



### Highlights

Figure-1: 73 districts reported to DEWS in week 38, 2013

#### Epidemiological week no. 38 (15 to 21 Sept 2013)

- **Dengue fever:** During this week, 2,139 Dengue fever cases have been reported. The highest number of DF cases 1,759 reported from district Swat, Khyber Pakhtunkhwa. The outbreak in Swat is being responded jointly.
- **CCHF:** In week 38, 2013, 2 new suspected CCHF cases reported, both the cases belongs to Afghanistan and admitted at hospital in Quetta, both the cases having history of contact with animals (taking care at home). While on 24th September, 3 more suspected CCHF cases were reported 1 each from districts Quetta, Killa Abdullah and Zhob. Epidemiological investigation conducted and treatment initiated (Page 5).
- In this week, **73** districts and 2192 health facilities have reported to Disease Early Warning system (DEWS), compared to 73 districts with 2047 health facilities shared weekly data in week 37, 2013 to the DEWS.
- Total **923,417** patients consultations reported this week compared to **934,448** consultations in week 37, 2013.
- Altogether **101** alerts were investigated and **11** outbreaks were identified and timely responded.



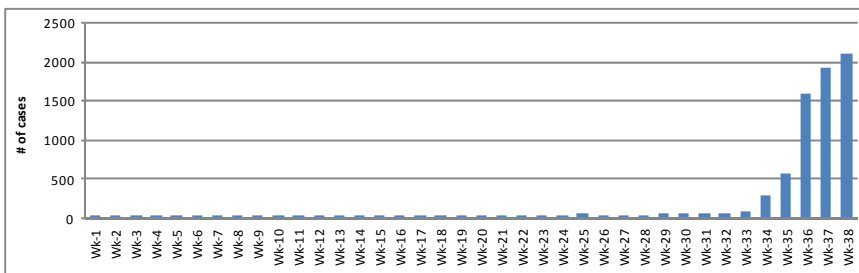
#### Priority diseases under surveillance in DEWS

- 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 38, 2013 (29 Dec 2012 to 21 September 2013)

Disease	# of Cases	Percentage
ARI	6,105,558	20%
Bloody diarrhoea	81,159	<0.5%
Acute diarrhoea	2,419,404	8%
S. Malaria	1,345,257	4%
Skin Diseases	1,206,055	4%
Unexplained fever	951,567	3%
<b>Total (All consultations)</b>	<b>30,963,411</b>	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 21 Sept 2013



#### Major health events reported during the Epi-week - 38 (15 - 21 September 2013)

Disease	# of Cases	Percentage
ARI	164,970	18%
Bloody diarrhoea	2,102	<0.5%
Acute diarrhoea	66,390	7%
S. Malaria	43,587	5%
Skin Diseases	36,082	4%
Unexplained fever	28,650	3%
<b>Total (All consultations)</b>	<b>923,417</b>	

In 2013 Dengue fever outbreaks reported from the less endemic areas in Pakistan. A huge Dengue fever outbreak is being confronted in district Swat of Khyber Pakhtunkhwa province. In district Swat from 7th August to 25th September total 6,376 Dengue fever cases and 23 deaths have been reported. Rapid diagnostic Test Kits are used for diagnosis locally, and selected numbers of samples are also sent to NIH Islamabad reference Laboratory for confirmation and Sero typing. 15 samples tested at NIH revealed that three types of virus (DNV-1; DNV-2; DNV-3) were detected in different patients from Swat. This year few cases of Dengue fever have been diagnosed in Gawadar with no travel history out of the district (most probably the infection was acquired locally).

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 25th September 2013, Sindh reported 1,472, Punjab 196, and Balochistan 8 Dengue fever cases.

Outbreaks (Wk-38/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
15-20-Sep	DF	Punjab	Lahore	Cantonment, UC 152; DATA-Ganj Bakhsh Town UC 77 Qila Gujar Singh; Allama Iqbal Town UC 112; Samanabad Town UC 106; Samanabad Town UC 89 Gulshan Ravi; Shalimar Town UC 23 Shadbagh.	0	143	0	64	6 new outbreaks of Dengue fever, 207 suspected Dengue fever cases were reported from 6 UCs of Lahore. 21 blood samples collected and sent to NIH for laboratory testing. The result for 9 cases were found positive for Dengue IgM. All the positive cases of Dengue fever were admitted in the hospital and kept in isolation ward. DPC along with CDCO, DDHO and entomologist were visit the area. Health education sessions were conducted in the community. Follow up planned. Information shared with ADG (VBD) and EDOH Lahore.
15-Sep	Diphtheria	Punjab	Hafizabad	Village Ahmedur Gujranwala Road Hafizabad	0	0	0	1	An alert of probable Diphtheria was reported from Children Hospital Lahore. The Patient belongs to district Hafizabad and admitted in Emergency ward of the Children hospital, Lahore. ADS was given to patient on the time of admission. There is no travelling history of Patient. 1 sample of Throat swab collected and sent to NIH for laboratory testing. EDO(H) Hafizabad was also informed. All close contacts at Paternal address were advised Syp. Erythrosine at Lahore. DG health, Director CDC and Director EPI were informed.
15-Sep	Diphtheria	Punjab	Kasur	Chak no 3 Naikot mazed Pind Tehsil Pattoki	0	0	0	1	Alert for probable Diphtheria case has been reported by Children Hospital Lahore. Case management was ensured. Patient was admitted in Emergency ward under supervision of Medical unit 2. The Patient Belongs to Kasur district. ADS was Supplied to Patient on the same day of admission. There is no travelling history of Patient. Case Response was Done by District Kasur. Throat Swab was Collected by SO DEWS Lahore and Dispatched to NIH for Diphtheria Detection. EDO(H) Kasur was also informed. All close contacts at Paternal address were advised Syp. Erythrosine at Lahore. The Patients expires on second day of Admission. DG health, Director CDC and Director EPI were informed.
18-Sep	Diphtheria	Punjab	Lahore	Village Palaray Manga Road UC 125 Iqbal Town	0	1	0	0	A probable Diphtheria case has been reported by Children Hospital Lahore. The Patient Belongs to UC 125 Lahore district. ADS was Supplied to Patient on the same day of admission. There is no travelling history of Patient. Throat Swab was Collected by SO DEWS Lahore and Dispatched to NIH for Diphtheria Detection. All close contacts at Paternal address were Examined and advised Syp. Erythrosine during field investigation. DSC, DDOH, SO, DSV, IV and LHS perform field investigation. EDOH, DG health, Director CDC and Director EPI were informed. Case Response was Done by SO Dews Lahore.
16-Sep	Diphtheria	Punjab	Nankana Sahib	Village Tar khan Wala Jaranwala road Mandi Faizabad	1	0	0	0	Alert for probable Diphtheria case has been reported by Children Hospital Lahore. Case management was ensured. The Patient Belongs to Nankana Sahib district. ADS was Supplied to Patient on the same day of admission. There is no travelling history of Patient. Case Response was Done by District Nankana Sahib. Throat Swab was Collected by SO DEWS Lahore and Dispatched to NIH for Diphtheria Detection. EDO(H) Nankana sahib was also informed. All close contacts at Paternal address were advised Syp. Erythrosine at Lahore. DG health, Director CDC and Director EPI were informed.
21-Sep	Diphtheria	Punjab	Sheikhupura	Street Mohalla Nadeem road	0	0	0	1	Alert for probable Diphtheria case has been reported by Children Hospital Lahore. Case management was ensured. Patient was admitted in Emergency ward under supervision of Medical unit 1. The Patient Belongs to Sheikhupura district. ADS was Supplied to Patient on the same day of admission. There is no travelling history of Patient. All close contacts at Paternal address were advised Syp. Erythrosine. Tracheotomy was done immediately, patient was shifted to ICU. Throat Swab was not Collected as Patient expired after one hour of admission. DG health, Director CDC and Director EPI were informed.

Figure-3: Number of alerts received and responded, week 35 - 38, 2013

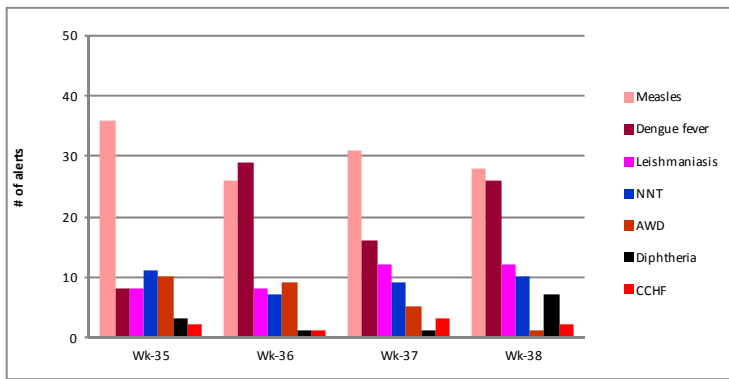
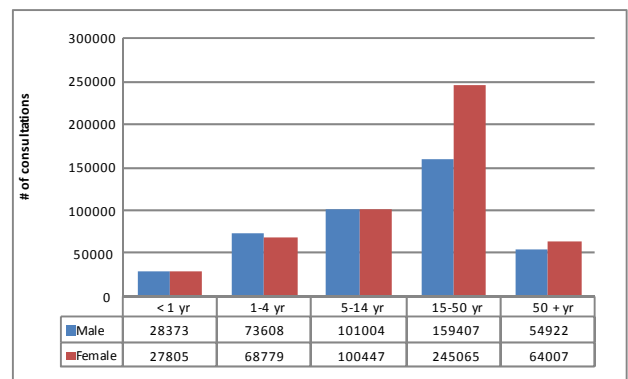
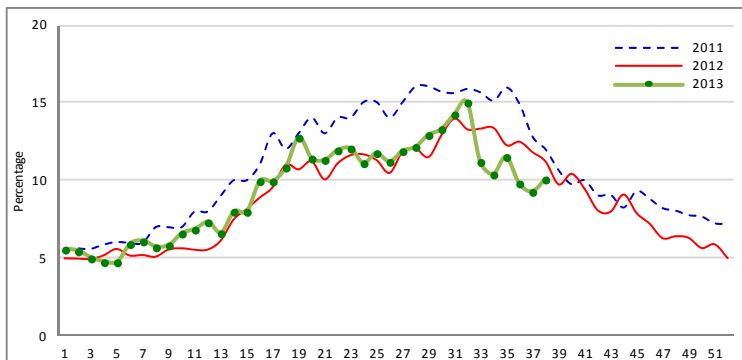


Figure-4: Number of consultations by age and gender, week 38, 2013



**Province Khyber Pakhtunkhwa:**

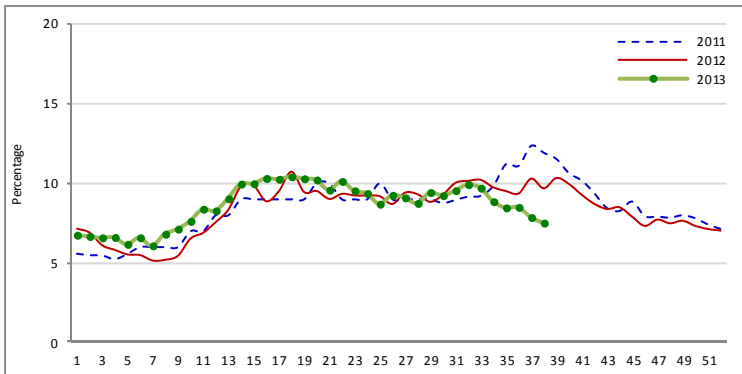
Figure-5: Weekly trend of Acute diarrhoea, province Khyber Pakhtunkhwa



253 health facilities from 11 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 99,282 patients consultations reported in week 38, 2013. A total of 24 alerts, 14 for Measles; 7 for Dengue fever; while 1 each for CCHF, Diphtheria and Leishmaniasis were received and appropriate measures were taken. The weekly trend of Acute diarrhoea is showing increase as compared with last week in KP, and 5 Cholera confirmed cases reported from KP in last five 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

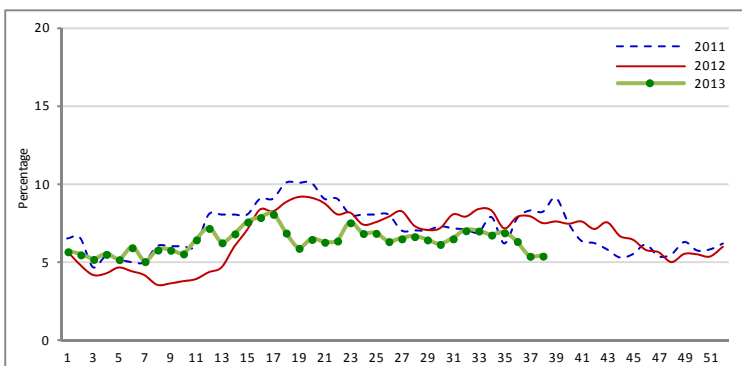


862 health facilities from 23 districts in Sindh province reported to DEWS with a total of 368,103 patient consultations in week 38, 2013. A total of 18 alerts were received and appropriate measures were taken. Altogether 7 alerts were for NNT; 5 for Dengue fever; 4 for Leishmaniasis; while 1 each for AWD and Measles.

The overall proportion of AD for the province is showing decrease from last 5 weeks, but during this season 17 AWD outbreaks identified and responded, and the situation need continuous attention in the province.

**Province Punjab:**

Figure-7: Trend of ARI, province Punjab



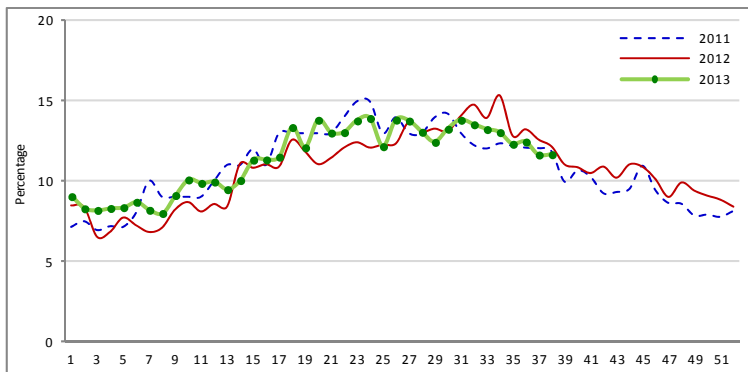
646 health facilities from 13 districts in province Punjab reported to DEWS with a total of 369,400 patients consultations in week 38, 2013.

Total 32 alerts were received and appropriate measures were taken. Altogether 9 alerts were for Dengue fever; 8 for Typhoid fever; 6 for Diphtheria; 4 for Measles; 3 for Scabies; while 1 each for Bloody diarrhoea and CCHF responded in Punjab.

The weekly trend of AD in Punjab remains same as compared with last week, but required vigilant monitoring of the situation.

**Province Balochistan:**

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



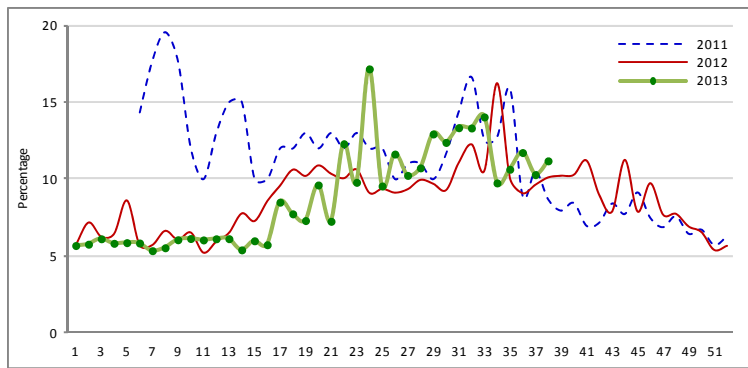
309 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 53,693 patients consultations in week 38, 2013. Total 7 alerts were reported and appropriate measures were taken in week 38, 2013.

Altogether 2 alerts each for Leishmaniasis, and Measles; while 1 each for Dengue fever, Malaria and Bloody diarrhoea.

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

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



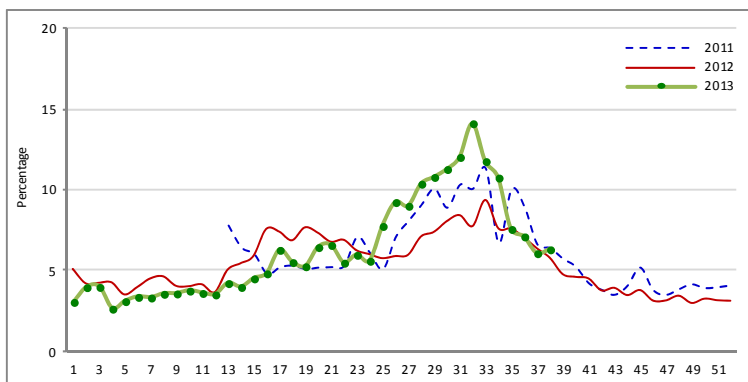
43 health facilities from 3 agencies in FATA reported to DEWS with a total of 13,055 patients consultations in week 38, 2013.

8 alerts, 3 each for Leishmaniasis and NNT; while 1 each for Dengue fever and Pertussis. AWD outbreak being responded in Khyber Agency last week.

Fluctuating and high weekly trend of Acute diarrhoea is noted in FATA and require vigilant monitoring.

**State of Azad Jammu and Kashmir:**

Figure-10: Weekly trend of Acute diarrhoea, FATA



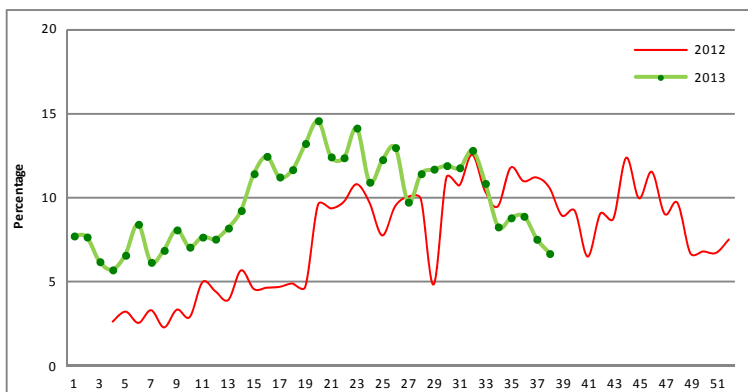
70 health facilities from 7 districts in AJ&K reported to DEWS with a total of 16,084 patients consultations in week 38, 2013.

9 alerts, 6 for Measles; 2 for Leishmaniasis; and 1 for Dengue fever were reported in week 38, 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



8 health facilities reported to DEWS with a total of 3,624 patients consultations in week 38, 2013.

3 alerts, 2 for Dengue fever; while 1 for Measles were reported in week 38, 2013, and appropriated measures were taken.

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

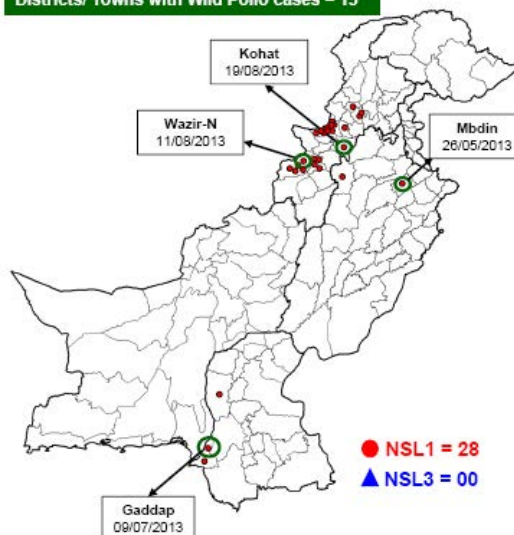
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 38, 2013		2013 (Total up till week - 38)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	1	0	126	38
Acute jaundice syndrome	113	22	0	0	33	6
Bloody diarrhoea	146	11	2	0	38	2
CCHF	68	41	2	0	58	33
Dengue fever	175	29	26	6	107	24
Diphtheria	60	16	7	5	44	11
Measles	5922	812	28	0	3026	268
Pertussis	366	147	1	0	41	10
NNT + tetanus	560	0	10	0	226	0
Malaria	136	68	1	0	20	4
Cutaneous Leishmaniasis	900	78	12	0	495	47
Others	1529	58	11	0	358	3
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>101</b>	<b>11</b>	<b>4572</b>	<b>446</b>

**Distribution of Wild Polio Virus cases Pakistan 2012 and 2013**

- In this week 38, 2013, no new wild polio case was reported from any part of the country. The total number of wild polio cases is remain 28 in 2013 (compared to 43 during the same time period last year) from 13 districts/towns/tribal agencies/areas (compared to 24 during the same time period last year).

Districts/ Towns with Wild Polio cases = 13



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	2	-	-
Sindh	4	-	-	3	-	-
Khyber Pakhtunkhwa	27	-	-	6	-	-
FATA	17	2	1	17	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>55</b>	<b>2</b>	<b>1</b>	<b>28</b>	<b>-</b>	<b>-</b>

**Follow up of CCHF**

In week 38, 2013, 2 new suspected CCHF cases reported, both the cases belongs to Afghanistan and admitted at hospital in quetta, both the cases having history of contact with animals (taking care at home). While on 24th September 3 more suspected CCHF cases were reported 1 each from districts Quetta, Killa Abdullah and Zhob (Died on same day, lab result awaited) in Balochistan province. from So for total of 77 suspected, 48 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).

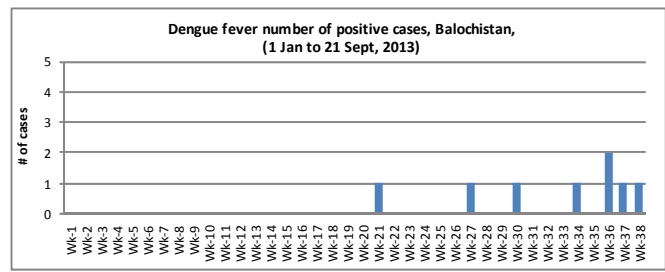
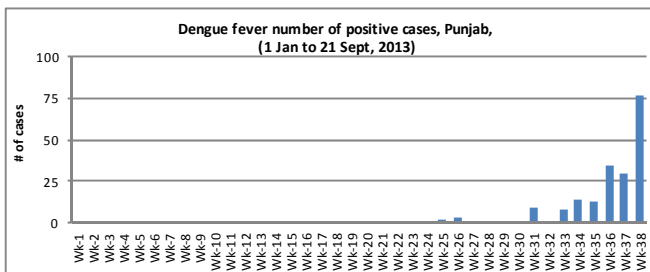
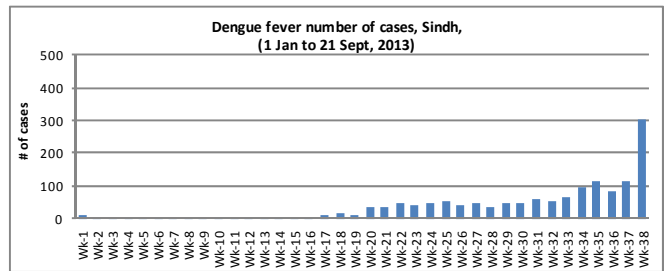
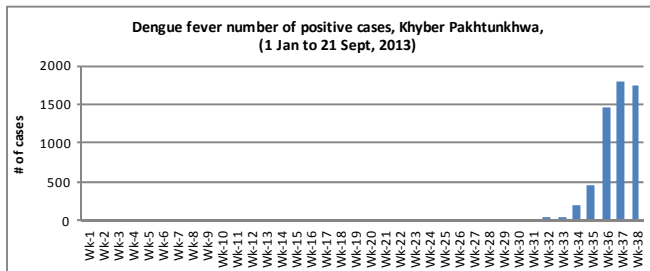
Province	2012			2013		
	Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K	0	0	0	1	1	0
Balochistan	Afghanistan*	5	5	3	11	3
	Balochistan	33	18	4	49	34
ICT	-	-	-	2	2	0
KPK	9	6	5	6	4	4
Punjab	8	5	3	6	2	2
Sindh	7	7	3	2	2	1
<b>Total</b>	<b>62</b>	<b>41</b>	<b>18</b>	<b>77</b>	<b>48</b>	<b>17</b>

**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. 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.

Alerts and outbreaks, week 38, 2013

