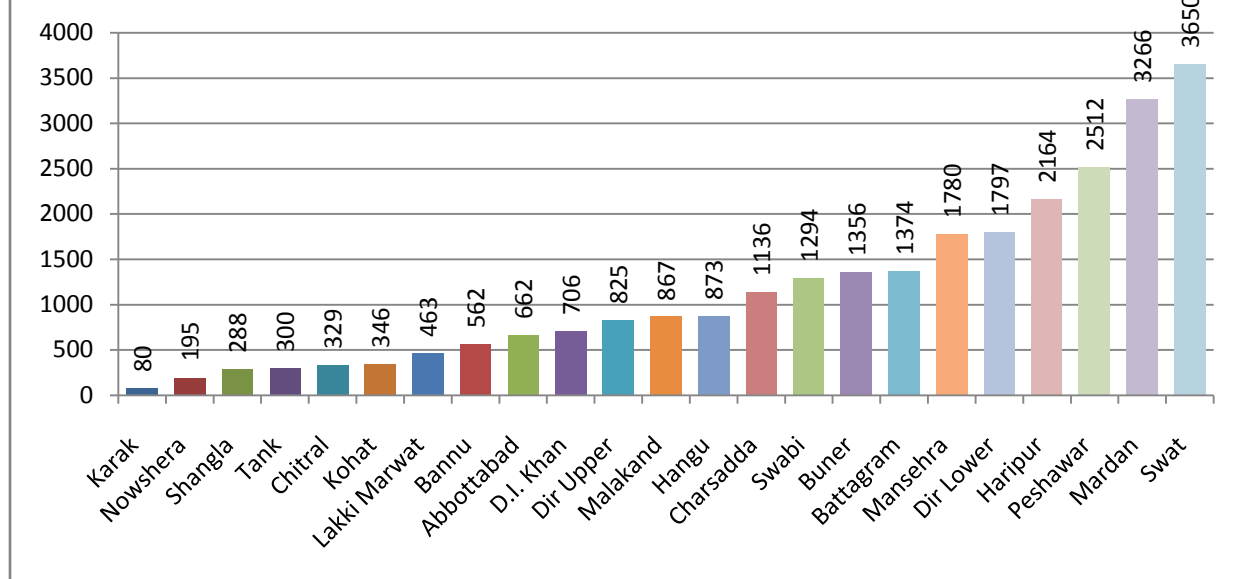
The figure also indicates that District Swat had the highest number of deliveries conducted in facilities covered by the DHIS followed by District Mardan. Though multiples interventions in the health sector by various organizations may have improved the coverage but the contribution of the health department staffs should also not be ignored.

| District	Estimated Population	Exp-Deliveries in 4th Quarter 2011	Deliveries conducted in whole Quarter	%age
Bannu	980000	7105	562	7.91
D.I. Khan	1308000	9483	706	7.44
Lakki Marwat	742000	5380	463	8.61
Tank	359000	2603	300	11.53
Abbottabad	1120000	8120	662	8.15
Haripur	924000	6699	2164	32.3
Mansehra	1582000	11470	1780	15.52
Battagram	422000	3060	1374	44.9
Karak	661000	4792	80	1.67
Kohat	862000	6250	346	5.54
Hangu	482000	3495	873	24.98
Buner	838000	6076	1356	22.32
Chitral	444000	3219	329	10.22
Dir Lower	1124000	8149	1797	22.05
Malakand	703000	5097	867	17.01
Swat	1956000	14181	3650	25.74
Dir Upper	828000	6003	825	13.74
Shangla	667000	4836	288	5.96
Mardan	2168000	15718	3266	20.78
Swabi	1515000	10984	1294	11.78
Charsadda	1493000	10824	1136	10.5
Nowshera	1280000	9280	195	2.1
Peshawar	3219000	23338	2512	10.76

Fig.6.1

Based on the total population of the province it is also evident that a small minority uses the health facilities for deliveries despite huge allocations and inputs from many different sources. The total rate of deliveries at Government facilities is only 24487 or 0.095% whereas the expected figures would be 873018 or 3.4 % of the total population. Of course it does not the figures of deliveries from the Tertiary care hospital where it can be assumed that the majority of the deliveries take place besides the private health facilities.

Facility	Total Population	Oct	Nov	Dec	Total
Maternity Hospital	50000	441	844	566	1851

A case in point as illustration of the pattern is evident in the District of Peshawar where only **1851** deliveries were conducted in the Maternity Hospital Peshawar alone whereas the population of the District is **3.21 million**, well the deliveries conducted are only **2512**. The huge discrepancy is clearly visible. The remaining **661** deliveries were conducted in the rest of the **92 health facilities** within the district.

7. DISTRICT WISE COMPARISON OF LIVE BIRTH IN THE HEALTH FACILITIES LOW BIRTH WEIGHT (LBW BABIES < 2.5 KG WT AT BIRTH) BABIES:

Fig 7, 7.1 and 7.2 reflect the numbers and percentages of LBW babies being born in reporting health facilities. As the general trend in the population it would be fair to assume that uncomplicated pregnancies are usually delivered outside the government health facilities but complicated pregnancies generally require some type of assisted though the some complicated pregnancies are also delivered through the private sector, LHVs, TBAs and others.


Fig.7. Live Births in the Facility with LBW<2.5kg
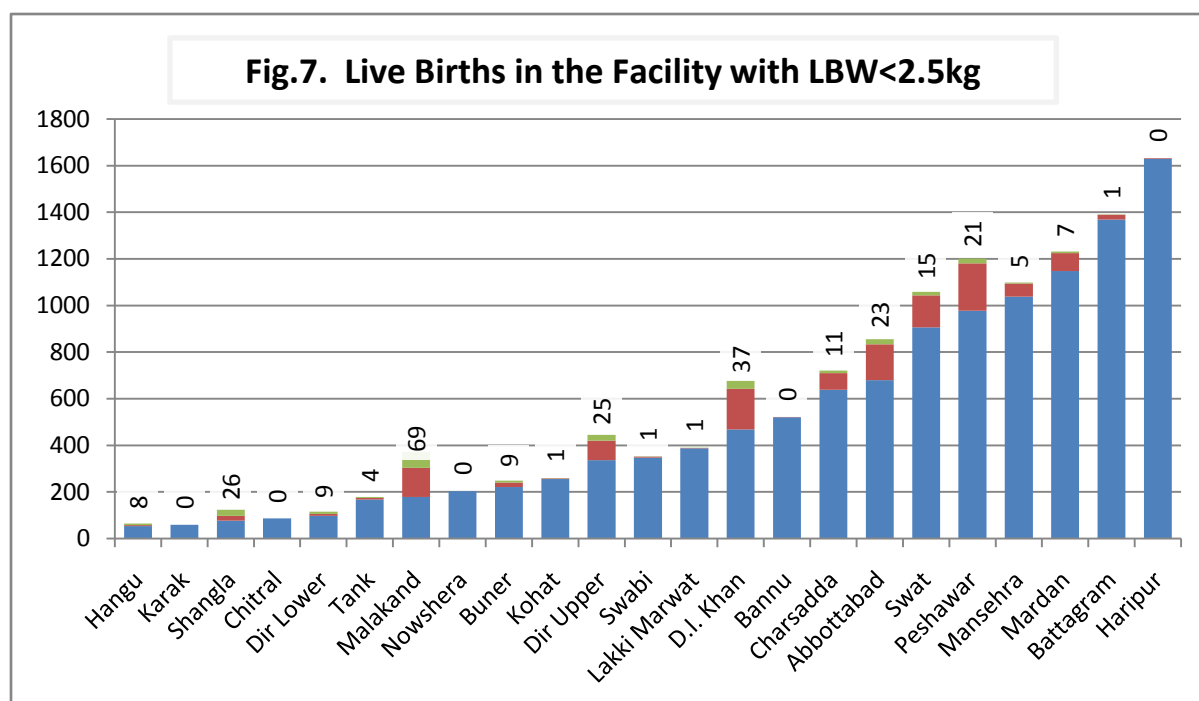
As can be seen from the table the districts of **Karak, Chitral and Nowshera are reporting zero cases of LBW babies**. It is quite evident from the previous figures that Karak was second in the least ANC coverage in the province so it is not at all surprising that the numbers of LBW babies should also consequently be less than expected. It certainly does not indicate that the numbers are low because of good ANC coverage but the reverse seems to be true. The Public Health Branch of the DGHS may look into the issue. The report from Nowshera also seems unrealistic but now that the overall reporting frequency has improved considerably in the first quarter of 2012 we would expect more realistic facts and figures vis-à-vis ANC and LBW babies. Looking at **Malakand** district it is seen that the reports suggest that the highest number of reported LBW babies in the facilities is from this particular district and constitutes **70%** of all deliveries in the health facilities reporting to the DHIS whereas the neighboring district of **Swat** reports a figure of **15.12 %.** Again the question of demographic similarity is not evident in the data though the district of Swat had a serious law and order situation a few years and Malakand did not undergo the kind of turmoil witnessed in Swat but the situation is far worse in Malakand. The most realistic report seems to emerge from district of **Haripur** where the number of deliveries in the facilities is sufficient to make an objective assessment and the LBW babies reported are **0.12%** which is insignificant considering the fact the district had the highest number of deliveries in the reporting facilities i.e.**1630.** The figures for Haripur indicate that the ANC coverage was good and the subsequent result also shows their efficiency.

Fig. 7.1

Districts	Live births in the facility	LBW(<2.5kg)	%age
Karak	59	0	0
Chitral	86	0	0
Nowshera	203	0	0
Haripur	1630	2	0.12
Bannu	521	1	0.19
Lakki Marwat	387	2	0.52
Swabi	348	4	1.15
Kohat	255	3	1.18
Battagram	1369	20	1.46
Tank	168	7	4.17
Mansehra	1038	56	5.39
Mardan	1148	77	6.71
Hangu	53	4	7.55
Buner	221	19	8.6
Dir Lower	97	9	9.28
Charsadda	638	72	11.29
Swat	906	137	15.12
Peshawar	978	203	20.76
Abbottabad	679	154	22.68
Dir Upper	337	83	24.63
Shangla	77	20	25.97
D.I. Khan	468	175	37.39
Malakand	179	124	70.00
Total	11840	1172	9.99

Since the baseline figures are available for the last quarter of 2011 and the annual report is in the preparatory stage it is expected that the report shall improve both in the qualitative and quantitative terms and all efforts should be made on the part of the Health Care Providers to bring this figure of LBW babies to a minimum possible with the target obviously being 0%.
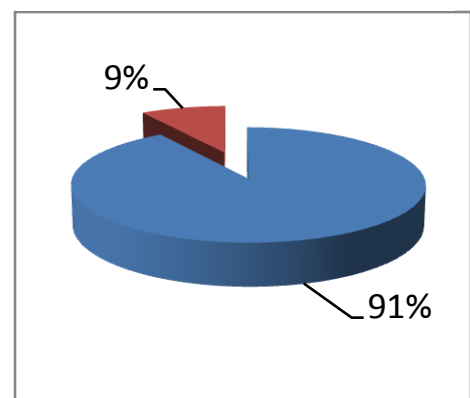
8. IMMUNIZATION COVERAGE DURING THE 4TH QUARTER 2011.

The statistics relating to immunization are shown in Fig 9, 9.1, 9.2. Various parameters are included in the figures like Children under 01 year receiving the third dose of Pentavalent vaccine, Children 01 year receiving Measles vaccine and Children less than 01 year fully immunized.

Fig. 8. Children <12 Months received 3rd Pentavalent Vaccine

Districts	Exp Children <12Months (2.7 Expected Live Births)	Children<12 Months received 3rd Pentavalent Vaccine	Percentage %
Bannu	6615	4223	64
D.I. Khan	8829	3008	34
Lakki Marwat	5009	870	17
Tank	2423	967	40
Abbottabad	7560	7138	94
Haripur	6237	1771	28
Mansehra	10679	0	0
Battagram	2849	7337	258
Karak	4462	3103	70
Kohat	5819	575	10
Hangu	3254	2190	67
Buner	5657	2462	44
Chitral	2997	3144	105
Dir Lower	7587	0	0
Malakand	4745	357	8
Swat	13203	3289	25
Dir Upper	5589	14801	265
Shangla	4502	2487	55
Mardan	14634	1702	12
Swabi	10226	10346	101
Charsadda	10078	6977	69
Nowshera	8640	8971	104
Peshawar	21728	2775	13

As is shown in the tables some districts like ***Dir Lower (0%), Mansehra (0%), Malakand (7.52%), Mardan (11.6%), Peshawar (12.67%),*** have dismal performance in the area of EPI coverage whereas some districts have performed exceptionally well if the quality of the reports is to be believed e.g. ***Battagram (257%), Swabi at (101 %) and Nowshera at (103 %).*** The reasons for this massive difference are not evident except that the staffs of the facilities as well as the staffs of the DHIS are not doing their duties with the diligence required. The concerned EDOs have been informed and their explanation is awaited. The higher figures from Battagram can be expected considering their reports for other activities elucidated above but district Nowshera would be a surprise package considering the performance on other reporting parameters. The DHIS is looking into the issue and hopefully these anomalies would be addressed in the coming months.

Fig.8.1 Children <12 Months received 1ˢᵗ Measles Vaccine

District	Exp Children <12months	<12 Months 1st Measles vaccine	Percentage %
Bannu	6615	3536	53
D.I. Khan	8829	3837	43
Lakki Marwat	5009	419	8
Tank	2423	600	25
Abbottabad	7560	5464	72
Haripur	6237	1555	25
Mansehra	10679	0	0
Battagram	2849	6894	242
Karak	4462	2992	67
Kohat	5819	205	4
Hangu	3254	1811	56
Buner	5657	2110	37
Chitral	2997	2806	94
Dir Lower	7587	0	0
Malakand	4745	243	5
Swat	13203	5079	38
Dir Upper	5589	13388	240
Shangla	4502	2139	48
Mardan	14634	2027	14
Swabi	10226	10583	103
Charsadda	10078	5411	54
Nowshera	8640	7359	85
Peshawar	21728	1216	6

The indicator for Measles vaccination under 01 year of age also carries the same pattern with the stand out districts of **Lower Dir and Mansehra at (0%)** coverage with a **Peshawar at a distant worst with a coverage of just (5.6%)** which is totally unacceptable and now a pattern of misreporting or not reporting at all has emerged and urgent steps are required if the fallacy persists in the next quarter report. Once again some districts have emerged as achieving targets well in excess of the expected ranges e.g. **Battagram at (242%) and Dir Upper at (239%).** The other indicators in these over performing districts are good but reasons must be ascertained for these figures and if even correct other sources for this anomaly may be looked into.

Fig.8.2 Children <12Months Fully Immunized

District	Exp Children <12months	Fully Immunized	Percentage %
Bannu	6615	5592	85
D.I. Khan	8829	3390	38
Lakki Marwat	5009	416	8
Tank	2423	381	16
Abbottabad	7560	5987	79
Haripur	6237	1767	28
Mansehra	10679	0	0
Battagram	2849	6779	238
Karak	4462	2274	51
Kohat	5819	227	4
Hangu	3254	3187	98
Buner	5657	3771	67
Chitral	2997	3285	110
Dir Lower	7587	0	0
Malakand	4745	1235	26
Swat	13203	4671	35
Dir Upper	5589	12490	223
Shangla	4502	2039	45
Mardan	14634	1035	7
Swabi	10226	10545	103
Charsadda	10078	4971	49
Nowshera	8640	7032	81
Peshawar	21728	1165	5

The statistics for fully immunized children under one year also shows the same general trend and inconsistency whereby some districts including Peshawar reporting dismal figures and some districts like Dir Upper, Battagram and Swabi showing spectacular coverage rates. Coming to the conclusion here it would worth an exercise to determine these figures accurately so that the campaigns for immunizations on regular basis are made redundant. A probable cause of this reporting could be the delayed placements of staff of DHIS but the position may become clear in the next report.

8.3   Pregnant Women Receiving TT-2 Vaccine

This indicator would clearly reflect the full the antenatal coverage versus partial antenatal coverage. A pregnant woman who has received two doses Tetanus Toxoid indicates that while the woman has received full antenatal coverage on the one hand and it has addressed a serious public issue relating to neonatal of which unfortunately we still 260 cases reported in the last quarter of 2011. Again the same trend is evident whereby Kohistan has the most dismal rate for TT-2 of 0 compared to Swat where 10446 pregnant women received TT-2 vaccine even outshining Peshawar once again. The adjoining district of Swat i.e. Dir Lower where only 297 doses of TT-2 were administered. District Chitral has also reported 0 TT-2 which must be looked into considering the inputs from Agha Khan

Foundation and contributions from the health department. Karak and Lakki Marwat also once again fall into the category of non performing districts.

Fig.8.3. Women Received TT-2 Vaccine

District	Exp pregnancies	women received TT-2 vaccine	Percentage %
Bannu	8330	2534	30
D.I. Khan	11118	3616	33
Lakki Marwat	6307	511	8
Tank	3052	832	27
Abbottabad	9520	3906	41
Haripur	7854	1407	18
Mansehra	13447	5711	42
Battagram	3587	1488	41
Karak	5619	316	6
Kohat	7327	1780	24
Hangu	4097	1375	34
Buner	7123	2589	36
Chitral	3774	0	0
Dir Lower	9554	297	3
Malakand	5976	2562	43
Swat	16626	10446	63
Dir Upper	7038	1957	28
Shangla	5670	456	8
Mardan	18428	7437	40
Swabi	12878	3197	25
Charsadda	12691	6616	52
Nowshera	10880	915	8
Peshawar	27362	8882	32

LOOKING AHEAD--------------- PLANS

1. The Revised PC-1 of the Project is in the pipeline with a view to support this vital activity for a further period of 03 years with substantial improvement in the scope of the project. Addition of the remaining 13 districts of the province to the loop of information would be our activity of paramount focus.

2. Upgrading the software with addition latest features with a user friendly interface. A program with GIS facilities would be looked into to provide real time online and to enable the programs to respond to any drastic changes in the reports both in numbers and locations.

3. Including the Tertiary Care facilities and other specialized hospitals like the Mental Hospitals within the ambit of reporting and improving upon the parameters currently being reported upon. As is evident from the figures currently there is no concept of reporting mortality and cause of death in the format but needs to be included and the system of audit for the purpose can be included at least in the Tertiary Care facilities. The inclusion of all private sector facilities remains a long term objective.

4. The integration of data from the Population Welfare Department would be of pivotal importance once a clear cut picture emerges regarding the implementation of the 18th Amendment to the Constitution of Pakistan.

5. Selecting a team of dedicated DHIS Coordinators for all the districts to ensure that the concentration remains on one project only without the additional burden of representing other programs. A system of a short narrative with the data reporting shall be encouraged and required. A comprehensive training program for all the stakeholders and workers is envisaged to set standards of reporting in terms of quality.

6. Coordinating with all the programs both vertical and others to evolve a common reporting format with the aims of integrating the information and make it easier to make a sound analysis from time to time.

7. Sharing information and data with the FATA Secretariat, Afghan Commissionerate and other organizations working with Refugees and other internally displaced persons .

8. A contact would be established with the World Health Organization for the incorporation of the Disease Early Warning System into the DHIS reporting system.