



Highlights

Epidemiological week no. 33
(11 to 17 Aug 2013)

- **CCHF:** In week 33, 2013, 2 suspected CCHF cases were reported 1 each from districts Quetta and Killasaifullah in Balochistan. Epidemiological investigation conducted and treatment initiated (Page 5).
- **Measles:** This week a total of 21 alerts investigated. 35 measles cases were reported from 14 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 (33, 2013), **79** districts and 2122 health facilities have reported to Disease Early Warning system (DEWS), compared to 66 districts with 1690 health facilities shared weekly data in week 32, 2013 to the DEWS.
- Total **748,823** patients consultations reported this week compared to **433,038** consultations in week 32, 2013.
- Altogether **62** alerts were investigated and **2** outbreaks were identified and timely responded.

Figure-1: 79 districts reported to DEWS in week 33, 2013



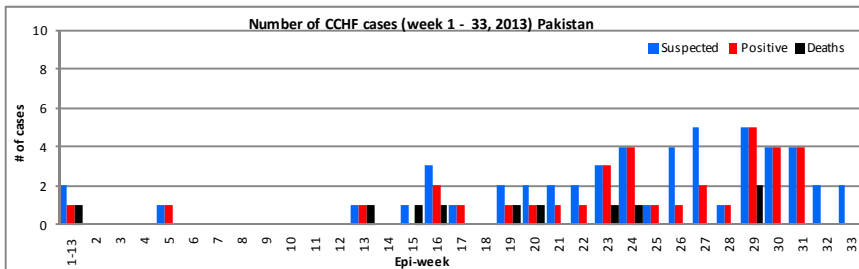
Priority diseases under surveillance in DEWS

- 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 33, 2013 (29 Dec 2012 to 17 August 2013)

Disease	# of Cases	Percentage
ARI	5,359,418	20%
Bloody diarrhoea	71,012	<0.5%
Acute diarrhoea	2,075,361	8%
S. Malaria	1,130,193	4%
Skin Diseases	1,021,091	4%
Unexplained fever	816,307	3%
Total (All consultations)	26,559,709	

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



Major health events reported during the Epi-week - 33 (11 - 17 August 2013)

Disease	# of Cases	Percentage
ARI	111,724	15%
Bloody diarrhoea	2,182	<0.5%
Acute diarrhoea	68,187	9%
S. Malaria	29,523	4%
Skin Diseases	33,790	5%
Unexplained fever	21,418	3%
Total (All consultations)	748,823	

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 has been 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-33/2013):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
15-Aug	AWD	Khyber Pakhtunkhwa	Swabi	Mohalla Shahidan, UC Gharbi, Tehsil Topi, District Swabi	1	1	2	2	Alert of AWD with 2 deaths reported by EDO Health Swabi. DOH, PPHI and WHO DEWS team verified and investigated the cases. During field investigation, 4 more clinical cases with mild to severe dehydration were identified in the same family and neighbors. The possible source was contaminated water supply. 1 Stool sample was taken and sent to NIH for laboratory testing. Water samples were also collected from various points for lab confirmation. Health and hygiene sessions were conducted in the community. LHW's were requested to conduct door to door awareness sessions in their catchment area on hygienic practices. Aqua tabs, Antiseptic soaps, hygiene kits, Jerry Cans, Aqua Sachet and ORS were distributed in the community. Information shared with EDO health and DSM PPHI Swabi.
22-Aug	Pertussis	Balochistan	Khuzdar	Village Dhatt, UC Hazargangi Tehsil Nall	7	3	3	1	An outbreak of Pertussis with 14 probable Pertussis cases 1 death due to Pertussis reported from BHU Hazargangi. Families were sensitized about routine immunization. Symptomatic treatment provided to the cases and contacts. Health education imparted. 5 samples were collected (1 Nasopharyngeal 4 oral swabs) and sent to NIH for laboratory testing. Information shared with DHO and requested for outreach vaccination in the affected locality.

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.

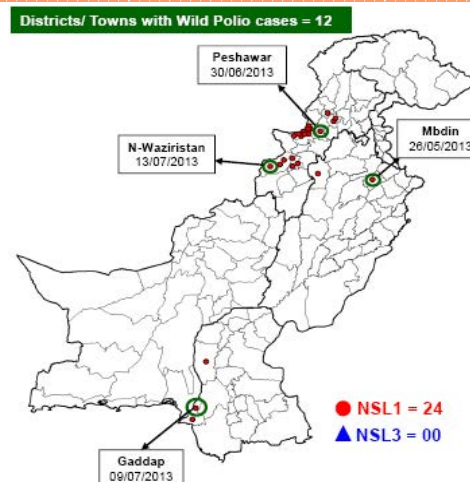
Acute Watery Diarrhoea/Cholera is characterized in its most severe form by a sudden onset of acute watery diarrhea that can lead to death by severe dehydration. The extremely short incubation period - two hours to five days - enhances the potentially explosive pattern of outbreaks, as the number of cases 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

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 33, 2013, no new wild polio case was reported in the country.
- The total number of wild polio cases remain 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).



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	-	-	-	-	-	-
Total	55	2	1	24	-	-

Figure-3: Number of alerts received and responded, week 30 - 33, 2013

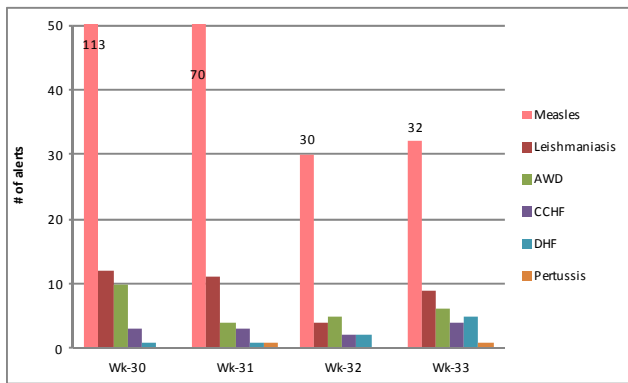
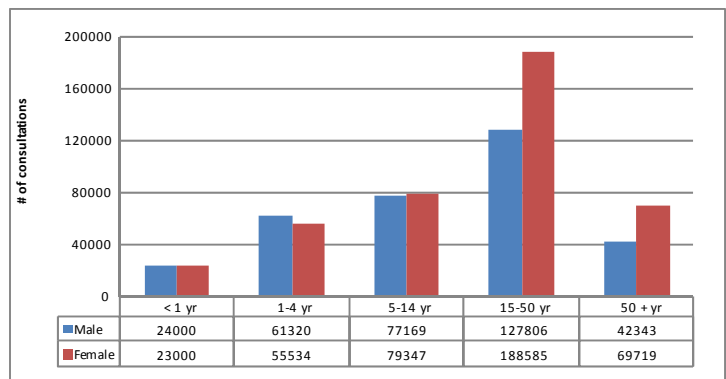
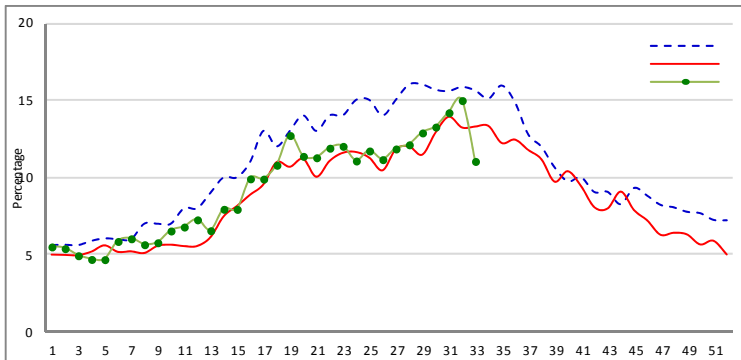


Figure-4: Number of consultations by age and gender, week 33, 2013



Province Khyber Pakhtunkhwa:

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



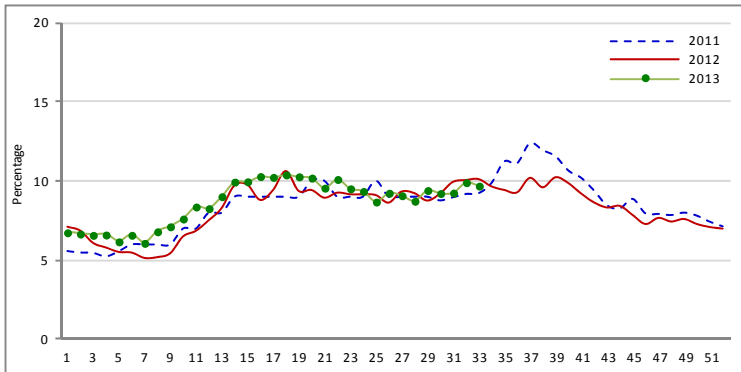
341 health facilities from 15 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 124,083 patients consultations reported in week 33, 2013.

15 alerts, 14 for Measles; while 1 for AWD were received and appropriate measures were taken.

The weekly trend of Acute diarrhoea is showing significantly decrease from last week in KP, but 1 Cholera confirmed case reported from KP in this week.

Province Sindh:

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

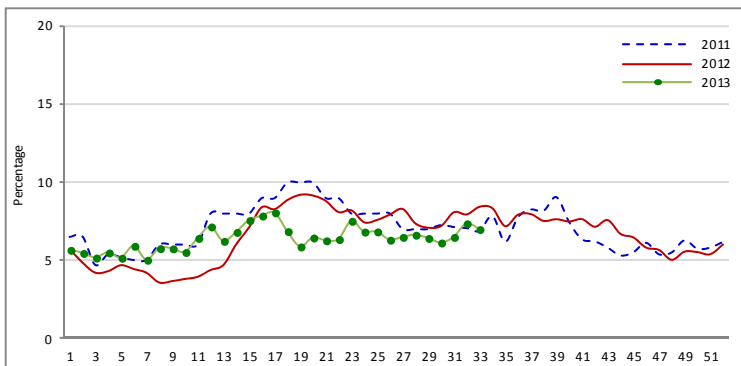


756 health facilities from 23 districts in Sindh province reported to DEWS with a total of 287,326 patient consultations in week 33, 2013. A total of 9 alerts were received and appropriate measures were taken. Altogether 4 alerts were for NNT; 2 each for AWD and Cutaneous Leishmaniasis; while 1 for Dengue fever.

The overall proportion of AD for the province is high as compared to the previous year 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



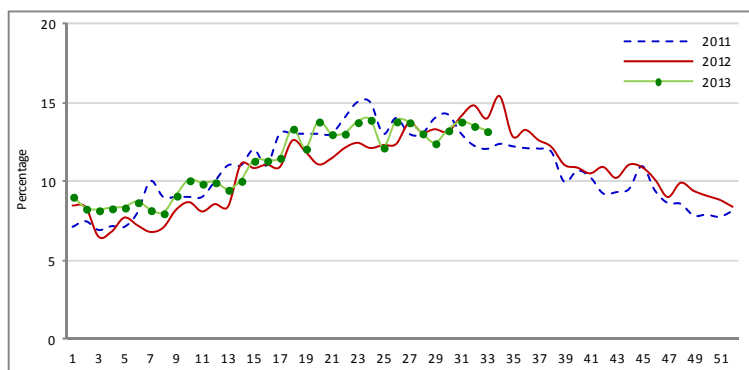
643 health facilities from 13 districts in province Punjab reported to DEWS with a total of 286,376 patients consultations in week 33, 2013. Total 25 alerts were received and appropriate measures were taken.

Altogether 5 each alerts were for Measles and Scabies; 4 for Dengue fever; 2 each for AWD, ARI, CCHF, and Typhoid; while 1 each for AJS, Bloody diarrhoea and Rabies.

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



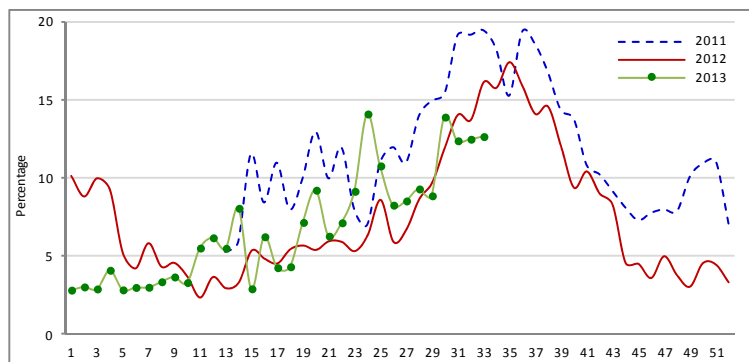
253 health facilities from 14 districts in province Balochistan reported to DEWS with a total of 32,556 patients consultations in week 33, 2013. Total 6 alerts were reported and appropriate measures were taken in week 33, 2013.

Altogether 2 alerts were for Acute diarrhoea; while 1 each for Bloody diarrhoea, Measles, Pertussis and Typhoid.

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



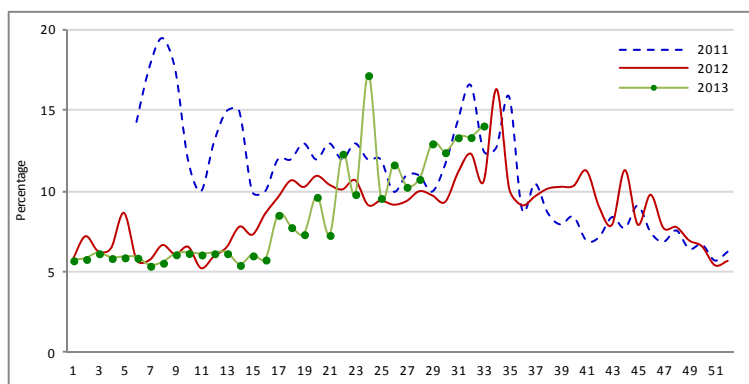
2 health facilities from 2 districts in Gilgit Baltistan reported on time to DEWS with a total of 189 patients consultations in week 33, 2013.

No alerts for any disease was reported in week 33, 2013.

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

FATA:

Figure-10: Weekly trend of Acute diarrhoea, FATA

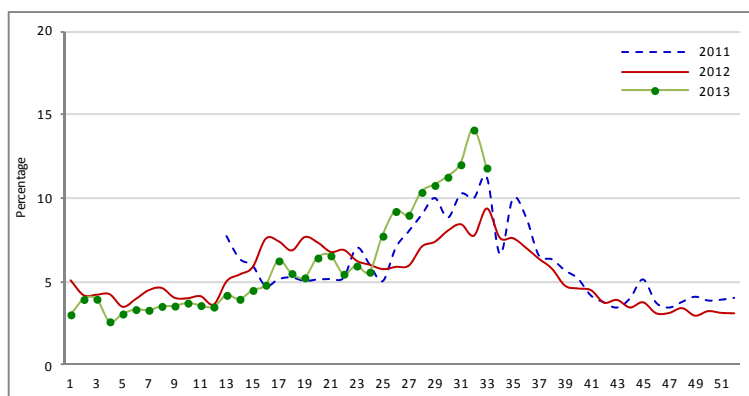


41 health facilities from 3 agencies in FATA reported to DEWS with a total of 6,491 patients consultations in week 33, 2013. No alerts reported in week 33 from any area in FATA.

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



75 health facilities from 8 districts in AJ&K reported to DEWS with a total of 9,327 patients consultations in week 33, 2013.

2 alerts, 1 each for Measles and Cutaneous Leishmaniasis were reported in week 33, 2013 and appropriate measures were taken.

Weekly trend of Acute diarrhoea showing decrease as compare 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 32, 2013		2013 (Total up till week - 32)	
	A	O	A	O	A	O
Acute watery diarrhoea	656	193	5	1	96	23
Acute jaundice syndrome	113	22	1	0	29	5
Bloody diarrhoea	146	11	2	0	31	2
CCHF	68	41	2	0	49	30
Dengue fever	175	29	5	0	20	1
Diphtheria	60	16	0	0	28	2
Measles	5922	812	21	0	2874	267
Pertussis	366	147	1	0	38	10
NNT + tetanus	560	0	6	0	170	0
Malaria	136	68	0	0	14	2
Cutaneous Leishmaniasis	900	78	6	0	448	44
Others	1529	58	13	0	298	3
Total	10631	1475	62	1	4095	389

Follow up of CCHF

In week 33, 2013, 2 suspected CCHF cases were reported, 2 from districts Quetta and Killasaifullah in Balochistan. Cases were farmer and labour by profession with clear contact history with animal. Samples were collected and result is awaited. The 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.

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).

Number of CCHF cases and deaths reported in year 2012 and 2013 up till 17 August.							
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	7	3
	Balochistan	33	18	4	35	21	4
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
Total		62	41	18	52	35	10

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 33 (17 August 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 33)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	221	12	419	1
Balochistan	447	119	1816	31	316	56	1220	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	1054	83	2064	20
Punjab	809	40	1329	16	1034	73	8321	94
Sindh	2234	505	7353	212	116	28	3402	148
Total	5922	812	14984	310	2874	267	15797	319

