



### Highlights

Figure-1: 73 districts reported to DEWS in week 36, 2013

#### Epidemiological week no. 36 (1 to 7 Sept 2013)

- **Dengue fever:** During the week, a total of 1,587 positive cases of Dengue fever have been reported. The highest number of DF cases (1,470 Dengue Lab confirmed) cases have been reported from district Swat, Khyber Pakhtunkhwa. The outbreak in Swat is being responding jointly.
- **CCHF:** In week 36, 2013, 1 confirmed and 3 suspected CCHF cases were reported and investigated. 1 each from district Quetta, Loralai, Musa Khail and Killa Abdullah (Positive), province Balochistan. Epidemiological investigation conducted and treatment initiated (Page 5).
- In this week (36, 2013), **73** districts and 1872 health facilities have reported to Disease Early Warning system (DEWS), compared to 73 districts with 2019 health facilities shared weekly data in week 35, 2013 to the DEWS.
- Total **766,988** patients consultations reported this week compared to **869,399** consultations in week 35, 2013.
- Altogether **85** alerts were investigated and **7** 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

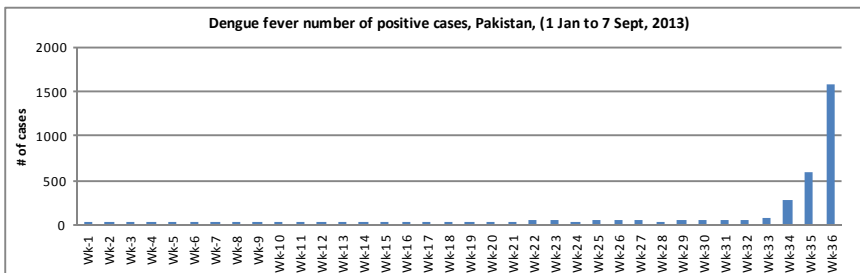
#### Cumulative number of selected health events reported in Epi-week 1 to 36, 2013 (29 Dec 2012 to 7 September 2013)

Disease	# of Cases	Percentage
ARI	5,764,987	20%
Bloody diarrhoea	76,885	<0.5%
Acute diarrhoea	2,279,197	8%
S. Malaria	1,249,103	4%
Skin Diseases	1,127,266	4%
Unexplained fever	891,408	3%
<b>Total (All consultations)</b>	<b>29,025,129</b>	

#### Major health events reported during the Epi-week - 36 (1 - 7 September 2013)

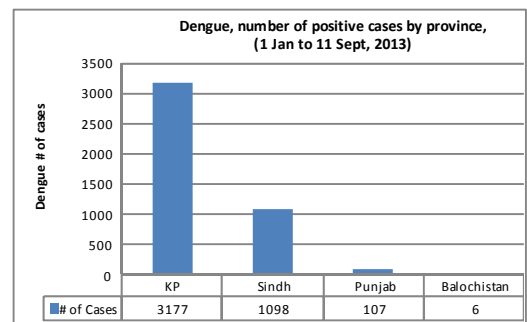
Disease	# of Cases	Percentage
ARI	128,265	17%
Bloody diarrhoea	1,713	<0.5%
Acute diarrhoea	60,966	8%
S. Malaria	38,677	5%
Skin Diseases	32,586	4%
Unexplained fever	25,368	3%
<b>Total (All consultations)</b>	<b>766,988</b>	

Figure-2: Number of Dengue fever positive cases in Pakistan, 1 Jan to 7 Sept 2013



In 2013 Dengue fever cases are being reported also from less endemic areas. From 7 August to 11 September total 4388 cases were reported in Pakistan. Outbreaks have been detected in districts Swat and Mardan in Khyber Pakhtunkhwa and Gwadar in Balochistan. Rapid diagnostic tests are being used at the health facilities to confirm the diagnosis.

Three tests (Dengue IgG, Dengue IgM and NS1-Ag) are mainly used at the health facility level and few samples also sent to NIH for confirmation of the diagnosis. Swat has notified Dengue Task Force and Dengue Response Cell has been established at the EDO Health Office Swat. Joint outbreak control activities have been started in the district by all partners and the concerned line departments. The highest number 3,177 cases have been reported from Khyber Pakhtunkhwa, Sindh reported 1,098, Punjab 107, and Balochistan 6 cases from 1 Jan - 11 Sept 2013.



## Outbreaks (Wk-36/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
5-Sep	AWD	FATA	Khyber Agency	Village Tora Dama, UC Ali Masjid, Tehsil Jamrud	2	4	3	6	Alert for AWD reported from UC Ali Masjid through media. On active surveillance, 15 cases were found in the area including 2 deaths. Stool samples and water samples were taken. Medicines were provided to the BHU Ali Masjid. Health and hygiene session conducted in the community. Hygiene kits and soaps were distributed. Information shared with Agency Surgeon and PPHI.
4-Sep	AWD	ICT	Islamabad	CH PIMS (RWP)	1	0	0	0	One AWD case reported by NIH. Information was shared with EDO office Rawalpindi. Upon field investigation no more AWD cases were found. Health education on better hygiene practices with emphasis on safe drinking water was imparted to family.
2-Sep	AWD	Khyber Pakhtunkhwa	Mardan	Village Barra Banda, Gharib Abad, Sherin Koto, Nowshera.	0	0	0	1	Alert for AWD reported from MMC Hospital Mardan. Stool sample taken and sent to NIH which was found positive for Cholera. Information shared with EDOH and further epidemiological and environmental assessment planned.
4-Sep	AWD	Punjab	Muzaffargarh	Gali # 6, Near Darbar Sayen Ruliya, Sameejabad, Multan	0	1	1	1	Alert for AWD. ERT visited the village and 20 households were interviewed and two more similar cases were found and were referred to Children Complex Multan for further treatment. One stool sample was collected and found positive for Cholera. Health education to family members was given. Hygiene kits, water filters, soaps, Aqua Tabs, ORS & IEC was distributed. Drinking water sources sampling was also done. Information shared with EDOH and follow-up planned.
1-7 Sep	DF	Punjab	Lahore	Aziz Bhatti Town UC 48; Cantonment W1,W2; Data Ganj Bakhsh Town UC 67 Kasur Pura;Allama Iqbal Town UC 116, UC 121; Ravi Town UC 7; Shalimar Town UC 24, UC 47; Wahga UC 40	0	133	0	52	11 Confirmed cases, 185 Suspected cases of Dengue fever notified from Teaching Hospitals at Lahore. The cases belongs to 11 different UCs of Lahore. All the cases were investigated and blood samples were taken and sent to lab for detection of dengue specific antibodies The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. outbreak 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 visit the area, Vector Surveillance was carried out at confirmed case Location. Larva were found inside and outside the houses near the address of confirm case. Health Education session was given to the community 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, the area would be visited again for follow up. ADG(VBD) was informed along with EDO Health Lahore.
6-Sep	Diphtheria	Punjab	Kasur	Kachi Abadi Shahbaz Road st. no 14	0	0	1	0	Alert for probable Diphtheria case was reported by Children Hospital Lahore. The Patient belongs to Kasur district and admitted in Emergency ward of CH Lahore. ADS was supplied to patient on the same day of admission. DG health, Director CDC and Director EPI were informed. 1 sample collected and sent to NIH for laboratory testing. EDO(H) Kasur and Focal Person EPI was informed.

Figure-3: Number of alerts received and responded, week 33 - 36, 2013

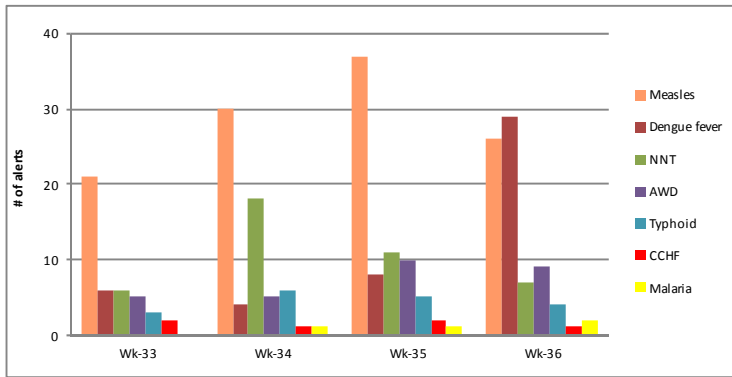
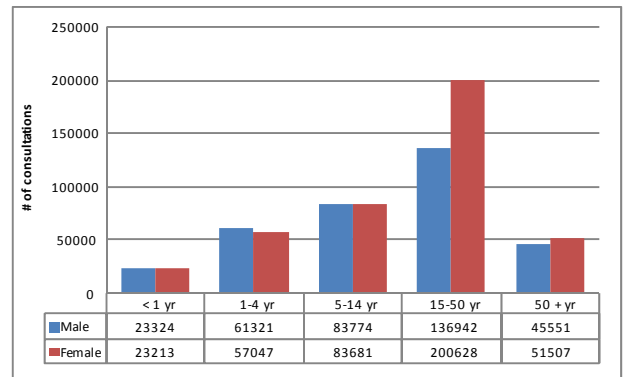
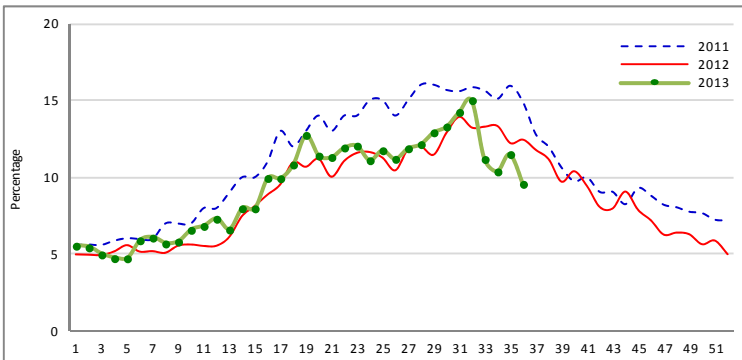


Figure-4: Number of consultations by age and gender, week 36, 2013



**Province Khyber Pakhtunkhwa:**

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



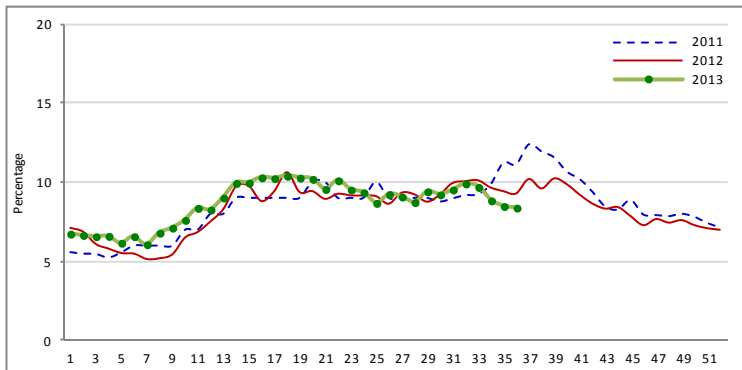
137 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 41,107 patients consultations reported in week 36, 2013.

26 alerts, 15 for Dengue fever; 7 for Measles; while 4 for AWD were received and appropriate measures were taken.

The weekly trend of Acute diarrhoea is showing decrease from last week in KP, but 4 Cholera confirmed cases reported from KP in last four weeks, the situation need continuous attention in the province.

**Province Sindh:**

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

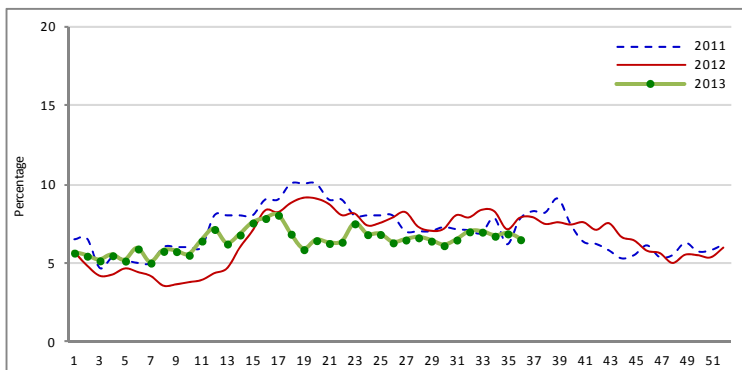


783 health facilities from 22 districts in Sindh province reported to DEWS with a total of 333,266 patient consultations in week 36, 2013. A total of 14 alerts were received and appropriate measures were taken. Altogether 6 alerts were for NNT; 3 each for Measles and Leishmaniasis; while 2 for Dengue fever.

The overall proportion of AD for the province is high since start of year 2013, but last 3 weeks it shows decrease. During this season 16 AWD outbreaks identified and responded, the situation need continuous attention in the province.

**Province Punjab:**

Figure-7: Trend of ARI, province Punjab

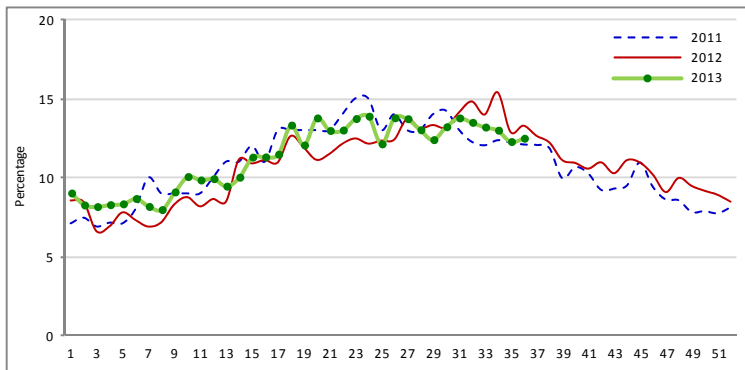


529 health facilities from 13 districts in province Punjab reported to DEWS with a total of 314,651 patients consultations in week 36, 2013. Total 32 alerts were received and appropriate measures were taken.

Altogether 9 alerts were for Dengue fever; 7 for Measles; 4 for Typhoid; 3 for Acute diarrhoea; 2 each for Malaria and Scabies; while 1 each for AJS, ARI, AWD, Bloody diarrhoea and Diphtheria. 9 outbreaks 7 for Dengue fever and 1 each for AWD and Diphtheria responded in Punjab. The weekly trend of AD in Punjab showing decrease as compared with last week, and required vigilant monitoring of the situation.

**Province Balochistan:**

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



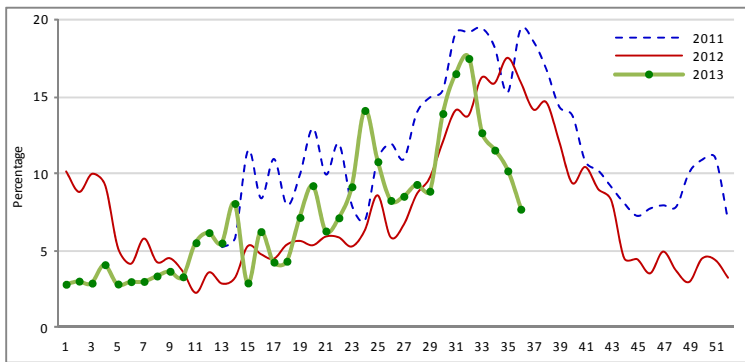
289 health facilities from 15 districts in province Balochistan reported to DEWS with a total of 46,529 patients consultations in week 36, 2013. Total 10 alerts were reported and appropriate measures were taken in week 36, 2013.

Altogether 2 each alerts for AWD, Dengue fever, Leishmaniasis, and Measles; while 1 each for CCHF and Pertussis.

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

**Province Gilgit Baltistan:**

Figure-9: Weekly trend of Acute diarrhoea, province Gilgit Baltistan



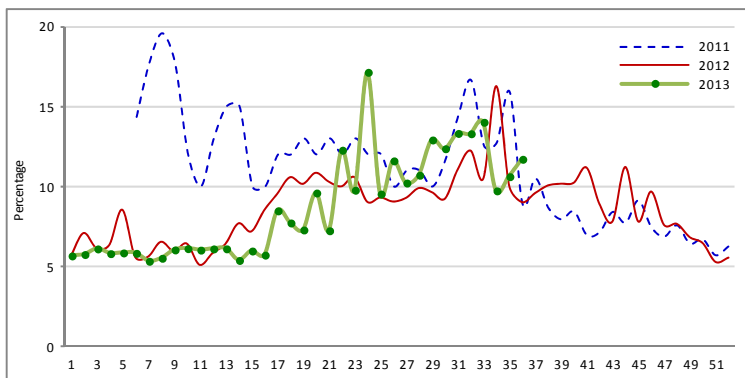
1 health facility from 1 district in Gilgit Baltistan reported on time to DEWS with a total of 233 patients consultations in week 36, 2013.

No alerts for any disease was reported in week 36, 2013.

The weekly AD trend is fluctuating and required vigilant monitoring.

**FATA:**

Figure-10: Weekly trend of Acute diarrhoea, FATA



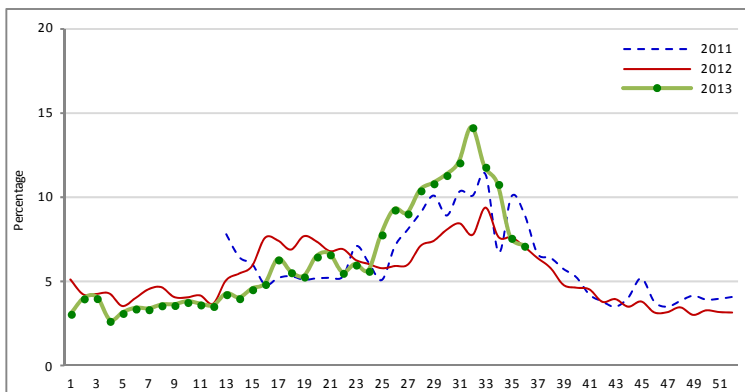
42 health facilities from 3 agencies in FATA reported to DEWS with a total of 10,823 patients consultations in week 36, 2013.

6 alerts, 3 for Leishmaniasis; while 1 each for AWD, Dengue fever and NNT were reported and appropriated measures were taken in week 36. AWD outbreak being responded in Khyber Agency.

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

**State of Azad Jammu and Kashmir:**

Figure-11: Weekly trend of Acute diarrhoea, AJ&K



85 health facilities from 8 districts in AJ&K reported to DEWS with a total of 18,730 patients consultations in week 36, 2013.

7 alerts for Measles were reported in week 36, 2013 and appropriate measures were taken.

Weekly trend of Acute diarrhoea showing decrease as compared with last week, but still significantly high as compare with last year during same time period. Vigilant monitoring of the situation is required.

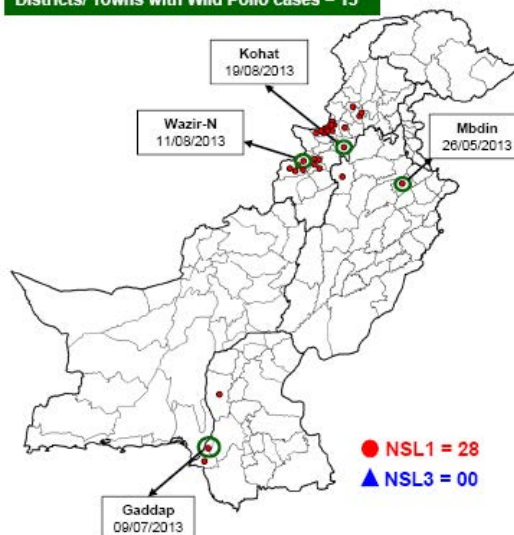
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 36, 2013		2013 (Total up till week - 36)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	9	4	120	35
Acute jaundice syndrome	113	22	1	0	33	6
Bloody diarrhoea	146	11	1	0	34	2
CCHF	68	41	1	0	53	31
Dengue fever	175	29	29	7	65	13
Diphtheria	60	16	1	1	36	5
Measles	5922	812	26	0	2968	268
Pertussis	366	147	1	0	40	10
NNT + tetanus	560	0	7	0	207	0
Malaria	136	68	2	0	18	3
Cutaneous Leishmaniasis	900	78	8	0	471	45
Others	1529	58	10	0	336	3
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>96</b>	<b>12</b>	<b>4381</b>	<b>421</b>

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

- In this week 36, 2013, one new wild polio case (type-1) was reported in the country from Khyber Pakhtunkhwa province (Kohat district). This brings the total number of wild polio cases to 28 in 2013 (compared to 39 during the same time period last year) from 13 districts/towns/tribal agencies/areas (compared to 22 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 36, 2013, 1 confirmed and 3 suspected CCHF cases were reported and investigated. 1 each from district Quetta, Loralai, Musa Khail and Killa Abdullah (Positive), province Balochistan. All the four cases were reported in Quetta. While 4 more suspected CCHF cases (9th September) including 2 deaths were reported from Islamabad PIMS hospital. All the patients belongs to same family living in Abbottabad, Khyber Pakhtunkhwa, and Butcher by profession. So for total of 67 suspected, 38 confirmed CCHF cases and 12 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	0	0
Balochistan	Afghanistan*	5	5	3	9	8
	Balochistan	33	18	4	43	23
ICT	-	-	-	6	2	2
KPK	9	6	5	1	1	0
Punjab	8	5	3	5	2	2
Sindh	7	7	3	2	2	1
<b>Total</b>	<b>62</b>	<b>41</b>	<b>18</b>	<b>67</b>	<b>38</b>	<b>12</b>



**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. In 2008, WHO collaborated with the Ministry of Health in drafting a long term plan for merging Dengue Prevention and Control within the Malaria Control Program.

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 this week 36, 2013 a total of 1,587 Dengue fever cases were reported out of which 1,470 cases were reported from Khyber Pakhtunkhwa; 86 from Sindh; 29 from Punjab; while 2 from Balochistan. In 2013, from 1 Jan - 11 Sep, total of 4,388 dengue fever cases have been identified by the DEWS surveillance network across Pakistan. Dengue Fever cases have started reported as usually from the endemic areas of Pakistan. However, in this season the Dengue fever cases are also started from less endemic areas from Khyber Pakhtunkhwa, District Swat and Balochistan, District Gwadar.

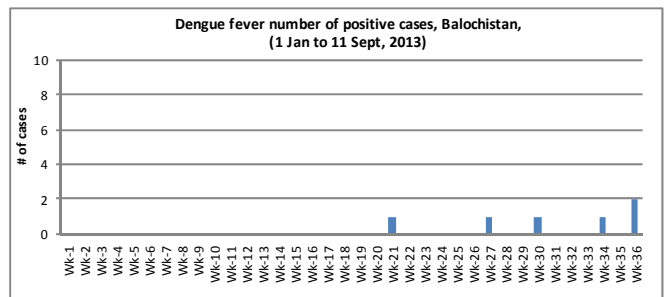
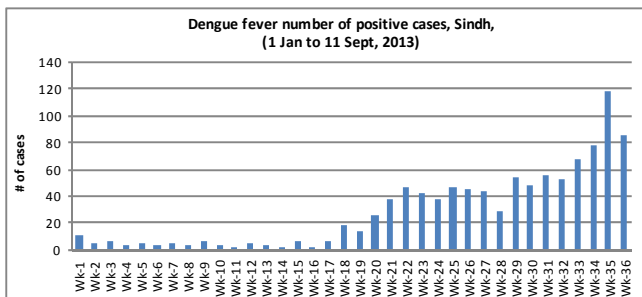
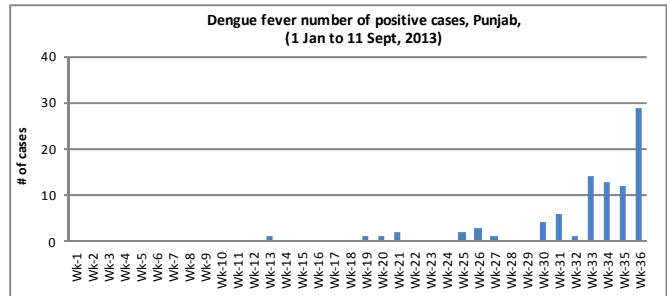
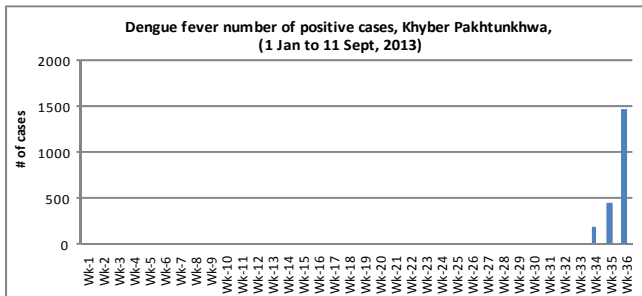
**Prevention:**

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. The best way to reduce mosquitoes is to eliminate the places where the mosquito lays her eggs, like artificial containers that hold water in and around the home. Outdoors, clean water containers like pet and animal watering containers, flower planter dishes or cover water storage barrels. Look for standing water indoors such as in vases with fresh flowers and clean at least once a week.

**Protection:**

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, use repellent on your skin while indoors or out. When possible, wear long sleeves and pants for additional protection. 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 in the household. Sleep under a mosquito bed net, eliminate mosquitoes you find indoors and wear repellent containing DEET (Diethyl toluamide).



Alerts and outbreaks, week 36, 2013

