



# Weekly Epidemiological Bulletin

## Disease early warning system and response in Pakistan

Volume 5, Issue 20, Wednesday 21 May 2014

### Highlights

**Epidemiological week no. 20**  
(11 to 17 May 2014)

- **Dengue fever:** During this week, no Dengue fever lab confirmed case have been reported from any province.
- In this week, **73** out of 87 districts and 2,423 out of 2,700 health facilities have reported to Disease Early Warning System (DEWS), compared to 74 districts with 2,428 health facilities shared weekly data in week 19, 2014 to the DEWS.
- Total **952,827** patients consultations reported in week 20, 2014 as compared to **935,359** consultations in week 19, 2014.
- In this week, a total of 45 alerts generated and timely responded. Altogether 20 alerts were for Measles; 5 for Leishmaniasis; 4 for CCHF; 3 each for AJS, Bloody diarrhoea and NNT; 2 each for Acute diarrhoea and Typhoid; while 1 each for AWD, ARI and Diphtheria.
- 13 outbreaks were also identified and timely responded.

Figure-1: 73 out of 87 districts reported to DEWS in week 20, 2014



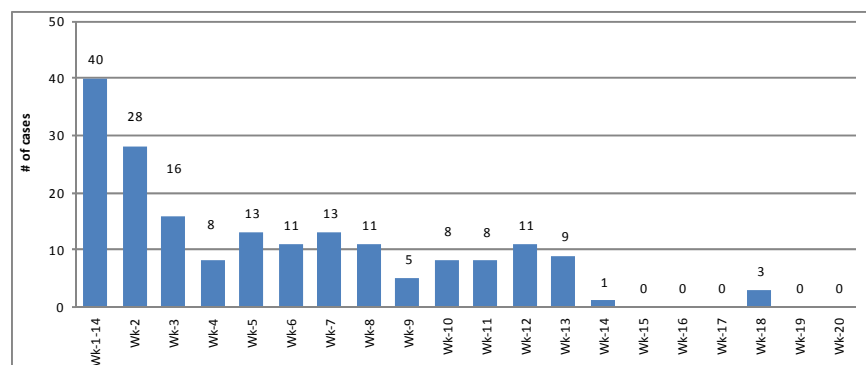
#### Priority diseases under surveillance in DEWS

- 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 20, 2014 (29 Dec 2013 to 17 May 2014)

Disease	# of Cases	Percentage
ARI	3,920,797	21.50%
Bloody diarrhoea	17,330	<1.00%
Acute diarrhoea	993,167	5.45%
S. Malaria	511,417	2.80%
Skin Diseases	536,651	2.94%
Unexplained fever	475,616	2.61%
All other consultations	11,778,917	64.59%
<b>Total (All consultations)</b>	<b>18,233,895</b>	<b>100%</b>

Figure-2: Number of Dengue fever positive cases in Pakistan, Week 1 to 20 2014

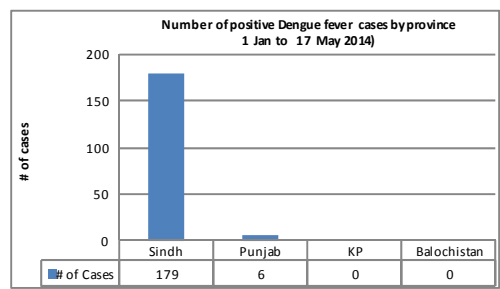


#### Major health events reported during the Epi-week - 20 (4 to 17 May 2014)

Disease	# of Cases	Percentage
ARI	166,258	17.45%
Bloody diarrhoea	848	<1.00%
Acute diarrhoea	73,442	7.71%
S. Malaria	25,391	2.66%
Skin Diseases	27,183	2.85%
Unexplained fever	22,407	2.35%
All other consultations	637,298	66.88%
<b>Total (All consultations)</b>	<b>952,827</b>	<b>100%</b>

From 1st January to 17 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-20/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
9-May	CCHF	Balochistan	Quetta	(FJCH), Soi Karez, Chaman, District Killia Abdullah	0	1	0	0	One CCHF case reported from FJCH, Quetta. Case was shepherd by occupation. According to medical history, he developed high grade fever with bleeding per rectum and per mouth a week before and become unconscious. Lab investigation reveals Hb 11.2 g/dl, platelets 28,000/cmm, Urea 120 mg%, Creatinine 2.2 mg%, Malaria was -ve and his LFTs were deranged. The blood sample was collected earlier which was found positive for CCHF. There was no travelling history. Supportive treatment along with 8 pints of platelets was transfused but patient developed renal failure and passed away on 9th May-2014. No more cases identified in the family or surrounding.
16-May	Leishmaniasis	Balochistan	Las Bela	(RHC) Winder, Tehsil Winder	1	2	2	2	Alert for 7 Cutaneous Leishmaniasis cases were reported. Including these cases for current year 56 cases have been reported from this HF (an ongoing outbreak in the locality). All the cases were investigated and found with lesion mostly on feet. None of the cases had travelling history. Treatment provided to all the cases. during field investigation no more cases identified in the area and surrounding.
13-May	CCHF	Khyber Pakhtunkhwa	Peshawar	Khyber Teaching Hospital	0	1	0	0	One CCHF case aged 40 years was admitted in Isolation Room of Khyber Teaching Hospital, Peshawar with history of Fever, Myalgia, Mucosal Bleeding and Hypotension. Surveillance Officer DEWS investigated the case. By profession the case is Milkman and belongs to Saraey Norang in district Lakki. He worked in a private farm in KARAK when he developed the symptoms. His platelets count were less than 50000/mm <sup>3</sup> . Blood sample was taken and sent to NIH and was found positive for CCHF. Barrier Nursing was ensured at hospital, but the patient could not survive and expired on 14th May 2014. Surveillance Officer and DoH in DIKhan informed and requested to conduct the field investigation in Lakki.
17-May	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Haji Abad, Muslim Abad, UC Mian Essa, Tehsil Takht Bhai	3	3	6	9	21 clinical cases of Cutaneous Leishmaniasis were reported from BHU Mian Essa, district Mardan. WHO supplied required doses of Inj-Glucantime to KPH Mardan for all the registered cases. On the job training of health staff was conducted for Intralesional administration of Inj-Glucantime. RBM focal person was informed and requested for vector control measures in the areas. EDO Health and focal person was informed.
13-May	Measles	Khyber Pakhtunkhwa	Mardan	Isolation Unit, Children Ward, DHQ Hospital Mardan	8	0	6	0	Alert for 14 suspected Measles cases were reported from Children OPD of DHQ Hospital Mardan. All the cases were from different localities, most of them found partially vaccinated for routine vaccination but unimmunized for measles vaccine (verbal history). Vitamin-A was given to all the suspected cases. EDO-H, Focal person and EPI Coordinator were informed and requested for outreach vaccination activity in the areas.
14-May	Measles	Khyber Pakhtunkhwa	Mardan	Isolation Unit, Children Unit, Mardan Medical Complex, Mardan	7	1	4	1	13 suspected Measles cases were reported from Children Unit, Mardan Medical Complex, Mardan. All the cases were from different localities, most of them found partially vaccinated for routine vaccination (verbal history), Vitamin-A dose was given to all the suspected cases. EDO-H, Focal person and EPI Coordinator were informed and requested for outreach vaccination activity in the areas.
14-May	BD	Punjab	Mianwali	RHC Daud Khel	3	2	2	2	Alert generated for 9 suspected Bloody diarrhoea cases from RHC Daud Khel. Address verified, all of the patients were found to from Street near RHC in main Bazar. during field visit to the area, it was found that patients belongs to different families (households). Health education sessions conducted in the community. ORS and Aqua tabs and filters given to affected families. LHVs advised to conduct HE sessions in community about safe drinking water and personal Hygiene.

Number of Outbreaks (Wk-20/2014):

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
14-May	Leishmaniasis	Punjab	Multan	Sadiq Abad, Wilayat abad, Hussain agahi, Delhi Gate Multan City	0	3	1	1	5 new cases of Cutaneous Leishmaniasis were reported from Civil Hospital Multan from Bhutta Colony area. All the cases were diagnosed clinically. Vector surveillance activity has been conducted in the affected areas and IRS was conducted in affected households. 2 Health education sessions were conducted in the community. Injection Glucantime were also provided to Civil Hospital and treatment of the cases has been started. The cases were advised to cover the lesions to avoid any further spread.
13-May	Leishmaniasis	Punjab	Rahim Yar Khan	Sheikh Zaid Hospital (Basti Pursan, Basti Peeran, Abu Dhabi Palace RYK City; Rajanpur Kalan, Taranda sawaye Khan, Chak 112/IL)	0	6	0	0	6 new cases of Cutaneous Leishmaniasis were reported from Different areas of Rahim Yar Khan. All the cases were diagnosed clinically. The cases were laborers who went to Muslim Bag and Quetta, Baluchistan for work during last 7-8 months (the area is known to be endemic for Leishmaniasis). The cases consulted local HCPs but were not cured by topical antibiotic ointments. The cases were provided with injection Glucantime and were advised to cover the lesion. On active surveillance, no more cases were identified from nearby areas. 7 Health Education sessions were conducted in the community. Vector surveillance activity and IRS were conducted at affected households.
12-May	Typhoid	Punjab	Lahore	RHC Manga	2	8	1	7	Alert generated for 18 cases of Typhoid fever from RHC Manga Allama Iqbal town. All the cases were found as Suspected Typhoid and Widal Test was advised. UC wise Town epidemic response team investigated the alert. Coordinated with Director, DFP, DDOH for response to the alert. Active surveillance was carried and no clustering was found. Assessment of water and sanitation situation was carried out. On job training of UC In charges Environment inspectors was given by DEWS focal person. Water sampling from various drinking sources were done by Environment Inspector. HE session conducted with the help of LHWs for the community about prevention of water-borne diseases. Distribution of EH supplies done by ERT team. Meeting with HF In charge and DDOH for provision of aqua tabs in the area. DOH (H) and Focal person for Water borne Disease was informed.
16-May	Typhoid	Punjab	Lahore	BHU Minhala	2	8	2	8	Alert was generated for 20 suspected cases from BHU Minhala UC Minhala Wahga town. The cases were found as suspected Typhoid and Widal Test was advised. During active surveillance no clustering was found. Assessment of water and sanitation situation was carried out. Water sampling from various drinking sources were done by Environment Inspector. Health education sessions conducted with the help of LHWs in the community about prevention of water-borne diseases. Distribution of EH supplies done by ERT team. Information shared with DOH(H) and Focal person and requested for appropriate measures were taken in the areas.
12-May	Typhoid	Punjab	Mianwali	RHC Chakrala	2	11	3	8	Alert was received for 24 suspected Typhoid cases from RHC Chakrala. All 24 cases were diagnosed on clinical signs and symptoms and advised Widal test which came out positive for 11 patients. The cases were treated as OPD patients and antibiotics were given at RHC. OPD register was reviewed for verification of case registration, addresses and details of treatment provided to the cases. All the cases were from village Kalri. Antibiotics were available at the BHU. Health education sessions was conducted by DSC for the dispenser, SI, CDC Supervisor and MO of the Health facility. In Village population of 7500, people investigated and all cases belongs to different families with different drinking water sources. LHW's were mobilized to conduct HE sessions in the community. Aqua tabs, jerry cans and life straw filters were distributed in the community. Information shared with DOH(H) and Focal person.
13-May	AJS	Sindh	Umerkot	Village Sekhro u/c kaplor talka umarkot	0	0	7	4	One female child 8 years of age reported with jaundice and yellow discoloration of eye suspected for acute viral hepatitis. Parents told that two other children are also affected with same clinical presentation. During house to house search, found 9 more new and old cases of AVH, 8 blood samples were collected and sent for Laboratory confirmation. All the children are of play group according to the parents they have been eating snacks from local seller from umarkot city which can be cause of this condition. Provided Aqua tabs and water filters to the affected families, the family was also briefed about the signs and symptoms of Acute Viral Hepatitis and requested to inform immediately if any person in the area or in their family experiences the similar signs/symptoms. Information shared with DHMT Tharparkar.

Figure-3: Number of alerts received and responded, week 17 to 20 2014

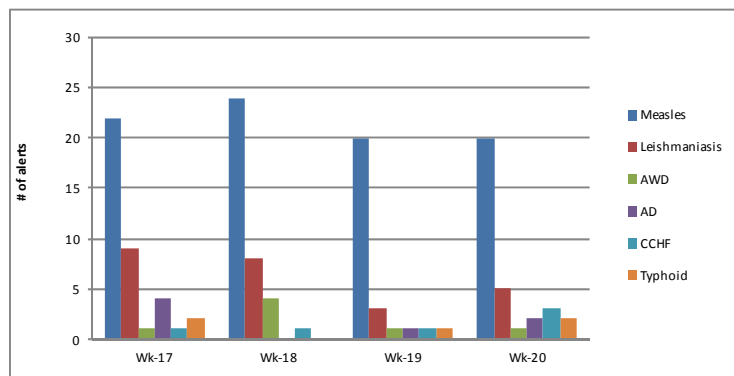
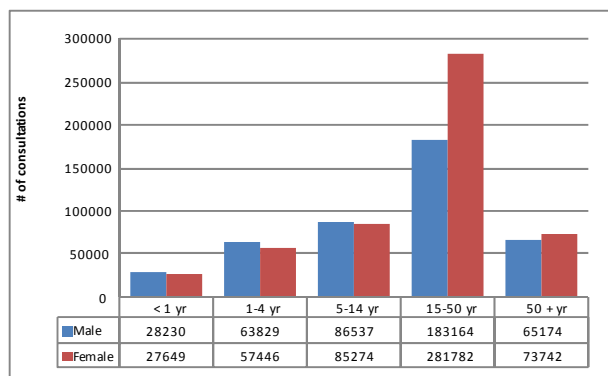
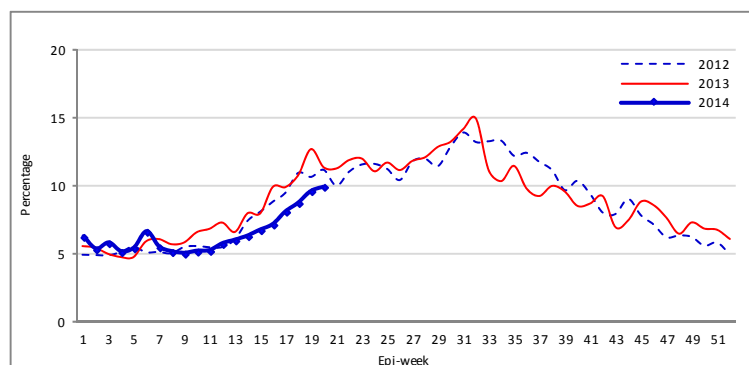


Figure-4: Number of consultations by age and gender, week 20, 2014



### Province Khyber Pakhtunkhwa:

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



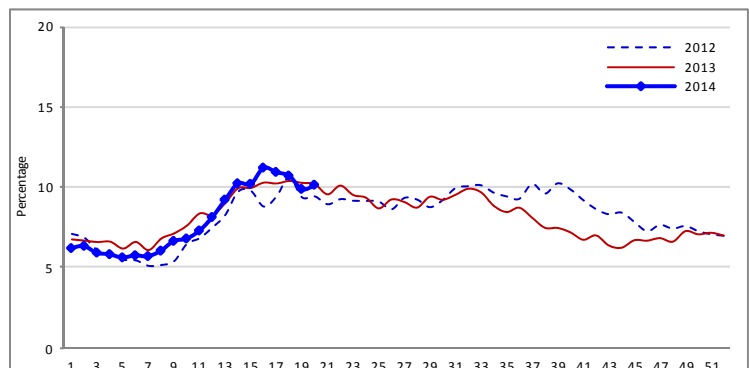
84 health facilities from 6 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 23,162 patients consultations reported in week 20, 2014.

A total of 2 alerts were reported, 1 each for CCHF and Measles.

Figure-5 shows the weekly trend of Acute diarrhoea showing continuously increase from week 9, 2014, and having low but same pattern as compared with last year.

### Province Sindh:

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



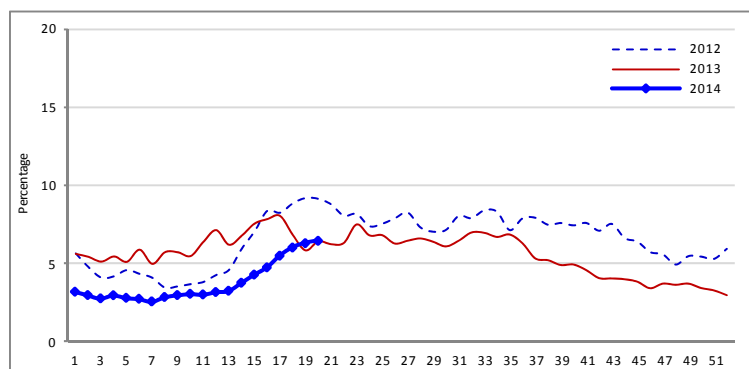
786 health facilities from 23 districts in Sindh province reported to DEWS with a total of 253,422 patient consultations in week 20, 2014.

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

The proportion of AD for the province is showing increase as compared with last week, but vigilant monitoring of the situation 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



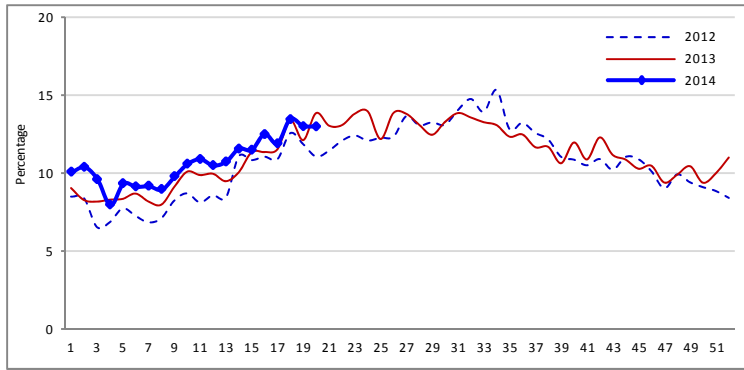
1,325 health facilities from 27 districts in Punjab province reported to DEWS with a total of 642,784 patients consultations in week 20, 2014.

Total 15 alerts were received and appropriate measures were taken. Altogether 3 alerts each were for Measles and Bloody diarrhoea; 2 each for Acute diarrhoea, AJS and Typhoid; while 1 each for ARI, Diphtheria and Leishmaniasis were responded in Punjab province.

The weekly trend of AD in Punjab showing increase as compared with last few weeks, and high from same time period last year.

**Province Balochistan:**

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



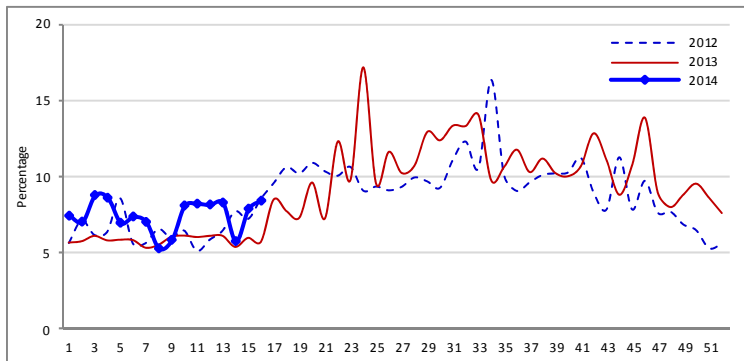
158 health facilities from 8 districts in Balochistan province reported to DEWS with a total of 24,701 patients consultations in week 20, 2014.

8 alerts were reported and appropriate measures were taken. Altogether 4 alerts were for Measles; 3 for CCHF; while 1 each for Leishmaniasis and Tetanus.

In this week the weekly proportion of AD showing minor decrease as compared with last week and low from the same time period last year.

**FATA:**

Figure-9: Weekly trend of Acute diarrhoea, FATA



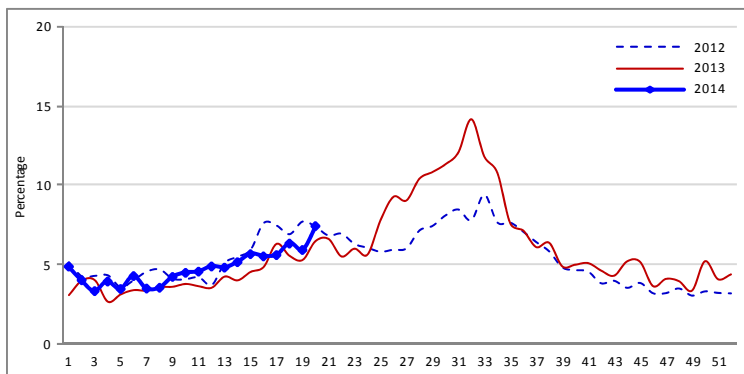
19 health facilities from 2 agencies in FATA reported to DEWS with a total of 4,793 patients consultations in week 16, 2014.

4 alerts were received and responded in FATA in week 16, 2014. Altogether 2 alerts were for Leishmaniasis; while 1 each for Measles and NNT.

The proportion of ARI showing increase, while Pneumonia also shows increase as compared with last week.

**State of Azad Jammu and Kashmir:**

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



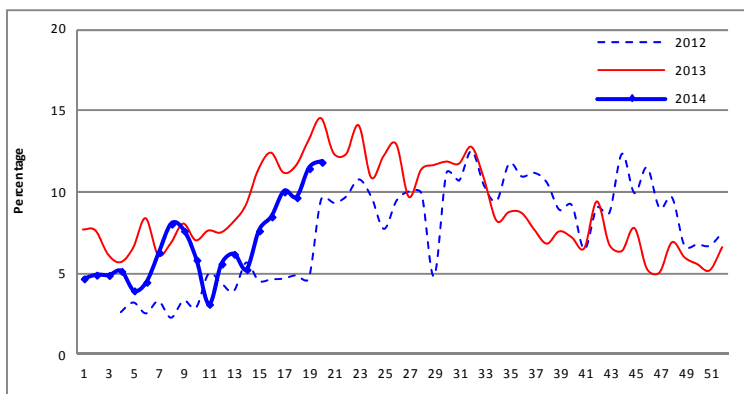
68 health facilities from 7 districts in AJ&K reported to DEWS with a total of 8,302 patients consultations in week 20, 2013.

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



2 health facilities reported to DEWS on time with a total of 456 patients consultations in week 20, 2014.

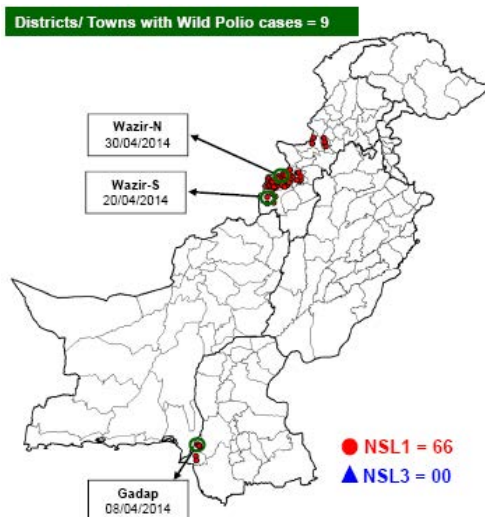
No alert for any disease was reported from Islamabad in week 20, 2014.

Weekly trend of AD showing continuously increase from last couple of weeks but lower from same time period last year, but vigilant monitoring of the situation is required.

Distribution of Wild Polio Virus cases in Pakistan 2013 and 2014

In this week 20 (11 to 17 May 2014), five new type-1 wild polio cases have been reported in the country, all from Federally Administered Tribal Areas (3 from North Waziristan agency, one each from South Waziristan and Khyber agencies). This brings the total number of polio cases in 2014 to 66 (compared to 14 in 2013 till this time) from 9 districts/towns/tribal agencies/FR areas (compared to 8 in 2013 till this time).

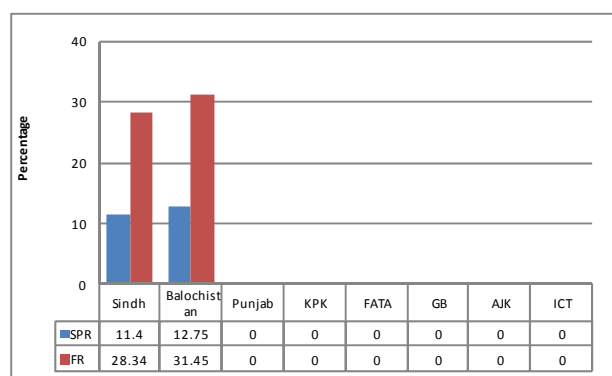
Province	2013			2014		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	7	-	-	-	-	-
Sindh	10	-	-	5	-	-
Khyber Pakhtunkhwa	11	-	-	9	-	-
FATA	65	-	-	52	-	-
Balochistan	-	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	-	-	-	-	-	-
Islamabad	-	-	-	-	-	-
<b>Total</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>66</b>	<b>-</b>	<b>-</b>



Malaria:

The Table and chart given below shows the Malaria slide positivity and Falciparum ratio in week 20, 2014. Total number of Malaria cases tested in this week is 3,413 out of which 406 were found positive; 286 for P. Vivax; 66 for P. Falciparum; while 54 for Mixed (SPR = 11.90%; F.R = 29.56%).

Malaria tests \ Province	Sindh	Balochistan	KPK	Punjab	GB	FATA	AJK	ICT
P. Vivax	177	109	0	0	0	0	0	0
P. Falciparum	18	48	0	0	0	0	0	0
Mixed	52	2	0	0	0	0	0	0
# tested	2166	1247	0	0	0	0	0	0
SPR	11.4	12.75	0	0	0	0	0	0
FR	28.34	31.45	0	0	0	0	0	0



Focus on: Influenza A (H1N1)

H1N1 influenza virus is the subtype of influenza A virus that was the most common cause of human influenza in 2009. When the unexpected number of cases with the Novel Influenza virus (H1N1) reported from many countries simultaneously, WHO declared the H1N1 Influenza A Pandemic 2009. Since the virus was detected in swine therefore the name swine flu was given initially, however, later on it was named to Influenza Pandemic H1N1 (2009). In August 2010 WHO declared the end of Pandemic (H1N1) 2009. The pandemic A(H1N1)2009 virus is now considered as a seasonal virus and endemic, continuing to circulate with other seasonal viruses with new nomenclature A(H1N1)pdm09 is currently used now.

H1N1 is contagious virus, and it spreads in the same way as the seasonal Influenza. Typical influenza symptoms include fever with abrupt onset, chills, sore throat, non-productive cough and, often accompanied by headache, coryza, myalgia and prostration. H1N1 influenza virus can lead to more serious complications, including pneumonia and respiratory failure.

H1N1 may also lead to fatal consequences during 3rd trimester in pregnant women, adults and children who have chronic lung, liver, blood, nervous system, neuromuscular, or metabolic problems, diabetes or asthma, or people who have suppressed immune systems (including those who take medications to suppress their immune systems or who have HIV). Throat or nasal swab would be required for the lab confirmation of the H1N1.

Current situation of H1N1 in Pakistan:

From 1st January to 17th May 2014, a total of 73 suspected cases of H1N1 and SARI were reported in the country, while an increase in the number of Influenza cases have been noted in southern parts of the Punjab province.

**Contd. : Influenza A (H1N1):**

There are reports of critical illnesses and deaths in young and middle aged adults. So far, 59 suspected cases have been reported from Punjab where majority (32) of the cases reported from Multan whereas 18 cases from Lahore, while 2 each from Rawalpindi and Islamabad. One case from district Loralai (Balochistan province) was also reported from Nishter hospital Multan, which did not survive and died on the date of admission. Out of these 59 suspected cases, 27 cases were laboratory confirmed for H1N1. 18 out of all the lab confirmed cases died due to the severity of the disease (CFR= 66.66%).

From Khyber Pakhtunkhwa province this year 14 suspected cases have been reported and 4 of these are found positive for H1N1. There is much that the public, patients, clinicians, and public health community can do to reduce the influenza impact.

**Precautionary measures:**

Some general measures that would be prudent and helpful to prevent the acquisition of any respiratory illness are:

- Infected persons are more contagious during the first 3 to 4 days of illness, and infectiousness declines with fever resolution. Avoid close contact, when possible, with anyone who shows symptoms of illness (coughing and sneezing)
- Cover mouth and nose while coughs and sneezes; do not spit)
- Maintain good hand hygiene (Wash your hands with soap and water thoroughly and often).
- Practice good health habits including adequate sleep, eating nutritious food, and keeping physically active
- Keep windows and doors open and allow ventilation of the room as much as possible
- Hospitalized patients with influenza should be isolated or, if necessary, grouped together in the same room (cohorted) and standard & droplet precautions should be implemented.

**Treatment:**

**Home Care:**

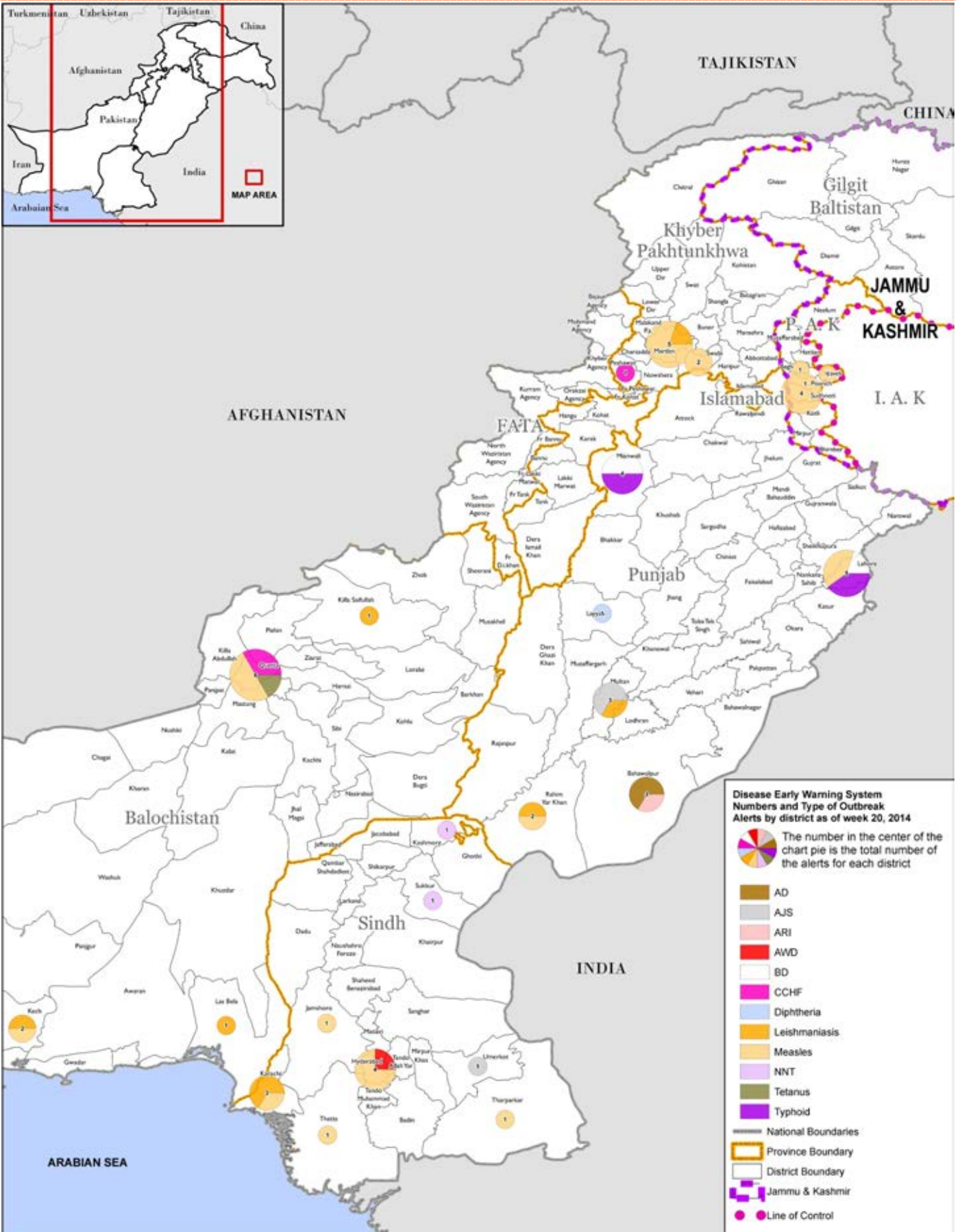
- Influenza patients staying at home away from contacts; take plenty of fluids, covering coughs and sneezes (do not spit) and washing hands frequently may help to reduce the spread. If soap and water are not available, use a hand sanitizer.
- Inform family and friends about your illness and try to avoid contact with people.
- Contact your doctor or healthcare provider and report your symptoms.
- Cover your nose and mouth during travel.

**Hospital Care:**

WHO's guidelines for use of antiviral medicines, which refer to both seasonal and pandemic influenza, should continue to be followed.

- Treatment with antiviral should be started within 48 hours after onset of illness for better clinical results.
- For hospitalized patients with suspected influenza H1N1, empirical antiviral treatment with oral or enteric Oseltamivir should be started as soon as possible with waiting lab results.
- For outpatients who are at higher risk for complications from influenza, neuraminidase inhibitor as soon as possible is also recommended.
- Patients who have severe or deteriorating influenza and patient who are at higher risk of severe or complicated influenza should be treated as soon as possible with Oseltamivir.

Alerts and outbreaks, week 20, 2014



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