



### Highlights

Figure-1: 74 districts reported to DEWS in week 52, 2013

#### Epidemiological week no. 52 (22 to 28 Dec 2013)

- **Dengue fever:** During this week, 90 Dengue fever cases have been reported, out of them 80 from province Sindh and 10 from province Punjab. The outbreaks are being responded jointly.
- In this week, **74** districts and 2,242 health facilities have reported to Disease Early Warning System (DEWS), compared to 78 districts with 2,278 health facilities shared weekly data in week 51, 2013 to the DEWS.
- Total **722,830** patients consultations reported this week 52, 2013 compared with **820,695** consultations in week 51, 2013.
- **30** alerts investigated and **2** outbreaks identified and timely responded. Altogether 7 alerts were for Leishmaniasis; 6 for Measles; 5 for NNT; 4 each for Typhoid and ARI; 2 for Diphtheria; while 1 each for Bloody diarrhoea and Scabies.



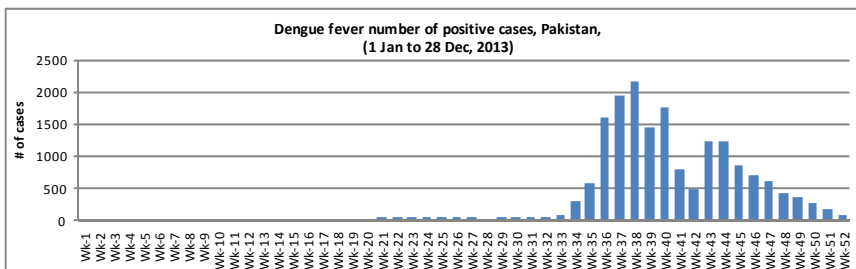
#### Priority diseases under surveillance in DEWS

- 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 52, 2013 (29 Dec 2012 to 28 December 2013)

Disease	# of Cases	Percentage
ARI	8,358,030	20%
Bloody diarrhoea	99,171	<0.5%
Acute diarrhoea	3,040,051	7%
S. Malaria	1,761,152	4%
Skin Diseases	1,564,750	4%
Unexplained fever	1,272,976	3%
<b>Total (All consultations)</b>	<b>41,684,837</b>	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 28 Dec 2013

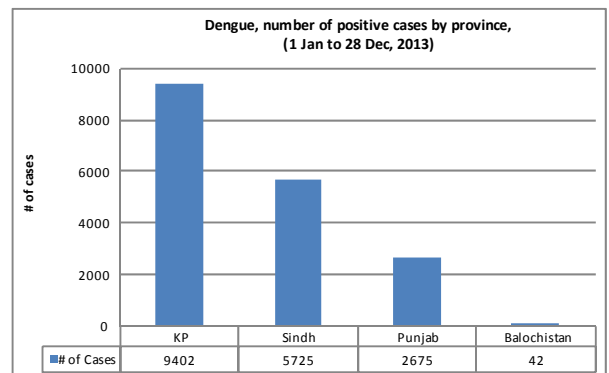


#### Major health events reported during the Epi-week - 52 (22 - 28 Dec 2013)

Disease	# of Cases	Percentage
ARI	161,569	22%
Bloody diarrhoea	993	<0.5%
Acute diarrhoea	34,089	5%
S. Malaria	16,995	2%
Skin Diseases	21,159	3%
Unexplained fever	20,106	3%
<b>Total (All consultations)</b>	<b>722,830</b>	

From 1st January to 21st December 2013, Khyber Pakhtunkhwa reported 9,402; Sindh 5,725, Punjab 2,675, and Balochistan 42 confirmed Dengue fever cases.

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.



## Outbreaks (Wk-52/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
28-Dec	Leishmaniasis	Balochistan	Quetta	Hazar Ganji, BHU Hazar Ganji	0	11	0	7	Alert for 18 cutaneous Leishmaniasis cases were reported from BHU Hazar Gunji. The cases were belongs to different locations. Injection Glucantime provided to health facility to treat all the registered cases. Information shared with DoH.
28-Dec	Leishmaniasis	Balochistan	Quetta	Village Marriabad, BHU Marriabad	0	12	0	8	Alert for 20 cutaneous Leishmaniasis cases were reported from BHU Marriabad. Injection Glucantime provided to health facility to treat all the registered cases. Information shared with DoH.
23-Dec	DF	Punjab	Lahore	Nishter Town UC 135	0	6	0	1	1 confirmed and 6 suspected cases of Dengue fever notified from Teaching Hospitals in Lahore. 1 blood sample taken and sent to laboratory testing and result found IgM positive. PCR request sent for Two cases serotyping and genotyping, results awaited. The confirmed case admitted and kept in isolation ward (HDU) of Teaching hospital. Health education session was given to the community on proper solid waste disposal and improved water storage practices, protective clothing and repellents. Follow-up planned. Information shared with ADG(VBD) and EDO-H Lahore.
24-Dec	DF	Punjab	Lahore	Nishter Town UC 136	0	3	0	1	1 confirmed and 3 suspected cases of Dengue fever notified from Teaching hospitals in Lahore. 1 blood sample taken and sent to lab for detection of dengue specific antibodies, result found for IgM positive. PCR request was sent for 2 cases to IPH for serotyping and genotyping result is awaited. The confirmed case was admitted and kept in isolation ward (HDU) of Teaching hospital. Health education session given to the community on proper solid waste disposal and improved water storage practices, protective clothing and repellents Community - based environmental management for improved water storage practices to remove mosquito breeding sites. Information shared with ADG(VBD) and EDO-H Lahore.
25-Dec	DF	Punjab	Lahore	Cantonment C1,C2, W1	0	5	0	2	2 confirmed and 5 suspected cases of Dengue fever notified from Teaching Hospital in Lahore. 2 blood samples were taken and sent to lab for detection of dengue specific antibodies, result for IgM positive for both the cases. PCR request was sent for 3 cases to IPH for serotyping and genotyping, results awaited. The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. There is no travel history of patient found. Vector surveillance was carried out at confirmed case Location, Larva was found inside few house near the address of confirmed cases. Health education session given to the community on proper solid waste disposal and improved water storage practices, protective clothing and use of repellents, Community-based environmental management for improved water storage practices to remove mosquito breeding sites. Follow-up planned. Information shared with ADG (VBD) and EDO-H Lahore.

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

Disease	2012		Current week 52, 2013		2013	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	0	0	142	40
Acute jaundice syndrome	113	22	0	0	49	6
Bloody diarrhoea	146	11	1	0	45	3
CCHF	68	41	0	0	90	47
Dengue fever	175	29	0	0	300	66
Diphtheria	60	16	2	0	84	19
Measles	5922	812	6	0	3353	281
Pertussis	366	147	0	0	46	10
NNT + tetanus	560	0	5	0	349	0
Malaria	136	68	0	0	25	6
Cutaneous Leishmaniasis	900	78	7	2	620	51
Others	1529	58	9	0	518	5
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>30</b>	<b>2</b>	<b>5621</b>	<b>534</b>

Figure-3: Number of alerts received and responded, week 49 - 52, 2013

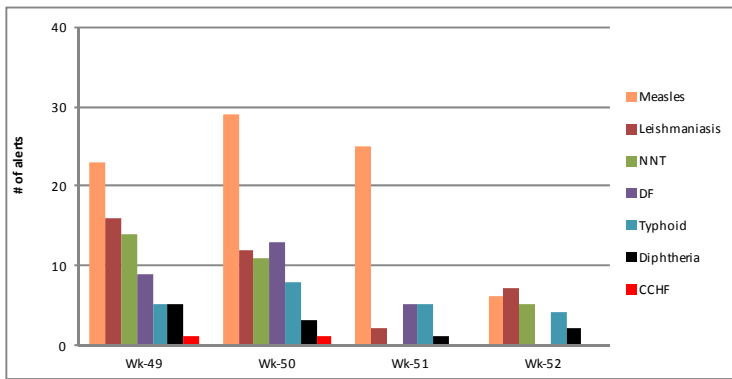
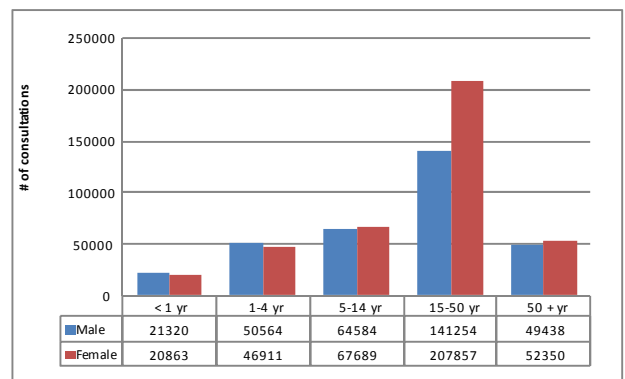
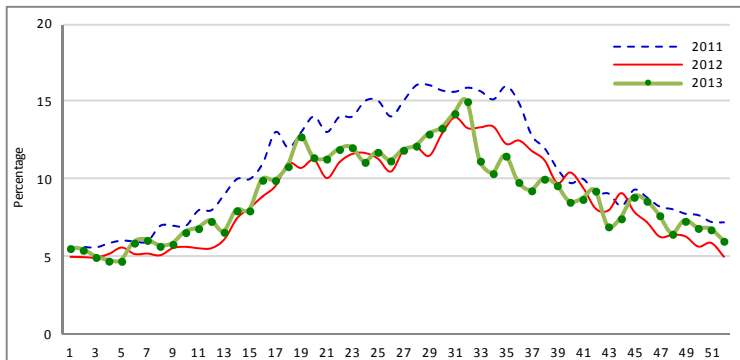


Figure-4: Number of consultations by age and gender, week 52, 2013



**Province Khyber Pakhtunkhwa:**

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

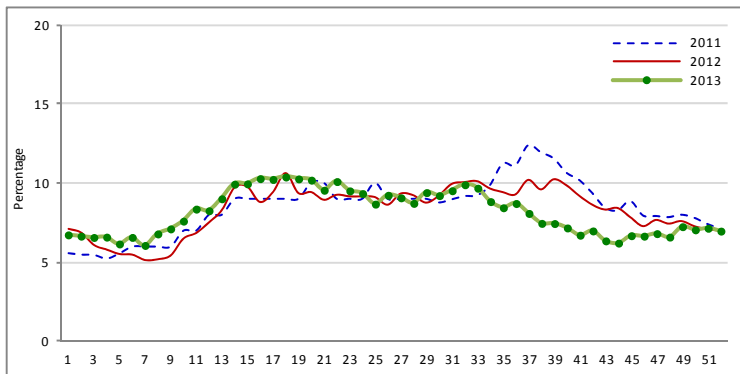


254 health facilities from 12 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 75,299 patients consultations reported in week 52, 2013.

The weekly trend of Acute diarrhoea is showing decrease as compared with last week in KP, but 5 AWD confirmed cases were reported from KP in last eight weeks, and the situation needs continuous attention in the province.

**Province Sindh:**

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



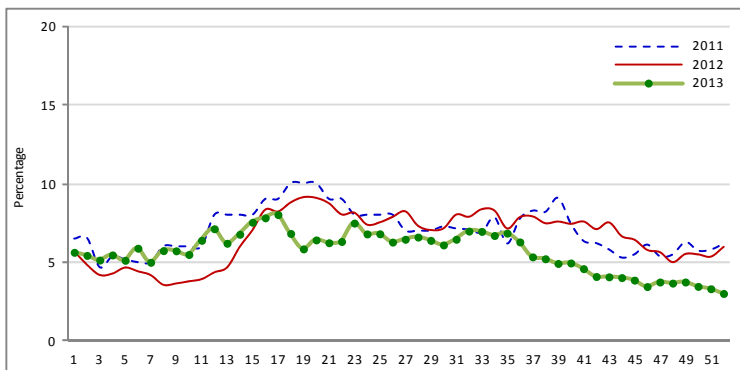
765 health facilities from 22 districts in Sindh province reported to DEWS with a total of 171,159 patient consultations in week 52, 2013.

A total of 5 alerts for NNT were received and appropriate measures were taken.

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

**Province Punjab:**

Figure-7: Trend of Acute diarrhoea, province Punjab



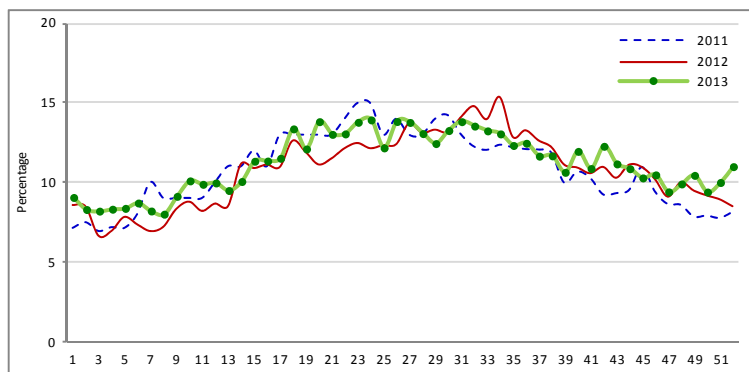
913 health facilities from 18 districts in province Punjab reported to DEWS with a total of 426,786 patients consultations in week 52, 2013.

Total 11 alerts were received and appropriate measures were taken. Altogether 4 alerts were for ARI; 3 for Typhoid fever; while 2 each for Diphtheria and Measles were responded in province Punjab.

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

**Province Balochistan:**

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



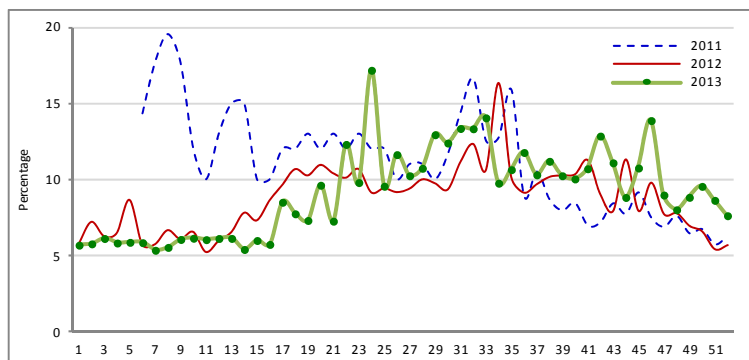
224 health facilities from 12 districts in province Balochistan reported to DEWS with a total of 31,020 patients consultations in week 52, 2013.

9 alerts were reported and appropriated measures were taken. Altogether 3 alerts each were for Leishmaniasis and Measles; while 1 each for Bloody diarrhoea, Typhoid fever and Scabies.

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

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA

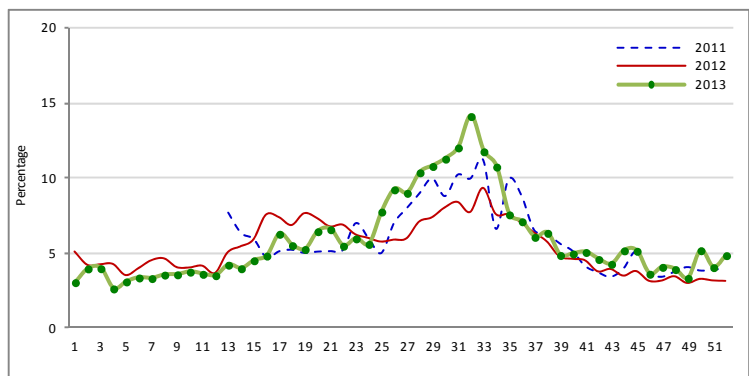


40 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,626 patients consultations in week 52, 2013.

A total of 5 alerts, 4 were for Leishmaniasis; while 1 for Measles were reported in week 52, 2013. 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



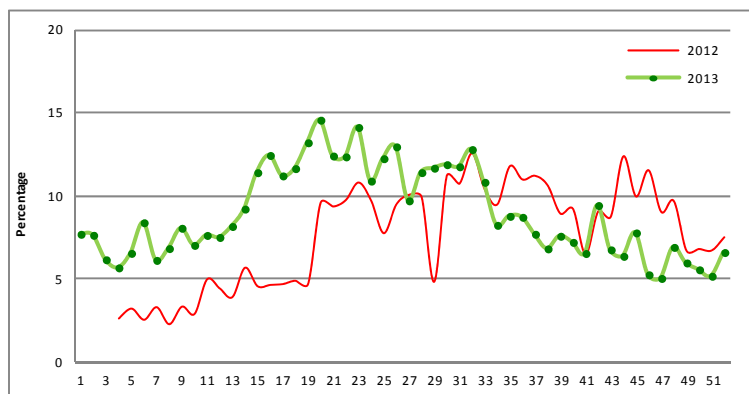
35 health facilities from 5 districts in AJ&K reported to DEWS with a total of 3,993 patients consultations in week 52, 2013.

No alerts for any disease were reported from any area in AJ&K in week 52, 2013.

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

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



10 health facilities reported to DEWS on time with a total of 2,804 patients consultations in week 52, 2013.

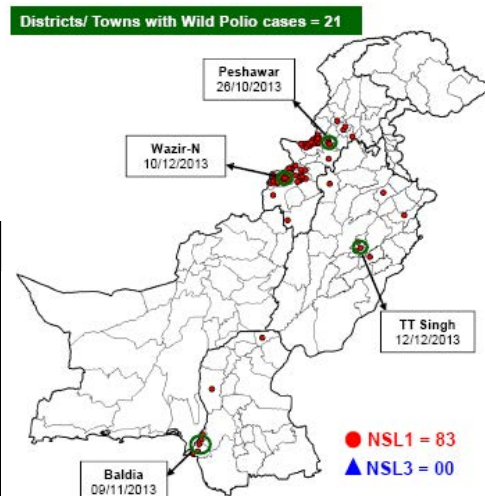
No alert for any disease was reported in week 52, 2013.

Weekly trend of Acute diarrhoea showing increase 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 52, 2013, six new type-1 wild polio cases have been reported in the country, five from Federally Administered Tribal Areas (North & South Waziristan agencies) and one from Punjab (Toba Tek Singh district). This brings the total number of polio cases this year to 83 as compared to 58 last year, the number of infected districts/towns/tribal agencies/ FR areas in the country are 21 as compared to 28 last year.

It is important to mention that 83% of total polio cases (69 cases) are from Khyber Pakhtunkhwa (10 cases) and FATA (59 cases). North Waziristan Agency in FATA, alone has reported 31/59 (53%) Wild Polio cases indicating very intense viral circulation in the tribal agency.



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	7	-	-
Sindh	4	-	-	7	-	-
Khyber Pakhtunkhwa	27	-	-	10	-	-
FATA	17	2	1	59	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>55</b>	<b>2</b>	<b>1</b>	<b>83</b>	<b>-</b>	<b>-</b>

**Follow up of CCHF**

In week 52, 2013, no new CCHF cases reported from any district. So for total of 100 suspected, 64 confirmed CCHF cases and 20 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	18	9	5
Sindh		7	7	3	2	2	1
<b>Total</b>		<b>62</b>	<b>41</b>	<b>18</b>	<b>100</b>	<b>64</b>	<b>20</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

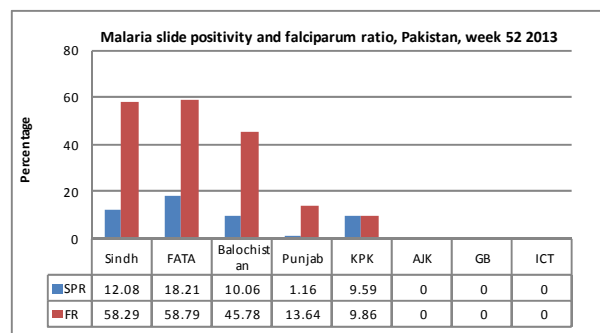
**Prevention:**

- 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 52, 2013. Total number of Malaria cases tested in this week is 6,023 out of which 540 were found positive; 279 for P. Vivax; 165 for P. Falciparum; while 96 for Mixed (SPR = 8.97%; F.R = 48.33%).

Malaria tests \ Province	Sindh	Punjab	Balochistan	KPK	FATA	AJK	GB	ICT
P. Vivax	83	19	45	64	68	0	0	0
P. Falciparum	28	2	33	5	97	0	0	0
Mixed	88	1	5	2	0	0	0	0
# tested	1648	1904	825	740	906	0	0	0
SPR	12.08	1.16	10.06	9.59	18.21	0	0	0
FR	58.29	13.64	45.78	9.86	58.79	0	0	0



Alerts and outbreaks, week 52, 2013

