



Highlights

*Epidemiological week no. 43
(20 to 26 Oct 2013)*

- **Dengue fever:** During this week, 1225 Dengue fever cases have been reported. The highest number of DF cases 648 reported from Sindh. The outbreaks are being responded jointly.
- **CCHF:** 4 confirmed CCHF cases including 2 deaths were reported, 1 each from districts Kalat (Balochistan); DI Khan and Rawalpindi (Punjab); and 1 case reported from Islamabad (Belongs to Afghanistan) (Page 5).
- In this week, **72** districts and 2,049 health facilities have reported to Disease Early Warning system (DEWS), compared to 71 districts with 1,895 health facilities shared weekly data in week 42, 2013 to the DEWS.
- Total **867,929** patients consultations reported this week compared to **350,044** consultations in week 42, 2013.
- **97** alerts investigated and **7** outbreaks identified and timely responded. Altogether 38 alerts were for Dengue fever; 22 for Measles; 13 for NNT; 9 for Leishmaniasis; 6 for CCHF; 3 for AJS; while 1 each for AWD, Acute diarrhoea, Bloody diarrhoea, Diphtheria, Malaria and Typhoid.

Figure-1: 72 districts reported to DEWS in week 42, 2013



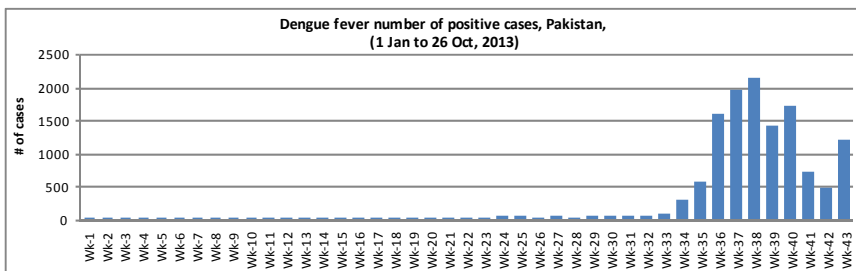
Priority diseases under surveillance in DEWS

- 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 43, 2013 (29 Dec 2012 to 26 October 2013)

Disease	# of Cases	Percentage
ARI	6,825,244	20%
Bloody diarrhoea	88,130	<0.5%
Acute diarrhoea	2,658,757	8%
S. Malaria	1,521,099	4%
Skin Diseases	1,350,164	4%
Unexplained fever	1,066,951	3%
Total (All consultations)	34,712,032	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 26 Oct 2013



Major health events reported during the Epi-week - 43 (20 - 26 Oct 2013)

Disease	# of Cases	Percentage
ARI	180,335	21%
Bloody diarrhoea	1,260	<0.5%
Acute diarrhoea	49,229	6%
S. Malaria	42,371	5%
Skin Diseases	29,081	3%
Unexplained fever	24,341	3%
Total (All consultations)	867,929	

An ongoing Dengue fever outbreak is being confronted in district Swat of Khyber Pakhtunkhwa province. In district Swat total 8,911 Dengue fever cases and 36 deaths have been reported from 7th August to 26th October. Three Sero types (DNV-1; DNV-2; DNV-3) of Dengue virus have been found in different patients in district Swat. Samples for Sero typing are tested at National Institute of Health (NIH) Islamabad, and Institute of Public Health (IPH), Lahore. The other districts in Khyber Pakhtunkhwa where Dengue fever cases reported are Mardan, Shangla and Lower Dir.

District administration Swat has notified Dengue Task Force and Dengue Response Cell has been established at the EDO Health Office Swat. Joint outbreak control activities are carried in the district by all partners and the concerned line departments. From 1st January to 26th October 2013, Khyber Pakhtunkhwa reported 9,081; Sindh 3,199, Punjab 678, and Balochistan 14 Dengue fever cases.

Outbreaks (Wk-43/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
25-Oct	Measles	Balochistan	Lasbela	Baloch colony, UC Beroot, Tehsil HUB	3	1	1	1	3 suspected Measles cases were reported from JGQ Hospital. During field investigation, 3 more suspected Measles cases were found. 1 blood sample collected and sent to NIH. All the cases were provided with Vit A drops. Health and hygiene session conducted in the community. Cases were not vaccinated against measles. Information shared with DHO and requested for intensified outreach vaccination activity in the locality.
26-Oct	CCHF	ICT	Islamabad	Q-Azam Int. Hospital, Golra More (Kabul Afghanistan)	0	1	0	0	Alert of CCHF was reported from Quaid-e-Azam (P) Hospital, Islamabad with a history of bleeding from mouth, nose and gums. Sample sent to NIH found positive for CCHF. Patient belong to Kabul Afghanistan, Butcher by profession, and could not survived; no family member had any symptom, health education was given to staff and paramedic for follow up. Information shared with DEWS Afghanistan to explore the contacts.
26-Oct	CCHF	Khyber Pakhtunkhwa	D. I. Khan	Rorrhi Kulachi	0	0	0	1	An alert of CCHF was reported with Gum bleeding and haematemesis. Sample collected and sent to NIH and found positive for CCHF. Patient has a contact history with cattle. MS informed about the situation.
23-Oct	Measles	Khyber Pakhtunkhwa	Swabi	Mohalla Bazid, Village Parmollo, Swabi	1	2	1	1	An alert of suspected measles was reported from Children unit of BMC Hospital Swabi, the case is not vaccinated against measles vaccine. Vitamin A drops given. In response active surveillance conducted in the area and surrounding and 4 more suspected cases were identified in the same family and neighbors, most of the children were found unimmunized for routine vaccination. All children of less than 5 years were sent to near by HF for vaccination. Health education session conducted in the community, LHW's working in the area were involved. EDO-H, Focal person and EPI Coordinator were informed.
21-Oct	DF	Punjab	Lahore	Cantonment , W1,W2,W3	0	41	0	26	8 confirmed, 53 suspected and 8 probable cases of Dengue fever notified from Teaching Hospitals of Lahore . The cases were investigated and blood sample were taken and sent to lab for detection of dengue specific antibodies, result for IgM positive for 8 cases. DPC along with, CDCO,DDHO, and entomologist visit the area, Vector surveillance was carried out at confirmed case location. Larva was found inside and outside the houses near the address of confirm case. Health Education session given to the community on proper solid waste disposal and improved water storage practices use of screening, protective clothing and repellents. Information shared with ADG(VBD) and EDOH.
25-Oct	DF	Punjab	Lahore	Nishter Town UC 142 Dullo Khurd Kalan	0	4	0	4	1 confirmed, 6 suspected and 1 probable cases of Dengue fever notified from Teaching Hospitals of Lahore. The cases were investigated and blood sample was taken and sent to lab for detection of dengue specific antibodies, result for IgM positive for 1 case. The confirmed case was admitted and kept in isolation ward (HDU) of Teaching hospital. There is no travel History of patient. DPC along with, CDCO,DDHO, and entomologist visit the area, Vector Surveillance was carried out at confirmed case Location . Health Education session was given to the community on preventive measures. ADG(VBD) was informed along with EDO Health Lahore .
25-Oct	DF	Punjab	Lahore	Saman abad Town UC 100 Ichhra	0	10	0	0	1 confirmed, 9 suspected cases of Dengue fever notified from Teaching Hospitals of Lahore. The cases were investigated and blood sample were taken and sent to lab for detection of dengue specific antibodies, result for IgM positive for 2 cases. Alert warning was generated by PITB DSS team after analysis of data by Dengue monitoring cell. There is no travel history of patient. DPC along with, CDCO,DDHO, and entomologist visited the area. Larva was found inside and outside the houses near the address of confirmed case. Health education session was given to the community on proper solid waste disposal and improved water storage practices use of screening, protective clothing and repellents. ADG(VBD) was informed along with EDO Health Lahore.

Figure-3: Number of alerts received and responded, week 40 - 43, 2013

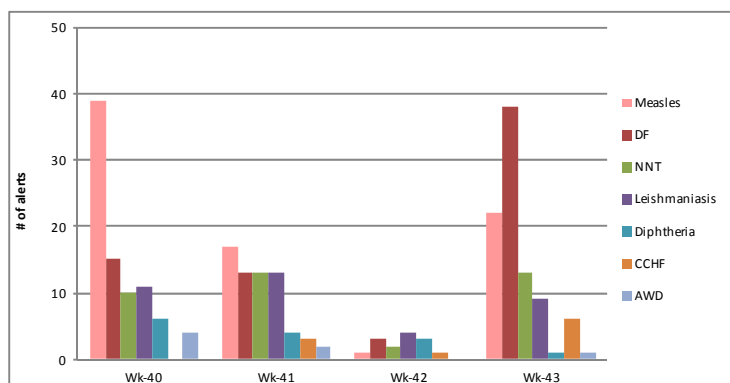
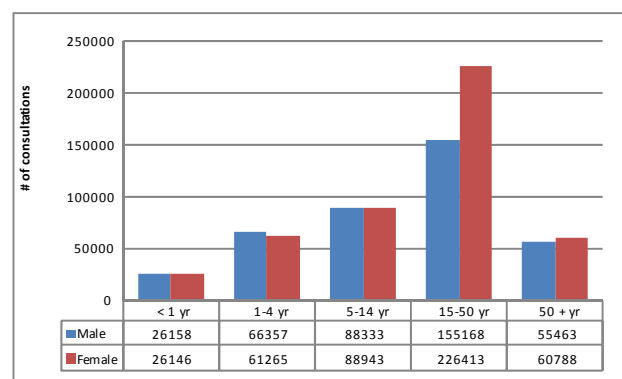
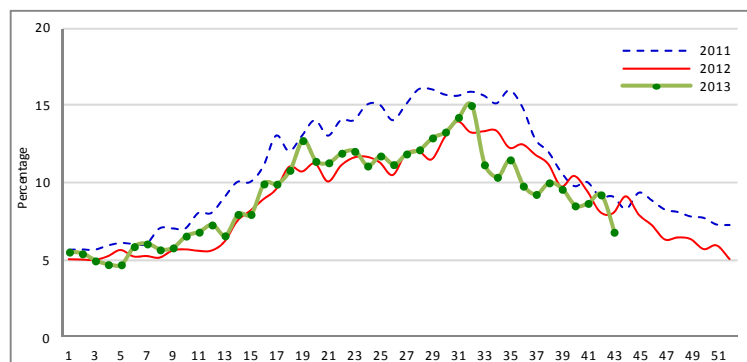


Figure-4: Number of consultations by age and gender, week 43, 2013



Province Khyber Pakhtunkhwa:

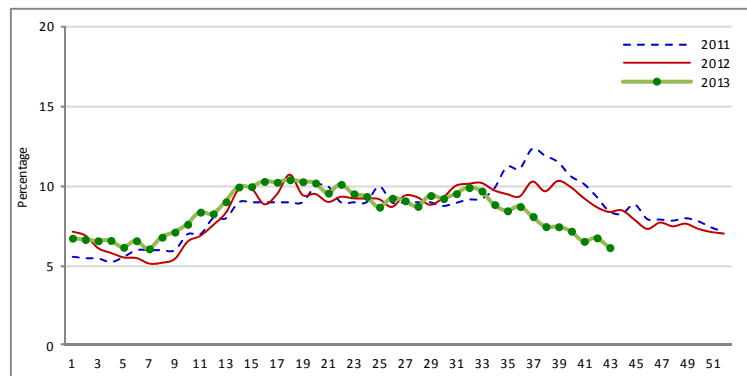
Figure-5: Weekly trend of Acute diarrhoea, province Khyber Pakhtunkhwa



203 health facilities from 9 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 90,095 patients consultations reported in week 43, 2013. A total of 22 alerts, 12 for Measles; 6 for Dengue fever; 2 for CCHF; while 1 each for Diphtheria and AJS were received and appropriate measures were taken. The weekly trend of Acute diarrhoea is showing decrease as compared with last week in KP, but 5 Cholera confirmed cases reported from KP in last six weeks, and the situation need continuous attention in the province. Dengue fever outbreak in district Swat and Mardan being responded jointly.

Province Sindh:

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

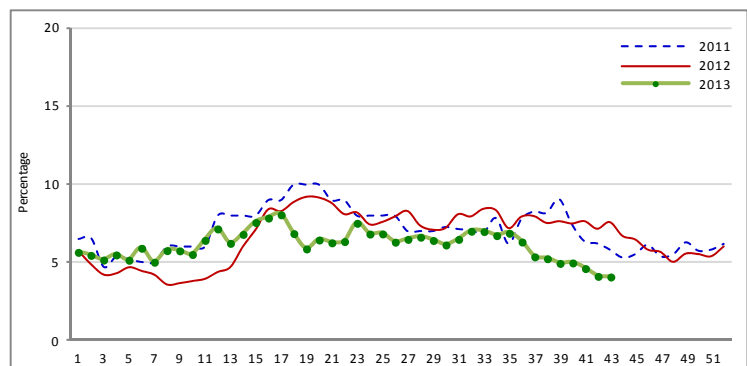


844 health facilities from 23 districts in Sindh province reported to DEWS with a total of 374,376 patient consultations in week 43, 2013. A total of 31 alerts, 21 for Dengue fever and 10 for NNT were received and appropriate measures were taken.

The overall proportion of AD for the province is showing 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



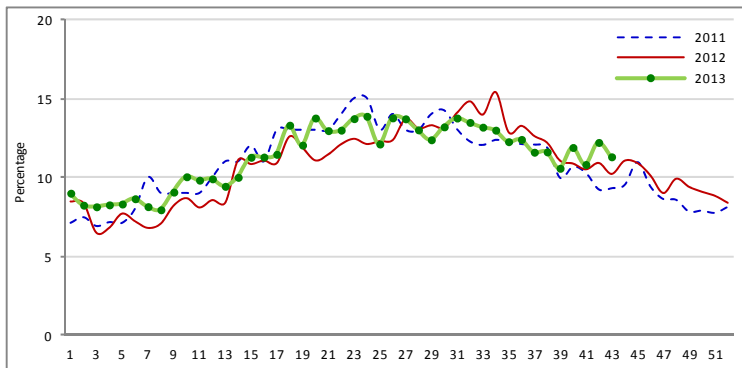
623 health facilities from 13 districts in province Punjab reported to DEWS with a total of 338,328 patients consultations in week 43, 2013.

Total 16 alerts were received and appropriate measures were taken. Altogether 8 alerts were for Dengue fever; 2 each for AJS and NNT; while 1 each for AWD, CCHF, Leishmaniasis and Typhoid were responded in 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

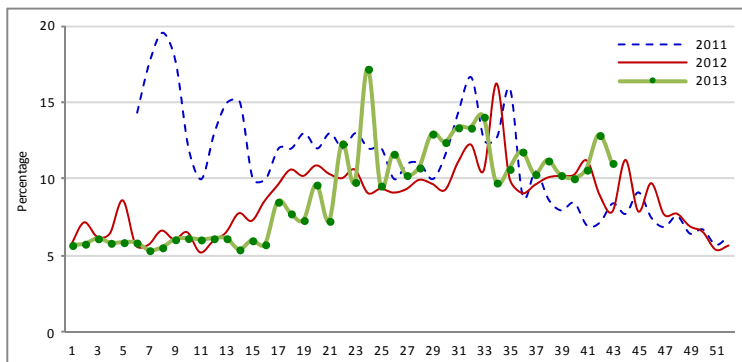


260 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 38,278 patients consultations in week 43, 2013. 14 alerts were reported and appropriate measures were taken. Altogether 4 alerts were for Leishmaniasis; 3 for Dengue fever; 2 each for CCHF and Measles; while 1 each for Acute diarrhoea, Bloody diarrhoea and Malaria.

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

FATA:

Figure-9: Weekly trend of Acute diarrhoea, FATA



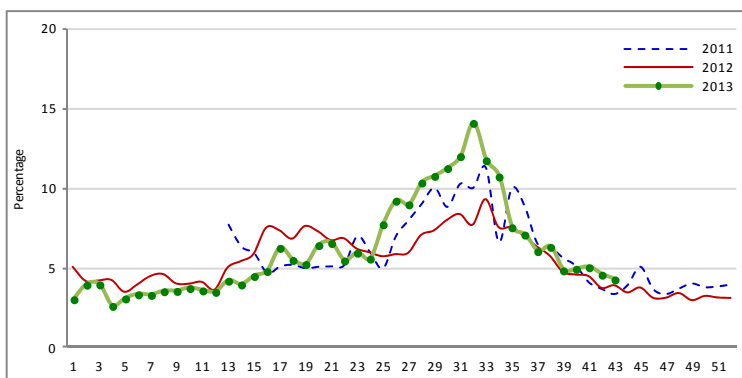
41 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,526 patients consultations in week 43, 2013.

5 alerts, 3 for Leishmaniasis; while 1 each for Measles and NNT were reported in week 43, 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



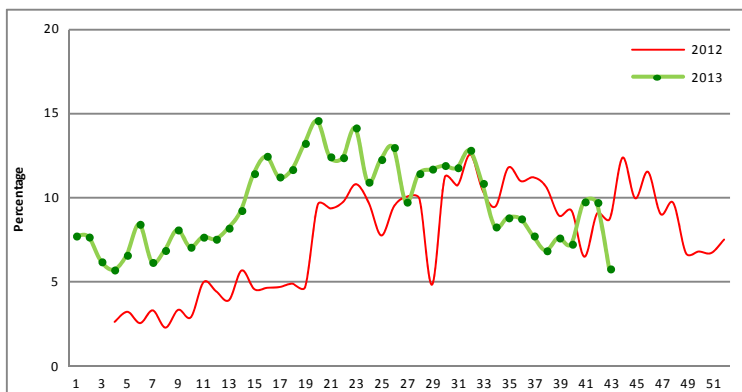
72 health facilities from 8 districts in AJ&K reported to DEWS with a total of 13,691 patients consultations in week 43, 2013.

7 alerts; 6 for Measles; while 1 for Leishmaniasis were reported week 43, 2013.

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



5 health facilities reported to DEWS on time with a total of 1,482 patients consultations in week 43, 2013.

2 alerts, 1 each for CCHF (belongs to Afghanistan) and Measles were received and appropriate measures were taken in week 43, 2013.

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

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

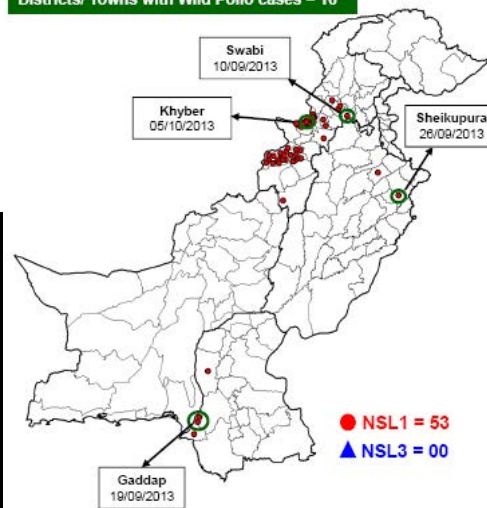
Disease	2012		Current week 43, 2013		2013 (Total up till week - 43)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	1	0	136	40
Acute jaundice syndrome	113	22	3	0	44	6
Bloody diarrhoea	146	11	1	0	40	2
CCHF	68	41	6	1	72	37
Dengue fever	175	29	38	3	197	39
Diphtheria	60	16	1	0	62	18
Measles	5922	812	22	2	3137	273
Pertussis	366	147	0	0	44	10
NNT + tetanus	560	0	13	0	271	0
Malaria	136	68	1	0	23	5
Cutaneous Leishmaniasis	900	78	9	0	539	49
Others	1529	58	2	0	409	3
Total	10631	1475	97	6	4974	482

Distribution of Wild Polio Virus cases in Pakistan 2012 and 2013

7 new wild polio cases (type1) were reported in the country; including 4 from Federally Administered Tribal Areas (2 from Khyber agency, 1 each from North Waziristan agency & FR Bannu), and 1 case each from Punjab (Sheikhupura district), Sindh (Gadap town) and Khyber Pakhtunkhwa (Swabi district). This brings the total number of wild polio cases to 53 in 2013 (compared to 54 during the same time period last year) from 16 districts/ towns / tribal agencies / FR areas (compared to 27 during the same time period last year).

It is important to mention that 86% (46/53) of the total wild polio cases this year so far, have been reported from Federally Administered Tribal Areas (38) and Khyber Pakhtunkhwa (8).

Districts/ Towns with Wild Polio cases = 16



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	3	-	-
Sindh	4	-	-	4	-	-
Khyber Pakhtunkhwa	27	-	-	8	-	-
FATA	17	2	1	38	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	53	-	-

Follow up of CCHF

In week 43, 2013, 4 confirmed CCHF cases including 2 deaths were reported, 1 each case from district Kalat (Balochistan); DI Khan (Punjab); while 2 confirmed CCHF deaths 1 from district Rawalpindi and 1 reported from Islamabad (resident of Afghanistan). All the cases found clear history of contacts with animals at home and their products. So far total of 86 suspected, 58 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).

Number of CCHF cases and deaths reported in year 2012 and 2013 up till 26 October.

Province	2012			2013		
	Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K	0	0	0	1	1	0
Balochistan	Afghanistan*	5	5	3	11	6
	Balochistan	33	18	4	53	33
ICT	-	-	-	4	4	1
KPK	9	6	5	8	8	4
Punjab	8	5	3	10	4	3
Sindh	7	7	3	2	2	1
Total	62	41	18	86	58	18

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.

