



Highlights

Figure-1: 77 districts reported to DEWS in week 2, 2014

Epidemiological week no. 2 (5 to 11 Jan 2014)

- **Dengue fever:** During this week, 28 Dengue fever cases have been reported from province Sindh. The outbreaks are being responded jointly.
- In this week, **77** districts and 2,287 health facilities have reported to Disease Early Warning System (DEWS), compared to 74 districts with 2,291 health facilities shared weekly data in week 1, 2014 to the DEWS.
- Total **772,014** patients consultations reported this week 2, 2014 compared with **743,342** consultations in week 1, 2014.
- In this week, a total of 72 alerts identified and timely responded. Altogether 35 alerts were for Measles; 13 for Leishmaniasis; 12 for NNT; 6 for Typhoid; 2 for Bloody diarrhoea; while 1 each for Acute watery diarrhoea, Acute diarrhoea, CCHF and Pertussis.



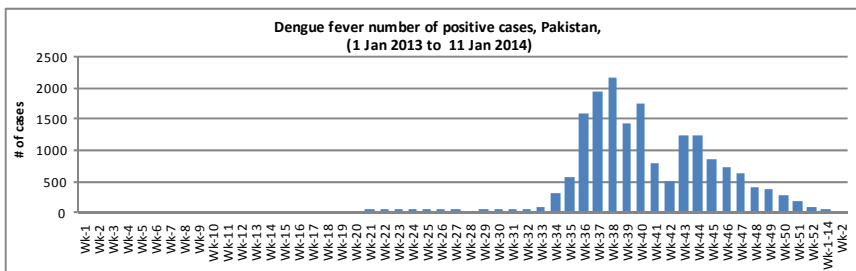
Priority diseases under surveillance in DEWS

- 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 2, 2014 (29 Dec 2013 to 11 Jan 2014)

Disease	# of Cases	Percentage
ARI	360,216	23.77%
Bloody diarrhoea	1,486	<0.5%
Acute diarrhoea	69,966	4.62%
S. Malaria	39,391	2.60%
Skin Diseases	50,251	3.32%
Unexplained fever	42,607	2.81%
Total (All consultations)	1,515,338	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan 2013 to 11 Jan 2014

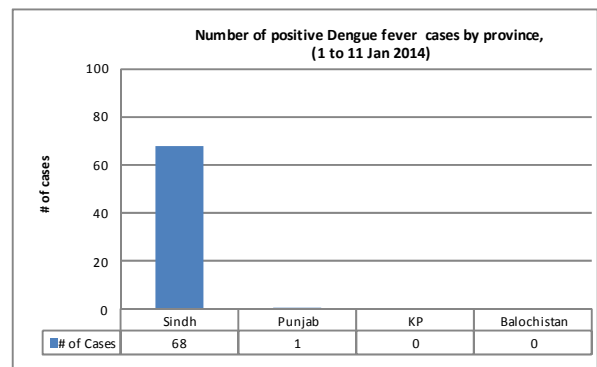


Major health events reported during the Epi-week - 2 (5 to 11 Jan 2014)

Disease	# of Cases	Percentage
ARI	184,164	23.86%
Bloody diarrhoea	746	<0.5%
Acute diarrhoea	35,243	4.57%
S. Malaria	20,809	2.70%
Skin Diseases	25,747	3.34%
Unexplained fever	21,334	2.76%
Total (All consultations)	772,014	

From 1st to 11 January 2014, a total of 69 lab confirmed Dengue fever cases were reported, out of them 68 positive cases from Sindh province; while 1 positive case was reported from province Punjab.

In year 2013 Dengue fever cases are reported from the less endemic areas. 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.



Continuous Outbreaks (Wk-2/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
7-Jan	Leishmaniasis	Balochistan	Lasbela	(RHC) winder, Tehsil Winder	0	5	0	1	6 suspected cases of Leishmaniasis reported. All the suspected cases were obtaining treatment from nearby health facility. Information shared with DHO.
7-Jan	Measles	Khyber Pakhtunkhwa	Battagram	Ajmera	1	0	1	1	Alert for 3 suspected Measles cases were reported from DHQ Battagram; all the cases belongs to Ajmera. Vitamin-A drops were given to all the suspected cases. The EPI team was requested to start outreach vaccination activity in the area. Information shared with DHO.
10-Jan	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village and UC Kohi Bermol, Tehsil Katlang, Mardan	1	2	3	3	An alert for 9 Cutaneous Leishmaniasis cases were reported from UC Kohi Bermol, district Mardan. Required doses of Injection Glucantime were placed in nearby health facility for all registered cases. FPHC Mardan, Relief Intl. and PPHI were informed and requested for vector control interventions in the area and surrounding. On job training of health staff was conducted for Intrale-sional administration of Inj Glucantime. Information shared with EDO Health and focal person RBM and requested for taking vector control measures in the area.

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

Disease	2013		Current week 2, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	1	0	1	0
Acute jaundice syndrome	49	6	0	0	0	0
Bloody diarrhoea	45	3	2	0	2	0
CCHF	90	47	1	0	1	0
Dengue fever	300	66	0	0	1	0
Diphtheria	84	19	0	0	2	0
Measles	3357	281	35	0	52	0
Pertussis	46	10	1	0	1	0
NNT + tetanus	349	0	12	0	20	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	13	0	22	0
Others	520	5	7	0	14	0
Total	5628	534	72	0	116	0

Figure-3: Number of alerts received and responded, week 51 2013 to 2 2014

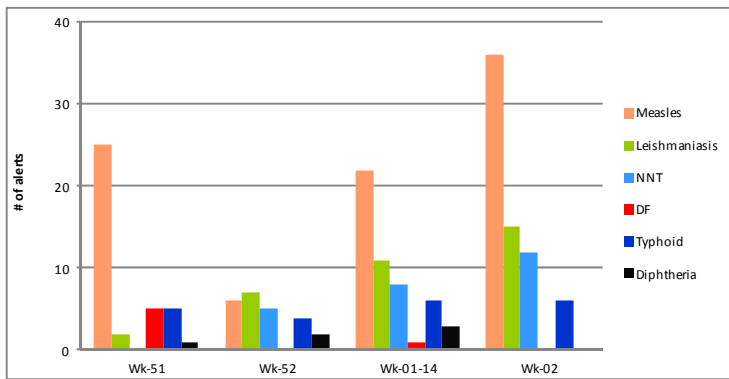
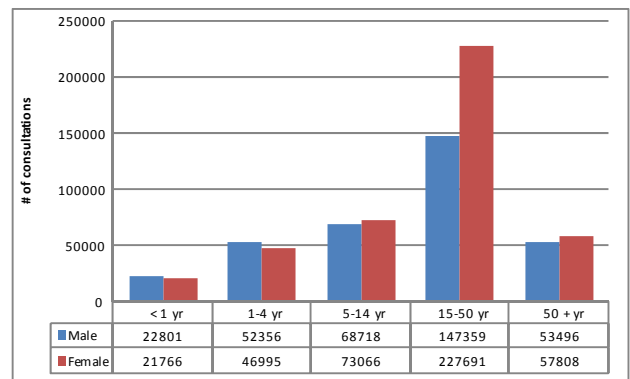
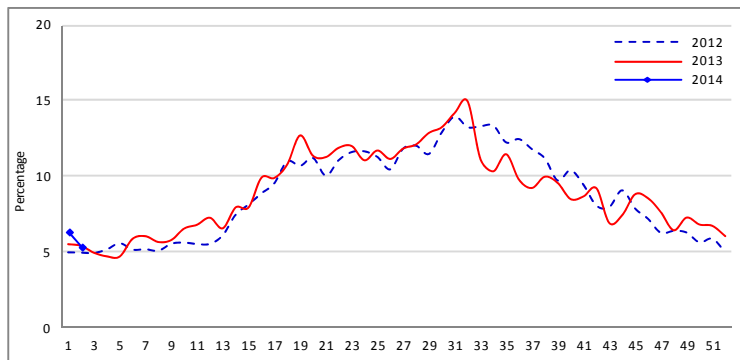


Figure-4: Number of consultations by age and gender, week 2, 2014



Province Khyber Pakhtunkhwa:

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



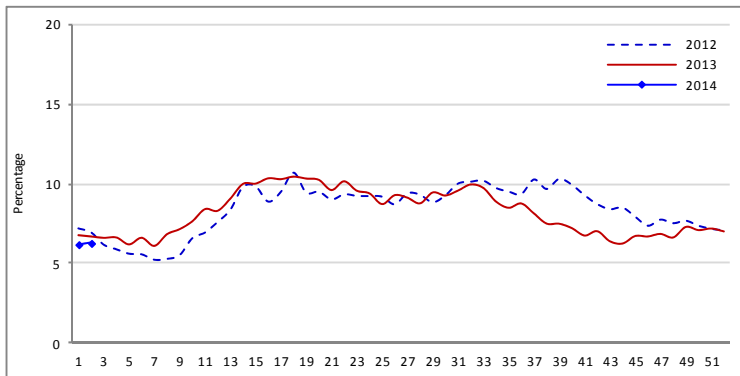
176 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 48,778 patients consultations reported in week 2, 2014.

A total 30 alerts were reported and appropriate measures were taken. Altogether 29 alerts were for Measles; while 1 for Leishmaniasis.

The weekly trend of Acute diarrhoea is showing decrease as compared with last week in KP, but the situation needs continuous attention in the province.

Province Sindh:

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



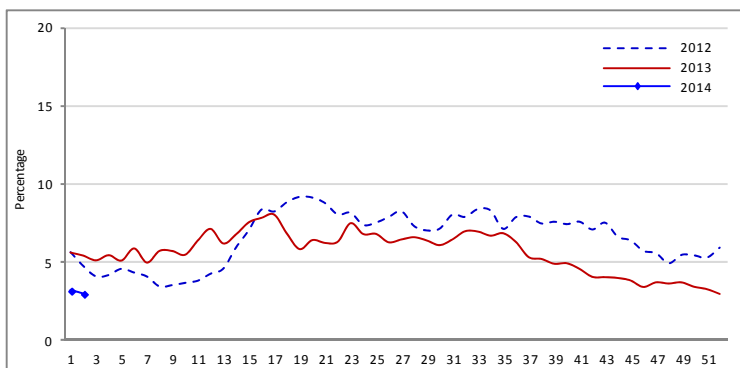
782 health facilities from 23 districts in Sindh province reported to DEWS with a total of 228,642 patient consultations in week 2, 2014.

A total of 16 alerts were received and appropriate measures were taken. Altogether 10 alerts were for NNT; 3 for Leishmaniasis; while 1 each for Acute watery diarrhoea, CCHF and Measles.

The proportion of AD for the province is showing minor increase as compared with last week, Although it is low from the same time period last year but still the situation needs continuous attention in the province.

Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



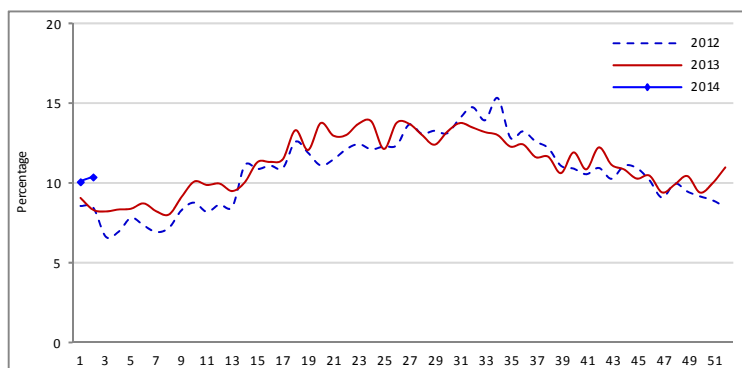
945 health facilities from 18 districts in province Punjab reported to DEWS with a total of 429,236 patients consultations in week 2, 2014.

Total 9 alerts were received and appropriate measures were taken. Altogether 5 alerts were for Typhoid; while 1 each for Leishmaniasis, NNT, Bloody diarrhoea and Acute diarrhoea were responded in province Punjab.

The weekly trend of AD in Punjab showing decrease as compared with last week.

Province Balochistan:

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



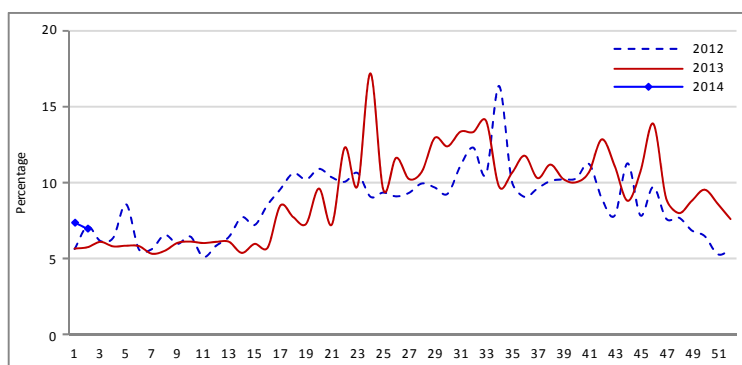
265 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 38,715 patients consultations in week 2, 2014.

12 alerts were reported and appropriate measures were taken. Altogether 6 alerts were for Leishmaniasis; 3 for Measles; while 1 each for Bloody diarrhoea, Pertussis and Typhoid.

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

FATA:

Figure-9: Weekly trend of Acute diarrhoea, FATA

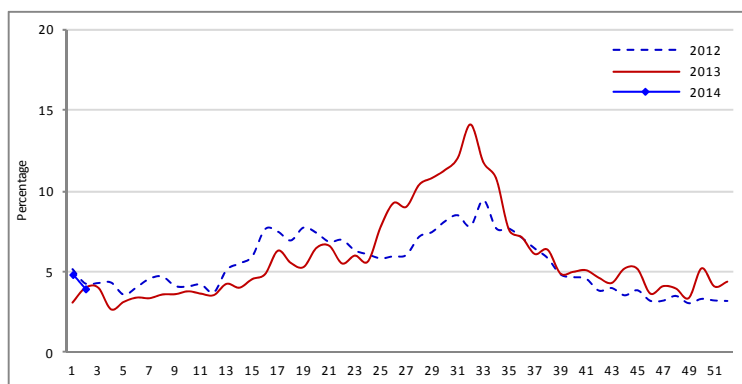


37 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,678 patients consultations in week 2, 2014.

A total of 5 alerts, 3 were for Leishmaniasis; while 1 each for NNT and Measles were reported in week 2, 2014. The proportion of Acute diarrhoea showing decrease as compared with last week but high from the same time period last year in FATA and required vigilant monitoring of the situation.

State of Azad Jammu and Kashmir:

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



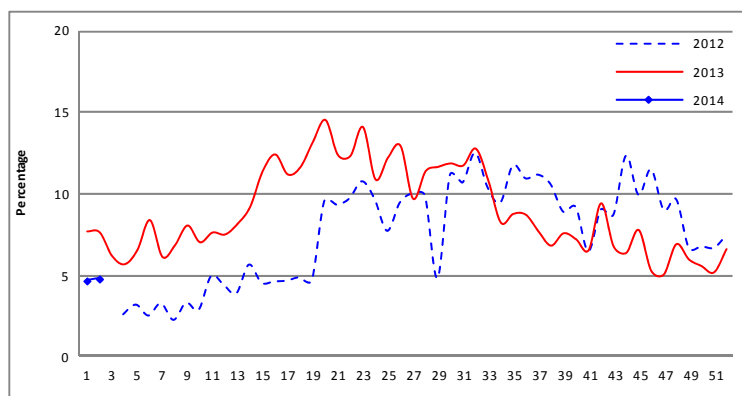
72 health facilities from 8 districts in AJ&K reported to DEWS with a total of 11,023 patients consultations in week 2, 2013.

3 alerts, 2 for Measles; while 1 for Leishmaniasis were reported from AJ&K in week 2, 2014, and appropriate measures were taken.

Weekly trend of Acute diarrhoea showing decrease as compared with last week, but 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 3,942 patients consultations in week 2, 2014.

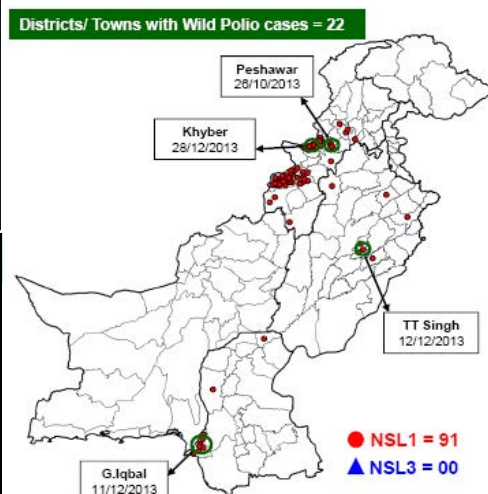
No alert for any disease was reported in week 1, 2014.

Weekly trend of Acute diarrhoea showing minor 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 2 (5 to 11 Jan 2014), six new type-1 wild polio cases were reported, five from Federally Administered Tribal Areas (four from North Waziristan agency, one from Khyber agency) and one from Sindh (Baldia Town Karachi). This brings the total number of polio cases in 2013 to 91 (as compared to 58 in 2012) from 22 districts/towns/tribal agencies/ FR areas (as compared to 28 in 2012).

More than 80% of total polio cases are from Khyber Pakhtunkhwa (10 cases) and FATA (65 cases). It is of note that type-1 wild poliovirus is persistently circulating in Punjab province (after being introduced from central Khyber Pakhtunkhwa) for nearly three months indicating substantial immunity gap.



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	7	-	-
Sindh	4	-	-	9	-	-
Khyber Pakhtunkhwa	27	-	-	10	-	-
FATA	17	2	1	65	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	91	-	-

Follow up of CCHF

In week 2, 2014, no new CCHF cases reported from any district. A total of 100 suspected, 64 confirmed CCHF cases and 20 deaths have been reported country wide in year 2013.

In year 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).

Number of CCHF cases and deaths reported in year 2012 and 2013.							
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
Total		62	41	18	100	64	20

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

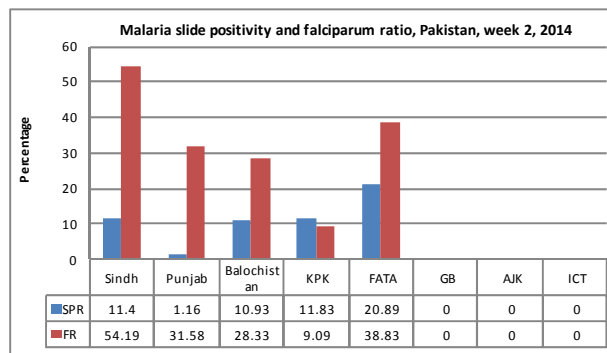
Prevention:

- 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 2, 2014. Total number of Malaria cases tested in this week is 5,374 out of which 489 were found positive; 295 for P. Vivax; 87 for P. Falciparum; while 107 for Mixed (SPR = 9.10%; F.R = 39.67%).

Malaria tests \ Province	Sindh	Punjab	Balochistan	KPK	FATA	AJK	GB	ICT
P. Vivax	93	13	86	40	63	0	0	0
P. Falciparum	17	2	28	4	36	0	0	0
Mixed	93	4	6	0	4	0	0	0
# tested	1780	1631	1098	372	493	0	0	0
SPR	11.4	1.16	10.93	11.83	20.89	0	0	0
FR	54.19	31.58	28.33	9.09	38.83	0	0	0



Alerts and outbreaks, week 2, 2014

