



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

Volume 5, Issue 32, Wednesday 13 August 2014

### Highlights

Epidemiological week no. 32  
(3 - 9 August 2014)

- **CCHF:** During this week, 4 suspected CCHF cases with 2 deaths have been reported from Balochistan province.
- In this week, **81** out of 87 districts and 2,945 out of 3,590 health facilities have reported to Disease Early Warning System (DEWS), compared to 82 districts with 2,437 health facilities shared weekly data in week 31, 2014.
- A total of **1,288,459** patients consultations reported in this week 32, 2014.
- In this week, a total of 50 alerts generated and timely responded. Altogether 21 alerts were for Measles; 9 for Leishmaniasis; 8 for CCHF; 2 each for H1N1, AWD and NNT; while 1 each for AJS, Dengue fever, Diphtheria, Pertussis, Typhoid fever and Scabies.

Figure-1: 81 out of 87 districts reported to DEWS in week 32, 2014



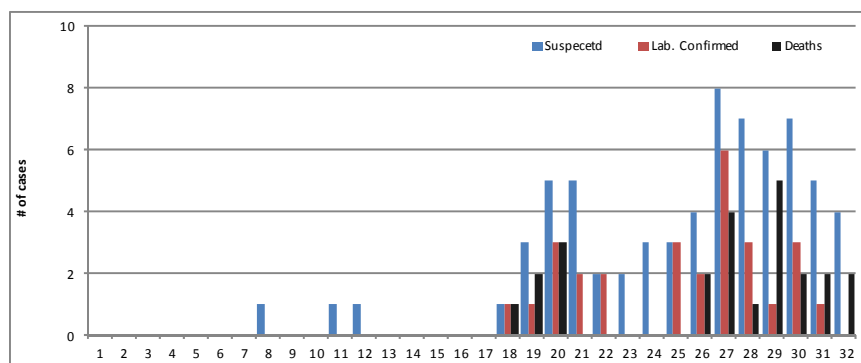
#### Priority diseases under surveillance in DEWS

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 32, 2014 (29 Dec 2013 to 9 August 2014)

| Disease                          | # of Cases        | Percentage  |
|----------------------------------|-------------------|-------------|
| ARI                              | 5,830,424         | 18.76%      |
| Bloody diarrhoea                 | 29,573            | <1.00%      |
| Acute diarrhoea                  | 1,806,139         | 5.81%       |
| S. Malaria                       | 795,033           | 2.56%       |
| Skin Diseases                    | 968,770           | 3.12%       |
| Unexplained fever                | 795,524           | 2.56%       |
| All other consultations          | 20,852,767        | 67.10%      |
| <b>Total (All consultations)</b> | <b>31,078,230</b> | <b>100%</b> |

Figure-2: Weekly number of CCHF cases and deaths in Pakistan, week 1 to 32 2014



#### Major health events reported during the Epi-week - 32 (3 - 9 August 2014)

| Disease                          | # of Cases       | Percentage  |
|----------------------------------|------------------|-------------|
| ARI                              | 187,571          | 14.56%      |
| Bloody diarrhoea                 | 1,263            | <1.00%      |
| Acute diarrhoea                  | 78,466           | 6.09%       |
| S. Malaria                       | 29,289           | 2.27%       |
| Skin Diseases                    | 49,920           | 3.87%       |
| Unexplained fever                | 31,311           | 2.43%       |
| All other consultations          | 910,639          | 70.68%      |
| <b>Total (All consultations)</b> | <b>1,288,459</b> | <b>100%</b> |

Crimean Congo Haemorrhagic Fever (CCHF) cases are reported continuously from epidemiological week 8, 2014. So far total 68 suspected cases, 25 laboratory confirmed, and 20 deaths (of these 11 laboratory confirmed) have been reported. Most of the cases are from Balochistan province 31 suspected (11 cases belongs to Afghanistan), 9 Laboratory confirmed and 5 deaths. 21 suspected, 11 Laboratory confirmed (6 from Afghanistan) and 8 deaths (6 Lab confirmed) were reported from Khyber Pakhtunkhwa province. 3 suspected cases (1 from Afghanistan), 2 Laboratory confirmed and 2 deaths were reported from Islamabad. 12 suspected CCHF cases (4 Laboratory confirmed), 4 deaths were reported from Punjab province. While 1 suspected case was from district Sudhnuti (AJK) and was negative for CCHF.

The CCHF cases from Afghanistan are detected and reported from Quetta and Peshawar because 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 Alerts/Outbreaks (Wk-32/2014):

| Date  | Disease | Province           | District   | Area   | <5M | >5M | <5F | >5F | Action Taken   |
|-------|---------|--------------------|------------|--|-----|-----|-----|-----|--|
| 6-Aug | Typhoid | AJ&K               | Bagh       | Village Sahr Kotli UC Chamiyati Tehsil Dhirkot                 | 5   | 7   | 1   | 24  | An alert for Enteric Fever was generated from RHC Dhirkot. Upon field investigation along with a team of doctors and paramedics from DOH, 37 cases for Enteric fever were found and were line listed. Blood sampling for 2 cases was done using Typhi dot kits and were found positive for Typhoid. All the patients were from same village using two nearby situated water sources (open springs). Source was identified and health education was imparted with sensitization for boiling water usage and personal hygiene. Aqua tabs and IEC material was distributed. Health Authorities were informed and follow up is planned.  |
| 9-Aug | AWD     | Khyber Pakhtunkhwa | Swabi      | Jamiah Madrassa, Panjpeer, Swabi                               | 0   | 8   | 0   | 0   | AWD outbreak with 8 cases including one death was reported by Medical Specialist from Bacha Khan Medical Complex Swabi. During response epidemiological and environmental assessment was carried out in the area and surrounding, total of 20 cases had suffered from acute watery diarrhea and most of them developed moderate to severe dehydration during last week of Ramzan, 8 cases with severe dehydration were hospitalized for emergency treatment at BMC Swabi. Other cases had received treatment and found fully recovered. 1 of 2 stool samples were collected and sent to NIH for confirmation and turned out Positive for Vibrio Cholera. Field investigation found possible source was contaminated water supply, as 4 water samples were collected from different points for any fecal contamination, 2 samples were found contaminated and found not fit for drinking purposes. Health education sessions was conducted with Madrasa staff on hygienic practices. Aqua tabs, Antiseptic soaps, hygiene kits, jerry cane, Aqua Sachet and ORS were supplied for Madrasa Staff and participants. EDO health & DSM PPHI Swabi informed about the situation. |
| 5-Aug | Measles | Khyber Pakhtunkhwa | Mardan     | Village Saddat Baba, UC Lund Khovar, Tehsil Takht Baba, Mardan | 3   | 1   | 0   | 2   | Six suspected Measles cases were reported from Children OPD of DHQ Hospital Mardan. All cases were from same family of UC Lund Khovar, Tehsil Takht Bhai and were admitted at Isolation Unit of DHQ Hospital Mardan. All cases were found unvaccinated for routine immunization. On investigation it was found that the affected family was a chronic refusal family for routine immunization as well as Polio vaccination. Vitamin A was given. EDO-H Focal person and EPI Coordinator were informed.   |
| 5-Aug | CCHF    | Punjab             | Multan     | Sanjavi, Ziarat, Baluchistan                                   | 0   | 2   | 0   | 0   | A 35 year old male patient referred by DHQ Loralai to Nishter Hospital Multan was reported. The patient was originally admitted in Nishter Hospital with suspected Leptospirosis/CCHF. The onset of fever was 15 days back. The patient had four residential addresses in Ziarat, Loralai, Chowk Munda and Muzaffargarh. The patient was presently living in Sanjavi, Ziarat for the last 2 months. His occupation there was trading cattle. His blood samples were collected and sent to NIH for confirmation which was found positive for CCHF. Health education and counseling session was conducted with patient and his attendants. His brother, who also attended to him during his stay in DHQ Hospital Loralai also developed fever was quarantined in isolation ward Nishter Hospital and is being kept under observation. WHO provided antiviral for the treatment of suspected case. Hospital staff who attended to the case was also counseled for signs of CCHF and was advised to inform immediately if they develop any symptoms. PPEs, hand sanitizers and surface disinfectants were already provided to hospital by WHO.                                 |
| 5-Aug | CCHF    | Punjab             | Rawalpindi | Mankiyala, Gujar Khan, Rawalpindi                              | 0   | 1   | 0   | 0   | 75 years old male patient from Gujar Khan was in his usual state of health when 15 days back complaints of Fever, vomiting and generalized body aches started. He was taken to a Local private hospital where he was given antibiotics and IV infusion. But his condition did not improved and later was referred to MH Rwp. ICU Medicine Department. Where he was treated for suspected CCHF and his condition improved. Samples send to NIH came out positive for CCHF. Field visit was arranged in coordination with Live stock department and DDHO Gujar Khan. Cattle found in house having tick and were disinfected. Health education session was conducted with the family members.   |

Figure-3: Number of alerts received and responded, week 29 to 32 2014

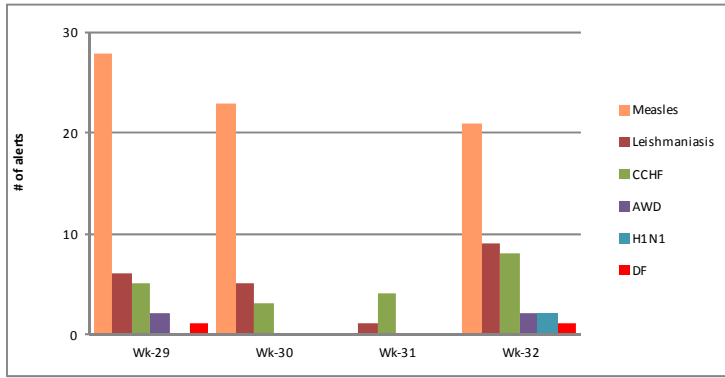
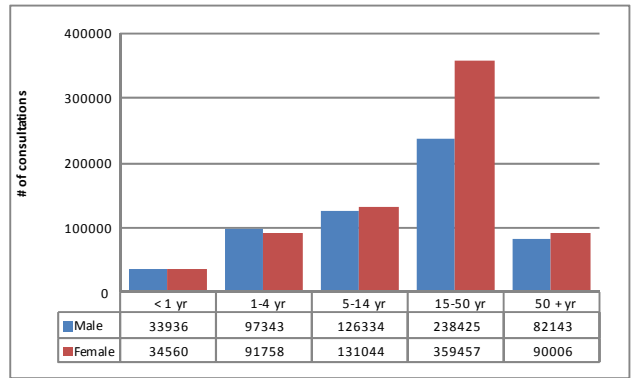
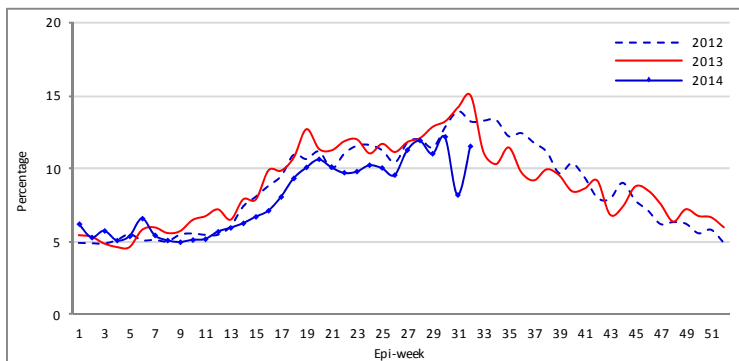


Figure-4: Number of consultations by age and gender, week 32, 2014



Province Khyber Pakhtunkhwa:

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



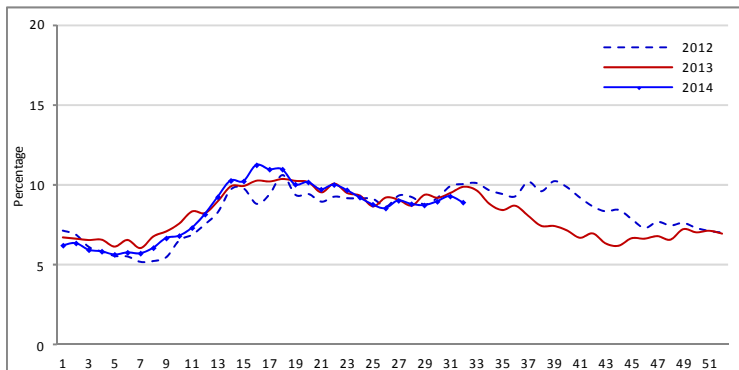
144 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 36,874 patients consultations reported in week 32, 2014.

A total of 7 alerts were received and appropriate measures were taken. Altogether 3 alerts were for Measles; 2 for Leishmaniasis; while 1 each for AWD and Diphtheria.

Figure-5 shows the weekly trend of Acute diarrhoea showing sudden decrease in week 31 (because of Eid holidays) and increase this week 32 but low as compared with same time period last year.

Province Sindh:

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



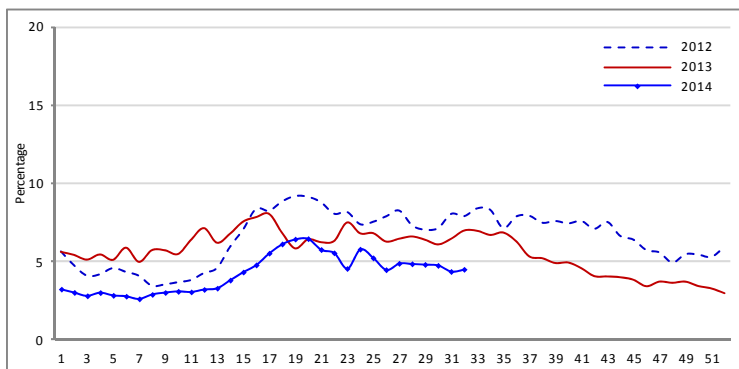
771 health facilities from 23 districts in Sindh province reported to DEWS with a total of 329,385 patient consultations in week 32, 2014.

A total of 7 alerts were received and appropriate measures were taken. Altogether 4 alerts were for Measles; 2 for NNT; while 1 for Pertussis.

The proportion of AD for the province is showing minor decrease as compared with last week. Vigilant monitoring of the situation required, as proportion of AD is showing same pattern in the province as compared with same time period last year.

Province Punjab:

Figure-7: Trend of Acute diarrhoea, province Punjab



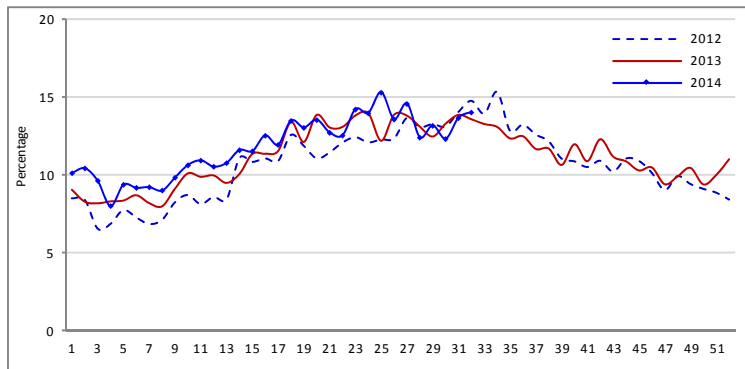
1,765 health facilities from 34 districts in Punjab province reported to DEWS with a total of 879,146 patients consultations in week 32, 2014.

Total 12 alerts were received and appropriate measures were taken. Altogether 4 alerts were for Measles; 3 for CCHF; 2 for H1N1; while 1 each for AJS, Dengue fever and Scabies were responded in province Punjab.

The weekly trend of Acute diarrhoea in Punjab showing stability 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



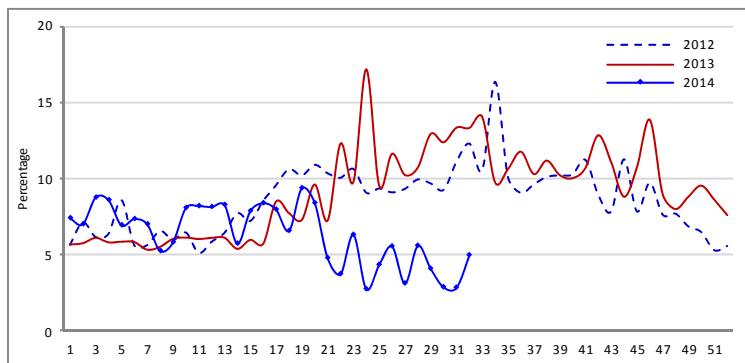
210 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 31,779 patients consultations in week 32, 2014.

A total of 14 alerts were reported and appropriate measures were taken. Altogether 5 alerts each for CCHF and Measles; while 4 for Leishmaniasis.

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

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



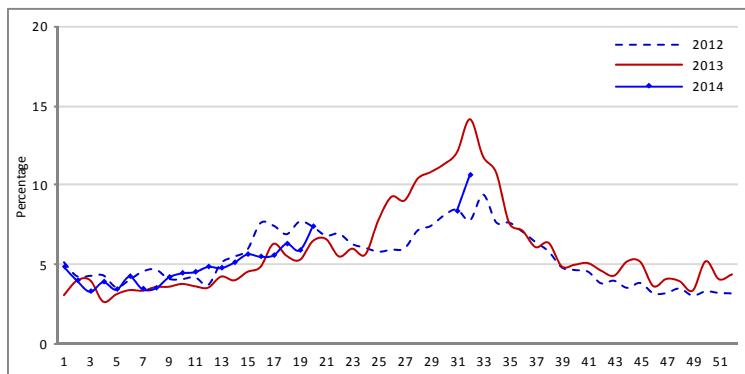
1 health facilities from 1 agency in FATA reported to DEWS with a total of 879 patients consultations in week 32, 2014.

No alert for any disease was received from any area in FATA in week 32 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



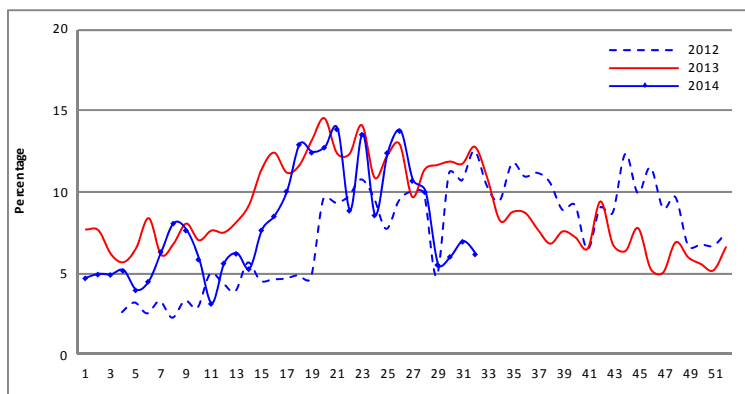
52 health facilities from 4 districts in AJ&K reported to DEWS with a total of 10,054 patients consultations in week 32, 2013.

Total 8 alerts were reported and appropriate measures were taken. 4 alerts were for Measles; 3 for Leishmaniasis; while 1 for Typhoid fever.

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



2 health facilities reported to DEWS on time with a total of 342 patients consultations in week 32, 2014.

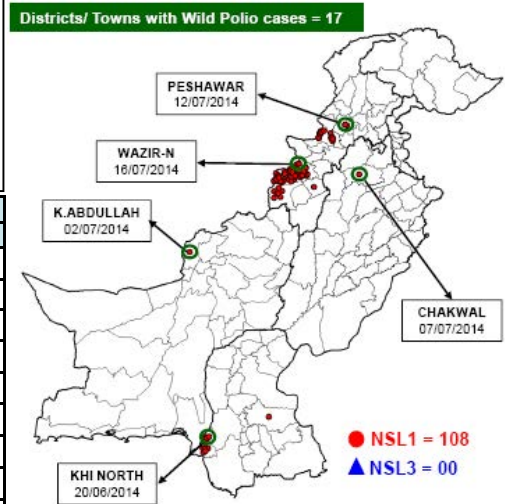
2 alerts, 1 each for AWD and Measles were reported in week 32 in Islamabad and appropriate measures were taken.

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 32 (3 to 9 August 2014), four new type-1 wild polio virus (WPV) cases were reported, one each from Federally Administered Tribal Areas (North Waziristan Agency), Khyber Pakhtunkhwa province (Peshawar district), Sindh (North Karachi Town) and Punjab (Chakwal district). This brings the total number of polio cases in 2014 to 108 (compared to 27 in 2013 till this time) from 17 districts/towns/tribal agencies/FR areas (compared to 12 in 2013 till this time).

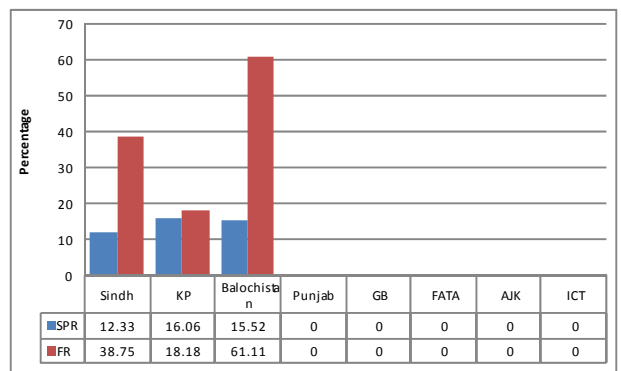
| Province           | 2013      |          |          | 2014       |          |          |
|--------------------|-----------|----------|----------|------------|----------|----------|
|                    | P1        | P3       | P1+P3    | P1         | P3       | P1+P3    |
| Punjab             | 7         | -        | -        | 1          | -        | -        |
| Sindh              | 10        | -        | -        | 10         | -        | -        |
| Khyber Pakhtunkhwa | 11        | -        | -        | 19         | -        | -        |
| FATA               | 65        | -        | -        | 71         | -        | -        |
| Balochistan        | -         | -        | -        | 1          | -        | -        |
| AJ&K               | -         | -        | -        | -          | -        | -        |
| Gilgit-Baltistan   | -         | -        | -        | -          | -        | -        |
| Islamabad          | -         | -        | -        | -          | -        | -        |
| <b>Total</b>       | <b>93</b> | <b>-</b> | <b>-</b> | <b>108</b> | <b>-</b> | <b>-</b> |



**Malaria:**

The Table and chart given below shows the Malaria Slide Positivity and Falciparum Ratio in week 32, 2014. Total number of Malaria cases tested in this week is 902 out of which 120 were found positive; 74 for P. Vivax; 19 for P. Falciparum; while 27 for Mixed (SPR = 13.30%; F.R = 38.33%).

| Malaria tests \ Province | Sindh | KP    | Balochistan | Punjab | GB | FATA | AJK | ICT |
|--------------------------|-------|-------|-------------|--------|----|------|-----|-----|
| P. Vivax                 | 49    | 18    | 7           | 0      | 0  | 0    | 0   | 0   |
| P. Falciparum            | 4     | 4     | 11          | 0      | 0  | 0    | 0   | 0   |
| Mixed                    | 27    | 0     | 0           | 0      | 0  | 0    | 0   | 0   |
| # tested                 | 649   | 137   | 116         | 0      | 0  | 0    | 0   | 0   |
| SPR                      | 12.33 | 16.06 | 15.52       | 0      | 0  | 0    | 0   | 0   |
| FR                       | 38.75 | 18.18 | 61.11       | 0      | 0  | 0    | 0   | 0   |



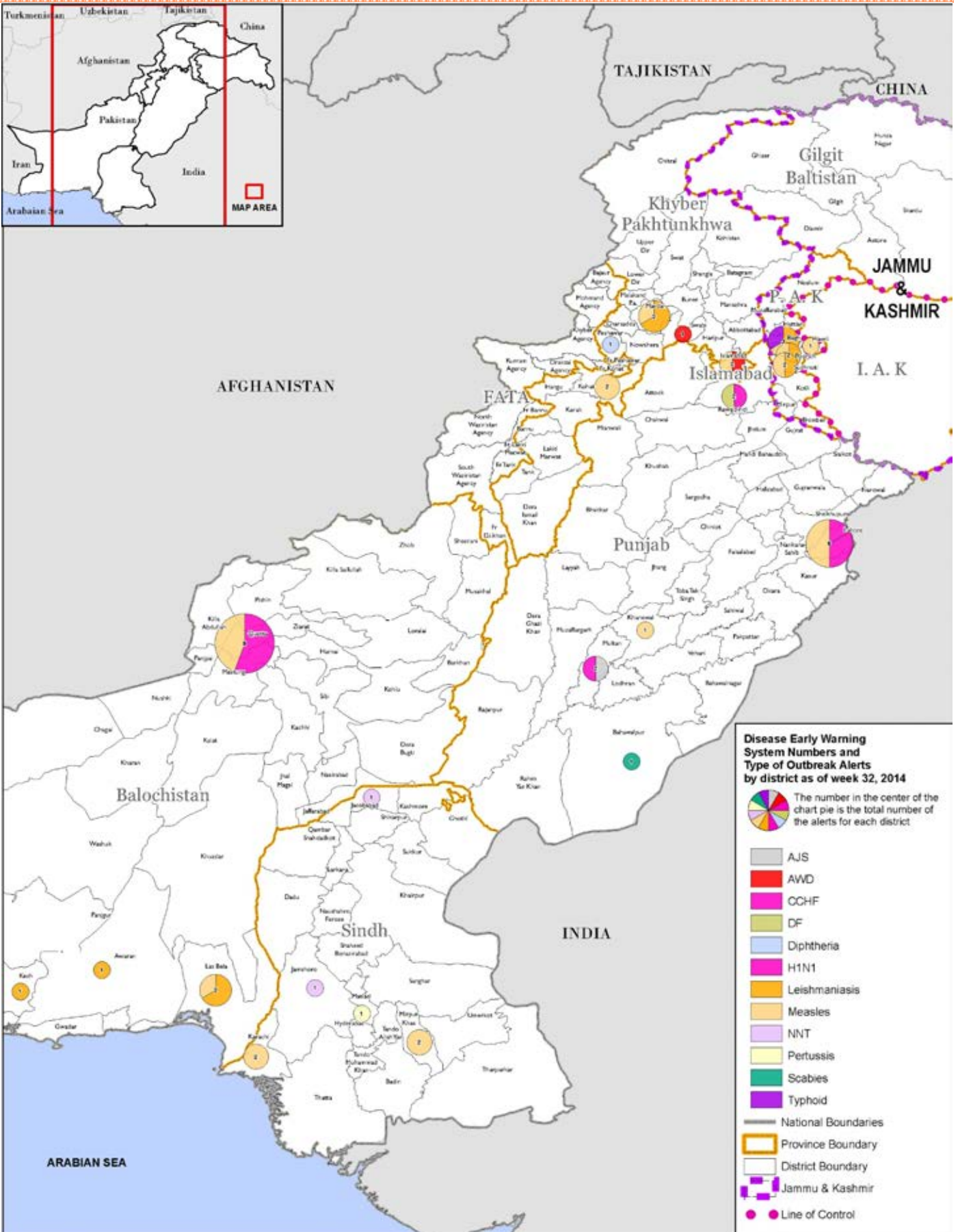
**Follow up on: CCHF**

CCHF is a serious viral hemorrhagic fever with up to 50% case fatality rate, caused by an RNA virus of family Bunyviridae, 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 68 suspected cases, 25 laboratory confirmed, and 20 deaths (of these 11 laboratory confirmed) have been reported. Most of the cases are from Balochistan province 31 suspected (11 cases belongs to Afghanistan), 9 Laboratory confirmed and 5 deaths. 21 suspected, 11 Laboratory confirmed (6 from Afghanistan) and 8 deaths (6 Lab confirmed) were reported from Khyber Pakhtunkhwa province. 3 suspected cases (1 from Afghanistan), 2 Laboratory confirmed and 2 deaths were reported from Islamabad. 12 suspected CCHF cases (4 Laboratory confirmed), 4 deaths were reported from Punjab province. While 1 suspected case was from district Sudhnuti (AJK) and was 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 32 2014



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