



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

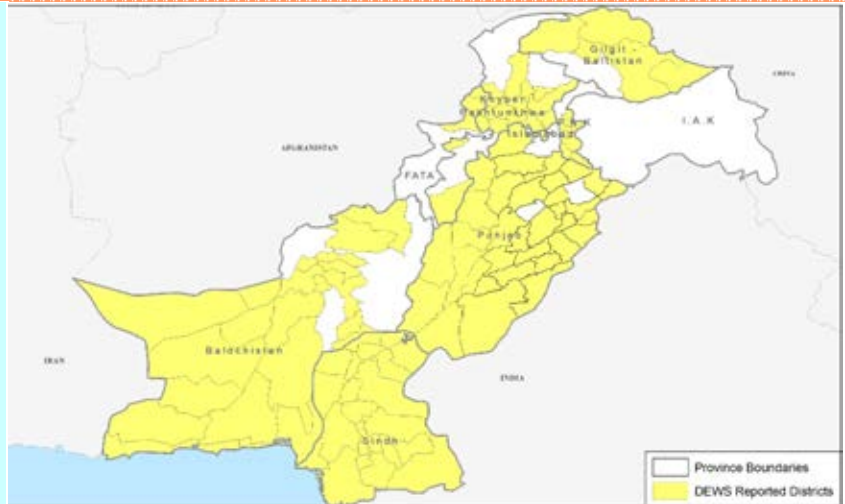
Volume 5, Issue 35, Wednesday 3 September 2014

### Highlights

Epidemiological week no. 35  
(24 - 31 August 2014)

- **CCHF:** During this week, 4 suspected CCHF cases have been reported 2 suspected cases were from Khyber Pakhtunkhwa province; while 1 each from Sindh and Punjab provinces.
- In this week, **86** out of 87 districts and 3,039 out of 3,590 health facilities have reported to Disease Early Warning System (DEWS), compared to 85 districts with 3,014 health facilities shared weekly data in week 34, 2014.
- A total of **1,397,964** patients consultations reported in this week 35, 2014.
- In this week, a total of 44 alerts generated and timely responded. Altogether 12 alerts were for Measles; 8 for NNT; 6 for CCHF; 5 for Leishmaniasis; 4 for Typhoid fever; 2 each for Acute diarrhoea, AWD and Scabies; while 1 each for Bloody diarrhoea, Dengue fever and Diphtheria.

Figure-1: 85 out of 86 districts reported to DEWS in week 35, 2014



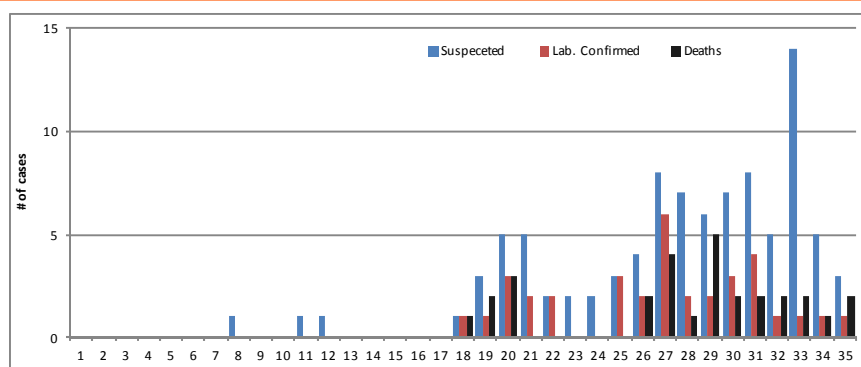
#### Priority diseases under surveillance in DEWS

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 35, 2014 (29 Dec 2013 to 31 August 2014)

Disease	# of Cases	Percentage
ARI	6,479,518	18.42%
Bloody diarrhoea	33,859	<1.00%
Acute diarrhoea	2,047,821	5.82%
S. Malaria	889,490	2.53%
Skin Diseases	1,112,216	3.16%
Unexplained fever	899,429	2.56%
All other consultations	23,716,127	67.42%
<b>Total (All consultations)</b>	<b>35,178,460</b>	<b>100%</b>

Figure-2: Weekly number of CCHF cases and deaths in Pakistan, week 1 to 35 2014



#### Major health events reported during the Epi-week - 35 (24 - 31 August 2014)

Disease	# of Cases	Percentage
ARI	225,813	16.15%
Bloody diarrhoea	1,689	<1.00%
Acute diarrhoea	77,700	5.56%
S. Malaria	31,054	2.22%
Skin Diseases	45,173	3.23%
Unexplained fever	34,306	2.45%
All other consultations	982,229	70.26%
<b>Total (All consultations)</b>	<b>1,397,964</b>	<b>100%</b>

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 94 suspected cases, 35 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. 1 laboratory confirmed death was 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-35/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
29-Aug	AWD	Khyber Pakhtunkhwa	Swabi	Bacha Khan Medical Complex-BMC, Swabi	0	3	0	1	4 new AWD cases were reported from Bacha Khan Medical Complex Swabi. 2/4 stool samples were collected and sent to NIH and found positive for Vibrio cholera. Field investigation found possible source was contaminated water supply. Water samples were also collected from different points and sent for Laboratory testing. Meeting with PHED team was conducted for regular cleaning and chlorination of water schemes available in the affected areas. Health education sessions was conducted in the community. Aqua tabs, Antiseptic soaps, hygiene kits, Jerry cane, and ORS were supplied in the community. EDO health and DSM PPHI Swabi informed about the situation.
29-Aug	Dengue fever	Punjab	Rawalpindi	Main Colony Tarbaila Dam	0	1	0	1	2 confirmed cases of Dengue fever from Main Colony Tarbaila Dam reported from Holy Family Hospital, Rawalpindi. Mother 65-yrs and son 32yrs get ill on 22nd of August 2014, treated in district Haripur, but referred to HFH on 25th. The cases were investigated and blood samples were taken and sent to lab for detection of dengue specific antibodies, result for IgM positive for both cases and NS1 is also positive. The confirmed cases were admitted and kept in isolation wards in hospital. There is no travel History of patient. KPK dengue cell informed for Vector surveillance. Both the patients recovered and discharged on 30th August 2014.
25-Aug	CCHF	Sindh	Karachi	Azizabad, Gulberg Town, Karachi	0	1	0	0	DEWS team was informed about a death due to CCHF reported from AKUH. The patient was 26 years old resident of Gulberg town Karachi. He developed high grade fever and his condition kept on deteriorating. Third day he was taken to AKUH where he was admitted at ER and the same day his Lab result (PCR) came positive for CCHF. Patient could not survived and expired. Patient was a butcher by profession and was in direct contact with raw meat which he used to buy from the main slaughter house. Health education regarding CCHF prevention was delivered to the family members. All the family members have been instructed to note down their temperatures twice daily for two weeks. Information shared with DoH and follow up planned.

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

Disease	2013		Current week 35, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	2	0	51	12
Acute jaundice syndrome	49	6	0	0	15	3
Bloody diarrhoea	45	3	1	0	26	0
CCHF	90	47	6	1	83	41
Dengue fever	300	66	1	0	12	0
Diphtheria	84	19	1	0	42	4
Measles	3357	281	12	0	962	31
Pertussis	46	10	0	0	25	2
NNT + tetanus	349	0	8	0	190	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	5	0	321	18
Others	520	5	8	0	252	6
<b>Total</b>	<b>5628</b>	<b>534</b>	<b>44</b>	<b>1</b>	<b>1979</b>	<b>117</b>

Figure-3: Number of alerts received and responded, week 32 to 35 2014

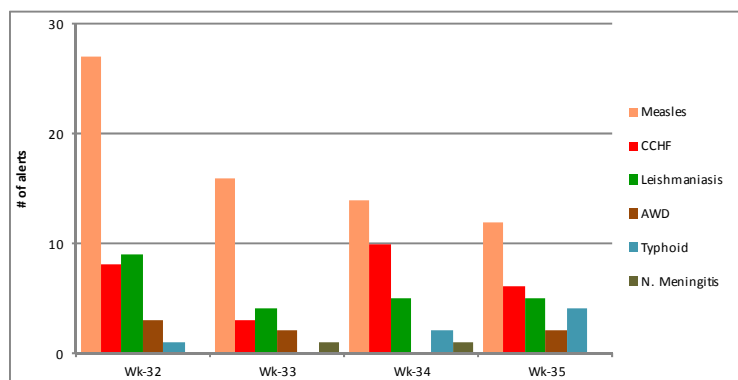
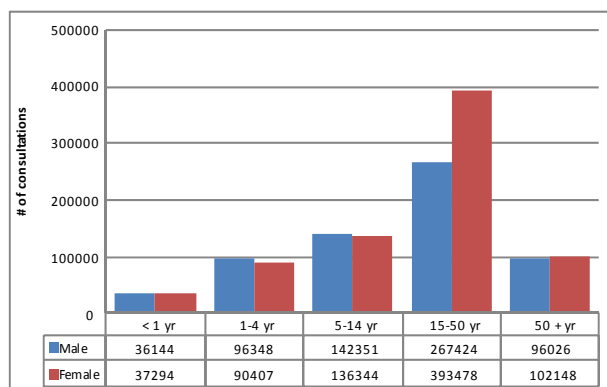
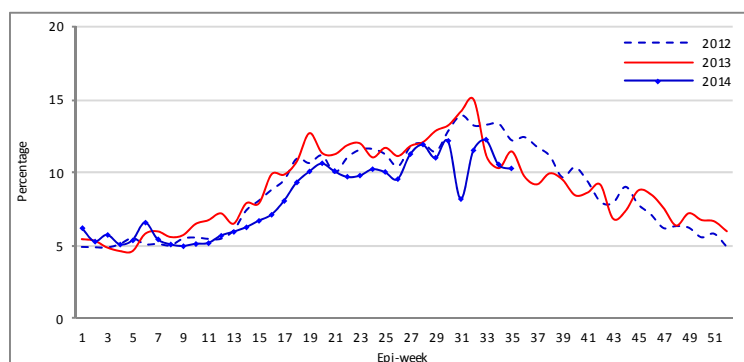


Figure-4: Number of consultations by age and gender, week 35, 2014



### Province Khyber Pakhtunkhwa:

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



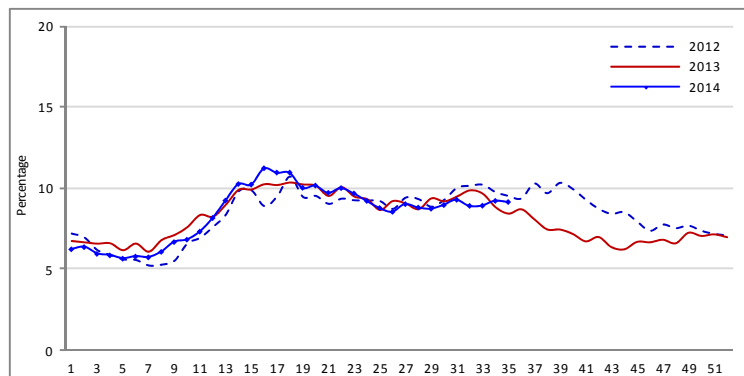
144 health facilities from 11 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 44,274 patients consultations reported in week 35, 2014.

A total of 4 alerts were received and appropriate measures were taken. Altogether 2 alerts each were for CCHF and 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



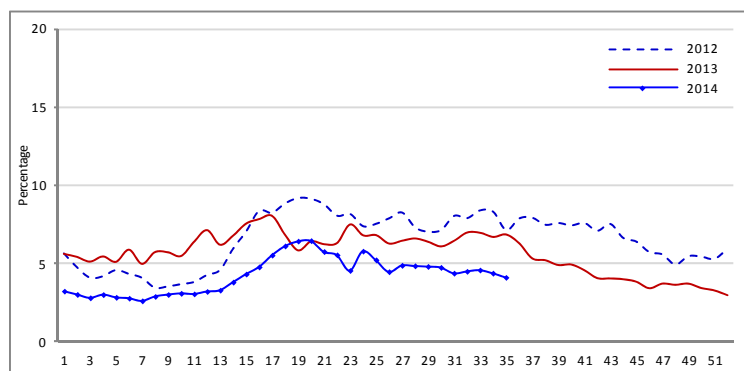
760 health facilities from 22 districts in Sindh province reported to DEWS with a total of 287,047 patient consultations in week 35, 2014.

A total of 13 alerts were received and appropriate measures were taken. Altogether 7 alerts were for NNT; 2 each for AWD and Leishmaniasis; while 1 each for CCHF and Measles.

The proportion of AD for the province is showing increase as compared with last two weeks and vigilant monitoring of the situation is required as proportion of AD is high in this week in the province as compared with same time period last year.

### Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



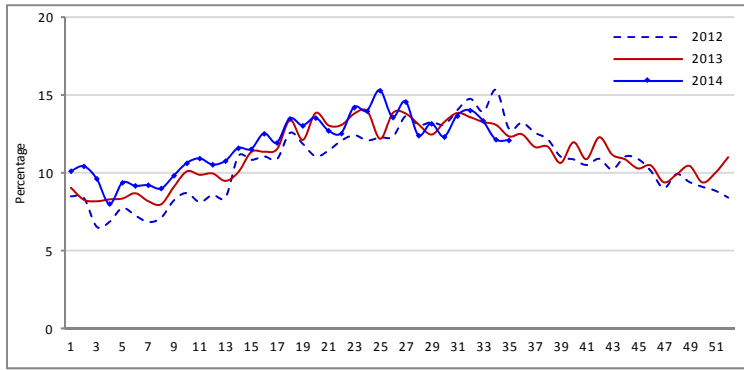
1,871 health facilities from 35 districts in Punjab province reported to DEWS with a total of 1,019,005 patients consultations in week 35, 2014.

Total 15 alerts were received and appropriate measures were taken. Altogether 4 alerts were for typhoid fever; 3 for Measles; 2 each for Acute diarrhoea and Scabies; while 1 each for Bloody diarrhoea, CCHF, Dengue fever and Diphtheria were responded in province Punjab.

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

**Province Balochistan:**

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



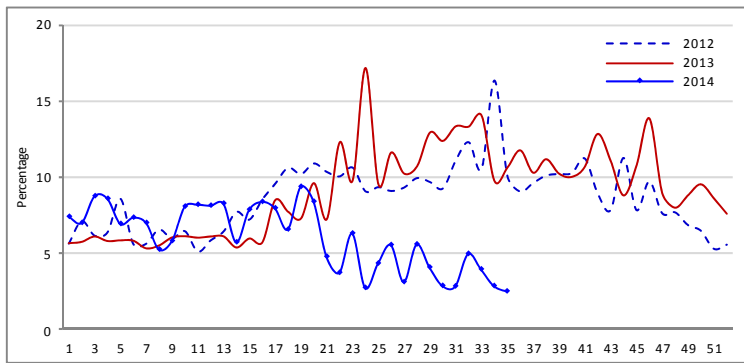
202 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 34,457 patients consultations in week 35, 2014.

A total of 9 alerts were reported and appropriate measures were taken. Altogether 3 alerts each for Leishmaniasis and Measles; 2 for CCHF; while 1 for NNT.

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



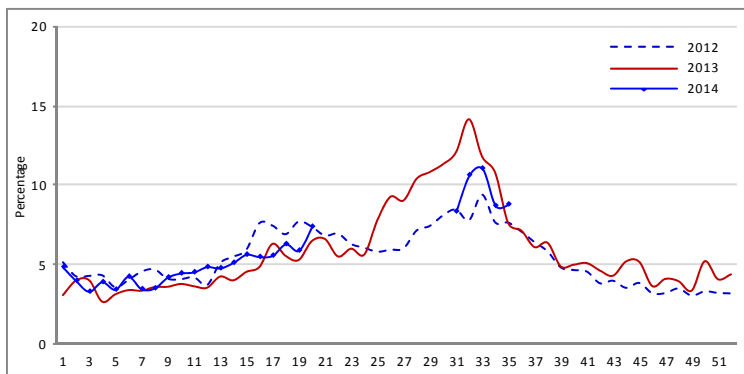
1 health facilities from 1 agency in FATA reported to DEWS with a total of 979 patients consultations in week 35, 2014.

No alert for any disease was received from any area in FATA in week 35 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



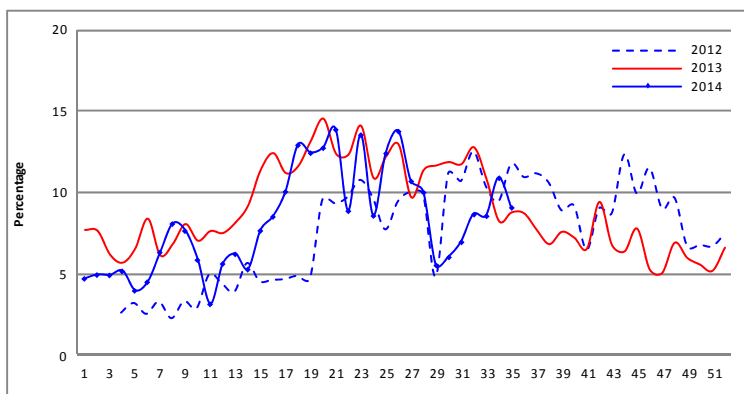
60 health facilities from 8 districts in AJ&K reported to DEWS with a total of 14,014 patients consultations in week 35, 2013.

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

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

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



1 health facilities reported to DEWS on time with a total of 188 patients consultations in week 35, 2014.

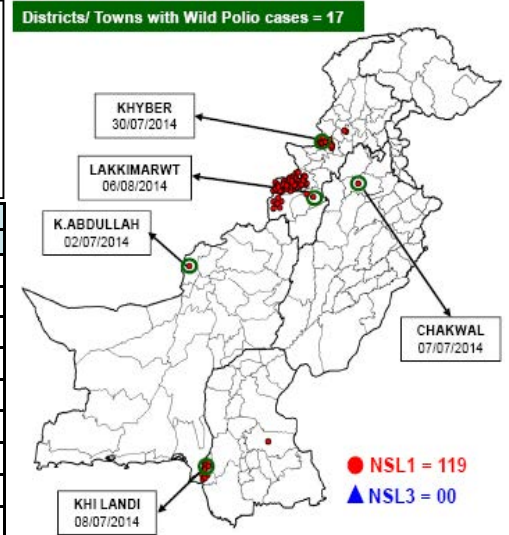
no alert for any disease was reported in week 35 from Islamabad in this week.

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 35 (24 to 31 August 2014), two new wild polio virus (WPV) cases were reported, one each from FATA (Khyber agency) and Khyber Pakhtunkhwa (Lakki Marwat district) . This brings the total number of polio cases in 2014 to 119 (compared to 30 in 2013 till this time) from 17 districts/towns/tribal agencies/FR areas (compared to 14 in 2013 till this time).

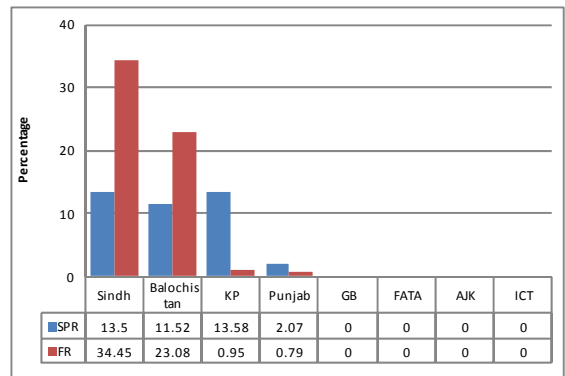
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	1	-	-
Sindh	10	-	-	11	-	-
Khyber Pakhtunkhwa	11	-	-	20	-	-
FATA	65	-	-	86	-	-
Balochistan	-	-	-	1	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>119</b>	<b>-</b>	<b>-</b>



Malaria:

The Table and chart given below shows the Malaria Slide Positivity and Falciparum Ratio in week 35, 2014. Total number of Malaria cases tested in this week is 11,752 out of which 866 were found positive; 663 for P. Vivax; 80 for P. Falciparum; while 123 for Mixed (SPR = 7.37%; F.R = 23.44%).

Malaria tests \ Province	Sindh	Balochistan	Khyber Pakhtunkhwa	Punjab	GB	FATA	AJK	ICT
P. Vivax	314	120	104	125	0	0	0	0
P. Falciparum	49	29	1	1	0	0	0	0
Mixed	116	7	0	0	0	0	0	0
# tested	3547	1354	773	6078	0	0	0	0
SPR	13.5	11.52	13.58	2.07	0	0	0	0
FR	34.45	23.08	0.95	0.79	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 94 suspected cases, 35 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. 1 laboratory confirmed death was 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 35 2014

