



Highlights

*Epidemiological week no. 42
(13 to 19 Oct 2013)*

- **Dengue fever:** During this week, 472 Dengue fever cases have been reported. The highest number of DF cases 315 reported from district Swat, Khyber Pakhtunkhwa. The outbreak in Swat is being responded jointly.
- **CCHF:** 6 new suspected and 1 confirmed CCHF cases were reported, 3 from Quetta; 1 from Kalat and Lahore; while 2 cases from Afghanistan (Page 5).
- In this week, **71** districts and 1895 health facilities have reported to Disease Early Warning system (DEWS), compared to 71 districts with 1961 health facilities shared weekly data in week 41, 2013 to the DEWS.
- Total **341,466** patients consultations reported this week compared to **813,551** consultations in week 41, 2013. This less number of consultations is because of Eid-ul-Azha holidays.
- **28** alerts investigated and **1** outbreak identified and timely responded. Altogether 7 alerts were for Dengue fever; 4 for Leishmaniasis; 3 each for Diphtheria and Measles; 2 each for Acute diarrhoea, NNT and Scabies; while 1 each for AJS, Bloody diarrhoea, CCHF, Malaria and Typhoid.

Figure-1: 71 districts reported to DEWS in week 42, 2013



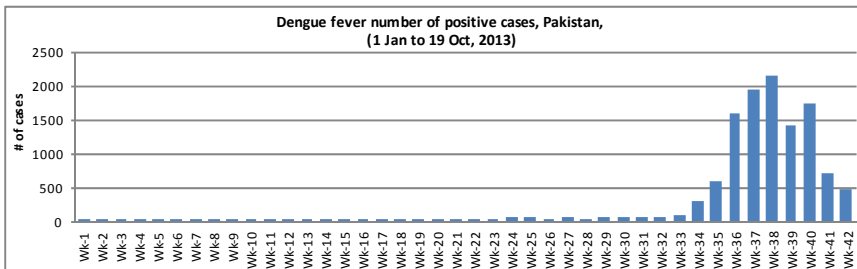
Priority diseases under surveillance in DEWS

- 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 42, 2013 (29 Dec 2012 to 19 October 2013)

Disease	# of Cases	Percentage
ARI	6,643,098	20%
Bloody diarrhoea	86,829	<0.5%
Acute diarrhoea	2,608,767	8%
S. Malaria	1,478,252	4%
Skin Diseases	1,320,717	4%
Unexplained fever	1,041,306	3%
Total (All consultations)	33,808,465	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 19 Oct 2013



Major health events reported during the Epi-week - 42 (13 - 19 Oct 2013)

Disease	# of Cases	Percentage
ARI	62,296	18%
Bloody diarrhoea	754	<0.5%
Acute diarrhoea	21,223	6%
S. Malaria	15,847	5%
Skin Diseases	12,617	4%
Unexplained fever	9,115	3%
Total (All consultations)	341,466	

An ongoing Dengue fever outbreak is being confronted in district Swat of Khyber Pakhtunkhwa province. In district Swat total 8,706 Dengue fever cases and 33 deaths have been reported from 7th August to 19th 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 19th October 2013, Sindh reported 2,551, Punjab 477, and Balochistan 13 Dengue fever cases.

Outbreaks (Wk-42/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
13-Oct	DF	Punjab	Lahore	Cantonment W1,W2, C1,C2	0	33	0	12	1 confirmed, 1 probable and 43 suspected cases of Dengue fever notified from different Teaching hospitals in Lahore. ALL the cases were investigated and 1 blood sample taken and sent to lab which found positive for Dengue IgM. The confirmed case is admitted and kept in isolation ward (HDU) of Teaching hospital. DPC, EDOH, ADG (JVBD), CDCO,DDHO, and entomologist were informed. Vector surveillance carried out at confirmed case Location. Larva was found inside and outside the houses near the address of confirmed case. Health Education session conducted in the community for proper solid waste disposal and improved water storage practices, use of screening, 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.

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.

Figure-3: Number of alerts received and responded, week 39 - 42, 2013

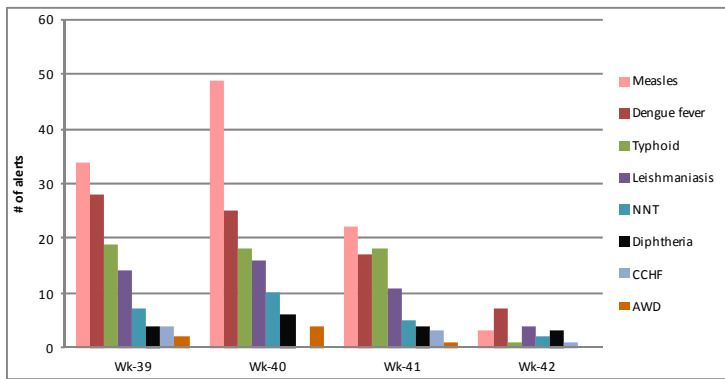
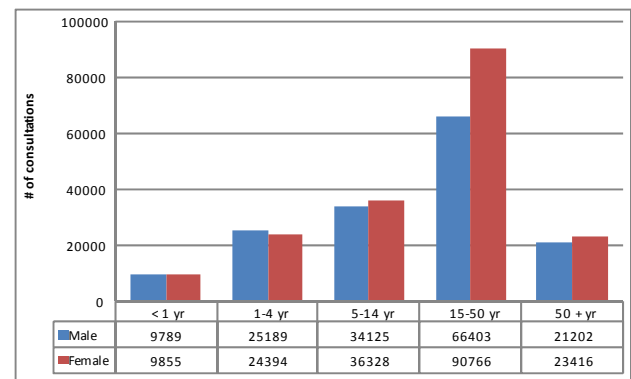
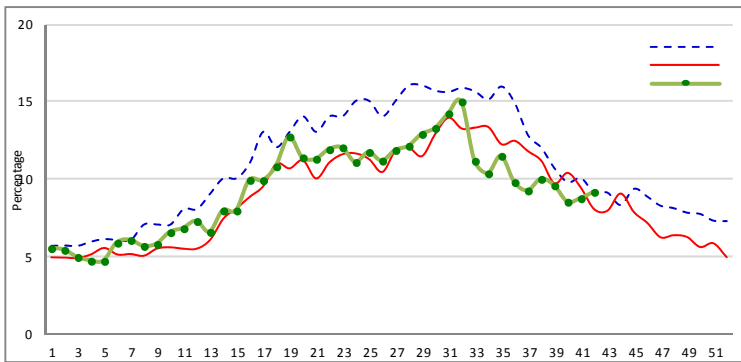


Figure-4: Number of consultations by age and gender, week 42, 2013



Province Khyber Pakhtunkhwa:

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

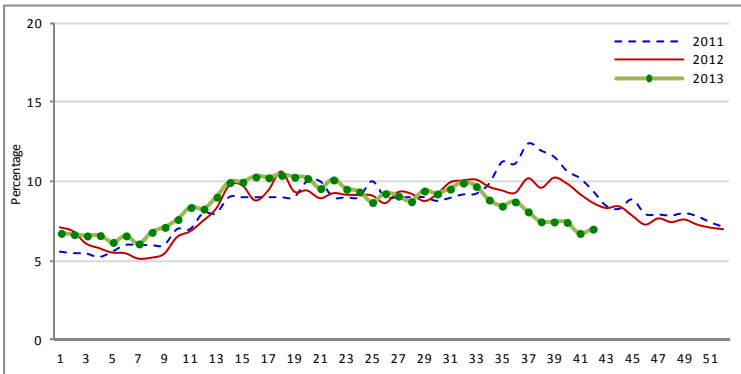


192 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 25,889 patients consultations reported in week 42, 2013. A total of 5 alerts, 2 each for Dengue fever and Measles; while 1 for CCHF were received and appropriate measures were taken.

The weekly trend of Acute diarrhoea is showing an increase as compared with last week in KP, and 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

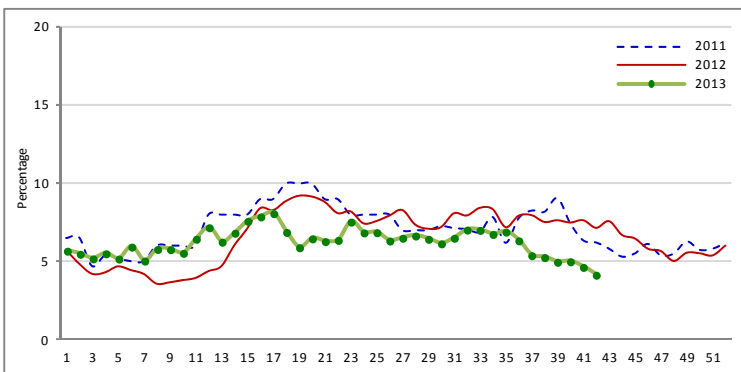


813 health facilities from 23 districts in Sindh province reported to DEWS with a total of 138,279 patient consultations in week 42, 2013. A total of 7 alerts, 4 for Leishmaniasis; 2 for NNT; while 1 for Measles were received and appropriate measures were taken.

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



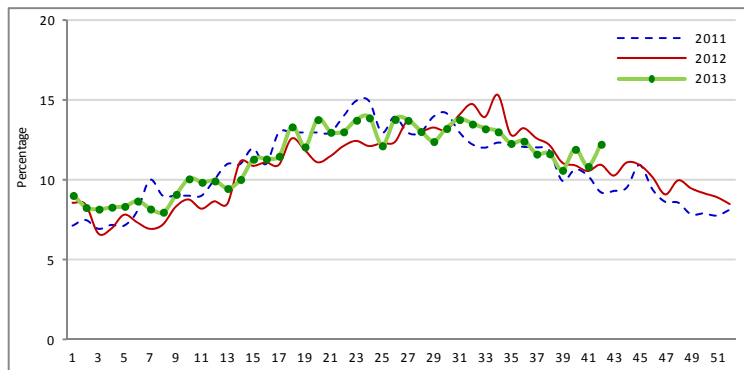
559 health facilities from 13 districts in province Punjab reported to DEWS with a total of 148,566 patients consultations in week 42, 2013.

Total 15 alerts were received and appropriate measures were taken. Altogether 4 alerts were for Dengue fever; 3 for Diphtheria; 2 each for Acute diarrhoea and Scabies; while 1 each for AJS, Bloody diarrhoea, Malaria and Typhoid fever 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

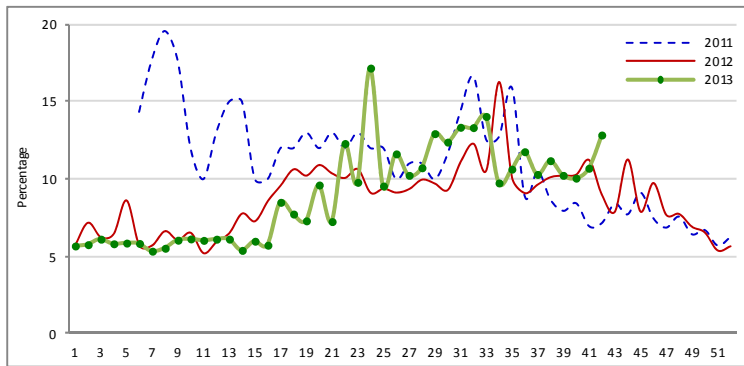


249 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 21,121 patients consultations in week 42, 2013. 1 alert for Dengue fever was reported and appropriate measures were taken in week 42, 2013.

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



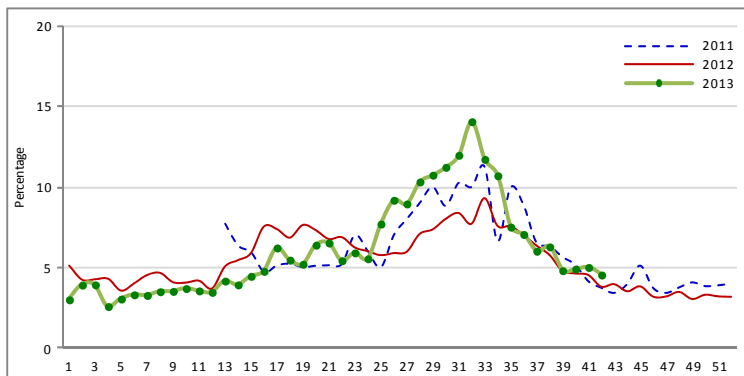
6 health facilities from 1 agency in FATA reported to DEWS with a total of 1,072 patients consultations in week 42, 2013.

No alerts for any disease were reported from any area in FATA was reported in week 42, 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



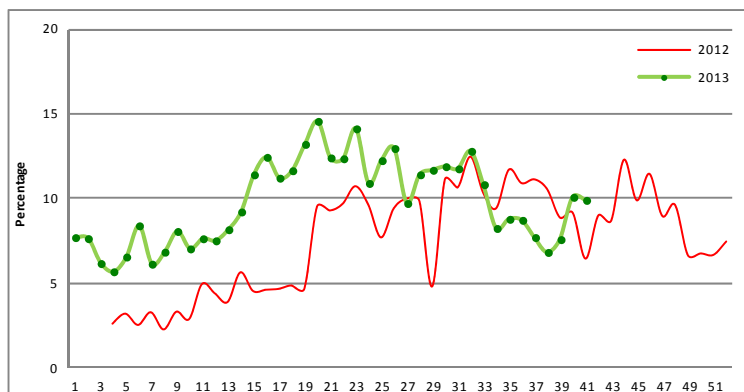
68 health facilities from 8 districts in AJ&K reported to DEWS with a total of 5,889 patients consultations in week 42, 2013.

No alerts for any disease were reported from any area in AJ&K was reported in week 42, 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



7 health facilities reported to DEWS on time with a total of 586 patients consultations in week 42, 2013.

1 CCHF alert (belongs to Afghanistan) was received and appropriate measures were taken in week 42, 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

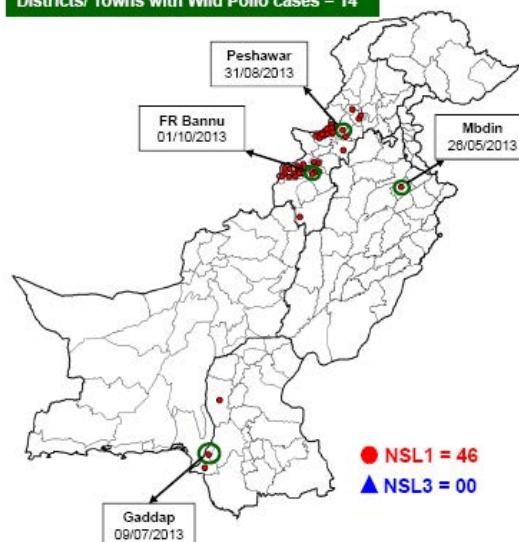
Disease	2012		Current week 42, 2013		2013 (Total up till week - 42)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	0	0	135	40
Acute jaundice syndrome	113	22	1	0	41	6
Bloody diarrhoea	146	11	0	0	39	2
CCHF	68	41	1	0	66	36
Dengue fever	175	29	3	1	157	36
Diphtheria	60	16	3	0	61	18
Measles	5922	812	1	0	3115	271
Pertussis	366	147	0	0	44	10
NNT + tetanus	560	0	2	0	258	0
Malaria	136	68	1	0	22	5
Cutaneous Leishmaniasis	900	78	4	0	530	49
Others	1529	58	4	0	415	3
Total	10631	1475	20	1	4883	476

Distribution of Wild Polio Virus cases in Pakistan 2012 and 2013

In week 42, 3 new wild polio cases were reported in the country from the Federally Administered Tribal Areas (one from North Waziristan Agency and two from FR Bannu). This brings the total number of wild polio cases to 46 in 2013 (compared to 50 during the same time period last year) from 14 districts/ towns / tribal agencies / areas (compared to 27 during the same time period last year).

Eighty Nine percent (41/46) of the total wild polio cases this year so far, have been reported from Federally Administered Tribal Areas (34) and Khyber Pakhtunkhwa (07) .

Districts/ Towns with Wild Polio cases = 14



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	2	-	-
Sindh	4	-	-	3	-	-
Khyber Pakhtunkhwa	27	-	-	7	-	-
FATA	17	2	1	34	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	46	-	-

Follow up of CCHF

In last two weeks 42 and 43, 2013, 7 new suspected CCHF cases were reported, 3 from district Quetta, 1 each from Kalat and Lahore (Punjab); while 2 cases (1 confirmed death) reported were resident of Afghanistan. All the cases found clear history of contacts with animals at home and their products. So for total of 84 suspected, 50 confirmed CCHF cases and 17 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 12 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	13	4
	Balochistan	33	18	4	53	34
ICT	-	-	-	3	3	0
KPK	9	6	5	6	4	4
Punjab	8	5	3	6	2	2
Sindh	7	7	3	2	2	1
Total	62	41	18	84	50	17

