



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

Volume 5, Issue 22, Wednesday 4 June 2014

### Highlights

**Epidemiological week no. 22**  
(25 - 31 May 2014)

- **Dengue fever:** During this week, no Dengue fever lab confirmed case have been reported from any province.
- In this week, **69** out of 87 districts and 2,377 out of 2,700 health facilities have reported to Disease Early Warning System (DEWS), compared to 66 districts with 2,365 health facilities shared weekly data in week 21, 2014 to the DEWS.
- Total **969,449** patients consultations reported in week 22, 2014 as compared to **1,016,700** consultations in week 21, 2014.
- In this week, a total of 53 alerts generated and timely responded. Altogether 37 alerts were for Measles; 4 each for AWD and Leishmaniasis; 3 for CCHF; while 1 each for Naegleria Meningitis, Dengue fever, Diphtheria, Pertussis and NNT.
- 10 outbreaks were also identified and timely responded.

Figure-1: 69 out of 87 districts reported to DEWS in week 22, 2014



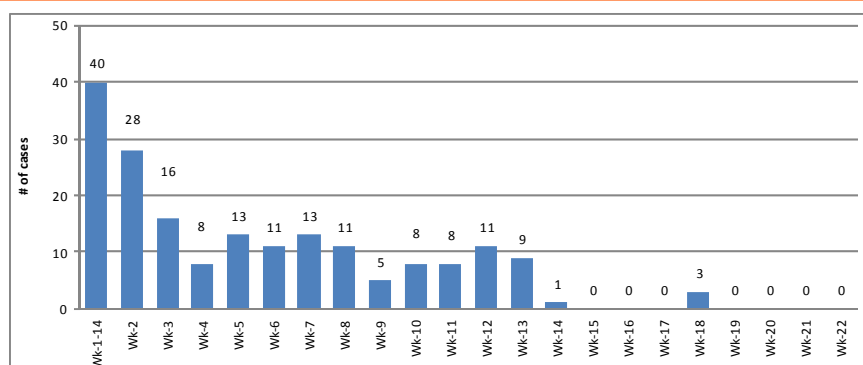
#### Priority diseases under surveillance in DEWS

- 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 22, 2014 (29 Dec 2013 to 31 May 2014)

Disease	# of Cases	Percentage
ARI	4,256,072	21.01%
Bloody diarrhoea	19,499	<1.00%
Acute diarrhoea	1,135,323	5.60%
S. Malaria	560,273	2.77%
Skin Diseases	594,601	2.94%
Unexplained fever	525,355	2.59%
All other consultations	13,166,383	64.99%
<b>Total (All consultations)</b>	<b>20,256,508</b>	<b>100%</b>

Figure-2: Number of Dengue fever positive cases in Pakistan, Week 1 to 22 2014

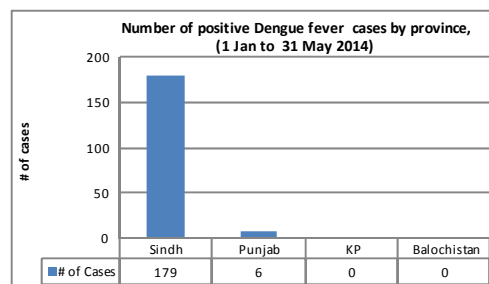


#### Major health events reported during the Epi-week - 22 (25 to 31 May 2014)

Disease	# of Cases	Percentage
ARI	156,460	16.14%
Bloody diarrhoea	712	<1.00%
Acute diarrhoea	65,970	6.80%
S. Malaria	21,869	2.26%
Skin Diseases	27,527	2.84%
Unexplained fever	24,181	2.49%
All other consultations	672,730	69.39%
<b>Total (All consultations)</b>	<b>969,449</b>	<b>100%</b>

From 1st January to 31st May 2014, a total of 185 lab confirmed Dengue fever cases were reported, out of these 179 positive cases were from Sindh province; while 6 positive cases were reported from Punjab province.

In 2013 Dengue fever cases were reported from many less endemic areas. A huge outbreak was confronted in district Swat and increasing number of Dengue fever cases were reported from adjacent district also and cases were also reported from Gawadar and Kech districts in Balochistan province and Karachi in Sindh province. The provincial and local health departments were supported for the Dengue control and outbreak response activities.



Number of Outbreaks (Wk-22/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
29-May	AWD	Balochistan	Las Bela	Village paryani UC Gadore Tehsil Bela	0	4	0	9	13 AWD cases were reported from village Paryani, district Lasbela. 3 stool and 3 water samples were collected and sent to NIH for laboratory confirmation, results are awaited. All the cases were treated according to plan A, B and C. Health and Hygiene session conducted in the village, Aqua tabs and ORS were distributed in the community. All information shared with DHO.
25-May	CCHF	Balochistan	Quetta	Rozgan, Afghanistan	0	1	0	1	Two suspected CCHF cases reported from Fatima Jinnah Chest Hospital on 25 <sup>th</sup> May, both are residents of Afghanistan. The first suspected patient was 15 year old female from Rozgan (Afghanistan) whereas the second patient, an 80 years old male from the same area. Both the patients had fever, headache and body aches with bleeding from nose and mouth and had history of animal contact. Lab investigations showed low platelet count whereas sample sent for confirmation at NIH was found positive for CCHF for the male patient. For both the patients' symptomatic treatment, supportive fluids were started. Awareness session was given to Patient's families regarding the disease.
29-May	CCHF	Balochistan	Quetta	P1-Killi Landi, Kuchlak, P2 Killi Kamalo, Saryab Road Quetta	0	2	0	0	Two suspected CCHF cases reported from Fatima Jinnah Chest Hospital on 29 <sup>th</sup> of May, where one patient had a travel history of Afghanistan. The first suspected case was a 16 years old male resident of Killi Landi, Kuchlak, District Quetta whereas the second suspected patient was a 30 years old male patient, resident of Saryaab Mill, Saryaab Road, District Quetta. Both the patients had fever, headache and body aches with bleeding from nose and mouth but only the first case had history of animal contact. Lab investigations showed low platelet count whereas sample sent for confirmation at NIH was found negative for CCHF for the first patient; lab test for second patient is under process. For both the patients' symptomatic treatment, supportive fluids were started. Awareness session was given to Patient's families regarding the disease.
26-May	Leishmaniasis	Balochistan	Las Bela	(RHC) winder, Tehsil Winder	1	6	0	0	7 new cases of Leishmaniasis were reported. So far 56 cases from this HF has been reported for year 2014. All the cases were found with lesion mostly on legs and hands. Symptomatic treatment is continued. Cases had no travelling history.
25-May	Measles	Balochistan	Quetta	BMCH (P1-Pashtoon bagh, P2 Hazarganji, Quetta)	2	2	1	1	6 suspected Measles cases were reported. 5 cases belongs to same family. Two cases were admitted in the hospital having runny nose, red eyes and fever. Symptomatic treatment was continued. Vit-A dose was administered. Rest of the 4 cases were provided treatment at home. All the cases were found unvaccinated for measles. Families were guided on immunization and its importance.
31-May	CCHF	Khyber Pakhtunkhwa	Peshawar	Afghanistan	0	1	0	0	A 28 years old male patient belongs to Afghanistan is admitted in Hayat Abad Medical Complex on 30 May 2014 with history of Fever, Myalgia and Bruises/ Brown spots on the skin all over the body and his condition was not stable at admission but started improving. Platelet count was only 9500/cmm. Patient is shifted in Isolated room. Blood sample sent to NIH for Laboratory testing and confirmation, and reported positive for CCHF. Ribavirine starts to the patient and to the health personnel who attended him along with patient's close contacts. Hospital staff requested to implement Infection Control Measures and to practice Barrier Nursing and wear PPEs while attending the patient. The patient has recovered and stable.
31-May	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Haji Abad, Muslim Abad, UC Mian Essa, Tehsil Takht Bhai, Mardan	3	2	3	8	16 clinical cases of Cutaneous Leishmaniasis were reported from BHU Mian Essa. WHO supplied required doses of Inj-Glucantime to KPH Mardan for all registered cases. On the job training of health staff was conducted for Intraleisional administration of Inj-Glucantime. EDO Health and RBM, KPH were informed and requested for vector control interventions in the area and surrounding.

## Number of Outbreaks (Wk-22/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
28-May	Measles	Khyber Pakhtunkhwa	Swabi	Isolation Unit, Children Unit, Bacha Khan Medical Complex, Swabi	16	3	8	2	29 suspected Measles cases were reported from Children Unit of Bacha Khan Medical Complex Hospital, Swabi. All the cases were sporadic and no clustering was found. Most of the children were found partially vaccinated for routine immunization but unimmunized for measles vaccination (verbal history). Vitamin-A dose was given to all the suspected cases. EPI team was informed and requested for outreach immunization in the area. On the job training of health staff conducted. EDO-H Focal person and EPI Coordinator were informed.
27-May	Typhoid	Punjab	Mianwali	BHU Kalri	3	14	5	10	Alert was generated for 32 suspected cases of Typhoid fever. All the cases were diagnosed on clinical signs and symptoms and advised for Widal test which came out +ve for 12 patients. The cases were treated as OPD patients and antibiotics were given from BHU. OPD register was reviewed for verification and details of treatment provided to the cases. 7 cases were belongs to village Kalri. There was no epidemiological linkage found between other cases. Assessment of the health facility regarding availability of Antibiotics medicines was done. Antibiotics were available at the BHU. Health education session was conducted by DSC for the dispenser, SI, CDC Supervisor and MO of Health facility. LHW's were mobilized to conduct Health education session in the community. Aqua tabs, jerry cans and life straws were distributed in the community.
26-May	Naegleria Meningitis	Sindh	Karachi	Gulistan e Johar, block 16-A, near Haroon Royal City, Gulshan e Iqbal town	0	1	0	0	DEWS team was informed about death due to Primary amebic meningoencephalitis (PAM) reported from a private hospital. The team visited the family of deceased. History revealed that the patient had severe headache and Vomiting, he was treated from nearby GP with different medicines but condition was still deteriorated and admitted to AKU but did not survive and died on 24th May. The Karachi Water and Sewerage Board (KWSB) have been requested to chlorinate all major reservoirs. A joint committee of health department officials, KWSB and Karachi Municipal Corporation (KMC) officials has been set up which will monitor water chlorination and take water samples on daily basis from different towns and share reports with all the stakeholders. Moreover, utilization of print and electronic media to create awareness among people to prevent Naegleria infection is planned.

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

Disease	2013		Current week 22, 2014		2014	
	A	O	A	O	A	O
Acute watery diarrhoea	142	40	4	1	30	5
Acute jaundice syndrome	49	6	0	0	13	2
Bloody diarrhoea	45	3	0	0	18	0
CCHF	90	47	3	1	19	5
Dengue fever	300	66	1	0	6	0
Diphtheria	84	19	1	0	27	3
Measles	3357	281	37	1	645	24
Pertussis	46	10	1	0	20	2
NNT + tetanus	349	0	1	0	133	0
Malaria	25	6	0	0	0	0
Cutaneous Leishmaniasis	621	51	4	0	259	14
Others	520	5	1	0	206	5
<b>Total</b>	<b>5628</b>	<b>534</b>	<b>53</b>	<b>3</b>	<b>1376</b>	<b>60</b>

Figure-3: Number of alerts received and responded, week 19 to 22 2014

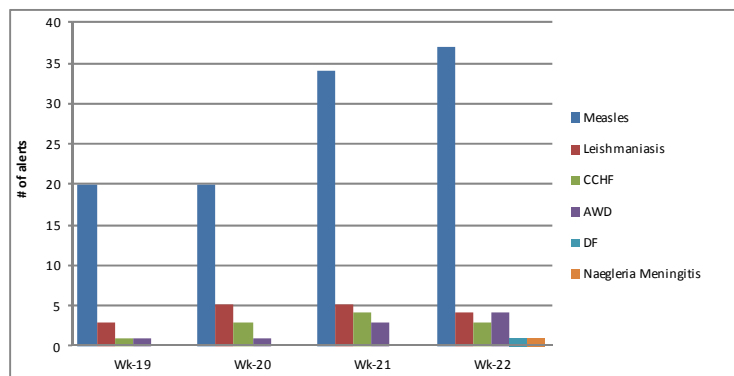
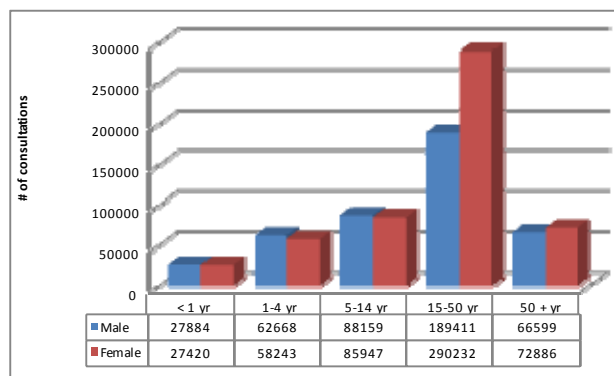
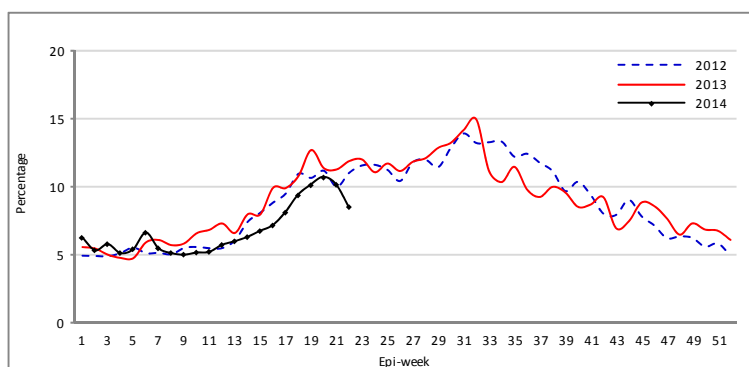


Figure-4: Number of consultations by age and gender, week 22, 2014



### Province Khyber Pakhtunkhwa:

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



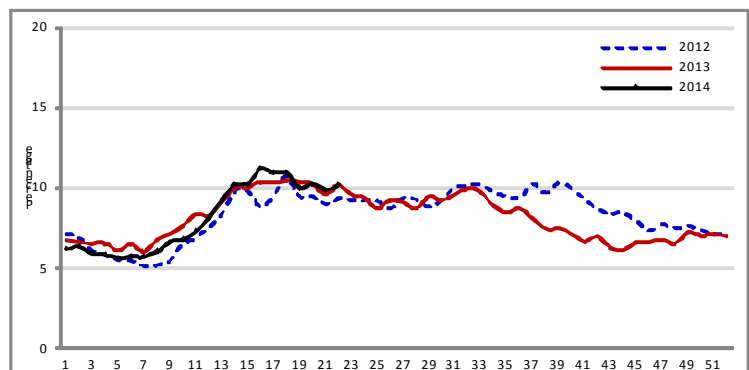
73 health facilities from 9 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 23,294 patients consultations reported in week 22, 2014.

A total of 9 alerts were reported and appropriate measures were taken. Altogether 5 alerts were for Measles; while 1 each for AWD, CCHF, Dengue fever and Leishmaniasis.

Figure-5 shows the weekly trend of Acute diarrhoea showing decrease and having low as compared with same time last year.

### Province Sindh:

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



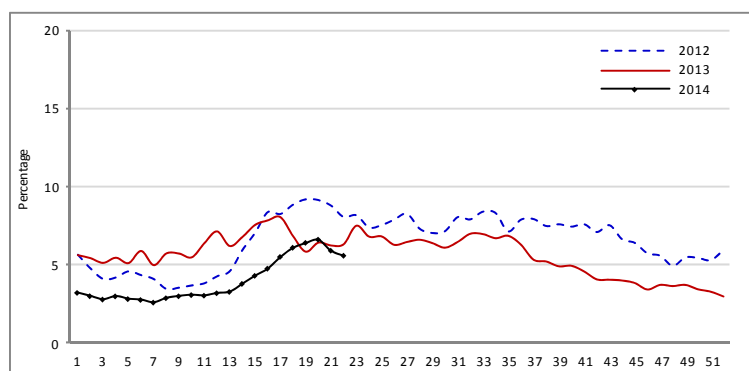
752 health facilities from 23 districts in Sindh province reported to DEWS with a total of 214,145 patient consultations in week 22, 2014.

A total of 13 alerts were received and appropriate measures were taken. Altogether 8 alerts were for Measles; 2 each for AWD and Leishmaniasis; while 1 for Naegleria Meningitis.

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

### Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



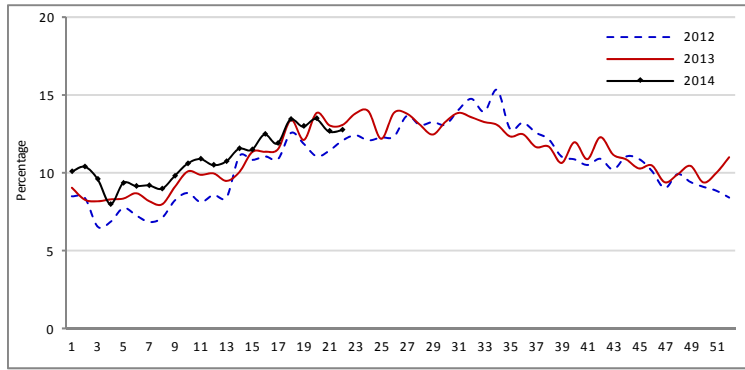
1,390 health facilities from 28 districts in Punjab province reported to DEWS with a total of 704,782 patients consultations in week 22, 2014.

Total 21 alerts were received and appropriate measures were taken. Altogether 19 alerts each were for Measles; while 1 each for Diphtheria and Pertussis were responded in Punjab province.

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



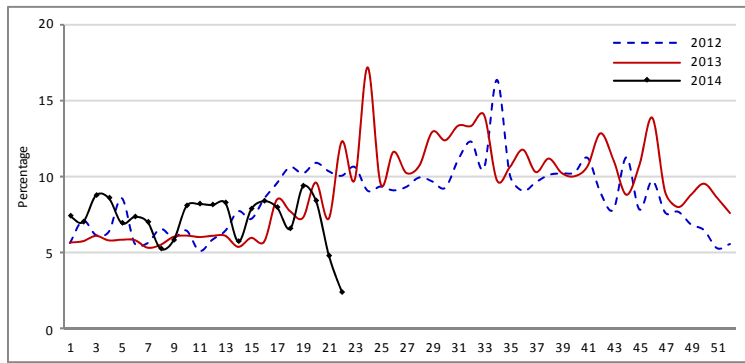
158 health facilities from 7 districts in Balochistan province reported to DEWS with a total of 26,054 patients consultations in week 22, 2014.

A total of 8 alerts were reported and appropriate measures were taken. Altogether 3 alerts were for Measles; 2 for CCHF; while 1 each for AWD, Leishmaniasis and NNT.

In this week the weekly proportion of AD showing minor increase as compared with last week, and low from the same time period last year, but vigilant monitoring of the situation required.

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



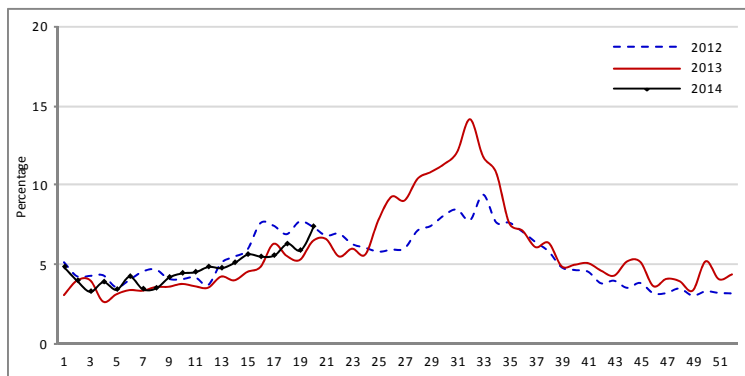
1 health facilities from 1 agency in FATA reported to DEWS with a total of 576 patients consultations in week 21, 2014.

No alert for any disease was received from any area in FATA in week 22 2014.

The proportion of AD showing decrease, and low from same time period last year. Vigilant monitoring of the situation is required as number of consultations are low.

**State of Azad Jammu and Kashmir:**

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



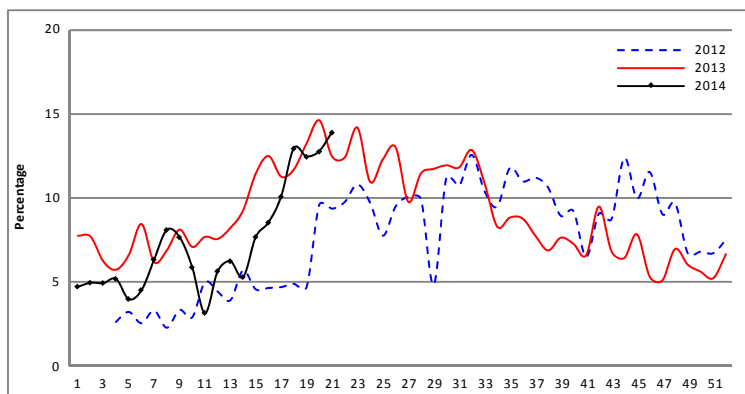
68 health facilities from 7 districts in AJ&K reported to DEWS with a total of 8,302 patients consultations in week 20, 2013.

6 alerts were reported from AJ&K and appropriate measures were taken in week 20 2014. Altogether 5 alerts were for Measles; while 1 for Leishmaniasis.

Weekly trend of AD showing increase as compared with last week and higher from same time period last year; vigilant monitoring of the situation is required.

**Islamabad:**

Figure-11: Weekly trend of Acute diarrhoea, Islamabad



3 health facilities reported to DEWS on time with a total of 598 patients consultations in week 22, 2014.

No alert for any disease was reported from any area in Islamabad in week 22, 2014.

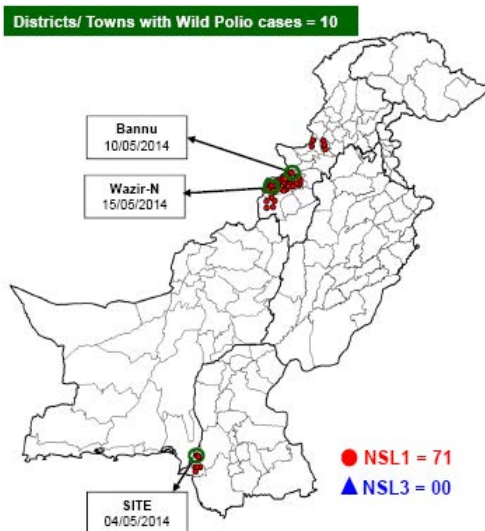
Weekly trend of AD showing continuously increase from last couple of weeks, and vigilant monitoring of the situation is required.



Distribution of Wild Polio Virus cases in Pakistan 2013 and 2014

In this week 22 (25 to 31 May 2014), new type-1 wild polio cases have been reported in the country, two from Federally Administered Tribal Areas (North Waziristan Agency) and one each from Khyber Pakhtunkhwa (Bannu district) and Sindh (SITE town Karachi). This brings the total number of polio cases in 2014 to 71 (compared to 17 in 2013 till this time) from 10 districts/towns/tribal agencies/FR areas (compared to 10 in 2013 till this time).

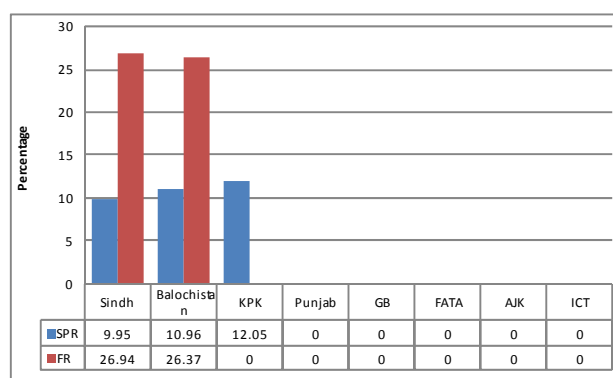
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	-	-	-
Sindh	10	-	-	6	-	-
Khyber Pakhtunkhwa	11	-	-	10	-	-
FATA	65	-	-	55	-	-
Balochistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>71</b>	<b>-</b>	<b>-</b>



Malaria:

The Table and chart given below shows the Malaria slide positivity and Falci-parum ratio in week 22, 2014. Total number of Malaria cases tested in this week is 3,293 out of which 347 were found positive; 271 for P. Vivax; 36 for P. Falci-parum; while 40 for Mixed (SPR = 10.54%; F.R = 21.90%).

Malaria tests \ Province	Sindh	Balochistan	KPK	Punjab	GB	FATA	AJK	ICT
P. Vivax	141	67	63	0	0	0	0	0
P. Falci-parum	14	22	0	0	0	0	0	0
Mixed	38	2	0	0	0	0	0	0
# tested	1940	830	523	0	0	0	0	0
SPR	9.95	10.96	12.05	0	0	0	0	0
FR	26.94	26.37	0	0	0	0	0	0



Follow up on: CCHF

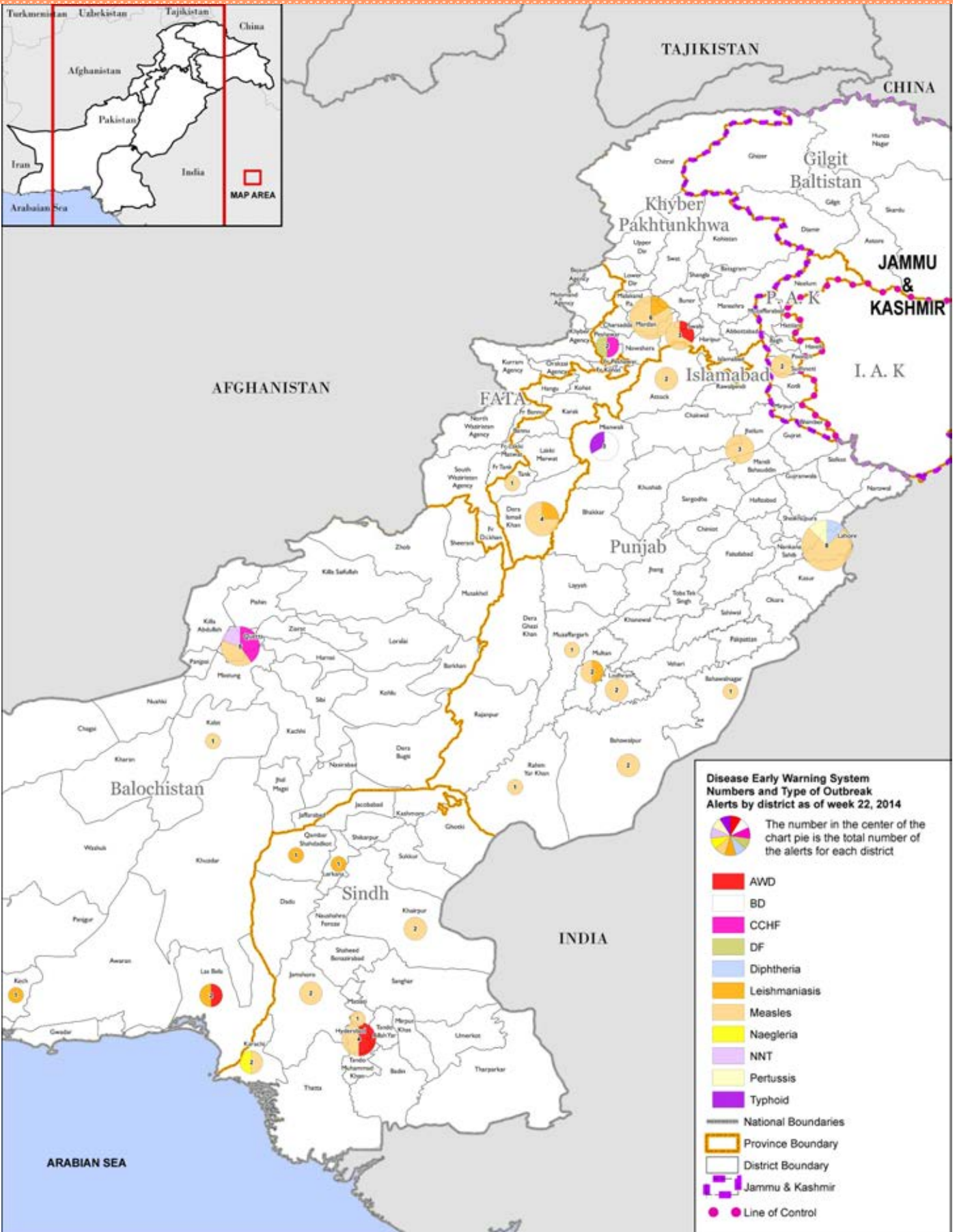
CCHF is a serious viral hemorrhagic fever with up to 50% case fatality rate, caused by an RNA virus of family Bunyaviridae, genus Nairovirus, carried by Hyalomma species of ticks. Human beings become infected by tick bites or crushing the ticks, which are usually found on sheep, cattle, goats or camels,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

Suspected and confirmed CCHF cases are reported continuously from epidemiological week 8 2014. So far total 16 suspected cases, 7 laboratory confirmed, and 5 deaths (4 due to positive CCHF) have been reported where most of the cases are from province Balochistan Suspected cases = 9 (5 were from Afghanistan); Lab confirmed = 3, and 1 death. 4 suspected cases (1 from Afghanistan) reported from Islamabad; 1 positive and 3 deaths. While 1 each case was reported from province Khyber Pakhtunkhwa (belongs to Afghanistan and positive for CCHF) province Punjab (+ve and expired) and AJ&K (-ve).

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 22, 2014



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