



### Highlights

Epidemiological week no. 35 (25 to 31 Aug 2013)

- Dengue fever:** During the week, a total of 592 positive cases of Dengue fever have been reported from 6 districts in Pakistan. The highest number of DF cases (1,125 Dengue Lab confirmed) cases have been reported from district Swat, KP. The outbreak in Swat is being responded jointly.
- CCHF:** In week 35, 2013, 2 suspected CCHF cases were reported 1 each from district Quetta, and Killa Abdullah Balochistan; While 2 other cases reported belongs to Afghanistan district Hilmand and Qandahar. Epidemiological investigation conducted and treatment initiated (Page 5).
- Measles:** This week a total of 34 alerts investigated. 65 measles cases were reported from 19 districts. Vitamin-A drops provided to the suspected cases and district health teams were contacted to improve outreach vaccination in affected areas (Page 6).
- In this week (35, 2013), 73 districts and 2019 health facilities have reported to Disease Early Warning system (DEWS), compared to 73 districts with 1925 health facilities shared weekly data in week 34, 2013 to the DEWS.
- Total **843,047** patients consultations reported this week compared to **825,828** consultations in week 34, 2013.

Figure-1: 73 districts reported to DEWS in week 35, 2013



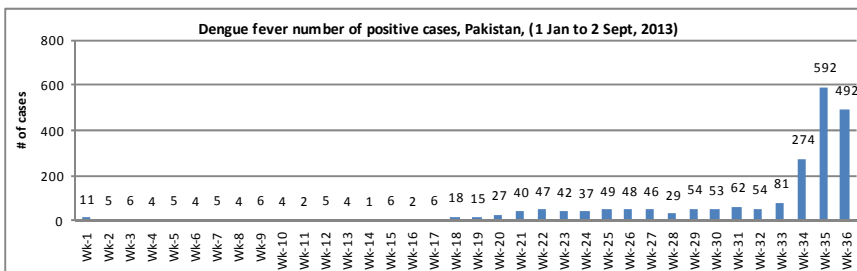
#### Priority diseases under surveillance in DEWS

- 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 35, 2013 (29 Dec 2012 to 31 August 2013)

Disease	# of Cases	Percentage
ARI	5,629,811	20%
Bloody diarrhoea	75,127	<0.5%
Acute diarrhoea	2,214,486	8%
S. Malaria	1,209,908	4%
Skin Diseases	1,093,429	4%
Unexplained fever	864,779	3%
<b>Total (All consultations)</b>	<b>28,222,030</b>	

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

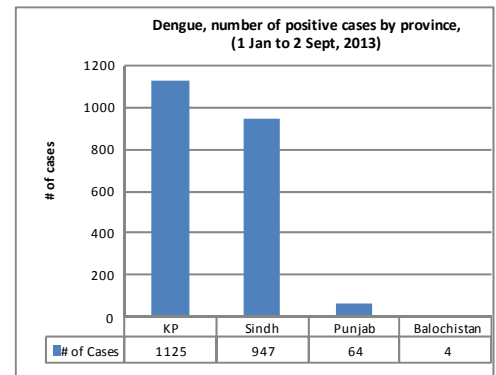


Major health events reported during the Epi-week - 35 (25 - 31 August 2013)

Disease	# of Cases	Percentage
ARI	136,542	16%
Bloody diarrhoea	2,215	<0.5%
Acute diarrhoea	70,340	8%
S. Malaria	39,447	5%
Skin Diseases	36,737	4%
Unexplained fever	25,260	3%
<b>Total (All consultations)</b>	<b>843,047</b>	

In 2013 Dengue fever cases are being reported also outbreaks have been detected in district Swat and Mardan in KP and Gwadar Balochistan. From 7 August to 2 September total 2140 cases reported from 26 districts in Pakistan. 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 1,125 cases have been reported from Khyber Pakhtunkhwa, Sindh reported 947, Punjab 64, and Balochistan 4 cases from 1Jan - 2Aug 2013.



Outbreaks (Wk-35/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
28-Aug	AWD	Balochistan	Khuzdar	Villages Loh, Rarr Bhit, Seendarho, UC Zeedi Tehsil Khuzdar	-	-	-	-	5 deaths due to Acute diarrhoea were reported in the media. Investigation was carried out along with district health team. 11 cases and 5 deaths were confirmed with Acute diarrhoea. Essential medicine were provided. Aqua tabs, pure sachet, antiseptic soaps and liquids were provided in the affected community. Health education imparted. DHO and all concerned authorities were informed.
26-Aug	AWD	FATA	Khyber Agency	Village Watan Mir Kakaro, UC Kam Shalman, Tehsil Landikotal	4	6	3	4	An alert of AWD was reported from BHU Kam Shalman by Medical Technician. On active surveillance total of 18 cases were found. Treatment was given in the BHU, whereas 3 patients were referred to AHQ Hospital Landikotal. Stool sample was taken and sent to NIH lab for testing. Water source was examined. Health and hygiene session was conducted by WHO and PPHI team. Soaps, Jerry cans and hygiene kits were distributed. Report was shared with Agency Surgeon and PPHI.
28-Aug	AWD	ICT	Islamabad	FGSH (F 6/4, Taxilla)	1	0	1	0	2 AWD cases were reported and timely investigated. Samples were found positive for Vibrio Cholera Inaba. Upon field investigation no other cases were found. Health education was imparted to families and were sentized for safe drinking water usage. Information was shared with EDO office Rawalpindi and Health Directorate Islamabad.
27-Aug	AWD	Khyber Pakhtunkhwa	Swabi	Village Urmal Dheri, UC Yar Hussain, Swabi	1	4	0	2	An AWD alert was reported from RHC Yar Hussain Hospital. 7 more AWD cases from the same family were brought to RHC for treatment. 30 more recovered AD cases were identified in the locality. Stool Sample was taken and sent to NIH for testing. Water samples were collected from various point for any faecal contamination and 2 samples were found unsafe for drinking. Health and hygiene sessions were conducted for affected families. LHW's were requested for door to door awareness sessions in their catchment regarding hygienic practices. Aqua tabs, Antiseptic soaps, hygiene kits, Jerry Cans, Aqua Sachet and ORS was distributed in the community. EDO health & DSM PPHI Swabi informed about the situation.
29-Aug	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Haji Abad & Muslim Abad, UC Mian Essa	0	2	2	2	An alert of Cutaneous Leishmaniasis was reported from UC Mian Essa, Tehsil Takht Bhai. In response active surveillance was done and 5 more clinical cases were identified in the area and surroundings. Line list was maintained and required doses of Inj Glucantime were placed in nearby health facility for all registered cases. Vector control interventions were carried out in the areas and surroundings. On job training of health staff was conducted for Intralesional administration of Inj Glucantime. RBM focal person was informed and requested for vector control measures in the areas. EDO Health and focal person was informed.
27-Aug	DF	Punjab	Lahore	Data Ganj Bakhsh Town UC 72, 73, 77, 82, 85	0	15	0	4	Five Confirmed cases and 10 Suspected cases and two probable cases of Dengue fever were notified from Different teaching hospitals at Lahore . The cases were investigated and blood samples were taken and sent to lab for the detection of dengue specific antibodies and result was found IgM positive for Four cases and IgG was negative whereas result for two cases is awaited. The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. UC wise outbreak warning was generated by PITB DSS Team after analysis of data by Dengue monitoring cell. There is no travel History of patient. Focal person dengue along with, CDCO, DDHO, and entomologist visit the area, Vector Surveillance was carried out . Larva was found inside and outside the houses near the address of confirm cases. Health Education session was given to the community regarding 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 .
29-Aug	DF	Punjab	Lahore	Shalimar Town UC 15, 23, 36	0	16	0	2	Two confirmed cases and 16 Suspected cases of Dengue fever were notified from different teaching hospitals at Lahore . The cases were investigated and blood samples were taken and sent to lab for detection of dengue specific antibodies which came out IgM positive for two cases, and IgG was negative whereas result for one case is awaited. There is no travel History of patient. Focal Person Dengue along with, CDCO, DDHO, and entomologist visit the area, Vector Surveillance was carried out confirmed case belong to uc 77 Qila Gujjar Singh . Larva was found inside and outside the houses near the address of confirm cases. Health Education session was given to the community about 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 .
26-Aug	Diphtheria	Punjab	Lahore	Mustafa Town, UC 117, Allama Iqbal Town	0	0	0	1	A Probable case of Diphtheria was reported by Children Hospital Lahore. Case management was ensured. ADS was supplied by WHO on the same day of admission. Patient was labeled as Critical and expired. Sample was collected and sent to NIH and was found positive for Diphtheria.
29-Aug	AWD	Sindh	Shikarpur	Village Allah Bux Khoso U/c Amrot Taluka Ghari Yaseen	5	6	2	2	One death due to AWD with severe dehydration was reported from Civil hospital Shikarpur. During field investigation, 14 more cases were found. Shallow hand pump was the main source of water, health education was also imparted. Aqua tabs, ORS, soaps, water filters, Specimen Kit, Disinfectant, masks & Gloves were supplied to the affected families. Information shared with DHMT and 2 stool sample and 8 water samples were also collected.

Figure-3: Number of alerts received and responded, week 32 - 35, 2013

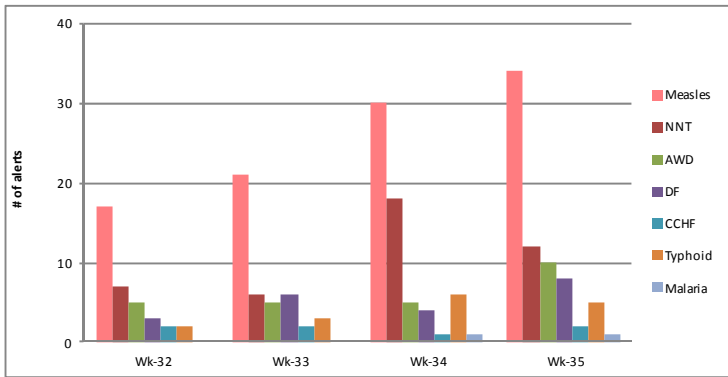
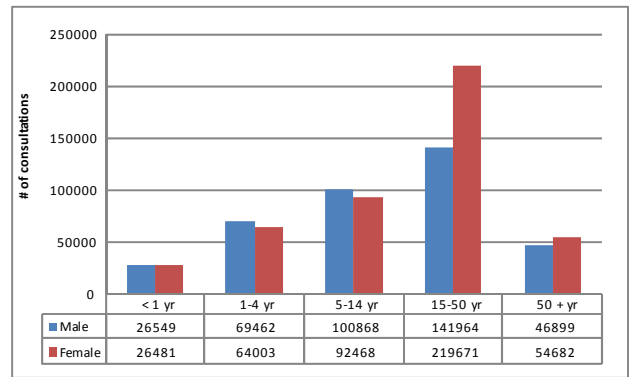
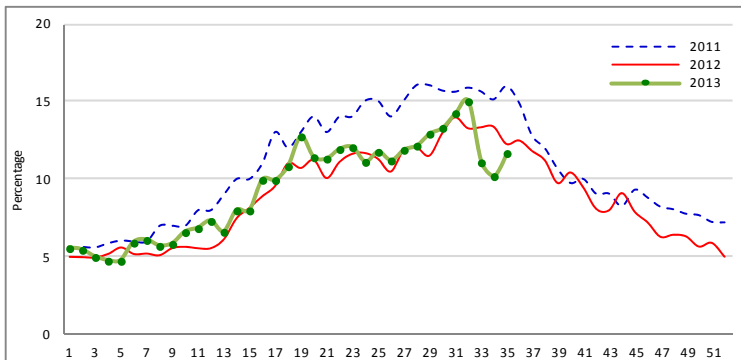


Figure-4: Number of consultations by age and gender, week 35, 2013



**Province Khyber Pakhtunkhwa:**

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



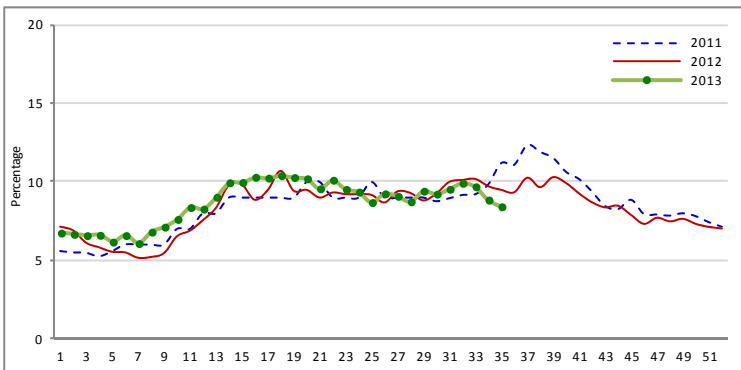
213 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 76,463 patients consultations reported in week 35, 2013.

27 alerts, 21 for Measles; 4 for AWD; while 2 for Leishmaniasis were received and appropriate measures were taken. 3 outbreaks are being responded in KP (AWD in Swabi; Dengue in Swat and Mardan)

The weekly trend of Acute diarrhoea is showing significantly increase from last week in KP, and 3 Cholera confirmed cases reported from KP in last three weeks, the situation need continuous attention in the province.

**Province Sindh:**

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

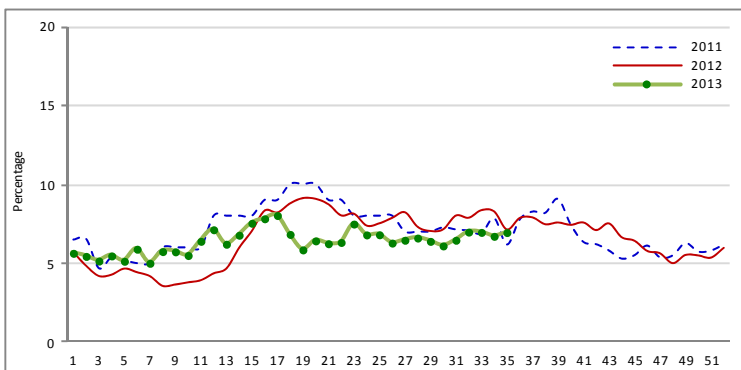


800 health facilities from 23 districts in Sindh province reported to DEWS with a total of 351,237 patient consultations in week 35, 2013. A total of 13 alerts were received and appropriate measures were taken. Altogether 7 alerts were for NNT; 3 for Dengue fever; while 1 each for AWD, Diphtheria and Measles. AWD outbreak is being responded in Shikarpur.

The overall proportion of AD for the province is high since start of year 2013, but last 2 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



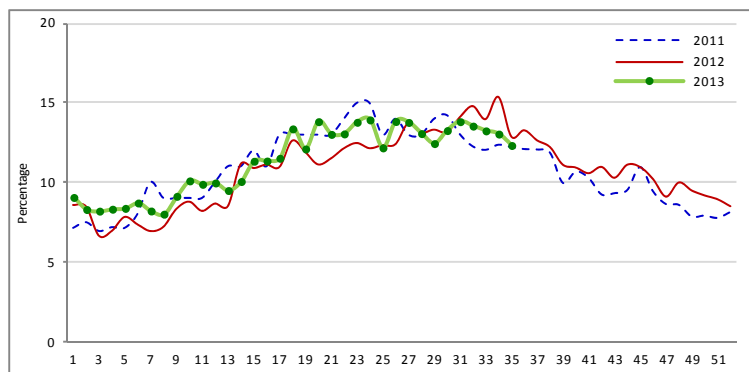
606 health facilities from 13 districts in province Punjab reported to DEWS with a total of 338,368 patients consultations in week 35, 2013. Total 28 alerts were received and appropriate measures were taken.

Altogether 6 alerts each for Acute diarrhoea and Measles; 4 each for Dengue fever and Typhoid; 2 each for AWD and Diphtheria; while 1 each for Bloody diarrhoea, CCHF, Malaria and Scabies. 3 outbreaks 2 for Dengue fever and 1 Diphtheria 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



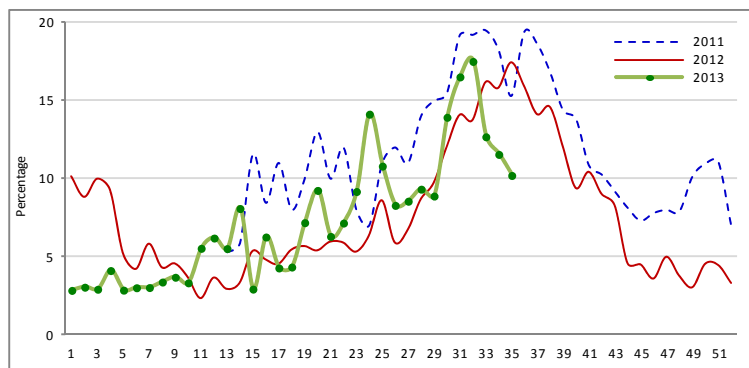
262 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 44,266 patients consultations in week 35, 2013. Total 14 alerts were reported and appropriate measures were taken in week 35, 2013.

Altogether 3 each alerts for Leishmaniasis and NNT; 2 for Acute diarrhoea; while 1 each for AWD, CCHF, Measles, Tetanus, Typhoid and Scabies. AWD outbreak in district Khuzdar identified and responded.

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

**Province Gilgit Baltistan:**

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



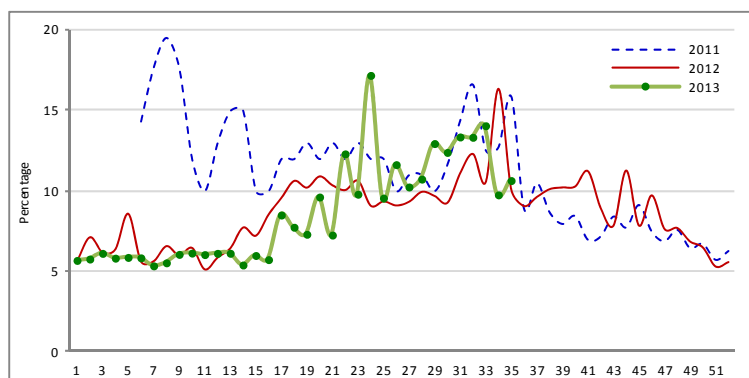
1 health facility from 1 district in Gilgit Baltistan reported on time to DEWS with a total of 225 patients consultations in week 35, 2013.

No alerts for any disease was reported in week 34, 2013.

The weekly AD trend is fluctuating and required vigilant monitoring.

**FATA:**

Figure-10: Weekly trend of Acute diarrhoea, FATA



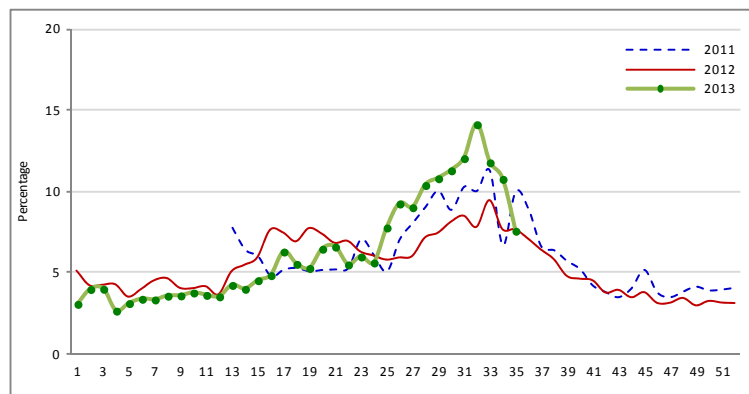
41 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,993 patients consultations in week 35, 2013.

5 alerts, 2 for Leishmaniasis; while 1 each for AWD, Measles and NNT were reported and appropriated measures were taken in week 35. 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



84 health facilities from 8 districts in AJ&K reported to DEWS with a total of 18,135 patients consultations in week 35, 2013.

4 alerts, 3 were for Measles; while 1 for Cutaneous Leishmaniasis were reported in week 35, 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.

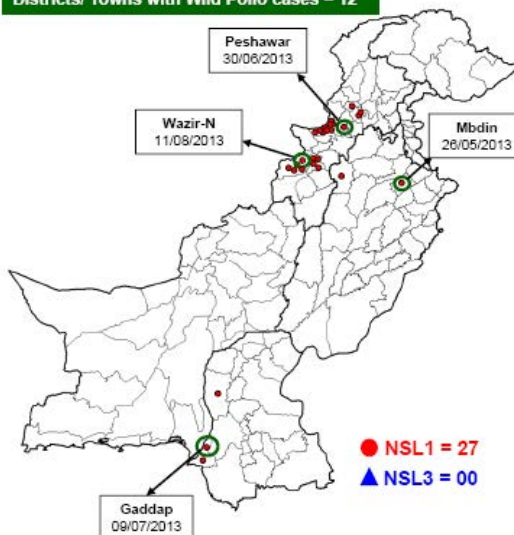
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 35, 2013		2013 (Total up till week - 35)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	10	6	111	31
Acute jaundice syndrome	113	22	0	0	32	6
Bloody diarrhoea	146	11	1	0	33	2
CCHF	68	41	2	0	52	30
Dengue fever	175	29	8	2	36	6
Diphtheria	60	16	3	1	35	4
Measles	5922	812	34	0	2939	268
Pertussis	366	147	0	0	39	10
NNT + tetanus	560	0	12	0	200	0
Malaria	136	68	1	0	16	3
Cutaneous Leishmaniasis	900	78	8	1	463	45
Others	1529	58	15	0	326	3
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>94</b>	<b>10</b>	<b>4282</b>	<b>408</b>

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

- In this week 35, 2013, 2 new wild polio cases (type-1) were reported in the country from Federally Administered Tribal Areas (North Waziristan Agency). This brings the total number of wild polio cases to 27 in 2013 (compared to 39 during the same time period last year) from 12 districts/towns/tribal agencies/areas (compared to 22 during the same time period last year).

Districts/ Towns with Wild Polio cases = 12



Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	2	-	-
Sindh	4	-	-	3	-	-
Khyber Pakhtunkhwa	27	-	-	5	-	-
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>27</b>	<b>-</b>	<b>-</b>

**Follow up of CCHF**

In week 35, 2013, 2 confirmed and 2 suspected CCHF cases were reported and investigated. 1 each from district Quetta (Negative), and Killa Abdullah (Positive), province Balochistan; while 2 cases belongs to Afghanistan, districts Hilmand (Positive) and Qandahar (Lab result Awaited). All the cases were reported in Quetta. Total of 59 suspected, 37 confirmed CCHF cases and 10 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).

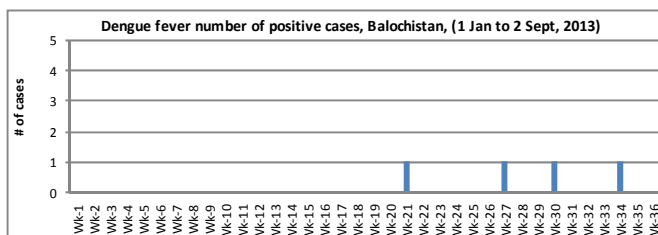
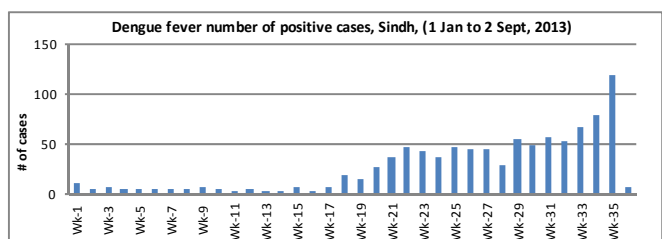
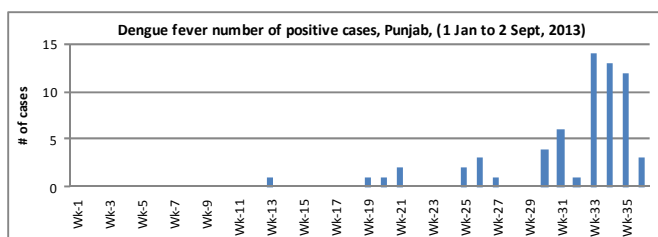
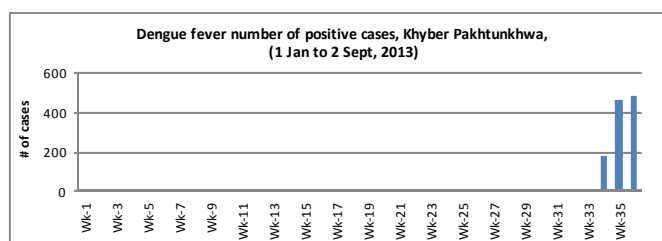
Province	2012			2013		
	Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K	0	0	0	1	0	0
Balochistan	Afghanistan*	5	5	3	9	8
	Balochistan	33	18	4	39	22
ICT	-	-	-	2	2	0
KPK	9	6	5	1	1	0
Punjab	8	5	3	5	2	2
Sindh	7	7	3	2	2	1
<b>Total</b>	<b>62</b>	<b>41</b>	<b>18</b>	<b>59</b>	<b>37</b>	<b>10</b>



**Dengue fever:**

From January to 2nd September 2013 total 2,140 Dengue fever cases have been reported country wide. There are continuous emergence of cases from Karachi throughout the year. This year higher number of cases of Dengue fever have been reported from the previously less endemic areas. A huge outbreak is encountered in district Swat and case are also reported from district Mardan in Khyber Pakhtunkhwa. First time this season Dengue fever cases have also been reported from district Gwadar Balochistan province.

From 7 August to 2nd September total 1,125 cases reported from 9 union councils of district Swat with the maximum cases reported from Tehsil Babuzai. Most of the water samples collected from tyre shops for Aedes larva have been found positive. DCO 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. Epidemiological surveillance for case reporting, vector and larvae surveillance have been enhanced in the district. Health care provider and health workers have been trained on prevention and control of Dengue fever. Blood samples are being sent to NIH for genotyping also.



**Measles**

**Measles Prevention:**

Routine measles vaccination for children; combined with mass immunization campaigns in countries with high case and death rates, is key public health strategy to reduce global measles mortality rates. The measles vaccine has been in use for over 40 years. It is safe, effective and inexpensive. It costs less than one US dollar to immunize a child against measles. Measles vaccine is provided by the Pakistan EPI programme to children at 9 months and 15 months. Children who are vaccinated against measles before 9 months of age must receive a 2nd measles vaccination at 9 months age ensuring a gap of one month between both vaccinations. Moreover, any child who received measles vaccine should also receive OPV.

Priority should be placed to immunize children 6 months to 5 years old during outbreaks, regardless of vaccination status or history of disease. Auto destructible syringes and safety boxes are recommended and safe disposal of used sharps and safety of injection during immunization should be ensured. Let's remind all our neighbors, friends and colleagues to be sure that their children are immunized against measles.

Table at the bottom summarizes the situation of measles in year 2012; and illustrates the alerts and outbreaks in 2013 up till week 35 (31 August 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 35)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	232	12	435	1
Balochistan	447	119	1816	31	319	57	1236	50
FATA	211	31	559	13	75	12	202	7
Gilgit Baltistan	40	1	54	0	11	1	22	0
ICT	27	2	63	0	51	2	155	1
Khyber Pakhtunkhwa	1989	108	3542	38	1093	83	2122	20
Punjab	809	40	1329	16	1041	73	8341	94
Sindh	2234	505	7353	212	117	28	3409	148
<b>Total</b>	<b>5922</b>	<b>812</b>	<b>14984</b>	<b>310</b>	<b>2939</b>	<b>268</b>	<b>15922</b>	<b>321</b>

