



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

Volume 5, Issue 48, Wednesday 3 December 2014

### Highlights

Figure-1: 75 out of 87 districts reported to DEWS in week 48, 2014

Epidemiological week no. 48  
(23 - 29 Nov 2014)

- 3 suspected CCHF cases were reported this week from Balochistan province.
- In this week, **75** out of 87 districts and 2,777 out of 3,590 health facilities have reported to Disease Early Warning System (DEWS), compared to 77 districts with 2,646 health facilities shared weekly data in week 47, 2014.
- A total of **1,132,033** patients consultations reported in this week 48, 2014.
- In this week, a total of 26 alerts generated and timely responded. Altogether 7 alerts were for Measles; 6 each for Leishmaniasis and Diphtheria; 2 each for CCHF, Dengue fever and ARI; while 1 for Acute diarrhoea.
- 3 outbreaks were also identified and timely responded.



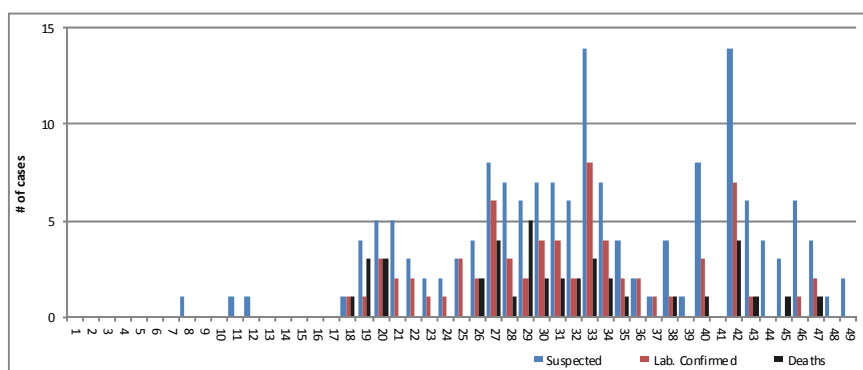
#### Priority diseases under surveillance in DEWS

Acute Respiratory Infection  
Pneumonia  
Acute Watery Diarrhoea  
Bloody diarrhoea  
Acute Diarrhoea  
Suspected Enteric/Typhoid Fever  
Suspected Malaria  
Suspected Meningitis  
Suspected Dengue fever  
Suspected Viral Haemorrhagic 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 48, 2014 (29 Dec 2013 to 29 November 2014)

Disease	# of Cases	Percentage
ARI	9,235,324	18.87%
Bloody diarrhoea	49,778	<1.00%
Acute diarrhoea	2,757,264	5.63%
S. Malaria	1,220,523	2.49%
Skin Diseases	1,526,059	3.12%
Unexplained fever	1,248,398	2.55%
All other consultations	32,894,310	67.23%
<b>Total (All consultations)</b>	<b>48,931,656</b>	<b>100%</b>

Figure-2: Weekly number of CCHF cases and deaths in Pakistan, week 1 to 49 2014



#### Major health events reported during the Epi-week - 48 (23 - 29 November 2014)

Disease	# of Cases	Percentage
ARI	255,165	22.54%
Bloody diarrhoea	979	<1.00%
Acute diarrhoea	50,683	4.48%
S. Malaria	23,865	2.11%
Skin Diseases	28,442	2.51%
Unexplained fever	27,062	2.39%
All other consultations	745,837	65.88%
<b>Total (All consultations)</b>	<b>1,132,033</b>	<b>100%</b>

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 154 suspected cases (69 laboratory confirmed) and 40 deaths (of these 21 laboratory confirmed) have been reported. Out of total CCHF cases reported in Pakistan, 41 cases (15 laboratory confirmed) and 8 deaths belong to Afghanistan.

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-48/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
24-Nov	CCHF	Balochistan	Quetta	Cantonment area, Quetta	0	1	0	0	One suspected CCHF case was reported. During investigation the case found with symptoms of body ache, headache, high grade fever and bleeding. Case is a shopkeeper by profession and taking care of animal at home. Case is presently under treatment at CMH. Family members were sensitized about CCHF and precautionary measures. Information shared with DoH.
28-Nov	Leishmaniasis	Balochistan	Kech	FC Camp, Tehsil Turbat	0	7	0	0	Alert for 7 cases of Cutaneous Leishmaniasis were reported. During field investigation no travelling history found. All the suspected Cutaneous Leishmaniasis cases were referred to treatment center. Information shared with DoH.
26-Nov	Measles	Balochistan	Quetta	BMCH (Killi Shroom Karez, UC Nohsar)	0	2	3	1	6 suspected Measles cases were reported from BMCH, Quetta. Cases were admitted in isolation ward. Samples of 2 throat swabs were collected and sent to NIH for laboratory confirmations. Community was educated about Measles and isolating the affected children. Information shared with DoH and requested to conduct outreach vaccination campaign.
26-Nov	Dengue fever	Punjab	Lahore	UC 36 Shalimar Town; UC 12 Ravi Town	0	2	0	6	Six suspected and 2 confirmed Dengue fever cases were reported from two different locations in Lahore. All the cases were investigated and 2 blood samples were taken and found positive for Dengue fever. All 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 practices and use of screening, protective clothing and repellents. AD(VBD) and EDO-H were informed. Follow up planned.
24-Nov	CCHF	Sindh	Karachi	A 591, near papan park, korangi 6, near graveyard, korangi	0	1	0	0	One CCHF case was reported from AKUH, Karachi. The patient was a 45 years old male, resident of Korangi area, Karachi. The patient admitted at AKUH but his condition did not improve, blood sample was tested and found positive for CCHF (PCR at AKUH); and he expired on 24th November. The family members were educated on CCHF and Protective measures. Information shared with DoH.

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

Disease	2013		Current week 47, 2014		2014 (Up till 22 Nov)	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	0	0	63	16
Acute jaundice syndrome	49	6	0	0	15	3
Bloody diarrhoea	45	3	0	0	27	0
CCHF	90	47	3	1	134	61
Dengue fever	300	66	2	0	77	12
Diphtheria	84	19	4	0	84	6
Measles	3357	281	8	3	1112	35
Pertussis	46	10	0	0	27	2
NNT + tetanus	349	0	1	0	237	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	12	0	392	21
Others	520	5	4	0	304	6
<b>Total</b>	<b>5628</b>	<b>534</b>	<b>34</b>	<b>4</b>	<b>2472</b>	<b>162</b>

Figure-3: Number of alerts received and responded, week 45 to 48 2014

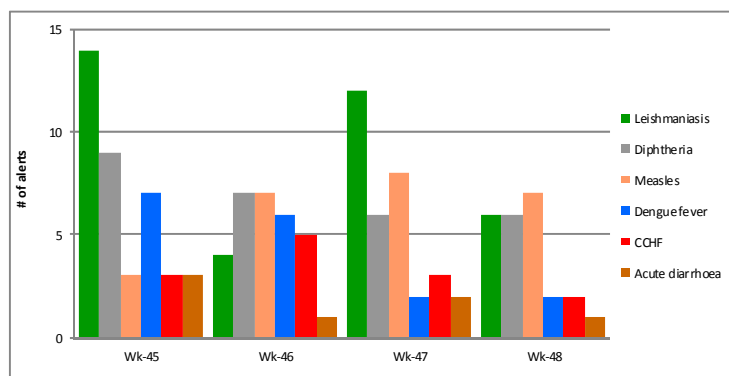
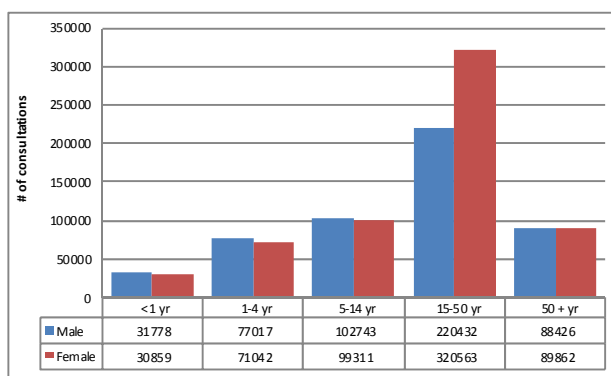
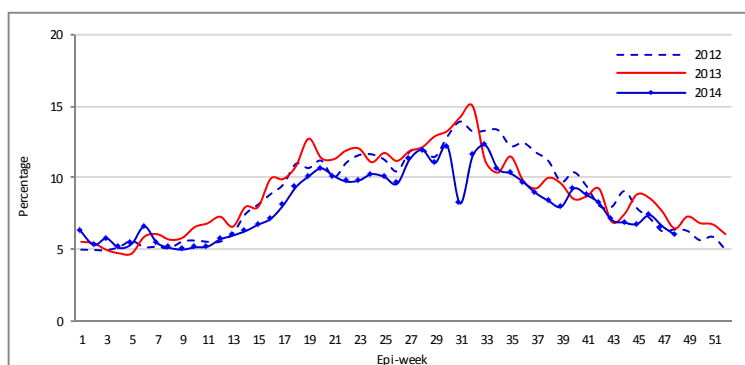


Figure-4: Number of consultations by age and gender, week 48, 2014



### Province Khyber Pakhtunkhwa:

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



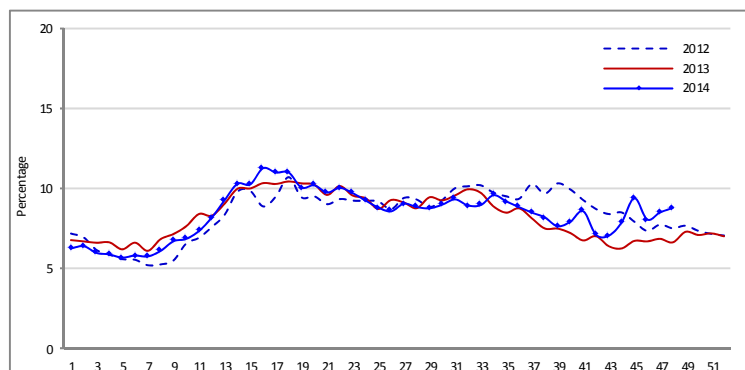
116 health facilities from 8 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 40,697 patients consultations reported in week 48, 2014.

A total of 6 alerts were received and appropriate measures were taken during this week. Altogether 4 alerts were for Diphtheria; while 2 for Measles.

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

### Province Sindh:

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



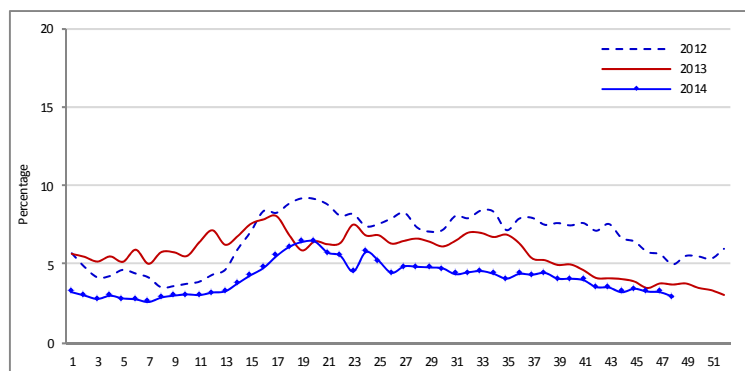
738 health facilities from 23 districts in Sindh province reported to DEWS with a total of 239,740 patient consultations in week 48, 2014.

A total of 5 alerts were received and appropriate measures were taken. Altogether 4 alerts were for Leishmaniasis; while 1 for CCHF.

The proportion of AD for the province is showing increase as compared with last week and 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



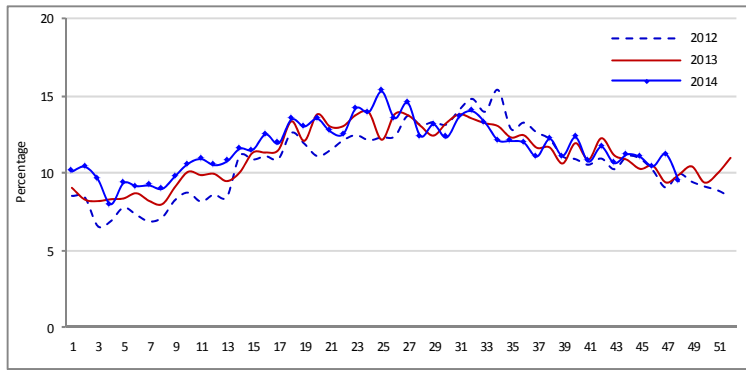
1,721 health facilities from 34 districts in Punjab province reported to DEWS with a total of 812,864 patients consultations in week 48, 2014.

Total 8 alerts were received and appropriate measures were taken. Altogether 2 alerts each were for Dengue fever, ARI and Diphtheria; while 1 for Acute diarrhoea were responded in province Punjab.

The weekly trend of Acute diarrhoea in Punjab showing decrease as compared with last week but vigilant monitoring of the situation is required.

**Province Balochistan:**

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



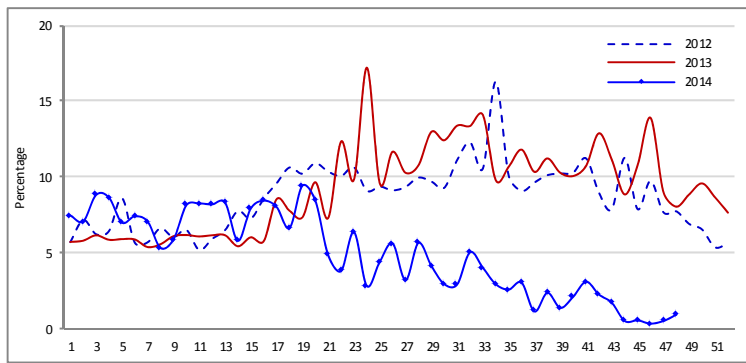
199 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 37,907 patients consultations in week 48, 2014.

A total of 8 alerts were reported and appropriate measures were taken. Altogether 5 alerts were for Measles; 2 for Leishmaniasis; while 1 for CCHF.

In this week the weekly proportion of AD showing decrease as compared with last week but vigilant monitoring of the situation is required, as the proportion of AD was high in last few weeks as compared with same time period last year.

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



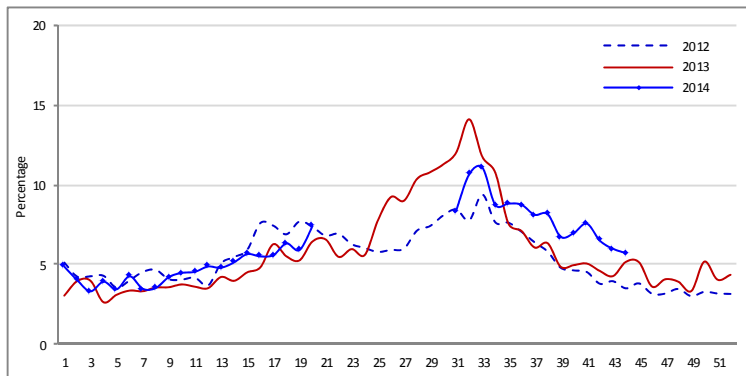
1 health facilities from 1 agency in FATA reported to DEWS with a total of 448 patients consultations in week 48, 2014.

No alert for any disease was received from any area in FATA in week 48 2014.

The proportion of AD showing 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



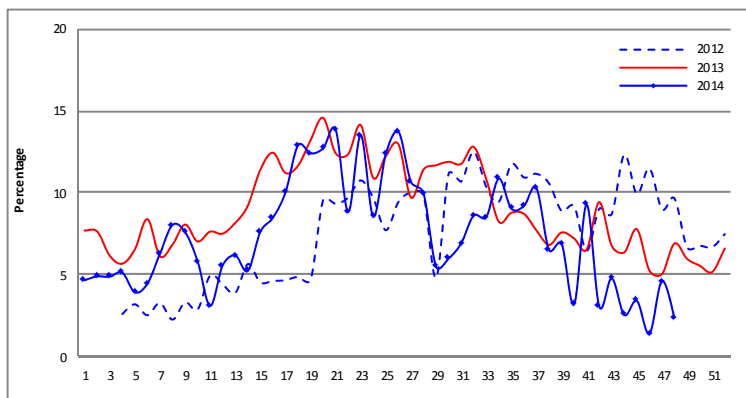
65 health facilities from 8 districts in AJK reported to DEWS with a total of 9,679 patients consultations in week 44, 2013.

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

Weekly trend of AD showing decrease this week as compared with last week but vigilant monitoring of the situation is required as the proportion of AD is higher as compared with the same time period last year.

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



2 health facilities reported to DEWS on time with a total of 377 patients consultations in week 48, 2014.

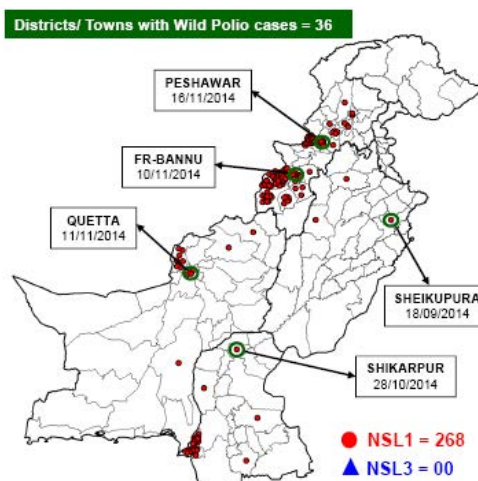
No alert for any disease was reported in week 48 from Islamabad in this week.

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 48 (23 - 29 Nov 2014), eight new wild polio virus (WPV) cases were reported, five from Khyber Pakhtunkhwa (two each from Tank & Peshawar and one from Swat districts); two from Balochistan (one each from Kila Abdullah, and Kila Saifullah districts), and one from Sindh (Shikarpur district). This brings the total number of polio cases in 2014 to 268 (compared to 75 in 2013 till this time) from 36 districts/towns/tribal agencies/FR areas (compared to 20 in 2013 till this time).

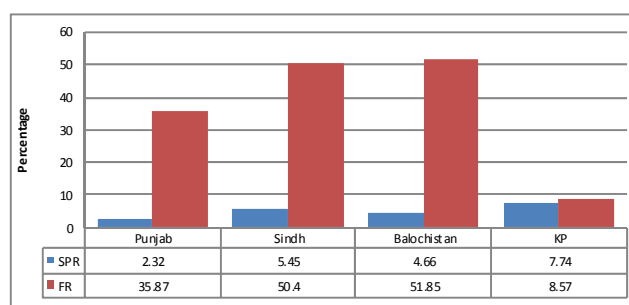
Province	Year 2013			Year 2014 (till 29 Nov)		
	P1	P3	P1+P3	P1	P3	P1+P3
FATA	65	-	-	163	-	-
Khyber Pakhtunkhwa	11	-	-	59	-	-
Sindh	10	-	-	27	-	-
Balochistan	-	-	-	16	-	-
Punjab	7	-	-	3	-	-
Gilgit-Baltistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>268</b>	<b>-</b>	<b>-</b>



Malaria:

The Table and chart given below shows the Malaria Slide Positivity and Falciparum Ratio in week 48, 2014. Total number of Malaria cases tested in this week is 7,289 out of which 279 were found positive; 166 for P. Vivax; 76 for P. Falciparum; while 37 for Mixed (SPR = 3.83%; F.R = 40.50%).

Malaria tests \ Province	Punjab	Sindh	Balochistan	Khyber Pakhtunkhwa
P. Vivax	59	62	13	32
P. Falciparum	31	31	12	2
Mixed	2	32	2	1
# tested	3966	2292	579	452
SPR	2.32	5.45	4.66	7.74
FR	35.87	50.4	51.85	8.57



Follow up on: CCHF

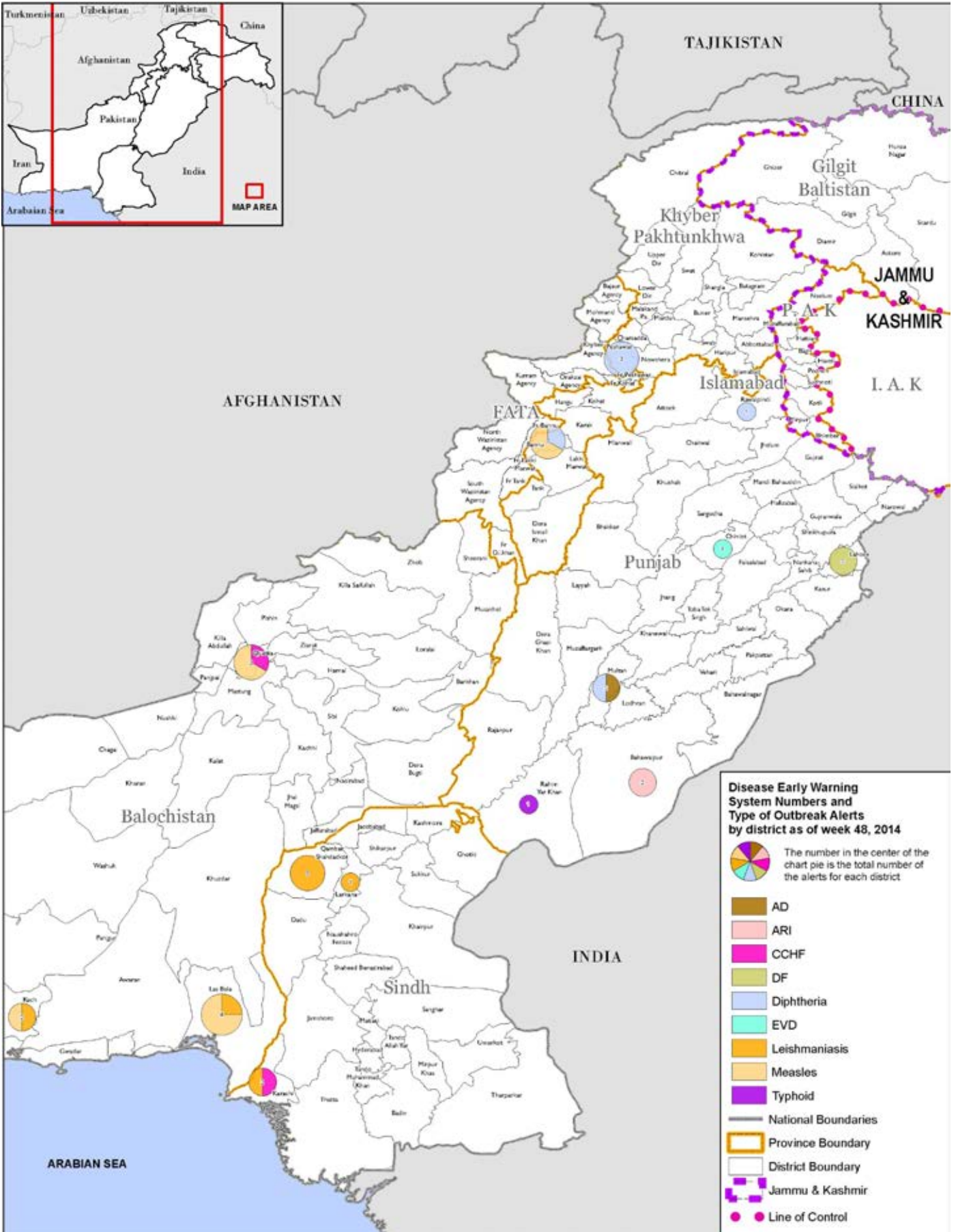
CCHF is a serious viral hemorrhagic fever with up to 50% case fatality rate, caused by an RNA virus of family Bunyaviridae, genus Nairovirus, carried by Hyalomma species of ticks. Human beings become infected by tick bites or crushing the ticks, which are usually found on sheep, cattle, goats or camels, 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.

Crime Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far 154 suspected cases (69 laboratory confirmed) and 40 deaths (of these 21 laboratory confirmed) have been reported. Most of the cases are reported from Balochistan province, total 82 suspected cases of CCHF and 17 deaths have been reported; 31 of the cases were laboratory confirmed, out of these 16 cases (8 confirmed) cases and 2 deaths belong to Afghanistan. From Khyber Pakhtunkhwa province total of 45 cases and 12 deaths have been reported; 21 laboratory confirmed cases, out of these 23 cases (6 confirmed) cases and 2 deaths belong to Afghanistan.

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.

Province	2013			2014		
	Suspected	Lab confirmed	Deaths	Suspected	Lab confirmed	Deaths
AJ&K	1	1	0	1	0	0
Balochistan	66	39	9	82	31	17
ICT	4	4	1	4	3	2
KPK	9	9	4	45	21	12
Punjab	18	9	5	17	9	6
Sindh	2	2	1	5	5	3
<b>Total</b>	<b>100</b>	<b>64</b>	<b>20</b>	<b>154</b>	<b>69</b>	<b>40</b>

Alerts and outbreaks week 48 2014



This weekly Epidemiological Bulletin is published jointly by the National Institute of Health, Islamabad and World Health Organization (WHO), Pakistan.  
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