



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

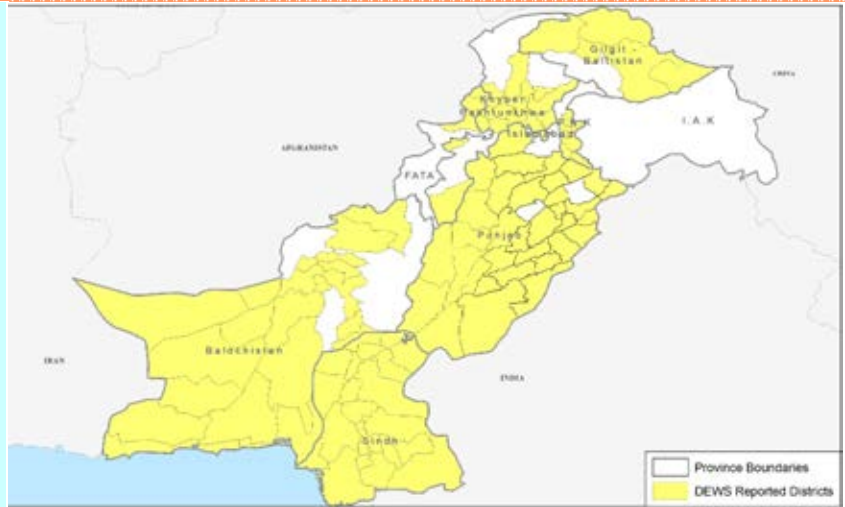
Volume 5, Issue 37, Wednesday 17 September 2014

### Highlights

Epidemiological week no. 37  
(7 - 13 September 2014)

- **CCHF:** During this week, 1 suspected CCHF case has been reported from Punjab province.
- In this week, **81** out of 87 districts and 2,678 out of 3,590 health facilities have reported to Disease Early Warning System (DEWS), compared to 85 districts with 2,963 health facilities shared weekly data in week 35, 2014.
- A total of **1,149,374** patients consultations reported in this week 37, 2014.
- In this week, a total of 35 alerts generated and timely responded. Altogether 8 alerts were for Measles; 5 for Dengue fever; 4 each for Leishmaniasis and NNT; 3 for CCHF and Diphtheria; 2 each for AWD and Acute diarrhoea; while 1 each for Naegleria Meningitis, Pertussis, Tetanus and Scabies.

Figure-1: 81 out of 87 districts reported to DEWS in week 37, 2014



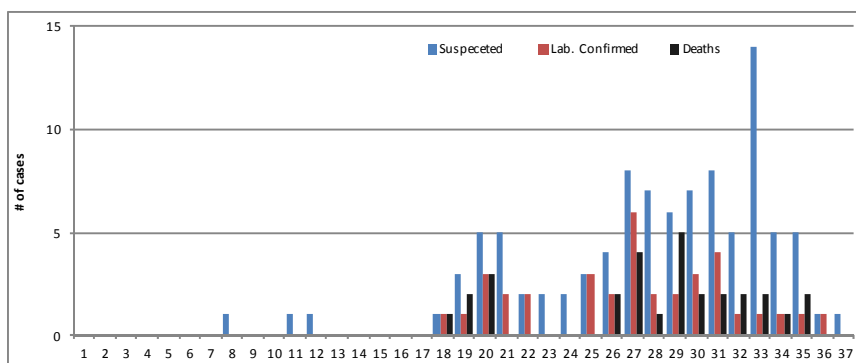
#### Priority diseases under surveillance in DEWS

Acute Respiratory Infection  
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  
Cutaneous Leishmaniasis

Cumulative number of selected health events reported in Epi-week 1 to 37, 2014 (29 Dec 2013 to 13 September 2014)

Disease	# of Cases	Percentage
ARI	6,881,941	18.37%
Bloody diarrhoea	36,821	<1.00%
Acute diarrhoea	2,185,863	5.84%
S. Malaria	949,578	2.54%
Skin Diseases	1,193,046	3.19%
Unexplained fever	958,585	2.56%
All other consultations	25,247,382	67.41%
<b>Total (All consultations)</b>	<b>37,453,216</b>	<b>100%</b>

Figure-2: Weekly number of CCHF cases and deaths in Pakistan, week 1 to 37 2014



Major health events reported during the Epi-week - 37 (7 - 13 September 2014)

Disease	# of Cases	Percentage
ARI	198,624	17.28%
Bloody diarrhoea	1,512	<1.00%
Acute diarrhoea	68,521	5.96%
S. Malaria	30,906	2.69%
Skin Diseases	40,533	3.53%
Unexplained fever	26,841	2.34%
All other consultations	782,437	68.08%
<b>Total (All consultations)</b>	<b>1,149,374</b>	<b>100%</b>

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 97 suspected cases, 36 laboratory confirmed, and 28 deaths (of these 14 laboratory confirmed) have been reported. Most of the cases are from Balochistan province 46 suspected (13 cases belongs to Afghanistan), 10 Laboratory confirmed and 9 deaths. 27 suspected, 15 Laboratory confirmed (10 from Afghanistan) and 10 deaths (7 Lab confirmed) were reported from Khyber Pakhtunkhwa province. 4 suspected cases (2 from Afghanistan), 3 Laboratory confirmed and 2 deaths were reported from Islamabad. 15 suspected CCHF cases (7 Laboratory confirmed), 6 deaths were reported from Punjab province. 2 laboratory confirmed cases (1 death) were reported from Sindh province; While 1 suspected case was from district Sudhnuti (AJK) and found negative for CCHF.

The CCHF cases from Afghanistan are detected and reported from Quetta and Peshawar. The patients are referred for treatment (mostly self referrals) to the Tertiary Care hospitals in both these cities. The list of CCHF cases with addresses shared with concerned person at the Ministry of Public Health Afghanistan for preventive measures at community level.

## Number of Outbreaks (Wk-37/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
13-Sep	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Liyasey, Kharki, UC Baizo Kharki, Mardan	1	0	1	4	Six clinical cases of Cutaneous Leishmaniasis were reported from BHU Baizo Kharki, Tehsil Takht Bhai. WHO supplied required doses of Inj-Glucantime to KPH Mardan for all registered cases. On the job training of health staff was conducted for Intralesional administration of Inj-Glucantime. RBM focal person and EDO Health were informed and requested for vector control measures in the areas.
12-Sep	Acute diarrhoea	Sindh	Karachi	RHC Murad Memon, Gadap town	30	89	30	113	Acute diarrhoea outbreak was reported from Gaddap Town, Karachi. RHC visit revealed 262 cases of mild diarrhoea cases within the past couple of days. A medical camp was arranged in the RHC and cases were treated successfully. After that the village was visited to find out if there are any more Acute diarrhoea cases. A detailed health education session was conducted in the village. Aqua tabs distributed and ORS and zinc solution were placed in the RHC for patients if required.
10-Sep	AWD	Sindh	Matiari	Village Jan Muhammad Jamali, Taluka Saeedabad	69	31	84	43	One death due to diarrhoea was reported from village Jan Muhammad Jamali. According to family member of the deceased that the 3 of the family members had complain of loose motions and vomiting and visited the nearest health facility at BHU Bago Jamali. Later referred to DHQ Nawab Shah along with five other cases reported from same village with same complain of severe dehydration. Out of these six patients one patient died at DHQ Nawab Shah and other five cases were recovered and discharged. On active surveillance a total of 227 Acute diarrhoea cases were registered from same village. One death reported and 62 cases were found hospitalized and 156 were treated as OPD and cured. There were 4 hand pumps in village but only one Hand Pump was source of drinking water for whole village, from rest of 3 hand pumps water used for washing purpose and water was unsuitable for drinking. Aqua Tabs, Jerry cans were distributed in affected families. Health Education sessions were conducted in the community for proper hand washing, did not use Old Cooked Foods, Improve Hygiene and using boil water for drinking. 3 Stool sample taken and sent for laboratory testing. While 4 water samples were taken which were found unfit for drinking. Information shared with DHO.
9-Sep	CCHF	Sindh	Karachi	Shah faisal colony number 5, uc 2, Roshanabad, near Abasia mosque, Shah faisal town.	0	1	0	0	DEWS team and EDO health Karachi got information from AKUH that a sample for CCHF has come positive. With the help of EDOH office the patient was located and visit was made to JPMC. Patient aged 16 years male developed fever and his condition kept on worsening. Patient's PCR for CCHF came positive and antiviral therapy was started. The patient was improving. A health awareness session was conducted comprising of lady health workers and the people in the community. Moreover an official from the livestock department visited the cattle farm in the area (from where the patient might have caught the disease), assessed the situation and ensured that the Livestock department will follow proper steps to disinfect the cattle and farm. On household visit the DEWS SO elaborated in detail the ways of contacting the disease and its prevention. It was advised that all the family members need to monitor their temperature twice daily for two weeks. Follow-up planned.

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

Disease	2013		Current week 37, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	2	2	55	15
Acute jaundice syndrome	49	6	0	0	15	3
Bloody diarrhoea	45	3	0	0	26	0
CCHF	90	47	3	1	88	45
Dengue fever	300	66	5	0	20	0
Diphtheria	84	19	3	0	45	4
Measles	3357	281	8	0	993	31
Pertussis	46	10	0	0	26	2
NNT + tetanus	349	0	5	0	207	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	4	0	330	18
Others	520	5	5	0	262	6
<b>Total</b>	<b>5628</b>	<b>534</b>	<b>35</b>	<b>3</b>	<b>2067</b>	<b>124</b>

Figure-3: Number of alerts received and responded, week 34 to 37 2014

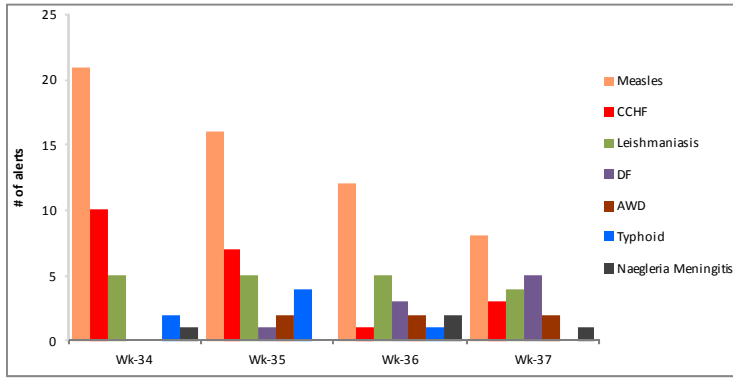
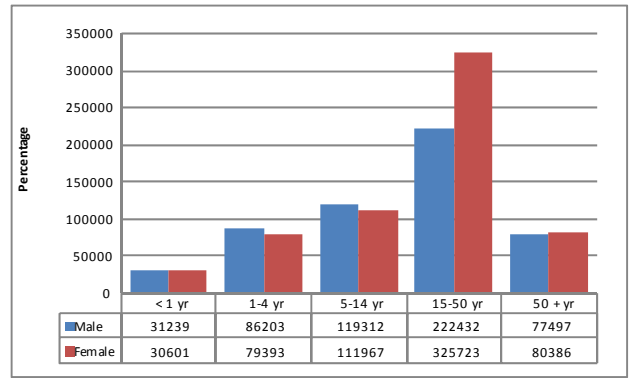
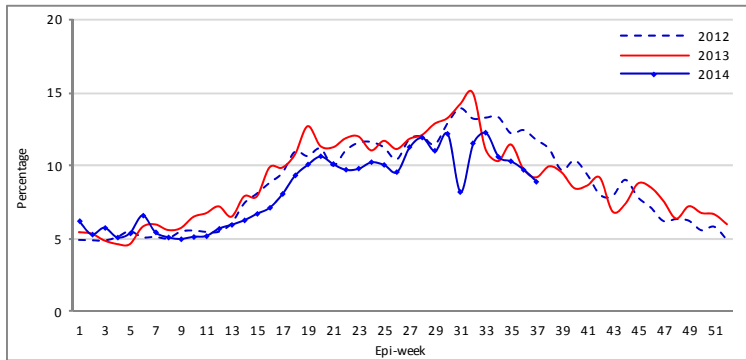


Figure-4: Number of consultations by age and gender, week 37, 2014



**Province Khyber Pakhtunkhwa:**

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



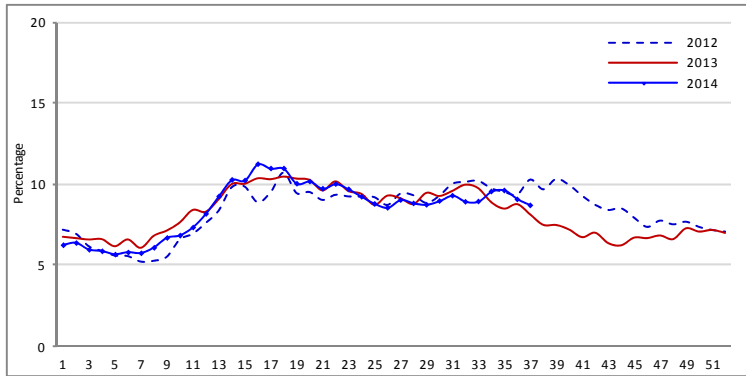
120 health facilities from 8 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 37,198 patients consultations reported in week 37, 2014.

An alert for diphtheria was received and appropriate measures were taken.

Figure-5 shows the weekly trend of Acute diarrhoea showing decrease this week but vigilant monitoring of the situation is required.

**Province Sindh:**

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



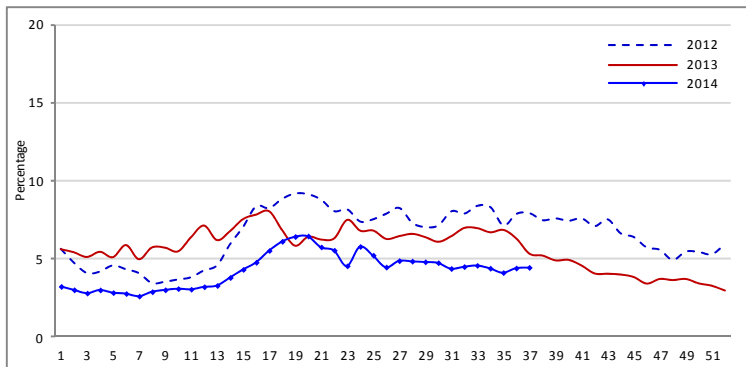
756 health facilities from 22 districts in Sindh province reported to DEWS with a total of 316,873 patient consultations in week 37, 2014.

A total of 7 alerts were received and appropriate measures were taken. Altogether 2 alerts each were for AWD and NNT; while 1 each for CCHF, Leishmaniasis and Naegleria Meningitis.

The proportion of AD for the province is showing decrease as compared with last week but vigilant monitoring of the situation is required as proportion of AD is high in the province as compared with same time period last year.

**Province Punjab:**

Figure-7: Trend of Acute diarrhoea, province Punjab



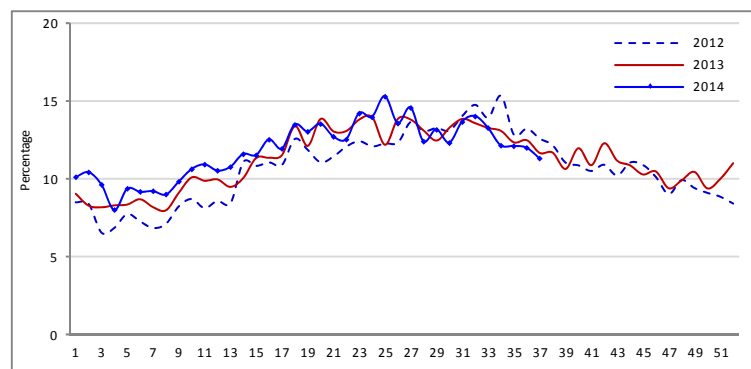
1,549 health facilities from 33 districts in Punjab province reported to DEWS with a total of 752,373 patients consultations in week 37, 2014.

Total 17 alerts were received and appropriate measures were taken. Altogether 5 alerts were for Dengue fever; 3 for Measles; 2 each for Acute diarrhoea, CCHF, Diphtheria and NNT; while 1 for Scabies were responded in province Punjab.

The weekly trend of Acute diarrhoea in Punjab showing minor increase as compared with last week but low as compared with same time period last year.

**Province Balochistan:**

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



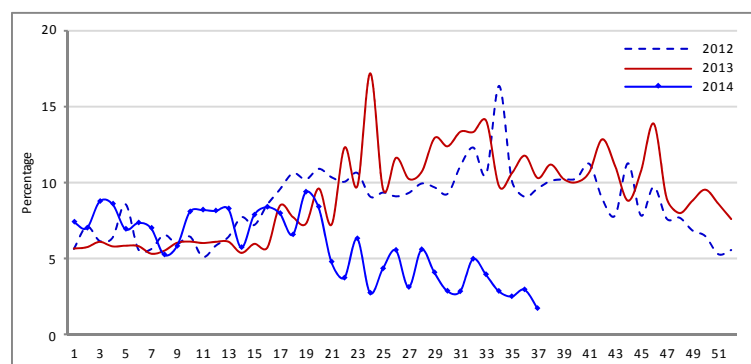
188 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 31,237 patients consultations in week 37, 2014.

A total of 8 alerts were reported and appropriate measures were taken. Altogether 3 alerts each were for Measles and Leishmaniasis; while 1 each for Pertussis and Tetanus.

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

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



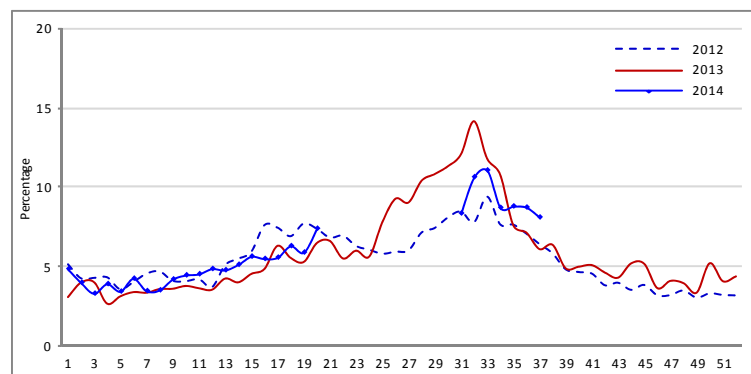
1 health facilities from 1 agency in FATA reported to DEWS with a total of 791 patients consultations in week 37, 2014.

No alert for any disease was received from any area in FATA in week 37 2014.

The proportion of AD showing some spikes as the number of consultations is low, but vigilant monitoring of the situation is required.

**State of Azad Jammu and Kashmir:**

Figure-10: Weekly trend of Acute diarrhoea, AJ&K



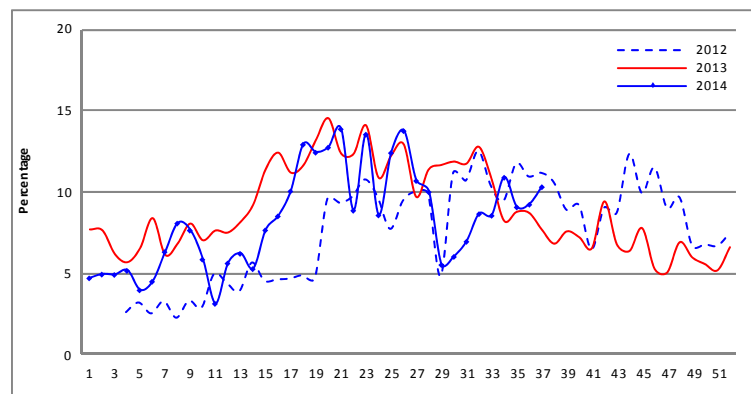
62 health facilities from 8 districts in AJK reported to DEWS with a total of 10,620 patients consultations in week 37, 2013.

2 alerts for Measles were reported in this week and appropriate measures were taken.

Weekly trend of AD showing minor decrease as compared with last week but vigilant monitoring of the situation is required.

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



2 health facilities reported to DEWS on time with a total of 282 patients consultations in week 37, 2014.

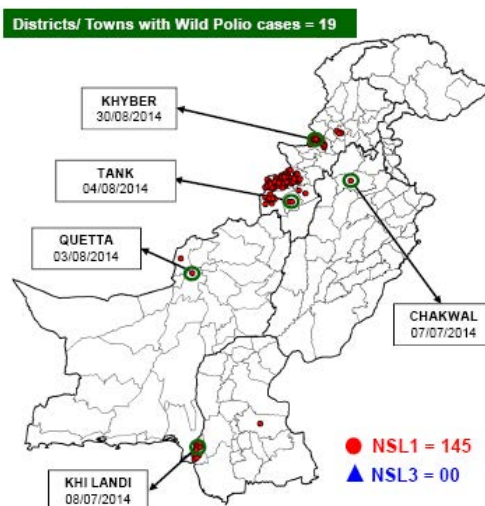
No alert for any disease was reported in week 37 from Islamabad in this week.

Weekly trend of AD showing spikes as the number of reporting health facilities is low from last couple of weeks, but vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2013 and 2014

In week 37 (7 to 13 September 2014), seven new wild polio virus (WPV) cases were reported, four from FATA (three from Khyber agency, one from North Waziristan agency), two from Khyber Pakhtunkhwa (one each from Tank and Bannu districts) and from Balochistan (Quetta district). This brings the total number of polio cases in 2014 to 145 (compared to 41 in 2013 till this time) from 19 districts/towns/tribal agencies/FR areas (compared to 15 in 2013 till this time).

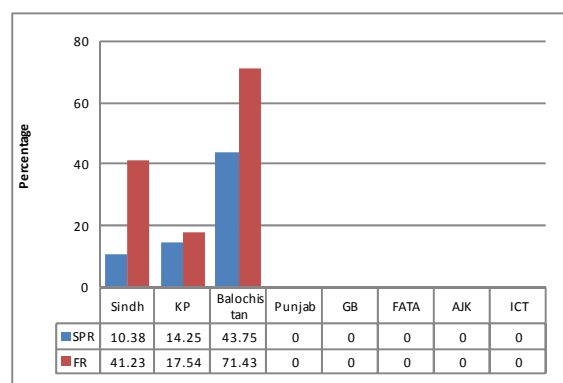
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	1	-	-
Sindh	10	-	-	11	-	-
Khyber Pakhtunkhwa	11	-	-	25	-	-
FATA	65	-	-	106	-	-
Balochistan	-	-	-	2	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>145</b>	<b>-</b>	<b>-</b>



Malaria:

The Table and chart given below shows the Malaria Slide Positivity and Falciparum Ratio in week 37, 2014. Total number of Malaria cases tested in this week is 3,784 out of which 429 were found positive; 277 for P. Vivax; 42 for P. Falciparum; while 110 for Mixed (SPR = 11.34%; F.R = 35.43%).

Malaria tests \ Province	Sindh	Khyber Pakhtunkhwa	Balochistan	Punjab	GB	FATA	AJK	ICT
P. Vivax	181	94	2	0	0	0	0	0
P. Falciparum	17	20	5	0	0	0	0	0
Mixed	110	0	0	0	0	0	0	0
# tested	2968	800	16	0	0	0	0	0
SPR	10.38	14.25	43.75	0	0	0	0	0
FR	41.23	17.54	71.43	0	0	0	0	0



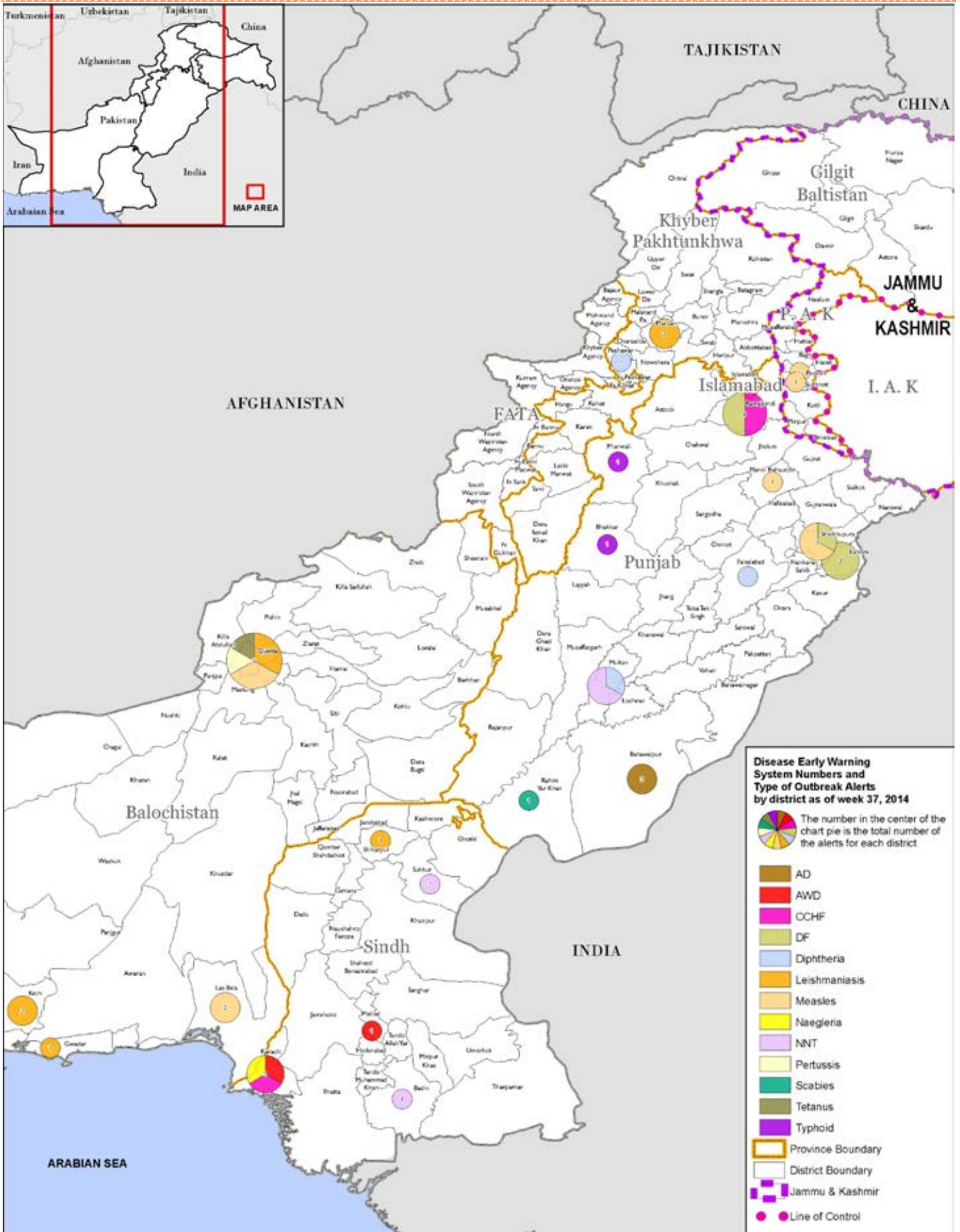
Follow up on: CCHF

CCHF is a serious viral hemorrhagic fever with up to 50% case fatality rate, caused by an RNA virus of family Bunyaviridae, genus Nairovirus, carried by Hyalomma species of ticks. Human beings become infected by tick bites or crushing the ticks, which are usually found on sheep, cattle, goats or camels, and their slaughtered skins. They may also be exposed to the virus in blood or tissues of a viremic animal during its slaughter and butchering; or by contact with infected blood or secretions of acute human cases in home or hospital setting. Any contact of a CCHF patient should monitor his/her temperature for 14 days and see a doctor if fever develops. The anti viral medicine Ribavirin has been effective in saving lives of patients who report early to the health facility.

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 97 suspected cases, 36 laboratory confirmed, and 28 deaths (of these 14 laboratory confirmed) have been reported. Most of the cases are from Balochistan province 46 suspected (13 cases belongs to Afghanistan), 10 Laboratory confirmed and 9 deaths. 27 suspected, 15 Laboratory confirmed (10 from Afghanistan) and 10 deaths (7 Lab confirmed) were reported from Khyber Pakhtunkhwa province. 4 suspected cases (2 from Afghanistan), 3 Laboratory confirmed and 2 deaths were reported from Islamabad. 15 suspected CCHF cases (7 Laboratory confirmed), 6 deaths were reported from Punjab province. 2 laboratory confirmed cases (1 death) were reported from Sindh province; While 1 suspected case was from district Sudhuti (AJK) and found negative for CCHF. Approximately all the cases had contact history with animal trading/handling, tick bite, contact with patient, tannery worker, butcher/animal slaughtering. There is ongoing trade of animals and animal skins with movement intra Pakistan and between neighboring countries (Afghanistan and IRAN).

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 stake holders (DoH, Livestock Dept., hospitals 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/symptoms, collect and transport blood samples to NIH for laboratory testing and confirmation. 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.

Alerts and outbreaks week 37 2014



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