



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

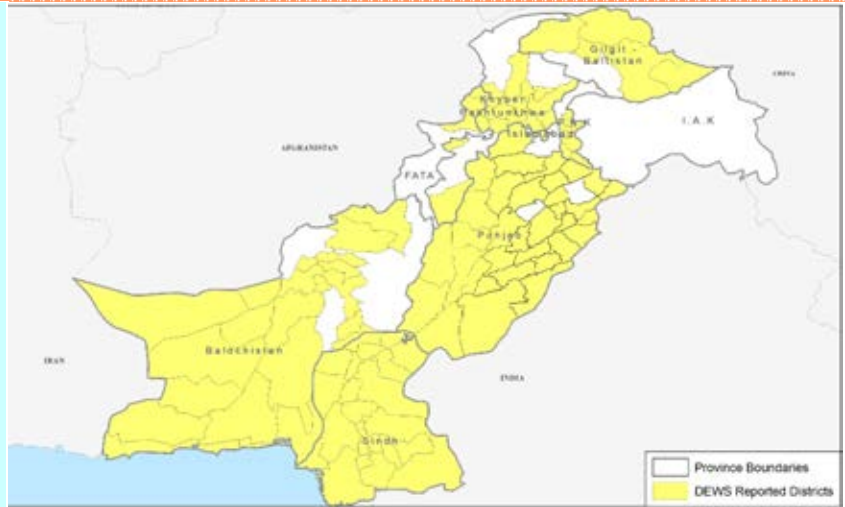
Volume 5, Issue 38, Wednesday 24 September 2014

### Highlights

Epidemiological week no. 38  
(14 - 20 September 2014)

- In this week, **85** out of 87 districts and 2,700 out of 3,590 health facilities have reported to Disease Early Warning System (DEWS), compared to 81 districts with 2,678 health facilities shared weekly data in week 37, 2014.
- A total of **1,143,832** patients consultations reported in this week 38, 2014.
- In this week, a total of 39 alerts generated and timely responded. Altogether 8 alerts each were for Measles and Dengue fever; 7 for Leishmaniasis; 6 for NNT; 4 for AWD; 3 for CCHF; 2 for Acute diarrhoea; while 1 for Pertussis.
- 8 outbreaks were also identified and timely responded. Altogether 5 were for Dengue fever; 2 for CCHF; while 1 for Measles.

Figure-1: 85 out of 87 districts reported to DEWS in week 38, 2014



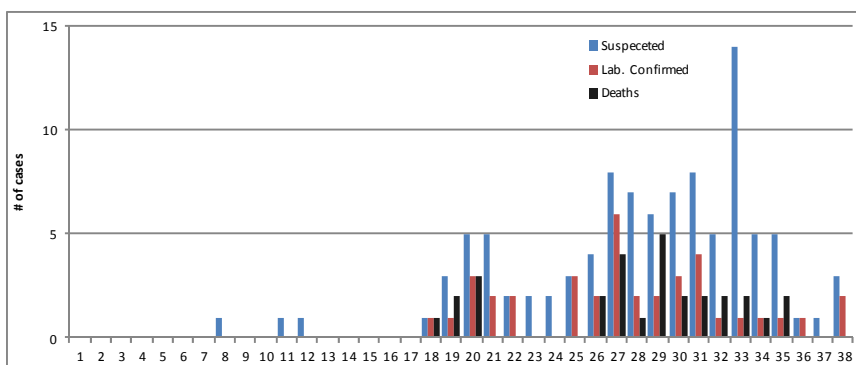
#### Priority diseases under surveillance in DEWS

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 38, 2014 (29 Dec 2013 to 20 September 2014)

Disease	# of Cases	Percentage
ARI	7,085,806	18.31%
Bloody diarrhoea	38,350	<1.00%
Acute diarrhoea	2,254,985	5.83%
S. Malaria	981,663	2.54%
Skin Diseases	1,235,307	3.19%
Unexplained fever	992,087	2.56%
All other consultations	26,101,554	67.46%
<b>Total (All consultations)</b>	<b>38,689,752</b>	<b>100%</b>

Figure-2: Weekly number of CCHF cases and deaths in Pakistan, week 1 to 38 2014



#### Major health events reported during the Epi-week - 38 (14 - 20 September 2014)

Disease	# of Cases	Percentage
ARI	195,585	17.10%
Bloody diarrhoea	1,450	<1.00%
Acute diarrhoea	66,546	5.82%
S. Malaria	30,902	2.70%
Skin Diseases	39,727	3.47%
Unexplained fever	29,486	2.58%
All other consultations	780,136	68.20%
<b>Total (All consultations)</b>	<b>1,143,832</b>	<b>100%</b>

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 100 suspected cases, 38 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. 30 suspected, 17 Laboratory confirmed (12 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-38/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
16-Sep	Dengue fever	Balochistan	Las Bela	(RHC Winder), winder town, Tehsil Sonmiani	0	6	0	0	2 confirm Dengue fever cases were reported from RHC Winder. On active surveillance in the area 4 more Dengue fever cases found. All the cases had history of high grade fever, severe headache, vomiting and weakness. Cases were referred to Karachi for further treatment. Families were sensitized about prevention of dengue fever. DHO was informed and requested for necessary preventive measures.
19-Sep	Measles	Balochistan	Las Bela	Nadir khan bagh, UC winder, Tehsil Sonmiani	4	2	0	2	Initially 2 suspected Measles cases were reported from RHC. During active surveillance 6 more cases identified. 2 samples collected result is awaited. Symptomatic treatment along with Vit-A drops were provided to all the suspected cases. All the cases belong to Pishin district. Parents were educated on routine immunization of the children. Information shared with DHO.
15-Sep	CCHF	Khyber Pakhtunkhwa	Peshawar	Mohallah Zarmat, Gardez, Paktia, Afghanistan	0	1	0	0	A 15 years old male belongs to Gardez, Paktia, Afghanistan, got admitted in Medical Ward of Hayatabad Medical Complex, Peshawar, with high grade fever, severe body pains followed by bleeding from mouth and rectum. His platelets counts were 8,000/cmm at the time of admission in the hospital. Blood sample was taken for PCR-CCHF and sent to NIH and was found positive for CHF. Patient was put on Ribavirine therapy and is stable now. All the close contacts were educated about the preventive measures.
17-Sep	CCHF	Khyber Pakhtunkhwa	Peshawar	Mohallah Yousaf, Urmar Miana, Peshawar	0	1	0	0	One suspected CCHF case notified by EIC-NIH, a 28 years old male from village Urmar Miana works as Cook in Peshawar city. The patient developed fever and body aches on 1st of September and receiving treatment on a private clinic. On 4th September, he developed gums bleeding and was brought to CMH Peshawar, where he got admitted in Isolation room. Later on, Petechial hemorrhages and echymosis appeared on skin. His platelets counts were 8,000 only at the time of admission in hospital. His blood sample was sent to NIH and found positive for CCHF. Ribavirine started and patient is stable now.
15-Sep	Dengue fever	Punjab	Lahore	Data Ganj Bakhsh Town	0	10	0	1	Three confirmed Dengue fever cases from Mayo Hospital, and Four suspected and Four probable Dengue fever cases were notified from Teaching Units of Lahore. All cases were belongs to Data-Ganj Bakhsh Town. 3 blood samples were taken and sent to lab for detection of dengue specific antibodies, result for IgM was found to be positive in all three cases. The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. Health Education session was given to the community on proper solid waste disposal and improved water storage practices. Community-based environmental management and health education campaign for improved water storage practices and remove mosquito breeding sites, the area would be visited again for follow up. AD(VBD) was informed along with EDO Health Lahore.
16-Sep	Dengue fever	Punjab	Lahore	Gulberg Town	0	9	0	3	One confirmed, Seven suspected and Four probable cases of Dengue fever notified from Teaching Units in Lahore. The cases were investigated and 1 blood sample was taken and sent to lab for detection of dengue specific antibodies, result for IgM was found to be positive. The confirmed cases were admitted and kept in isolation ward (HDU) of Teaching hospital. Health education session was conducted in the community on proper solid waste disposal and improved water storage and practices protective clothing and repellents. AD(VBD) was informed along with EDO Health Lahore. Follow up planned.
17-Sep	Dengue fever	Punjab	Lahore	Lahore cantonment Board	0	8	0	3	One confirmed and 10 suspected cases of Dengue fever notified from Teaching Units in Lahore. All the cases were investigated and 1 blood sample was taken and sent to lab for detection of dengue specific antibodies, result for IgM was found to be positive. The confirmed case was admitted and kept in isolation ward (HDU) in Teaching hospital. Health Education session was conducted in the community on proper solid waste disposal and improved water storage practices and use of protective clothing and repellents. AD(VBD) was informed along with EDO Health Lahore. Follow up planned.
18-Sep	Dengue fever	Punjab	Rawalpindi	Rawal Town Rawalpindi	2	26	1	7	6 confirmed, 27 suspected and 3 probable Dengue fever cases were notified from Holy Family Hospital and BB Hospital, Rawalpindi. The cases were investigated and 9 blood samples were taken and sent to lab for detection of dengue specific antibodies. Four patients were positive with NS-1 and Two positive for IgM. The confirmed cases were admitted and kept in isolation wards in the hospital. Most of the cases were reported in Gawalmandi, Dhok Ratta, Dhok Hassu and Pura areas. Health education sessions were conducted in the community on proper solid waste disposal and improved water storage, practices use of protective clothing and repellents. Information shared with EDO(H) Rawalpindi, and follow up planned.

Figure-3: Number of alerts received and responded, week 35 to 38 2014

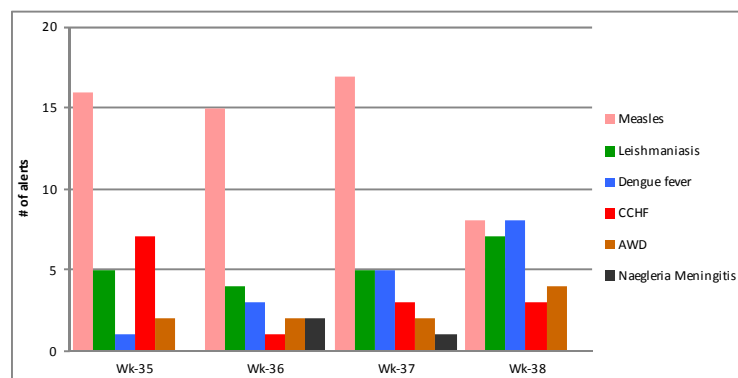
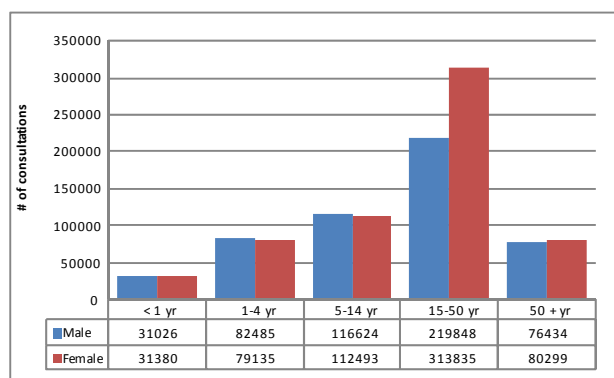
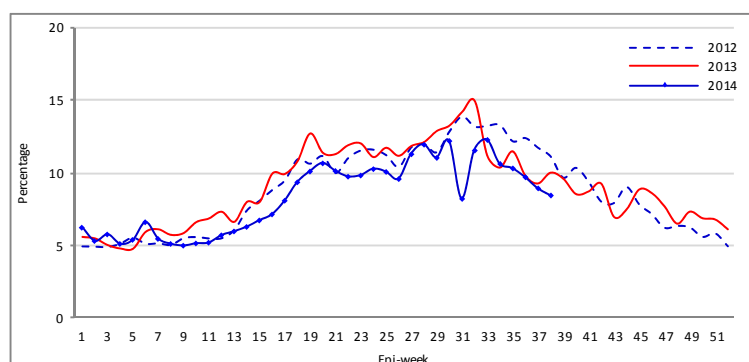


Figure-4: Number of consultations by age and gender, week 38, 2014



### Province Khyber Pakhtunkhwa:

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



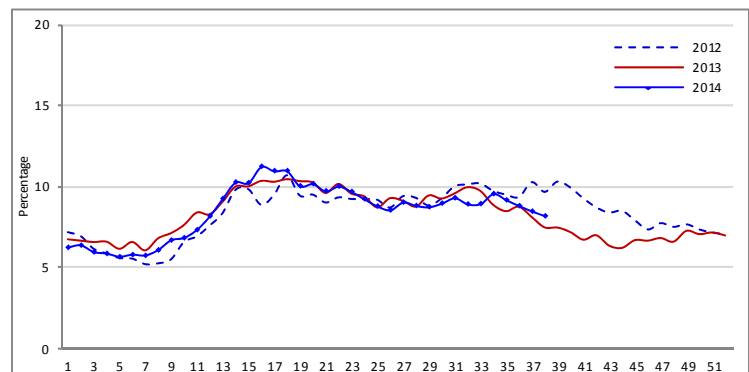
139 health facilities from 11 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 39,786 patients consultations reported in week 38, 2014.

A total of 4 alerts were received and appropriate measures were taken. Altogether 3 alerts were for CCHF; while 1 for Measles.

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



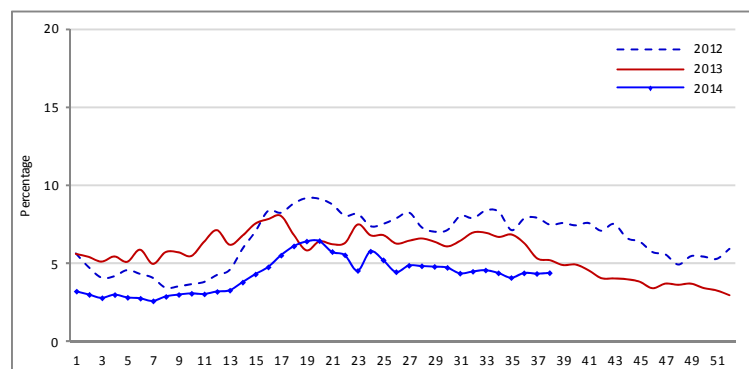
733 health facilities from 23 districts in Sindh province reported to DEWS with a total of 309,102 patient consultations in week 38, 2014.

A total of 11 alerts were received and appropriate measures were taken. Altogether 4 alerts were for NNT; 3 each for AWD and Leishmaniasis; while 1 for Measles.

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



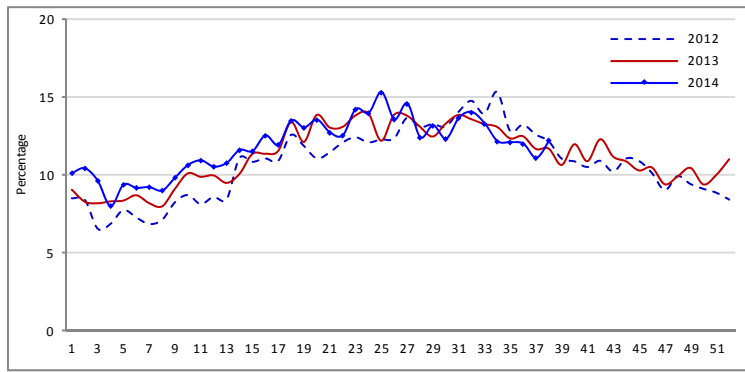
1,541 health facilities from 33 districts in Punjab province reported to DEWS with a total of 748,610 patients consultations in week 38, 2014.

Total 11 alerts were received and appropriate measures were taken. Altogether 7 alerts were for Dengue fever; 2 for Acute diarrhoea; while 1 each for Measles and NNT 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



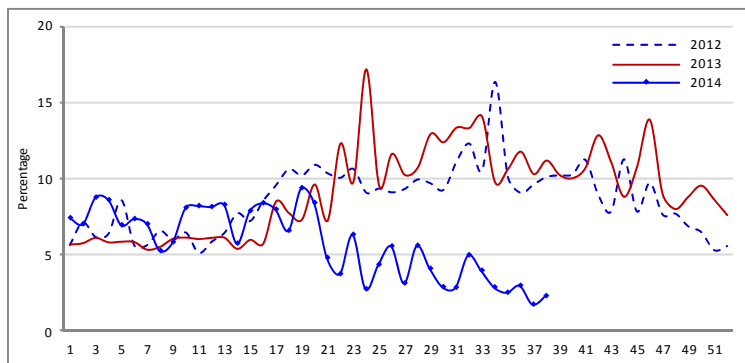
220 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 34,396 patients consultations in week 38, 2014.

A total of 9 alerts were reported and appropriate measures were taken. Altogether 3 alerts each were for Measles and Leishmaniasis; while 1 each for Pertussis, Tetanus and Dengue fever.

In this week the weekly proportion of AD showing increase as compared with last week and vigilant monitoring of the situation is required as the proportion of AD is higher as compared with same time period last year.

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



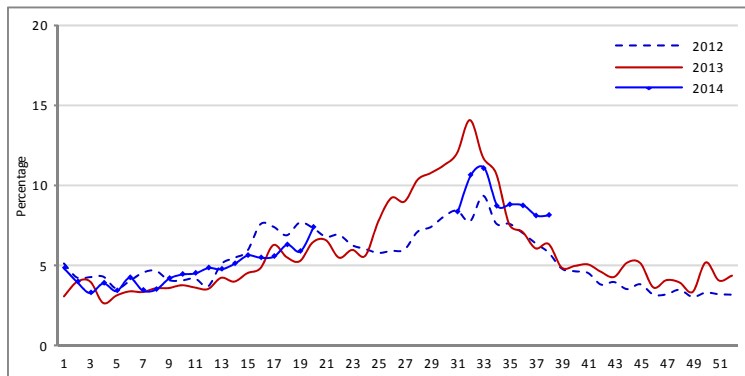
1 health facilities from 1 agency in FATA reported to DEWS with a total of 558 patients consultations in week 38, 2014.

No alert for any disease was received from any area in FATA in week 38 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



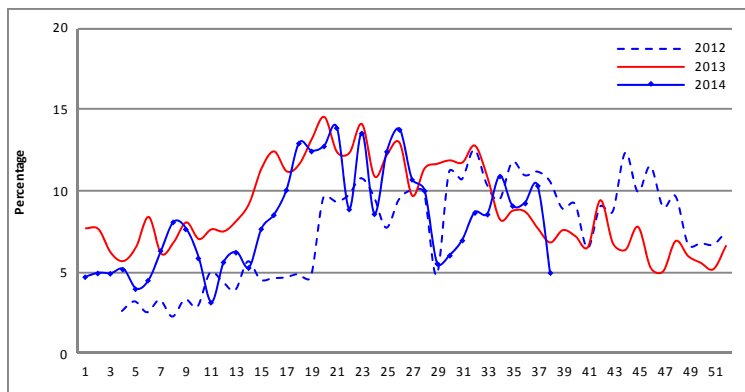
65 health facilities from 8 districts in AJK reported to DEWS with a total of 11,238 patients consultations in week 38, 2013.

A total of 4 alerts were reported in this week and appropriate measures were taken. Altogether 2 alerts were for Measles; while 1 each for AWD and Leishmaniasis.

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

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



1 health facility reported to DEWS on time with a total of 142 patients consultations in week 38, 2014.

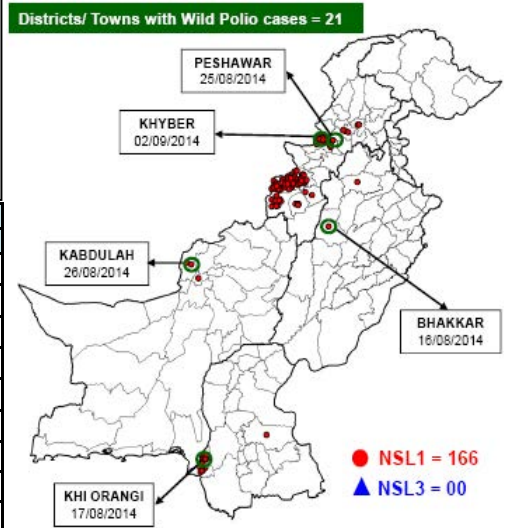
No alert for any disease was reported in week 38 from Islamabad in this week.

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 38 (14 to 20 September 2014), twenty one new wild polio virus (WPV) cases were reported, 12 from FATA (6 from Khyber, three each from North and Waziristan agencies); four from Khyber Pakhtunkhwa (two from Buner, one each from Tank-1 and Peshawar districts); three from Sindh (two from Gadap and one from Orangi towns of Karachi); one from Balochistan (Kila Abdullah district) and one from Punjab (Bhakkar district). This brings the total number of polio cases in 2014 to 166 (compared to 41 in 2013 till this time) from 21 districts/towns/tribal agencies/FR areas (compared to 15 in 2013 till this time).

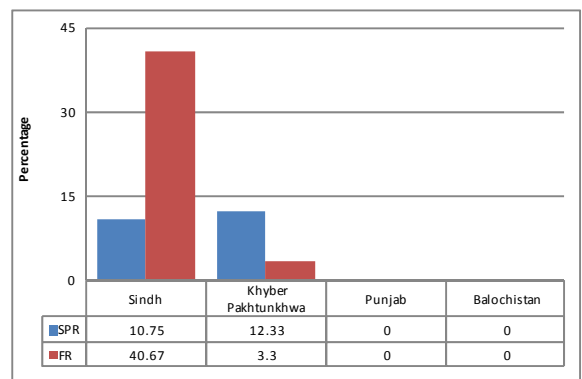
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
FATA	65	-	-	118	-	-
Khyber Pakhtunkhwa	11	-	-	29	-	-
Sindh	10	-	-	14	-	-
Balochistan	-	-	-	3	-	-
Punjab	7	-	-	2	-	-
Gilgit-Baltistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>166</b>	<b>-</b>	<b>-</b>



**Malaria:**

The Table and chart given below shows the Malaria Slide Positivity and Falciparum Ratio in week 38, 2014. Total number of Malaria cases tested in this week is 3,780 out of which 418 were found positive; 282 for P. Vivax; 36 for P. Falciparum; while 100 for Mixed (SPR = 11.06%; F.R = 32.54%).

Malaria tests \ Province	Sindh	Khyber Pakhtunkhwa	Balochistan	Punjab	GB	FATA	AJK	ICT
P. Vivax	194	88	0	0	0	0	0	0
P. Falciparum	33	3	0	0	0	0	0	0
Mixed	100	0	0	0	0	0	0	0
# tested	3042	738	0	0	0	0	0	0
SPR	10.75	12.33	0	0	0	0	0	0
FR	40.67	3.3	0	0	0	0	0	0



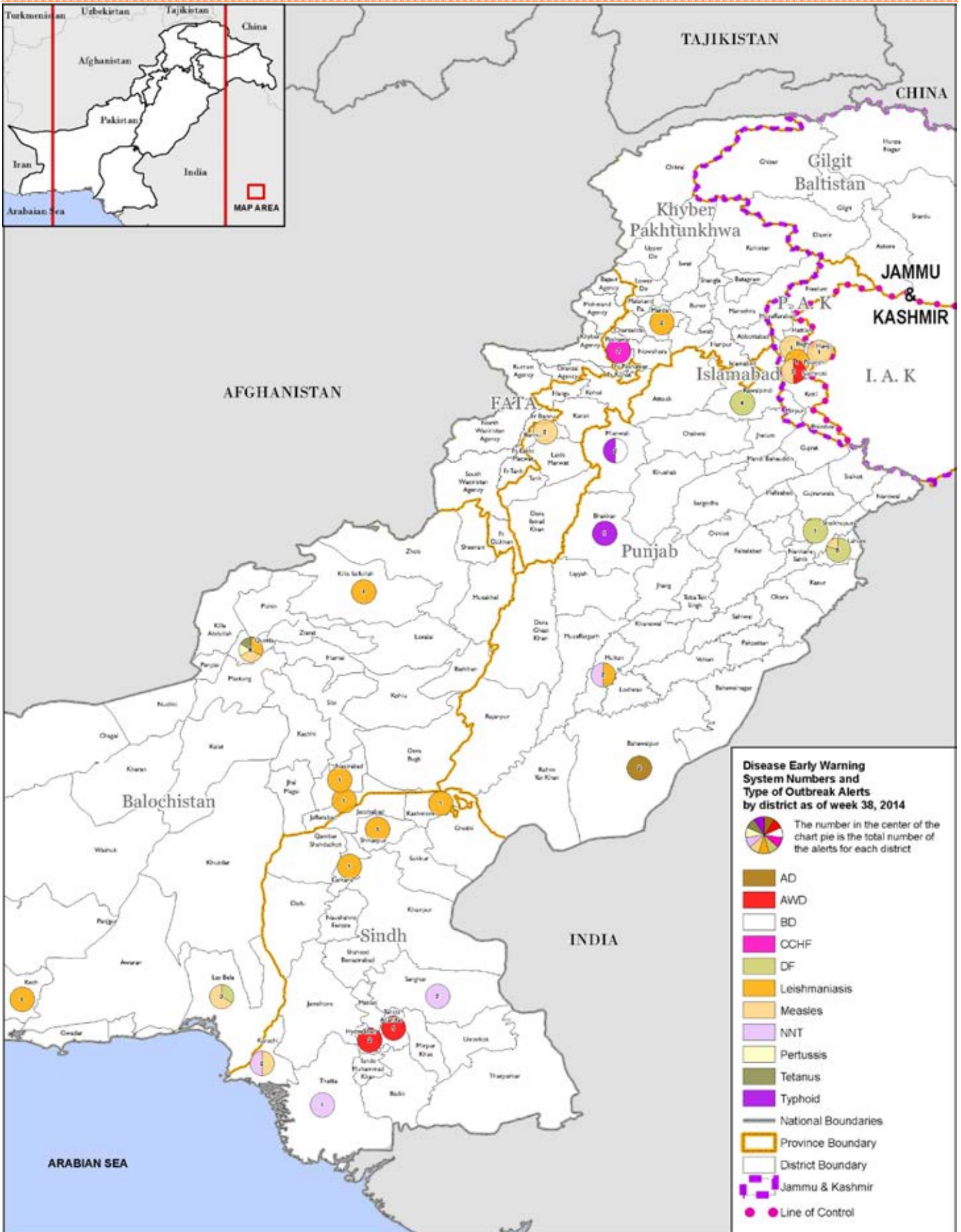
**Follow up on: CCHF**

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 100 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. 30 suspected, 17 Laboratory confirmed (12 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. 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 38 2014



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