



### Highlights

Figure-1: 66 districts reported to DEWS in week 32, 2013

#### Epidemiological week no. 32 (4 to 10 Aug 2013)

- **CCHF:** In week 32 and 33, 2013, a total of 4 suspected CCHF cases were reported, 2 from districts Quetta and Killasaifullah in Balochistan; while 1 each from district Chakwal (Punjab) and district Poonch (AJK). Epidemiological investigation conducted and treatment initiated (Page 5).
- **Measles:** This week a total of 17 alerts investigated. 42 measles cases were reported from 9 districts. Vitamin-A drops provided to the suspected cases and district health teams were contacted to improve outreach vaccination in affected areas (Page 6).
- Due to EID holidays this week 32, 2013, 66 districts and 1690 health facilities have reported to Disease Early Warning system (DEWS), compared to 72 districts with 1974 health facilities shared weekly data in week 31, 2013 to the DEWS.
- Total 414,759 patients consultations reported this week compared to 720,698 consultations in week 31, 2013.
- Altogether 42 alerts were investigated and 4 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

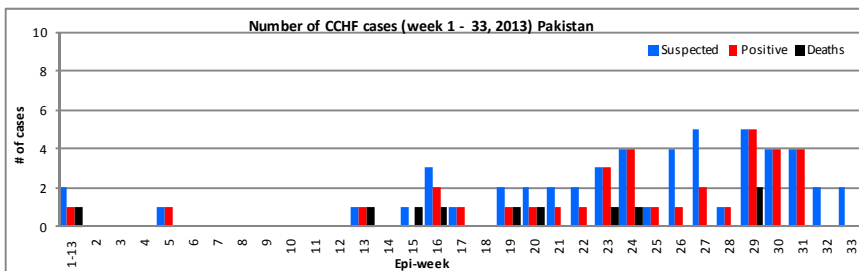
#### Cumulative number of selected health events reported in Epi-week 1 to 32, 2013 (29 Dec 2012 to 10 August 2013)

Disease	# of Cases	Percentage
ARI	5,243,404	20%
Bloody diarrhoea	68,748	<0.5%
Acute diarrhoea	2,004,636	8%
S. Malaria	1,099,956	4%
Skin Diseases	986,288	4%
Unexplained fever	793,661	3%
<b>Total (All consultations)</b>	<b>25,788,541</b>	

#### Major health events reported during the Epi-week - 32 (4 - 10 August 2013)

Disease	# of Cases	Percentage
ARI	57,904	14%
Bloody diarrhoea	1,190	<0.5%
Acute diarrhoea	38,653	9%
S. Malaria	15,980	4%
Skin Diseases	19,700	5%
Unexplained fever	12,669	3%
<b>Total (All consultations)</b>	<b>414,759</b>	

Figure-2: Weekly number of CCHF cases and deaths in Pakistan; Week-1-33, 2013.



Suspected and confirmed CCHF cases are reported continuously. Since the epidemiological week 13, 2013, at least one confirmed case per week has been reported. The highest number of case (5) reported in week 29 and 4 confirmed cases in weeks 30 and 31, 2013. So far total 52 suspected cases, 35 confirmed cases and 10 deaths have been reported and most of the cases are from Balochistan (suspected 35, confirmed 21, deaths 4). WHO team is supporting the provincial health departments in handling the situation. The WHO - DEWS team conducts epidemiological investigation and contacts tracing (active surveillance in the community and hospitals); sharing information with the stakeholders (DoH, Livestock Dept. and other partners); Give health education to family members and close contacts of the cases on preventive measures and seeking immediate health care in case of fever; Collect and transport blood samples to NIH for laboratory confirmation.

A coordination mechanism is being developed involving DoH, Livestock Dept., UNHCR, Relief Intl., PPHI and the Fatimah Jinnah Hospital to handle the situation effectively. Formation/activation of the CCHF response committee in the Province. Personal Protective Equipment (PPE), gloves, and masks for infection control at the isolation wards in the hospital, and medicine provided for case management. Although joint efforts are being taken however more vigorous actions are required on the eradication of infected ticks in the high risks areas and awareness raising in the population.

## Outbreaks (Wk-32/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
6-Aug	AWD	Sindh	Khairpur	Village Khuda Bux Soomaro UC Sabar Rind Taluka Thari Mirh	2	1	1	4	One death due to AWD was reported by a local Newspaper. During field investigation 7 more cases of AWD were found. Health education imparted in the community, Hand pump was the source of water, Aqua tabs, Zinc tabs and ORS. EDOH informed, stool sample was not taken as the patients had received antibiotics. 2 water samples were collected for laboratory testing. EDOH informed.
6-Aug	Diphtheria	Punjab	Lahore	Children Hospital Lahore	0	1	0	0	An alert of probable Diphtheria case was reported from Children Hospital, Lahore. Standard case management was ensured. ADS was supplied from WHO on the same day of admission. Patient was labeled as Critical and membrane was visible. Patient belongs to Tehsil Jaranwala District Faisalabad. DG health, Director CDC and Director EPI were informed. Case Response was Done by District Faisalabad. Throat Swab was Collected by WHO and dispatched to NIH for Diphtheria detection. EDO(H) Faisalabad was also informed.
7-Aug	CCHF	Punjab	Chakwal	Village Chaki Rangpur UC Kallar Kahar Tehsil Kallar Kahar	0	0	0	1	CCHF positive case was reported from NIH about a case admitted in Holy Family Hospital Rawalpindi. The case was investigated both in hospital at Rawalpindi and in Chakwal with the coordination of Department of Health in respective districts. According to history, patient is a house wife who was also involved in domestic livestock handling. She was reportedly administering oral medicines to her sick calf for last 3 days before getting ill. Initially she was treated on the line of malaria by local dispenser and later by a GP but upon development of gum bleeding she was referred to Holy Family Hospital Rawalpindi. Her samples were sent to NIH where she was found positive for CCHF. Patient is kept in strict isolation in the ward and nursing staff are using proper PPEs while handling the patient. Condition of the patient is improving now. On active surveillance, no more patient with similar symptoms is traced in the locality. The suspected calf was advised to be kept in isolation and livestock department is requested to take necessary actions. Follow up is being done. Detailed reports are shared with both district and provincial health authorities.
10-Aug	AWD	Balochistan	Khuzdar	DHQ (Villages Bajki Baghbana, Kahand, Malgozar, Kanak, Pishi Kappar)	6	19	8	16	49 cases including 1 death were reported from DHQ Hospital. During field investigation, cases were presented with typical sign & symptoms. 4 stool samples collected and sent to NIH for lab confirmation. 6 cases were treated with Plan C, 19 cases were treated with Plan B, While remaining were treated with Plan A. Essential medicines were provided. Health and Hygiene education sessions were conducted.

Figure-3: Number of alerts received and responded, week 29 - 32, 2013

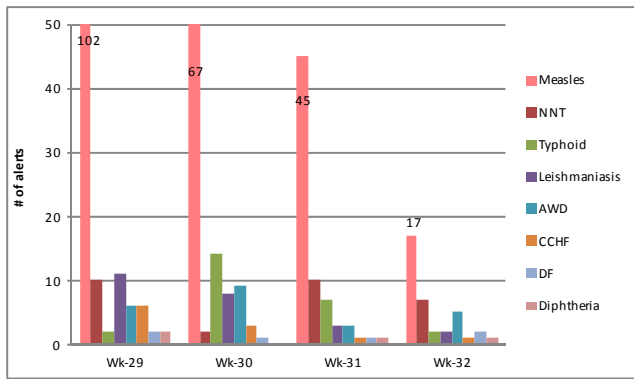
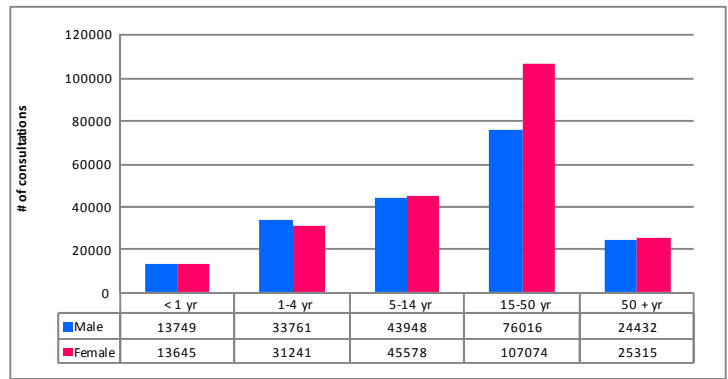
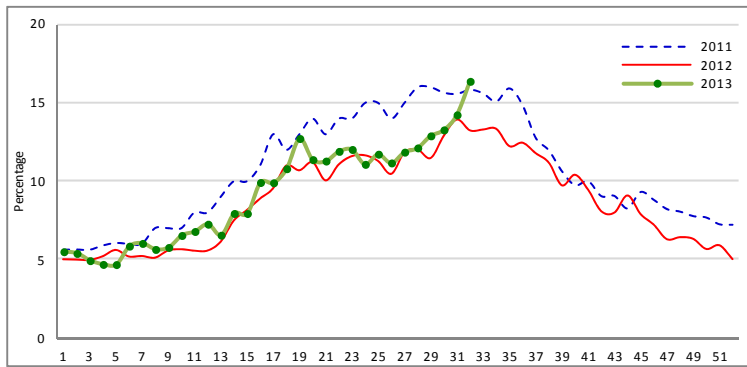


Figure-4: Number of consultations by age and gender, week 32, 2013



**Province Khyber Pakhtunkhwa:**

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



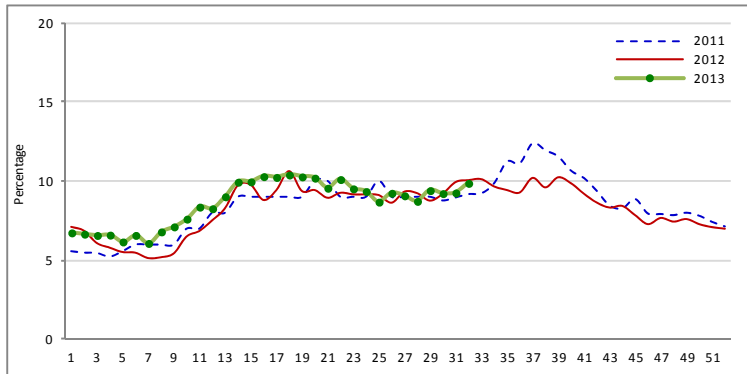
136 health facilities from 9 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 27,311 patients consultations reported in week 32, 2013.

8 alerts for Measles were received and appropriate measures were taken.

The weekly trend of Acute diarrhoea is showing significantly increase from last few weeks in KP. Required vigilant monitoring of the situation. One Cholera confirmed case reported from KP in last week.

**Province Sindh:**

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

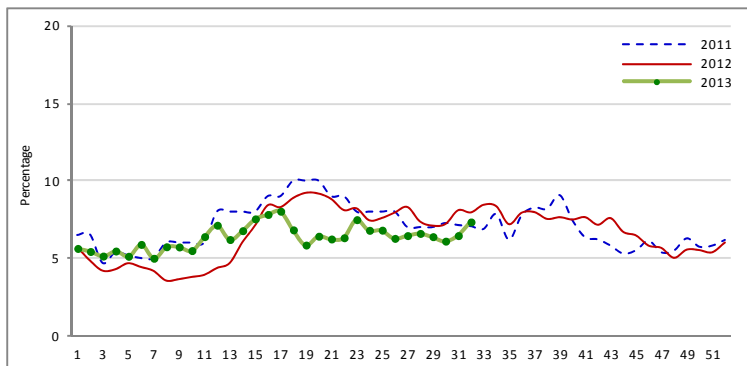


662 health facilities from 22 districts in Sindh province reported to DEWS with a total of 158,566 patient consultations in week 32, 2013. A total of 11 alerts were received and appropriate measures were taken. Altogether 6 alerts were for NNT; 3 for AWD; while 2 for Measles.

The overall proportion of AD for the province is high as compared to the previous years during the same period. During this season 15 AWD outbreaks identified and responded, the situation need continuous attention in the province.

**Province Punjab:**

Figure-7: Trend of ARI, province Punjab



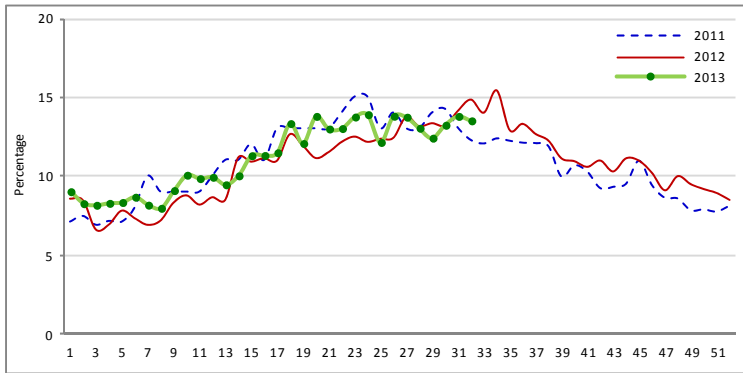
614 health facilities from 13 districts in province Punjab reported to DEWS with a total of 202,436 patients consultations in week 32, 2013. Total 20 alerts were received and appropriate measures were taken.

Altogether 7 alerts were for Measles; 3 for Bloody diarrhoea; 2 each for Dengue fever and Typhoid; while 1 each for Acute diarrhoea, ARI, AWD, CCHF, Diphtheria and NNT.

The weekly trend of AD in Punjab showing increase from last few weeks, required vigilant monitoring.

**Province Balochistan:**

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



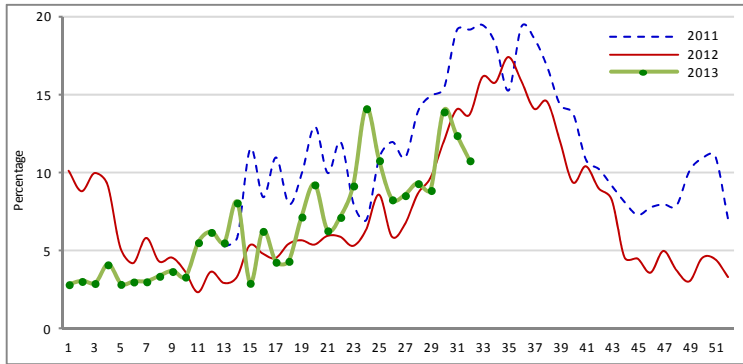
213 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 19,394 patients consultations in week 32, 2013. Total 3 alerts were reported and appropriate measures were taken in week 32, 2013.

Altogether 2 alerts were for Leishmaniasis; while 1 for AWD.

In this week the weekly proportion of AD showing minor 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



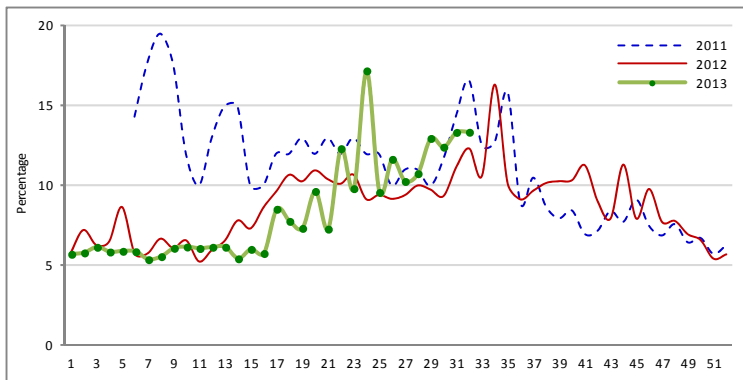
Due to Eid holidays only 1 health facility from 1 district in Gilgit Baltistan reported on time to DEWS with a total of 37 patients consultations in week 32, 2013.

No alerts for any disease was reported in week 32, 2013.

The weekly AD trend is fluctuating and high and required vigilant monitoring.

**FATA:**

Figure-10: Weekly trend of Acute diarrhoea, FATA

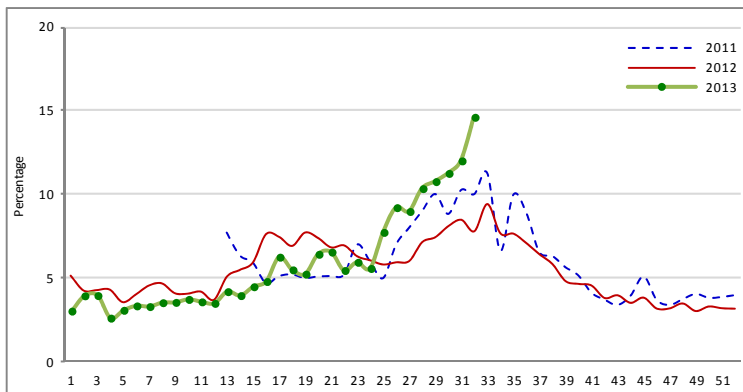


11 health facilities from 1 agency in FATA reported to DEWS with a total of 2,689 patients consultations in week 32, 2013. No alerts reported in week 32 from any area in FATA.

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



50 health facilities from 6 districts in AJ&K reported to DEWS with a total of 4,121 patients consultations in week 32, 2013.

No alerts for any disease were reported in week 32, 2013.

Weekly trend of Acute diarrhoea showing significantly increase from last couple of weeks. Vigilant monitoring of the situation is required.

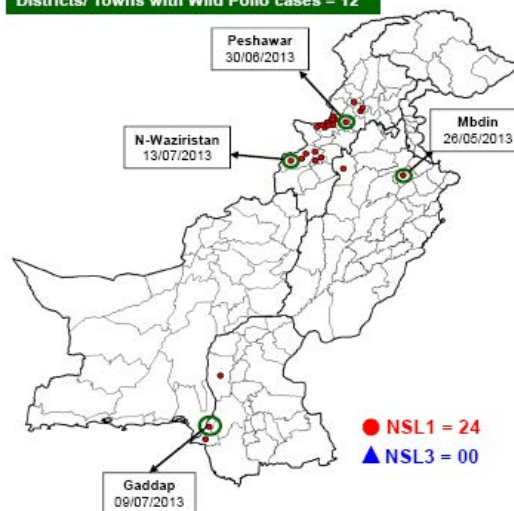
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 32, 2013		2013 (Total up till week - 32)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	5	2	90	21
Acute jaundice syndrome	113	22	0	0	28	5
Bloody diarrhoea	146	11	3	0	29	2
CCHF	68	41	1	1	45	25
Dengue fever	175	29	2	0	15	1
Diphtheria	60	16	1	1	28	2
Measles	5922	812	17	0	2853	267
Pertussis	366	147	0	0	37	10
NNT + tetanus	560	0	7	0	164	0
Malaria	136	68	0	0	14	2
Cutaneous Leishmaniasis	900	78	2	0	442	44
Others	1529	58	4	0	285	3
<b>Total</b>	<b>10631</b>	<b>1475</b>	<b>42</b>	<b>4</b>	<b>4030</b>	<b>382</b>

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

- In week 32, 2013, two new type-1 wild polio cases were reported in the country, one each from Sindh (Gadap town Karachi) and Federally Administered Tribal Areas (North Waziristan Agency). This brings the total number of wild polio cases to 24 in 2013 (compared to 32 during the same time period last year) from 12 districts/towns/tribal agencies/areas (compared to 19 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	14	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>55</b>	<b>2</b>	<b>1</b>	<b>24</b>	<b>-</b>	<b>-</b>

**Follow up of CCHF**

In week 32 and 33, 2013, a total of 4 suspected CCHF cases were reported, 2 from districts Quetta and Killasaifullah in Balochistan; while 1 each from district Chakwal (Punjab) and district Poonch (AJK). A total of 52 suspected, 35 confirmed CCHF cases and 10 deaths have been reported in year 2013.

In 2012, a total of 62 suspected cases have been 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.

Province	2012			2013		
	Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K	0	0	0	1	0	0
Balochistan	Afghanistan*	5	5	3	7	3
	Balochistan	33	18	4	35	21
ICT	-	-	-	2	2	0
KPK	9	6	5	1	1	0
Punjab	8	5	3	4	2	2
Sindh	7	7	3	2	2	1
<b>Total</b>	<b>62</b>	<b>41</b>	<b>18</b>	<b>52</b>	<b>35</b>	<b>10</b>

Approximately all the cases had contact history with animal trading/handling, tick bite, contact with patient, tannery worker, butcher/animals slaughtering, a traditional practice of wearing fresh animal skin (posti) to treatment ailment. There is ongoing trade of animals and animal skins with movement intra Pakistan and between neighboring countries (Afghanistan and Iran).

**Measles****Proper case management during outbreaks:**

It is imperative that during outbreak situations proper case management is ensured in order to minimize measles related deaths and measles related complications. The treatment of measles patients with Vitamin A will dramatically reduce their risk of deaths. Two doses of Vitamin A will be given to all identified cases (active and old) during house-to-house investigation, unless it was already received as part of the treatment in the health facility. One dose to be given by the health worker on the day of investigation and the 2nd dose provide to the parents advising to give on next day. The therapy will be given regardless of previous vitamin A prophylaxis. If the investigation team observes complications, the patient should be referred to the nearest health facility for specific treatment of these complications.

**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 32 (10 August 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 32)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	220	12	418	1
Balochistan	447	119	1816	31	315	56	1219	48
FATA	211	31	559	13	72	12	195	7
Gilgit Baltistan	40	1	54	0	11	1	22	0
ICT	27	2	63	0	50	2	154	1
Khyber Pakhtunkhwa	1989	108	3542	38	1040	83	2048	20
Punjab	809	40	1329	16	1029	73	8307	94
Sindh	2234	505	7353	212	116	28	3399	148
<b>Total</b>	<b>5922</b>	<b>812</b>	<b>14984</b>	<b>310</b>	<b>2853</b>	<b>267</b>	<b>15762</b>	<b>319</b>

**Acute Watery Diarrhoea/Cholera**

Acute Watery diarrhoea/Cholera is an acute enteric infection caused by the ingestion of bacterium *Vibrio cholera* present in faecally contaminated water or food. Primarily linked to insufficient access to safe water and proper sanitation, its impact can be even more dramatic in areas where basic environmental infrastructures are disrupted or have been destroyed. Countries facing complex emergencies are particularly vulnerable to cholera outbreaks. Massive displacement of IDPs or refugees to overcrowded settings, where the provision of potable water and sanitation is challenging, constitutes also a risk factor. Every year, there are an estimated 3–5 million cholera cases and 100,000–120,000 deaths due to cholera worldwide.

Acute Watery Diarrhoea/Cholera is characterized in its most severe form by a sudden onset of acute watery diarrhea that can lead to death by severe dehydration. The extremely short incubation period - two hours to five days - enhances the potentially explosive pattern of outbreaks, as the number of cases can rise very quickly. About 75% of people infected with cholera do not develop any symptoms. However, the pathogens stay in their feces for 7 to 14 days and are shed back into the environment, possibly infecting other individuals. Cholera is an extremely virulent disease that affects both children and adults. Individuals with lower immunity, such as malnourished children are at greater risk of death if infected by cholera.

**Key messages:**

Cholera is transmitted through contaminated water or food. Prevention and preparedness of cholera require a coordinated multidisciplinary approach  
Cholera can rapidly lead to severe dehydration and death if left untreated  
Once *Vibrio cholera* is confirmed, the WHO clinical case definition is sufficient to diagnosis and management of cases. Laboratory testing is required only for antimicrobial sensitivity testing and for confirming the end of an outbreak.  
Provision of safe water, proper sanitation, and food safety are critical for preventing occurrence of cholera  
Health education aims at communities adopting preventive behavior for averting contamination  
ORS can successfully treat 80% of cholera cases  
Appropriate antibiotics can reduce the duration of *Vibrio Cholera* bacterium in the patient stool

