



Weekly Epidemiological Bulletin

Disease early warning system and response in Pakistan

Volume 5, Issue 3, Wednesday 22 January 2014

Highlights

Figure-1: 76 districts reported to DEWS in week 3, 2014

Epidemiological week no. 3 (12 to 18 Jan 2014)

- Dengue fever:** During this week, 16 Dengue fever lab confirmed cases have been reported from province Sindh. The outbreaks are being responded jointly.
- In this week, **76** districts and 2,340 health facilities have reported to Disease Early Warning System (DEWS), compared to 77 districts with 2,287 health facilities shared weekly data in week 2, 2014 to the DEWS.
- Total **761,666** patients consultations reported this week 2, 2014 compared with **772,014** consultations in week 2, 2014.
- In this week, a total of 75 alerts identified and timely responded. Altogether 33 alerts were for Measles; 15 for Leishmaniasis; 13 for Typhoid; 8 for NNT; 4 for Diphtheria; while 1 each for AWD and Bloody diarrhoea.



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

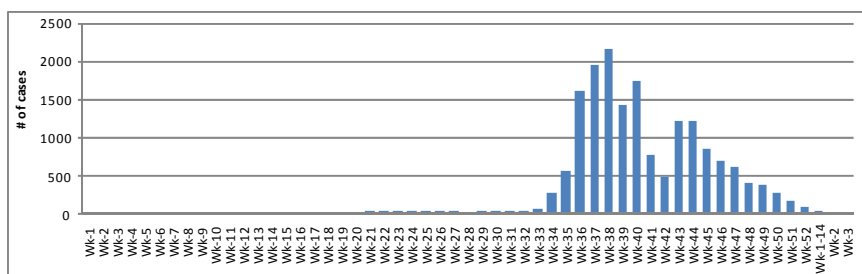
Cumulative number of selected health events reported in Epi-week 1 to 3, 2014 (29 Dec 2013 to 18 Jan 2014)

Disease	# of Cases	Percentage
ARI	531,655	23.28%
Bloody diarrhoea	2,281	<0.5%
Acute diarrhoea	103,320	4.52%
S. Malaria	58,686	2.57%
Skin Diseases	72,589	3.18%
Unexplained fever	63,268	2.77%
Total (All consultations)	2,283,899	

Major health events reported during the Epi-week - 3 (12 to 18 Jan 2014)

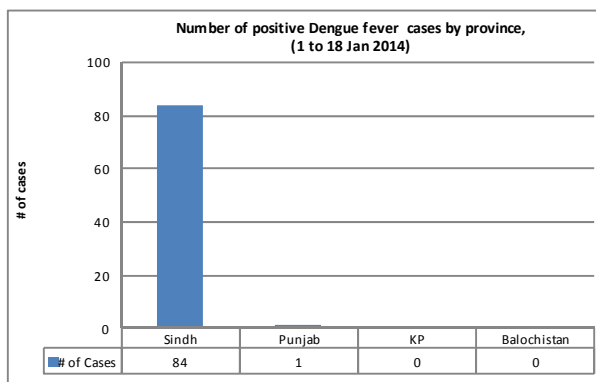
Disease	# of Cases	Percentage
ARI	169,083	22.20%
Bloody diarrhoea	779	<0.5%
Acute diarrhoea	33,038	4.34%
S. Malaria	19,232	2.52%
Skin Diseases	22,208	2.92%
Unexplained fever	20,608	2.71%
Total (All consultations)	761,666	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan 2013 to 18 Jan 2014



From 1st to 18 January 2014, a total of 85 lab confirmed Dengue fever cases were reported, out of them 84 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-3/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
15-Jan	Leishmaniasis	Balochistan	Lasbela	(RHC) winder, Tehsil Winder	1	0	1	2	Alert of 4 cases of Cutaneous Leishmaniasis were reported from RHC Winder. The cases found with lesions mostly on feet and arms. All the cases are obtaining regular treatment at RHC. Information shared with DoH.
15-Jan	Measles	Khyber Pakhtunkhwa	Battagram	Ajmera	0	0	2	0	Alert for 2 suspected Measles cases were reported from DHQ hospital Battagram. All the cases belongs to Ajmera. Vitamin-A drops were given to all the suspected cases. Information shared with the EPI team and requested to conduct outreach activities in the area. Information shared with DoH.
17-Jan	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village and UC Kohi Bermol, Tehsil Katlang, Mardan	0	1	1	1	Alert of Cutaneous Leishmaniasis were reported from UC Kohi Bermol. During active surveillance 2 more clinical cases were identified in the area. Required doses of Inj-Glucantime were placed in nearby health facility for all the registered cases. FPHC Mardan, Relief Intl, PPHI were requested for vector control interventions in the areas and surrounding. On the job training of health staff was conducted for Intralesional administration of Inj-Glucantime. RBM focal person was informed and requested for taking vector control measures in the areas. All the information shared with EDO-Health and focal person EPI.

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

Disease	2013		Current week 3, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	1	0	2	0
Acute jaundice syndrome	49	6	0	0	1	0
Bloody diarrhoea	45	3	1	0	3	0
CCHF	90	47	0	0	1	0
Dengue fever	300	66	0	0	1	0
Diphtheria	84	19	4	0	6	0
Measles	3357	281	26	0	78	0
Pertussis	46	10	0	0	1	0
NNT + tetanus	349	0	8	0	28	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	13	0	35	0
Others	520	5	7	0	21	0
Total	5628	534	60	0	177	0

Figure-3: Number of alerts received and responded, week 1 to 3 2014

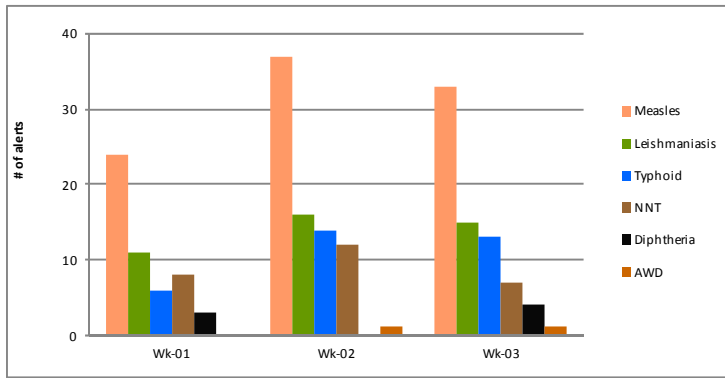
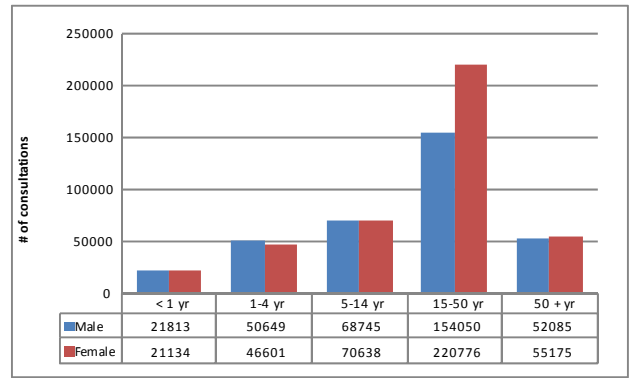
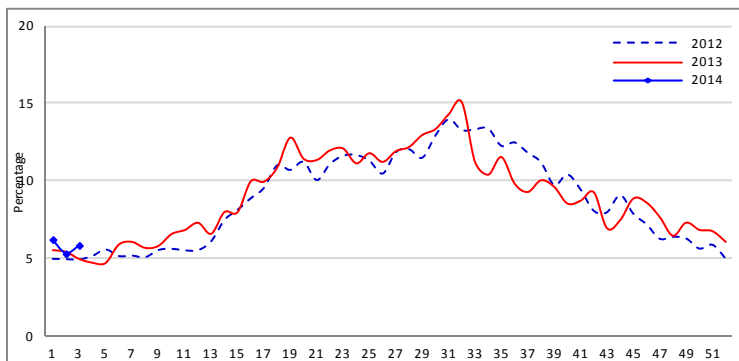


Figure-4: Number of consultations by age and gender, week 3, 2014



Province Khyber Pakhtunkhwa:

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



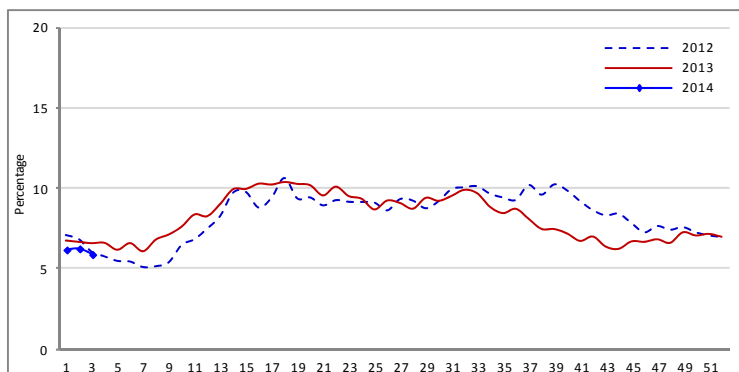
164 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 44,461 patients consultations reported in week 3, 2014.

A total of 26 alerts were reported and appropriate measures were taken. Altogether 25 alerts were for Measles; while 1 for Leishmaniasis.

The weekly trend of Acute diarrhoea is showing increase 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



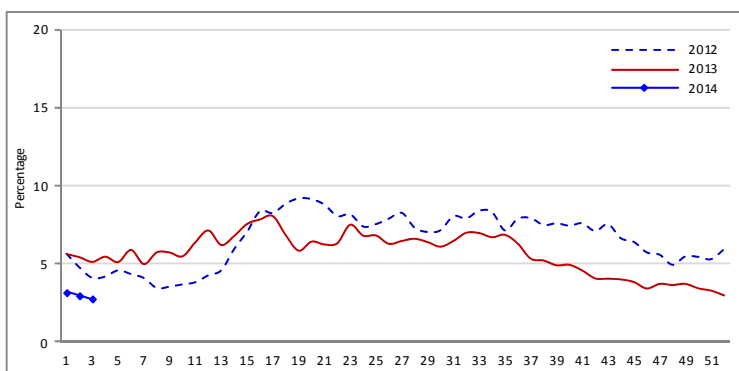
831 health facilities from 23 districts in Sindh province reported to DEWS with a total of 214,341 patient consultations in week 3, 2014.

A total of 15 alerts were received and appropriate measures were taken. Altogether 6 alerts were for NNT; 5 for Leishmaniasis; while 4 for Measles.

The proportion of AD for the province is showing minor decrease 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



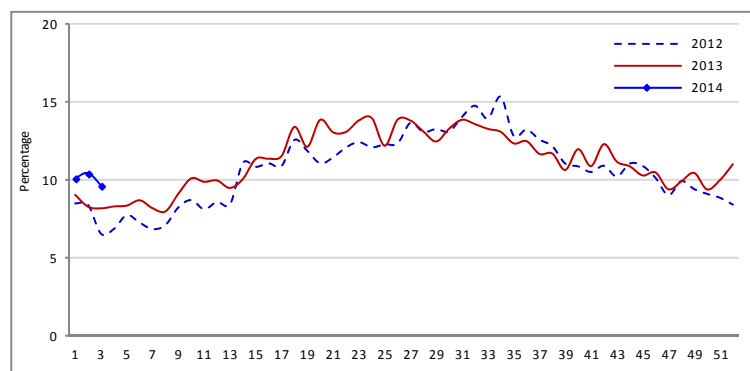
944 health facilities from 17 districts in province Punjab reported to DEWS with a total of 430,873 patients consultations in week 3, 2014.

Total 22 alerts were received and appropriate measures were taken. Altogether 13 alerts were for Typhoid; 4 for Diphtheria; 2 for Leishmaniasis; while 1 each for Bloody diarrhoea, Acute watery diarrhoea, and NNT 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



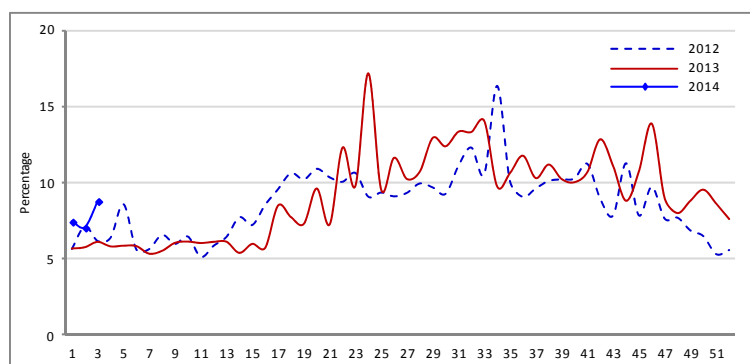
284 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 43,646 patients consultations in week 3, 2014.

10 alerts were reported and appropriate measures were taken. Altogether 6 alerts were for Leishmaniasis; 3 for Measles; while 1 for Tetanus.

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

FATA:

Figure-9: Weekly trend of Acute diarrhoea, FATA

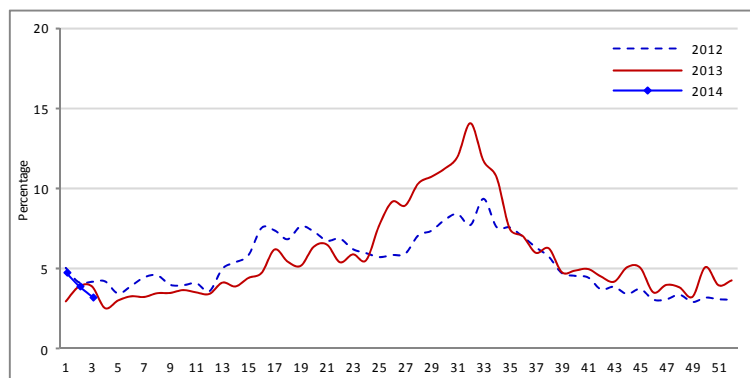


36 health facilities from 3 agencies in FATA reported to DEWS with a total of 12,440 patients consultations in week 3, 2014.

A total of 2 alerts, 1 each for Leishmaniasis and Measles were reported in week 3, 2014. The proportion of Acute diarrhoea showing increase as compared with last week and 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



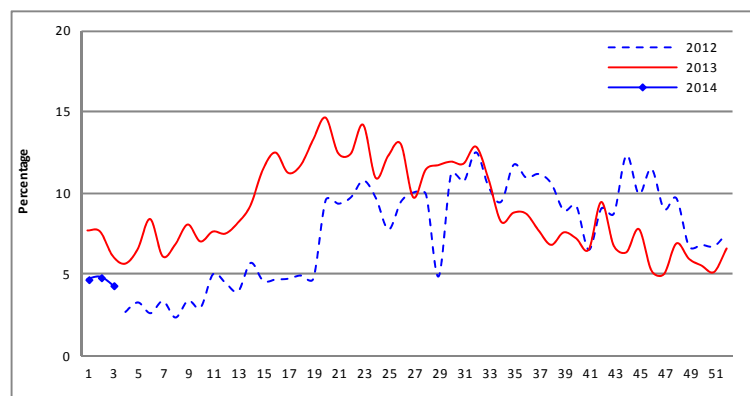
78 health facilities from 8 districts in AJ&K reported to DEWS with a total of 15,486 patients consultations in week 3, 2013.

No alerts for any disease from any area in AJ&K were reported in week 3, 2014.

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



3 health facilities reported to DEWS on time with a total of 419 patients consultations in week 3, 2014.

No alert for any disease was reported in week 3, 2014.

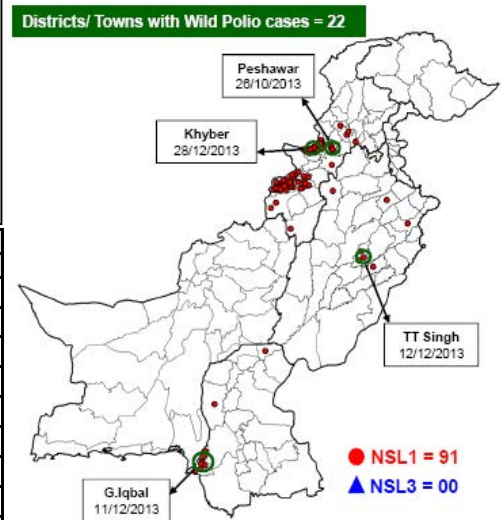
Weekly trend of Acute diarrhoea showing minor decrease as compared with last week, and vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2012 and 2013

In this week 3 (5 to 11 Jan 2014), no new polio case was reported. The total number of polio cases in 2013 remains 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 3, 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).

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

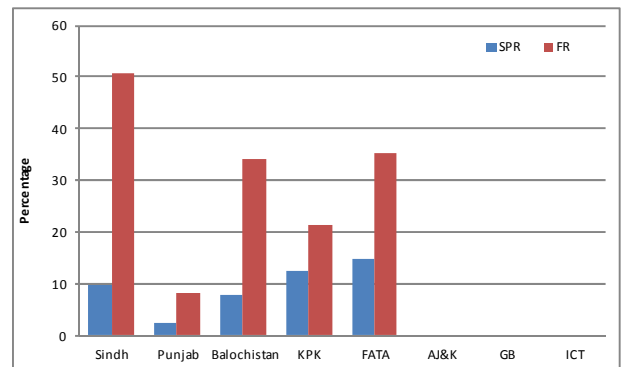
Prevention:

- 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 3, 2014. Total number of Malaria cases tested in this week is 5,576 out of which 458 were found positive; 289 for P. Vivax; 82 for P. Falciparum; while 87 for Mixed (SPR = 8.21%; F.R = 36.90%).

Malaria tests \ Province	Sindh	Punjab	Balochistan	KPK	FATA	AJK	GB	ICT
P. Vivax	83	34	64	44	64	0	0	0
P. Falciparum	15	2	31	8	26	0	0	0
Mixed	71	1	2	4	9	0	0	0
# tested	1732	1488	1244	442	670	0	0	0
SPR	9.76	2.49	7.8	12.67	14.78	0	0	0
FR	50.89	8.11	34.02	21.43	35.35	0	0	0



Alerts and outbreaks, week 3, 2014

