Highlights

Epidemiological week no. 47 (17 to 23 Nov 2013)

- **Dengue fever:** During this week, 625 Dengue fever cases have been reported. The highest number of DF cases 315 reported from Sindh. The outbreaks are being responded jointly.

- **CCHF:** No new confirmed CCHF case was reported in week 47, 2013. (Page 5).

- In this week, **72** districts and 2,096 health facilities have reported to Disease Early Warning system (DEWS), compared to 72 districts with 2,040 health facilities shared weekly data in week 46, 2013 to the DEWS.

- Total **760,009** patients consultations reported this week compared to **614,623** consultations in week 46, 2013.

- **82** alerts investigated and **4** outbreaks identified and timely responded. Altogether 29 alerts were for Measles; 14 for NNT; 11 each for Leishmaniasis and Dengue fever; 7 for Typhoid fever; 3 each for ARI and Diphtheria; 2 for CCHF; while 1 each for AWD and Scabies.

Figure-1: 72 districts reported to DEWS in week 47, 2013

Legend:
- Province Boundaries
- DEWS Reported Districts
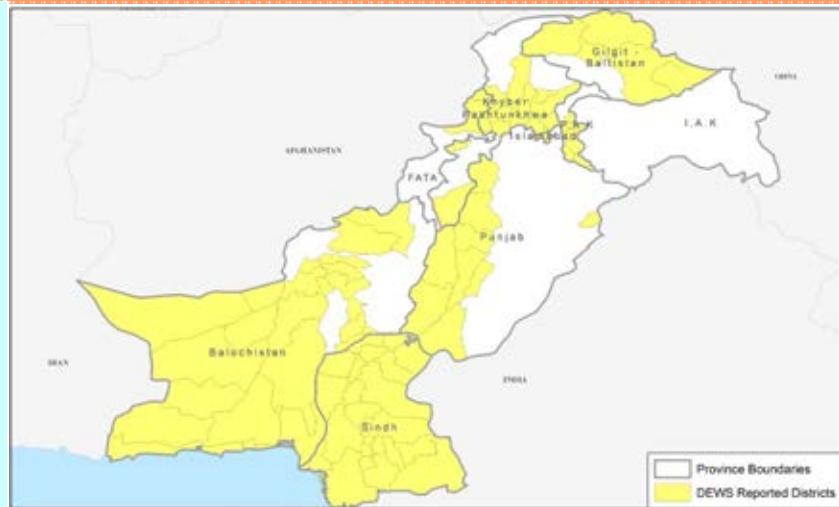
Priority diseases under surveillance in DEWS

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 47, 2013 (29 Dec 2012 to 23 November 2013)

Disease	# of Cases	Percentage
ARI	7,445,300	20%
Bloody diarrhoea	93,206	<0.5%
Acute diarrhoea	2,823,179	8%
S. Malaria	1,638,446	4%
Skin Diseases	1,443,183	4%
Unexplained fever	1,154,468	3%
Total (All consultations)	37,575,031	

Major health events reported during the Epi-week - 47 (17 - 23 Nov 2013)

Disease	# of Cases	Percentage
ARI	164,856	22%
Bloody diarrhoea	1,227	<0.5%
Acute diarrhoea	42,837	6%
S. Malaria	28,429	4%
Skin Diseases	24,056	3%
Unexplained fever	22,661	3%
Total (All consultations)	760,009	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 23 Nov 2013
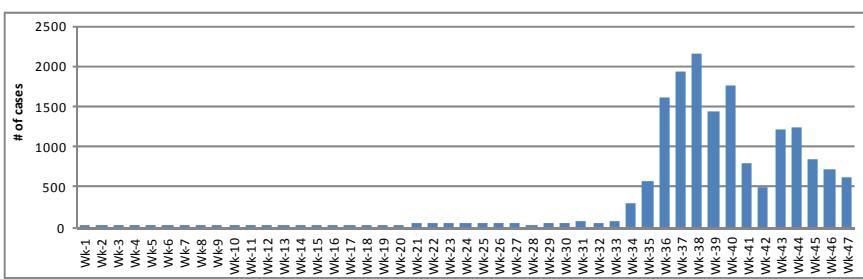
In 2013 Dengue fever cases are reported from the less endemic areas also. A huge outbreak is confronted in district Swat and increasing number of Dengue fever cases are reported from adjacent districts also. Dengue fever cases are also reported from Gawadar district in Balochistan province, districts Karachi and Hyderabad in Sindh province and districts Lahore and Rawalpindi in Punjab province.

From 1st January to 23rd November 2013, Khyber Pakhtunkhwa reported 9,402; Sindh 4,843, Punjab 2,252, and Balochistan 19 confirmed Dengue fever cases.

Dengue, number of positive cases by province (1 Jan to 23 Nov, 2013)

	KP	Sindh	Punjab	Balochistan
# of Cases	9402	4843	2252	19
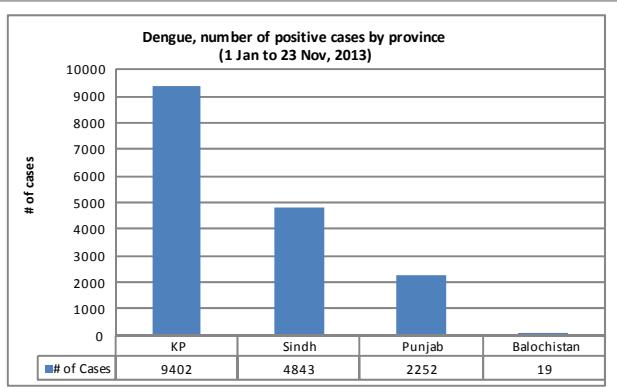
Outbreaks (Wk-47/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
21-Nov	CCHF	Khyber Pakhtunkhwa	Peshawar	Goay, Qadirabad, Khazana Sugar Mills	0	1	0	0	The patient was notified to WHO. Case was investigated and sample sent to NIH which was found positive for CCHF. Doctors and Para-medical/Nursing staff were asked by WHO Surveillance Officer, to observe preventive measures like use of N-95 mask, gloves and goggles etc. The PPE's are already provided by WHO to the hospital.
19-Nov	Measles	Khyber Pakhtunkhwa	Battagram	Ajmera	2	0	1	0	Alert for 3 suspected measles cases were reported from DHQ Battagram. Vitamin-A drops given to all the suspected cases. In the past three weeks a total of five suspected measles cases have been reported from Ajmera constituting a clinical outbreak,The EPI team was requested to conduct response in the area. EDO health informed about the situation.
20-Nov	Measles	Khyber Pakhtunkhwa	Mardan	Village Ghondai, UC Jahangir Abad, Tehsil Takht Bhai, Mardan	3	1	2	1	Alert for suspected Measles case reported from BHU Seri Behlol, the patient is recieved first doze of measles vaccination. During active surveillance in the area and surrounding and 5 more clinical cases of measles were identified. All children of less then 5 years were sent to near by health facility for vaccination. Health education session was conducted in the community, LHW's working in the area was involved. EDO-H Focal person and EPI Coordinator were informed.
19-Nov	DHF	Punjab	Lahore	Saman Abad Town UC 100, UC 106	0	2	0	5	Alert for 7 confirmed cases of Dengue Haemorrhagic fever notified from HDU Services Hospital and two Private Teaching Hospitals. The cases was investigated and 7 blood samples were taken and sent to laboratory and found IgM positive. PCR request of patients were sent to PU for serotyping and genotyping result is awaited. The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. Alert warning was generated by PITB DSS team after analysis of data by Dengue monitoring cell. There is no travel History of patient. Health education session conducted in the community on proper solid waste disposal and improved water storage practices, protective clothing and repellents Community-based environmental management and health education campaign for improved water storage practices to remove mosquito breeding sites. Follow up planned. ADG(VBD) and EDOH was informed.

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

Disease	2012		Current week 47, 2013		2013 (Total up till week - 47)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	1	0	96	0
Acute jaundice syndrome	113	22	0	0	46	6
Bloody diarrhoea	146	11	0	0	42	2
CCHF	68	41	2	1	87	47
Dengue fever	175	29	11	1	258	54
Diphtheria	60	16	3	0	68	19
Measles	5922	812	29	2	3236	277
Pertussis	366	147	0	0	45	10
NNT + tetanus	560	0	14	0	318	0
Malaria	136	68	0	0	24	5
Cutaneous Leishmaniasis	900	78	11	0	574	49
Others	1529	58	11	0	503	45
Total	10631	1475	82	4	5297	514

Figure-3: Number of alerts received and responded, week 44 - 47, 2013
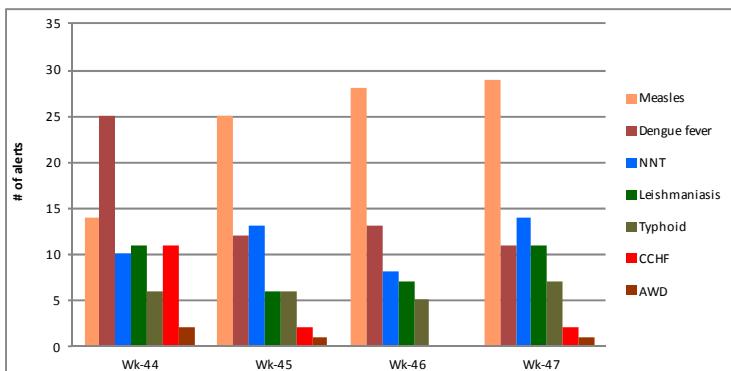
Figure-4: Number of consultations by age and gender, week 47, 2013

	< 1 yr	1-4 yr	5-14 yr	15-50 yr	50 + yr
Male	22725	57641	72140	137335	47498
Female	21821	51524	75058	218203	56064
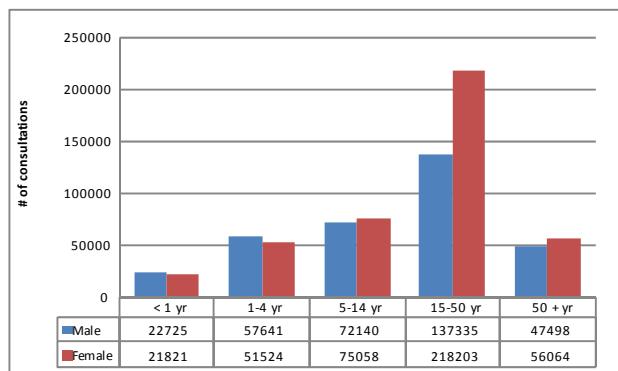
Province Khyber Pakhtunkhwa:

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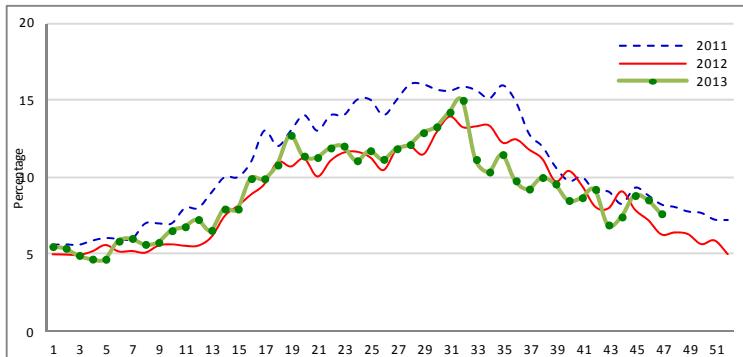

208 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 66,306 patients consultations reported in week 47, 2013. A total of 28 alerts were received and appropriate measures were taken. Altogether 23 alerts were for Measles; 3 for NNT; while 1 each for CCHF and Diphtheria.

The weekly trend of Acute diarrhoea is showing increase as compared with last two 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**
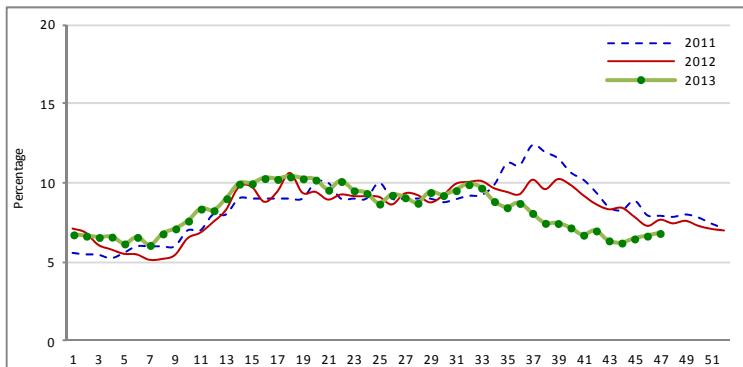
839 health facilities from 23 districts in Sindh province reported to DEWS with a total of 280,607 patient consultations in week 47, 2013. A total of 17 alerts, 7 for NNT; 6 for Dengue fever; 3 for Leishmaniasis; while 1 for AWD were received and appropriate measures were taken.

The overall proportion of AD for the province is showing increase as compared with last week, and 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**
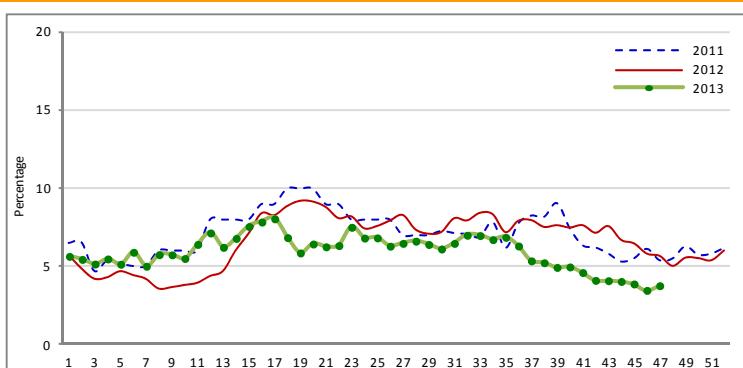
649 health facilities from 13 districts in province Punjab reported to DEWS with a total of 342,973 patients consultations in week 47, 2013.

Total 21 alerts were received and appropriate measures were taken. Altogether 7 alerts were for NNT; 6 for Dengue fever; 3 for Leishmaniasis; while 1 for AWD were responded in Punjab.

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

Province Balochistan:

**Figure-8: Weekly trend of Acute diarrhoea, province Balochistan**
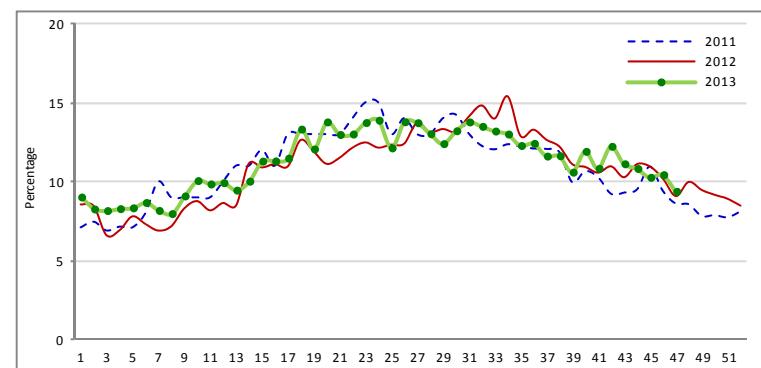
277 health facilities from 13 districts in province Balochistan reported to DEWS with a total of 42,974 patients consultations in week 47, 2013.

5 alerts were reported and appropriated measures were taken. Altogether 3 alerts were for Leishmaniasis; while 1 each for Measles and Dengue fever.

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

FATA:

**Figure-9: Weekly trend of Acute diarrhoea, FATA**
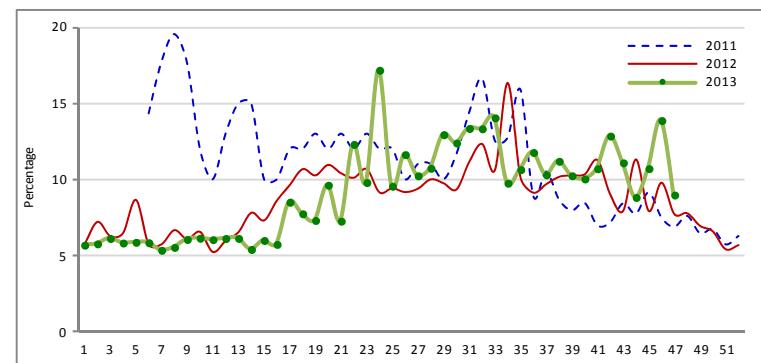
38 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,039 patients consultations in week 47, 2013.

6 alerts, 3 for Leishmaniasis; 2 for Measles; while 1 for NNT were reported in week 47, 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**
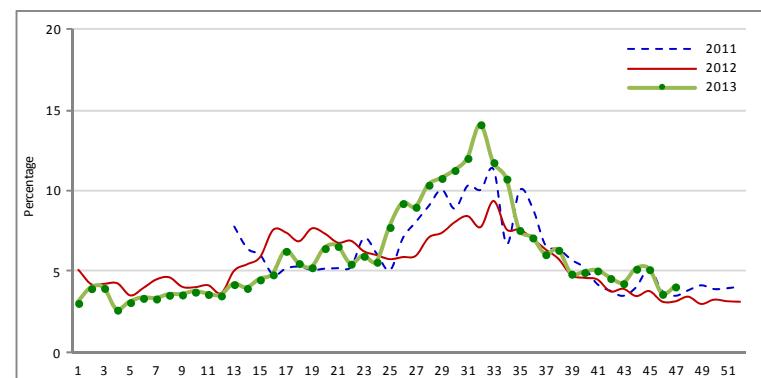
80 health facilities from 8 districts in AJ&K reported to DEWS with a total of 15,247 patients consultations in week 47, 2013.

5 alerts, 3 for Measles; while 1 each for ARI and Leishmaniasis were reported in week 47, 2013 and appropriate measures were taken.

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**
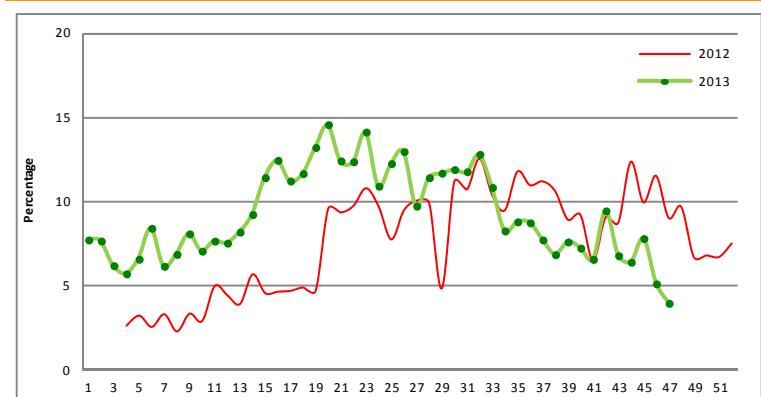
4 health facilities reported to DEWS on time with a total of 739 patients consultations in week 47, 2013.

No alert for any disease was received in week 47, 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 47 2013, one new wild polio case (type-1) was reported from the Federally Administered Tribal Areas (FR Bannu). This brings the total number of wild polio cases to 64 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	-	-	9	-	-
FATA	17	2	1	44	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	64	-	-
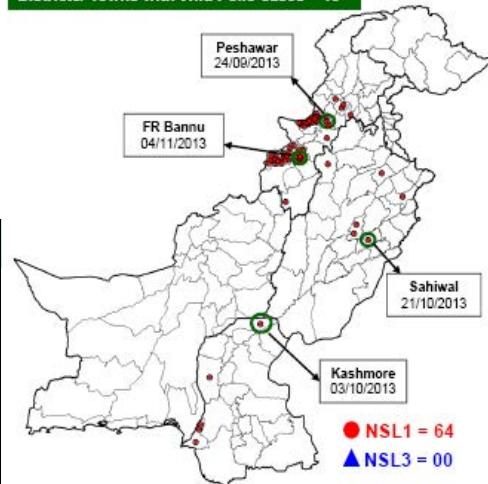
Follow up of CCHF

In week 47, 2013, one new confirmed CCHF case was reported from Khyber Pakhtunkhwa. So for total of 88 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

Number of CCHF cases and deaths reported in year 2012 and 2013 up till 2 November.							
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	53	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
Total		62	41	18	88	59	18

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 <u>if you live in or travel to an endemic area</u>.

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 >39^0C. **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.

Alerts and outbreaks, week 47, 2013

MAP AREA

TAJIKISTAN

CHINA

AFGHANISTAN

Gilgit Baltistan

Khyber Pakhtunkhwa

JAMMU & KASHMIR

P.?A.K

Islamabad

I. A. K

FATA

Punjab

Balochistan

Sindh

INDIA

ARABIAN SEA

Disease Early Warning System Numbers and Type of Outbreak Alerts by District as of week 47, 2013

The number in the center of the chart pie is the total number of the alerts for the district

- ARI
- AWD
- CCHF
- DF
- DHF
- Diphtheria
- Leishmaniasis
- Measles
- NNT
- Scabies
- Typhoid
- National Boundaries
- Province Boundary
- District Boundary
- Line of Control
- Jammu & Kashmir

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