



### Highlights

Figure-1: 69 districts reported to DEWS in week 48, 2013

**Epidemiological week no. 48**  
(24 to 30 Nov 2013)

- **Dengue fever:** During this week, 409 Dengue fever cases have been reported, out of them 215 from province Sindh; 190 from province Punjab; while 4 from province Balochistan. The outbreaks are being responded jointly.
- **CCHF:** One suspected CCHF case is reported from Quetta province Balochistan in week 48, 2013. (Page 5).
- In this week, **69** districts and 2,019 health facilities have reported to Disease Early Warning system (DEWS), compared to 72 districts with 2,096 health facilities shared weekly data in week 47, 2013 to the DEWS.
- Total **759,127** patients consultations reported this week compared to **774,879** consultations in week 47, 2013.
- **71** alerts investigated and **4** outbreaks identified and timely responded. Altogether 29 alerts were for Measles; 11 Dengue fever; 8 for Leishmaniasis; 6 for ARI; 5 for Typhoid fever; 3 for Diphtheria; 2 each for AJS, NNT and Scabies; while 1 each for Acute diarrhoea, CCHF and Rabies.



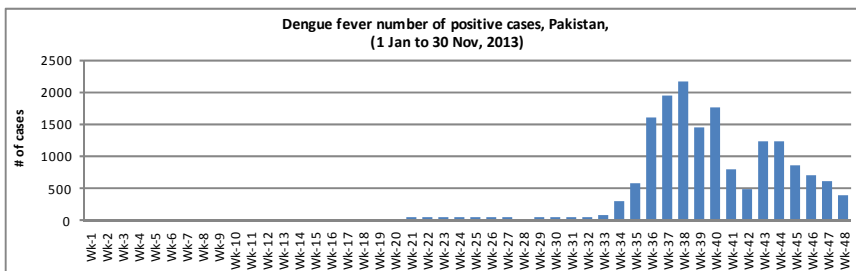
**Priority diseases under surveillance in DEWS**

- Pneumonia
- Acute Watery Diarrhoea
- Bloody diarrhoea
- Acute Diarrhoea
- Suspected Enteric/Typhoid Fever
- Suspected Malaria
- Suspected Meningitis
- Suspected Dengue fever
- Suspected Viral Hemorrhagic Fever
- Suspected Measles
- Suspected Diphtheria
- Suspected Pertussis
- Suspected Acute Viral Hepatitis
- Neonatal Tetanus
- Acute Flaccid Paralysis
- Scabies
- Cutaneous Leishmaniasis

Cumulative number of selected health events reported in Epi-week 1 to 48, 2013 (29 Dec 2012 to 30 November 2013)

Disease	# of Cases	Percentage
ARI	7,621,385	20%
Bloody diarrhoea	94,419	<0.5%
Acute diarrhoea	2,866,307	7%
S. Malaria	1,667,547	4%
Skin Diseases	1,467,960	4%
Unexplained fever	1,179,095	3%
<b>Total (All consultations)</b>	<b>38,334,765</b>	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 30 Nov 2013

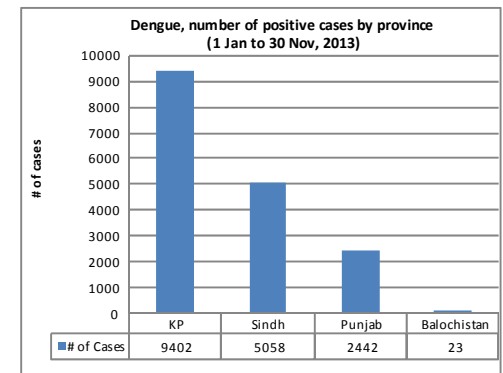


Major health events reported during the Epi-week - 48 (24 - 30 Nov 2013)

Disease	# of Cases	Percentage
ARI	158,740	21%
Bloody diarrhoea	1,168	<0.5%
Acute diarrhoea	41,543	5%
S. Malaria	28,706	4%
Skin Diseases	23,969	3%
Unexplained fever	23,218	3%
<b>Total (All consultations)</b>	<b>759,127</b>	

In 2013 Dengue fever cases are reported from the less endemic areas also. A huge outbreak is confronted in district Swat and increasing number of Dengue fever cases are reported from adjacent districts also. Dengue fever cases are also reported from Gawadar district in Balochistan province, districts Karachi and Hyderabad in Sindh province and districts Lahore and Rawalpindi in Punjab province.

From 1st January to 30th November 2013, Khyber Pakhtunkhwa reported 9,402; Sindh 5,058, Punjab 2,442, and Balochistan 23 confirmed Dengue fever cases.



## Outbreaks (Wk-48/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
29-Nov	CCHF	Balochistan	Quetta	Meer Jaffar Khan Jamali house, Chaman Partik, Quetta	0	1	0	0	Alert for 1 suspected CCHF case reported from isolation unit. Case is presenting with history of nasal and mouth bleeding. There was no history of fever, body ache; Lab investigation shows Hb 11.1 g/dl, Platelets count 26,000 /cmm. Case is a cook by profession. There was no animal contact or traveling history. Blood sample taken and sent to NIH, result awaited.
26-Nov	Measles	Khyber Pakhtunkhwa	Battagram	Battagram	1	0	0	0	1 suspected measles case was reported from DHQ Battagram. Vitamin-A drops were provided. Information shared with the EPI team and requested to conduct outreach vaccination in the area.
27-Nov	DHF	Sindh	Karachi	MPR Colony-Block-A, Baloch Goth, UC-13, Orangi Town.	0	2	0	0	One death was reported from Dengue cell Sindh, during verbal Autopsy/Investigation, one more death due to dengue fever found in the same area, IgM and IgG tests were found positive in both cases. Hygienic conditions of environment found favorable for mosquitoes. Health education session conducted in the community. Follow-up planned. Information shared with THMT and EDOH Karachi.
28-Nov	DHF	Sindh	Karachi	Opposite Kar-saz estate agency, Husain Hazara village, Gulshan-e-Iqbal town	0	3	0	0	2 confirmed Dengue fever cases and 1 death of Dengue Hemorrhagic fever was reported from Dengue Cell Sindh, IgM and IgG tests were found positive. Hygienic conditions of environment was favorable for mosquitoes. Health education session conducted in the community and briefed about the signs and symptoms of Dengue fever. Follow-up planned. Information shared with THMT and EDO Karachi.

Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 48, 2013		2013 (Total up till week - 48)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	0	0	140	40
Acute jaundice syndrome	113	22	2	0	48	6
Bloody diarrhoea	146	11	0	0	42	2
CCHF	68	41	1	0	88	47
Dengue fever	175	29	11	2	273	58
Diphtheria	60	16	3	0	72	19
Measles	5922	812	29	0	3264	277
Pertussis	366	147	0	0	45	10
NNT + tetanus	560	0	2	0	319	0
Malaria	136	68	0	0	24	5
Cutaneous Leishmaniasis	900	78	8	0	582	49
Others	1529	58	15	0	474	5
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>71</b>	<b>2</b>	<b>5371</b>	<b>518</b>

Figure-3: Number of alerts received and responded, week 45 - 48, 2013

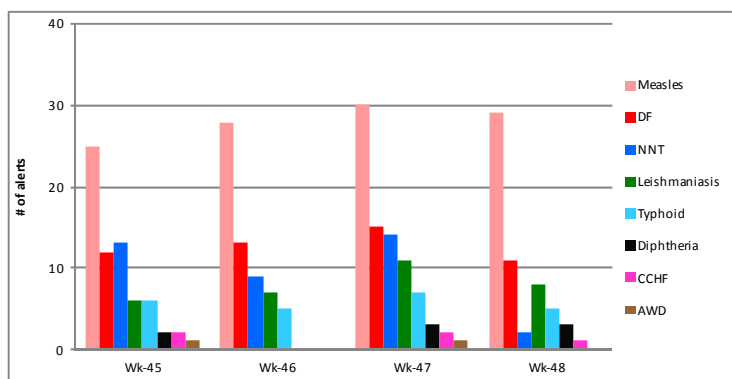
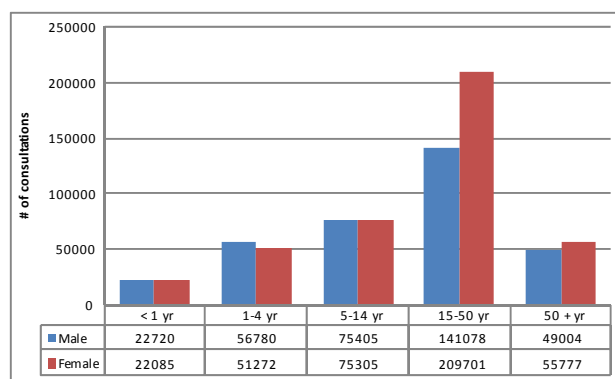
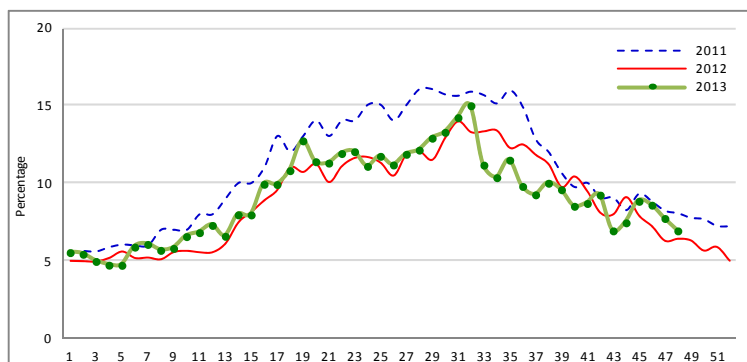


Figure-4: Number of consultations by age and gender, week 48, 2013



Province Khyber Pakhtunkhwa:

Figure-5: Weekly trend of Acute diarrhoea, province Khyber Pakhtunkhwa

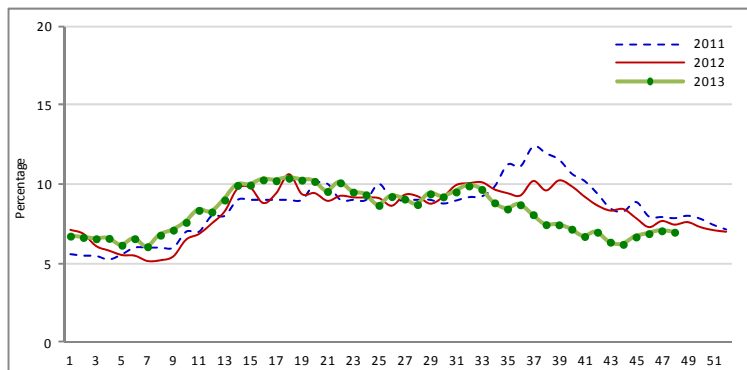


146 health facilities from 9 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 48,824 patients consultations reported in week 48, 2013. A total of 19 alerts were received and appropriate measures were taken. Altogether 16 alerts were for Measles; while 1 each for CCHF, Diphtheria and Leishmaniasis.

The weekly trend of Acute diarrhoea is showing decrease as compared with last three weeks in KP, and 5 Cholera confirmed cases reported from KP in last six weeks, and the situation need continuous attention in the province.

Province Sindh:

Figure-6: Weekly trend of Acute diarrhoea, province Sindh

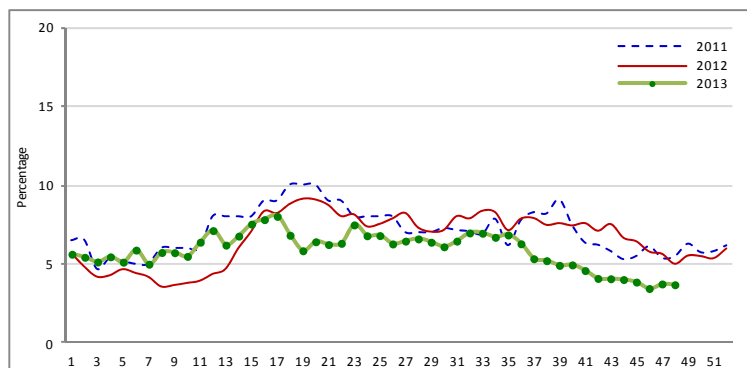


844 health facilities from 23 districts in Sindh province reported to DEWS with a total of 268,226 patient consultations in week 48, 2013. A total of 4 alerts for Dengue fever were received and appropriate measures were taken.

The overall proportion of AD for the province is showing a minor decrease as compared with last week, but during this season, 18 AWD outbreaks identified and responded, and the situation need continuous attention in the province.

Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



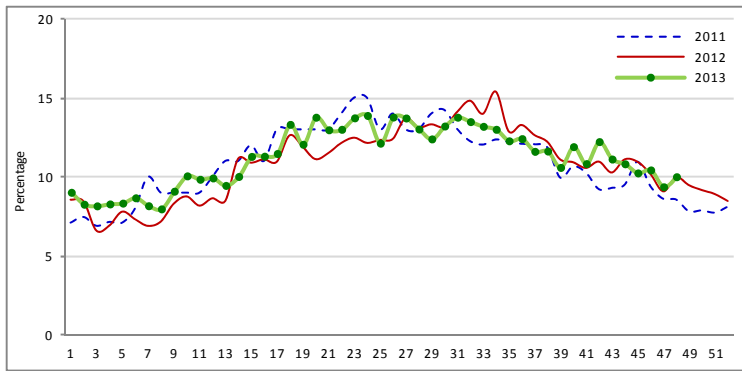
663 health facilities from 13 districts in province Punjab reported to DEWS with a total of 376,010 patients consultations in week 48, 2013.

Total 21 alerts were received and appropriate measures were taken. Altogether 6 alerts were for ARI; 5 for Typhoid; 4 for Dengue fever; 2 each for Diphtheria and Scabies; while 1 each for Acute diarrhoea and Measles were responded in Punjab.

The weekly trend of AD in Punjab showing a minor decrease as compared with last week, but required vigilant monitoring of the situation.

**Province Balochistan:**

Figure-8: Weekly trend of Acute diarrhoea, province Balochistan



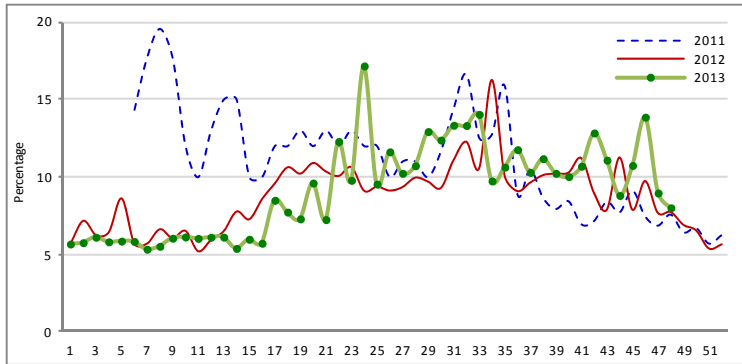
245 health facilities from 11 districts in province Balochistan reported to DEWS with a total of 38,167 patients consultations in week 48, 2013.

15 alerts were reported and appropriated measures were taken. Altogether 8 for alerts were for Measles; 3 for Dengue fever; 2 for Leishmaniasis; while 1 each for NNT and Rabies.

In this week the weekly proportion of AD showing increase as compared with last week, and vigilant monitoring of the situation is required.

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



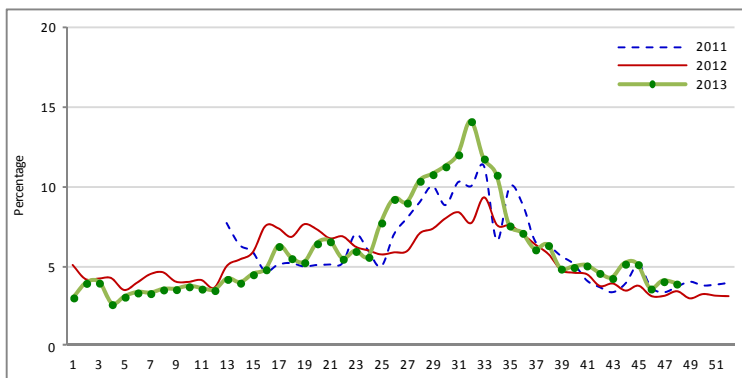
41 health facilities from 3 agencies in FATA reported to DEWS with a total of 12,728 patients consultations in week 48, 2013.

8 alerts, 4 for Leishmaniasis; 3 for Measles; while 1 for NNT were reported in week 48, 2013 and appropriate measures were taken.

Fluctuating and high weekly trend of Acute diarrhoea is noted in FATA and required vigilant monitoring.

**State of Azad Jammu and Kashmir:**

Figure-10: Weekly trend of Acute diarrhoea, AJ&K



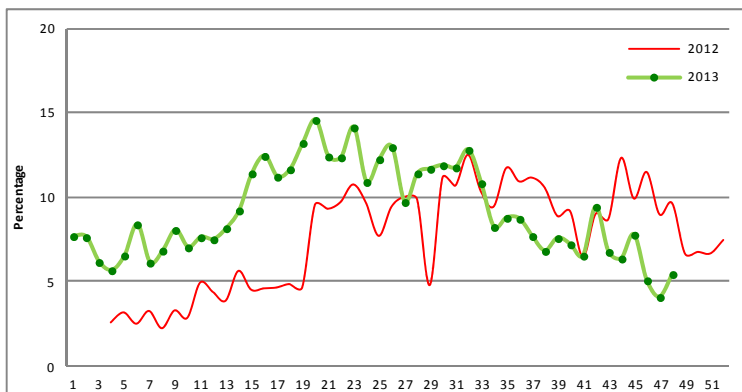
75 health facilities from 8 districts in AJ&K reported to DEWS with a total of 14,655 patients consultations in week 48, 2013.

4 alerts, 2 for AJS; while 1 each for Measles and Leishmaniasis were reported in week 48, 2013 and appropriate measures were taken.

Weekly trend of Acute diarrhoea showing a minor decrease as compared with last week, but vigilant monitoring of the situation is required.

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



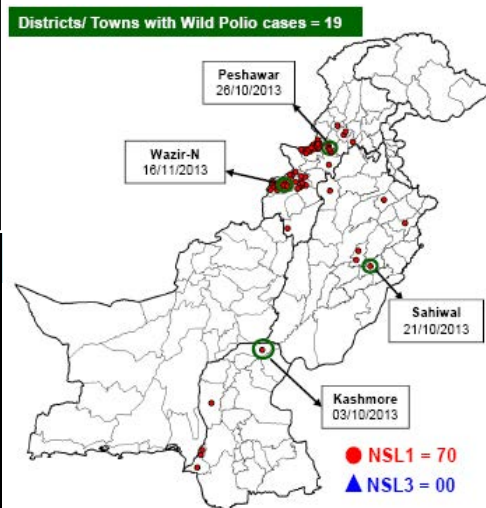
4 health facilities reported to DEWS on time with a total of 377 patients consultations in week 48, 2013.

No alert for any disease was received in week 48, 2013 from any area in ICT.

Weekly trend of Acute diarrhoea showing decrease as compared with last week, and vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2012 and 2013

In this week 48 2013, six new wild polio cases (type-1) were reported; five from Federally Administered Tribal Areas (four from North Waziristan agency, one from Khyber agency) and one from Khyber Pakhtunkhwa (Peshawar district). This brings the total number of wild polio cases to 70 in 2013 (as compared to 57 during the same time period in 2012) from 19 districts/ towns / tribal agencies / areas (as compared to 28 last year).



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	6	-	-
Sindh	4	-	-	5	-	-
Khyber Pakhtunkhwa	27	-	-	10	-	-
FATA	17	2	1	49	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>55</b>	<b>2</b>	<b>1</b>	<b>70</b>	<b>-</b>	<b>-</b>

Follow up of CCHF

In week 48, 2013, one suspected CCHF case is reported from Quetta, Balochistan province. So far total of 89 suspected, 59 confirmed CCHF cases and 18 deaths have been reported country wide in year 2013.

In 2012, a total of 62 suspected cases were reported throughout the country with 41 cases confirmed and in total 18 deaths; of which 13 deaths (CFR is 31.7%) are reported of the lab confirmed cases and 5 deaths are reported as suspected CCHF cases. 23 confirmed cases were reported from Balochistan; 7 from Sindh; 6 from Khyber Pakhtunkhwa and 5 from Punjab. Table on right illustrates situation of CCHF cases in 2012-13.

Approximately all the cases had contact history with animal trading/handling, tick bite, contact with patient, tannery worker, butcher/animals slaughtering, and fresh animal skin. There is ongoing trade of animals and animal skins with movement intra Pakistan and between neighboring countries (Afghanistan and Iran).

Province		2012			2013		
		Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K		0	0	0	1	1	0
Balochistan	Afghanistan*	5	5	3	12	6	2
	Balochistan	33	18	4	54	33	7
ICT		-	-	-	4	4	1
KPK		9	6	5	9	9	4
Punjab		8	5	3	10	4	3
Sindh		7	7	3	2	2	1
<b>Total</b>		<b>62</b>	<b>41</b>	<b>18</b>	<b>89</b>	<b>59</b>	<b>18</b>

**Focus on Dengue fever:**

Dengue fever represents one of the most recent and emerging public health challenges with an ever-increasing incidence across the globe, way beyond its original impact area in the tropics. As estimated 2.5 billion people, are said to be at risk from this viral infection across the world. Dengue has emerged as a global problem after 1950's. Incidence of disease can be ascribed to a number of diverse factors related to hygiene, urban decay, environmental problems, changed living styles and physical factors. With a rapidly evolving epidemiology, the disease appears to have become more common in recent years and disturbing numbers of human mortalities have been reported.

The first confirmed outbreak of DF in Pakistan was in 1994 but the sudden rise in cases and annual epidemic trend occurred first in Karachi in November 2005. To assist with vector control, WHO entomologists studied the Aedes mosquito in Karachi during the 2005 outbreak and used the information to design Pakistan-specific control interventions. The worst ever epidemic of Dengue fever reported in Pakistan was in 2011, and reporting of cases started in August in Lahore – Punjab, with over 16,580 confirmed cases and 257 deaths reported from Lahore district and an additional 5000 cases and 60 deaths reported from the rest of the province.

In 2013 Dengue fever cases are reported from the less endemic areas also. A huge outbreak is confronted in district Swat and increasing number of Dengue fever cases are reported from adjacent district also and cases are also reported from Gawadar district in Balochistan province and Karachi in Sindh province. There is no vaccine available against dengue, and there are no specific medications to treat a dengue infection. This makes prevention the most important step, and prevention means avoiding mosquito bites if you live in or travel to an endemic area.

**Patient management at home:**

- If a person is having fever for more than 2 days with headache, retro-orbital pain, myalgia and arthralgia, it can be taken as a suspected dengue fever case and basic care should be started at home as follow
- Let the patient rest and reduce fever by sponging patient with tepid water. If the patient is shivering, stop sponging, and cover the patient with blanket. Give paracetamol every 4 hours only if the patient still has high fever >39°C. **Do not give the patient Aspirin or Brufen or similar medicine.**
- If patient has any of the warning signs he/she should go to the hospital as soon as possible.

**Warning signs (WS):**

Following are the warning signs of the Dengue Hemorrhagic fever and require immediate referral to the hospital.

- Persistent vomiting, not drinking
- Severe abdominal pain, lethargy and restlessness
- Hematemesis, bleeding from gums and nose, excessive menstrual bleeding
- Hemoglobinuria, giddiness, pale, cold clammy hands and feet
- No/less urine for 4-6 hours

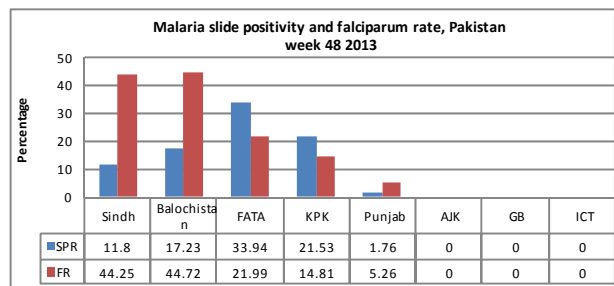
**Prevention:**

- The best way to reduce mosquitoes is to eliminate the places where the mosquito lays eggs, like water storage containers in and around the home, animal watering containers, flower planter dishes. Keep these containers empty or cover water storage barrels properly. Look for standing water indoors such as in vases with fresh flowers and clean at least once a week.
- The adult mosquitoes like to bite inside as well as around homes, during the day and at night when the lights are on. To protect yourself, wear long sleeves and pants, and use repellent on your skin while indoors or out.
- Use Mosquito coils, electric vapor mats during the day time. Curtains can also be treated with insecticides.
- Also, make sure window and door screens are secure and without holes. If available, use air-conditioning.
- If someone in your house is ill with dengue, take extra precautions to prevent mosquitoes from biting the patient and going on to bite others household members. Keep the dengue patient under the bed net.

**Malaria:**

The chart at below shows the Malaria slide positivity and Falciparum ratio in week 48 2013. Total number of Malaria cases tested in this week is 7773, out of which 1141 were found positive; 761 for P. Vivax; 217 for P. Falciparum; while 163 for Mixed (SPR = 14.68%; F.R = 33.30%).

Malaria tests \ Province	Sindh	Balochistan	FATA	KPK	Punjab	AJK	GB	ICT
P. Vivax	252	110	220	161	18	0	0	0
P. Falciparum	64	78	53	21	1	0	0	0
Mixed	136	11	9	7	0	0	0	0
# tested	3831	1155	831	878	1078	0	0	0
SPR	11.8	17.23	33.94	21.53	1.76	0	0	0
FR	44.25	44.72	21.99	14.81	5.26	0	0	0



Alerts and outbreaks, week 48, 2013

