



Highlights

*Epidemiological week no. 11
(10 to 16 March, 2013)*

- Measles:** This week a total of 55 alerts investigated, responding and monitoring to 7 outbreaks. 312 measles cases from 38 districts, while 15 deaths reported from 4 districts. Vitamin-A drops provided to all the suspects and district health teams took action to improve vaccination in affected areas.
- 81 districts** and 2449 health facilities have reported to DEWS this week 11, compared with 83 districts with 2533 health facilities shared weekly data in week 10, 2013 to the Disease Early Warning System (DEWS).
- 898,164** patients' consultations were reported in week 11, 2013 compared to **961,947** consultations reported in week 10, 2013.
- Altogether **102** alerts were investigated and response were provided to **9** outbreaks.

Figure-1: 81 districts reported to DEWS in week 11, 2013



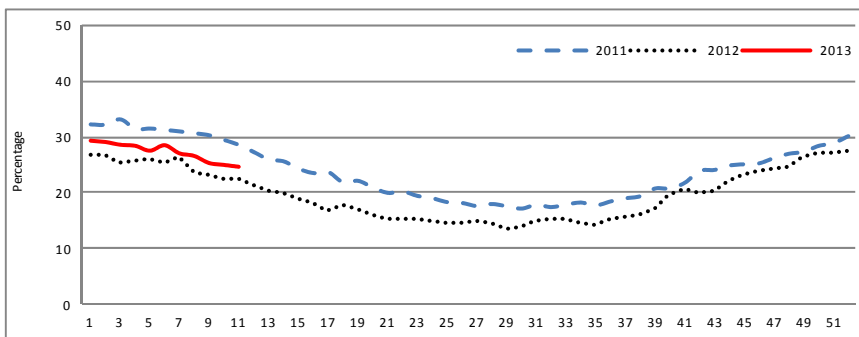
Priority diseases under surveillance in DEWS

- Pneumonia
- Acute Watery Diarrhoea
- Bloody diarrhoea
- Other 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 11, 2013 (29 Dec 2012 to 16 Mar 2013)

Disease	# of Cases	Percentage
ARI	2,580,825	27%
Bloody diarrhoea	27,004	<0.5%
Acute diarrhoea	605,086	6%
S. Malaria	447,997	5%
Skin Diseases	359,744	4%
Unexplained fever	313,121	3%
Total (All consultations)	9,525,504	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-11, 2013.



Major health events reported during the Epi-week - 11 (10 to 16 Mar 2013)

Disease	# of Cases	Percentage
ARI	220,538	25%
Bloody diarrhoea	2,006	<0.5%
Acute diarrhoea	68,279	8%
S. Malaria	45,540	5%
Skin Diseases	34,163	4%
Unexplained fever	29,195	3%
Total (All consultations)	898,164	

- The graph (Figure-2) shows the comparison of weekly trend of Acute respiratory infection (ARI) as proportional morbidity (percentage of cases out of total consultations) reported to DEWS each week in year 2011; 2012 and 2013.

Current week's (11/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
13-Mar	Measles	Balochistan	Kech	Dalesar Kalatuk, UC Kalatuk	2	3	0	4	Alert for suspected Measles case was reported. On active surveillance 8 more suspected Measles cases were found and treated. Few patients were referred to DHQ hospital for further treatment. Information shared with DoH.
13-Mar	Measles	Balochistan	Killa Saifullah	Killi Shinki, UC Musafar Pur, Tehsils KSF	0	5	1	2	Alert for 8 suspected Measles cases were reported and treated at DHQ Hospital. During field investigation no more suspected Measles cases were found in the area. Information shared with DoH.
12-Mar	Leishmaniasis	FATA	Mohmand Agency	Village Atto Khel Shekhan Miangan, Tehsil Lakaro,	1	3	1	2	Alert for 3 Cutaneous Leishmaniasis cases from village Ato Khel Shekhan Miangan. During active surveillance 4 more cases were found. Health education session conducted in the community. Malaria control program will be contacted for vector control measures. Information shared with Agency Surgeon.
11-Mar	Measles	Khyber Pakhtunkhwa	Mardan	Village Misri Abad, UC Gulibagh, Tehsil Mardan	1	3	1	0	Alert for suspected Measles case from Children unit, DHQ Hospital, Mardan. The patient was unimmunized for measles. Vitamin-A drops were given, blood sample collected and sent to NIH. During active surveillance no more suspected cases were found. EPI team was informed and requested for outreach immunization. Health education session was conducted in the community with the help of LHW's working in the area. Information shared with EDO-H Focal person and EPI Coordinator.
12-Mar	Measles	Khyber Pakhtunkhwa	Mardan	Village Qutarpan, UC Rustam, Tehsil Mardan	1	1	0	0	Alert for suspected Measles reported from Children OPD of MMC Hospital, Mardan. The unvaccinated patient admitted at Isolation unit of children ward. During active surveillance 4 more clinical cases were identified in same family and surrounding. Vitamin-A drops were given. EPI team was informed and requested for outreach vaccination. Health education session was conducted in the community with the help of LHW's working in the area. Information shared with EDO-H Focal person and EPI Coordinator.
13-Mar	Measles	Punjab	Bhakkar	UC Angra, Tehsil Darya Khan.	3	1	2	2	Alert for 5 suspected Measles cases were reported from 3 different locations from UC Angra, Tehsil Darya Khan. All suspects were found vaccinated. During active surveillance no more suspected Measles cases were found. All the suspects were given single dose of Vitamin-A, and second dose was ensured after 24 hours. Health education session conducted in the community, and also provided awareness about importance of isolation of the cases from healthy children to halt the spread of disease. Information shared with EDO(H).
13-Mar	Measles	Punjab	Lahore	Cantt. UC W1, C1, W3	3	4	9	5	Alert for 15 suspected Measles cases were reported from different Teaching Hospitals in Lahore. The suspects has been given single dose of Vitamin-A and second dose were ensured after 24 hours. During active surveillance 6 more cases were found in different union councils. 100 children were checked for routine EPI coverage where 24 children were found missed their second dose of Measles. Mass Vaccination campaign was arranged in the nearest health facility and 202 children were vaccinated. 2 blood samples were taken and sent to NIH. Health education session were conducted in community with the help of LHW, religious and community Leaders. Information shared with EDO(H) and Director EPI.
13-Mar	Measles	Punjab	Rajapur	Basti Mudd Arain, Moza Sonwa, UC Haji Pur Tehsil Rajapur	4	2	3	1	Alert for 4 suspected Measles cases were reported and investigated in Basti Mudd Arain, Rajapur. On active surveillance 6 more suspected measles cases were found. None of the cases had received any measles vaccine dose. All the cases were given first dose of Vitamin-A and second dose were ensured after 24 hours. Awareness through health education session for highlighting importance of vaccination of the children were provided in the community. Blood sample was collected from one case and sent to NIH. Information shared with DSC, DHO and EDOH.

Figure-3: Number of alerts received and responded, week 8 - 11, 2013

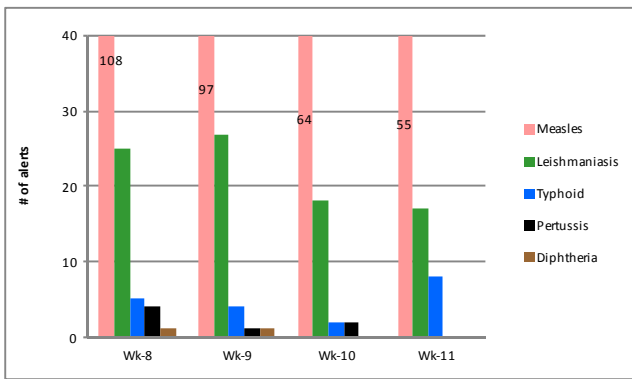
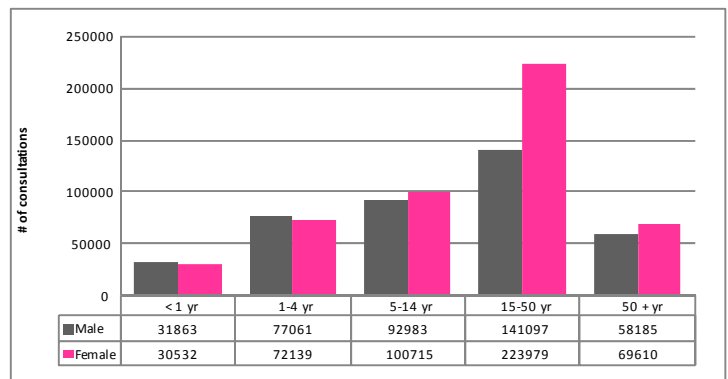


Figure-4: Number of consultations by age and gender, week 11, 2013



Province Khyber Pakhtunkhwa:

439 health facilities from 15 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 110,194 patients consultations reported in week 11, 2013. A total of 18 alerts for Measles were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

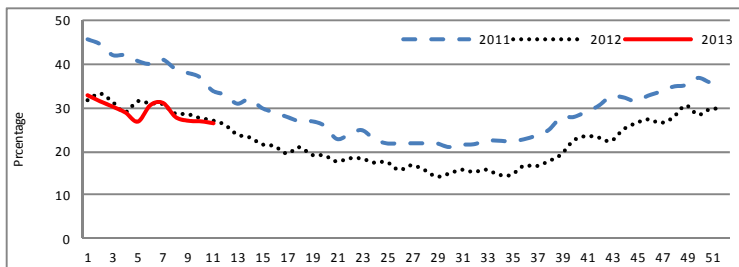
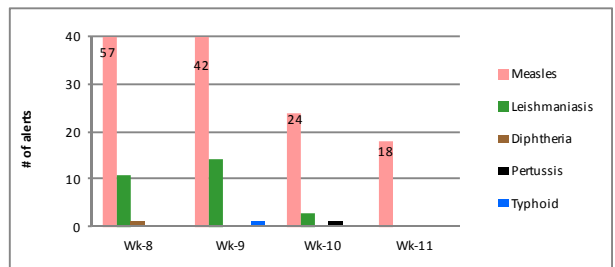


Figure-6: Number of alerts received and responded week 8 to 11, 2013



Province Sindh:

982 health facilities from 23 districts in Sindh province reported to DEWS with a total of 451,598 patients consultations in week 11, 2013. Total 14 alerts were received and appropriate measures were taken. Altogether 9 alerts were for NNT; 4 for Leishmaniasis; while 1 for AWD. ARI trend showing stability as compared with last week.

Figure-7: Trend of ARI, province Sindh

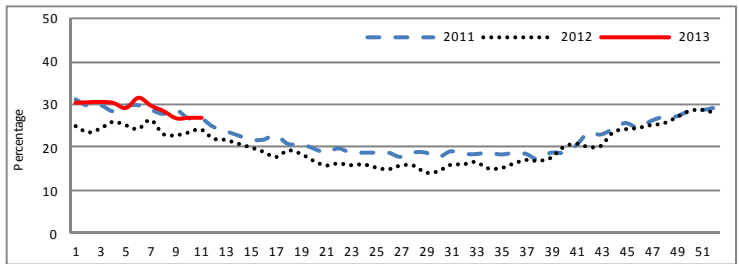
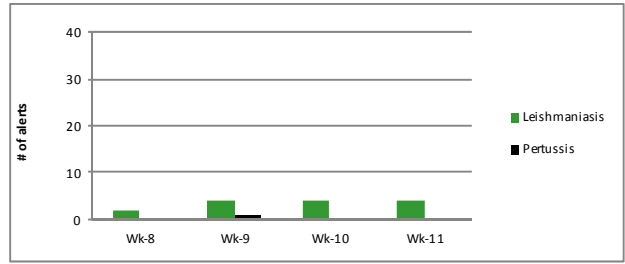


Figure-8: Number of alerts received and responded, week 8 to 11, 2013



Province Punjab:

486 health facilities from 9 districts in province Punjab reported to DEWS with a total of 231,836 patients consultations in week 11, 2013. Total 45 alerts were received and appropriate measures were taken. Altogether 27 alerts were for Measles; 8 for Typhoid; 3 each for NNT and Scabies; 2 for ARI; while 1 each for Acute diarrhoea and Leishmaniasis. ARI trend showing decrease as compared with last week.

Figure-9: Trend of ARI, province Punjab

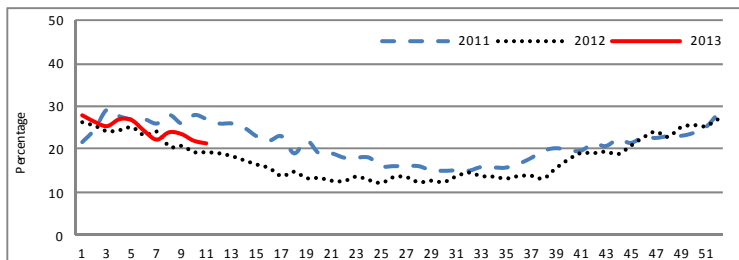
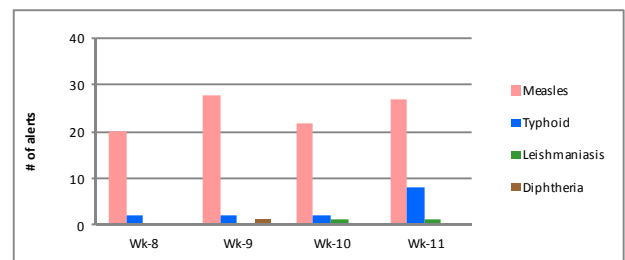


Figure-10: Number of alerts received and responded, week 8 to 11, 2013



Province Balochistan:

353 health facilities from 18 districts in province Balochistan reported to DEWS with a total of 54,362 patients consultations in week 11, 2013. Total 12 alerts reported and appropriate measures were taken in week 11, 2013. Altogether 6 alerts were for Leishmaniasis; 5 for Measles; while 1 for Chickenpox. ARI trend showing decrease as compared with last week.

Figure-11: Trend of ARI, province Balochistan

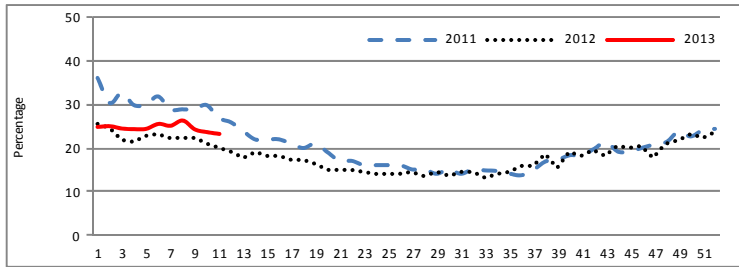
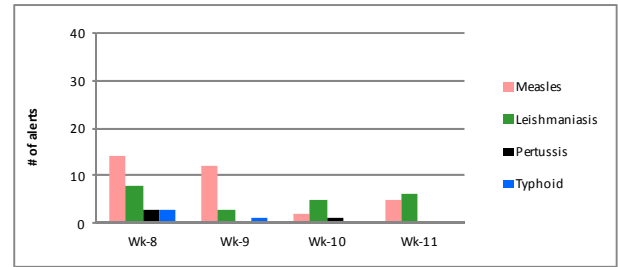


Figure-12: Number of alerts received and responded, week 8 to 11, 2013



Province Gilgit Baltistan:

49 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 16,796 patients consultations in week 11, 2013. No alerts for any disease was reported in week 10, 2012. ARI showing decrease as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

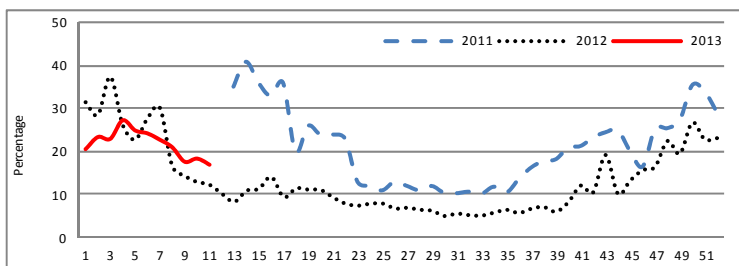
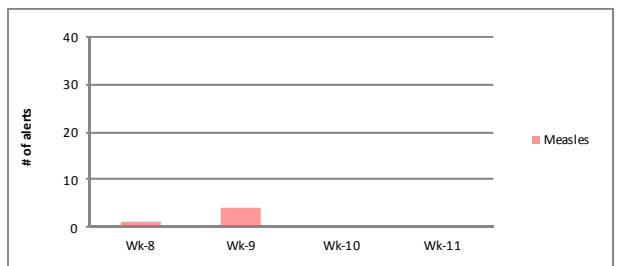


Figure-14: Number of alerts received and responded, week 8 to 11, 2013



FATA:

53 health facilities from 3 agencies in FATA reported to DEWS with a total of 12,682 patients consultations in week 11, 2013. 11 alerts, 6 for Leishmaniasis; 3 for Measles; while 2 for NNT were reported in week 11, 2012 and appropriate measures were taken. ARI showing decrease as compared with last week.

Figure-15: Trend of ARI, FATA

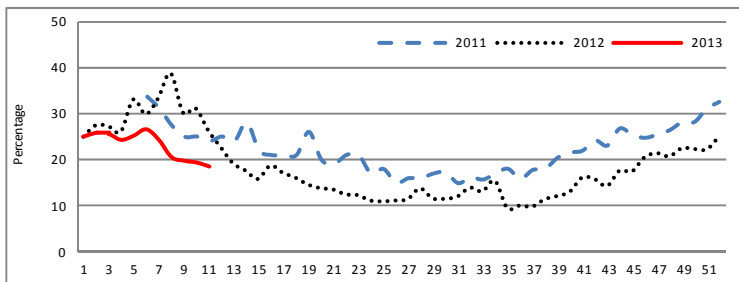
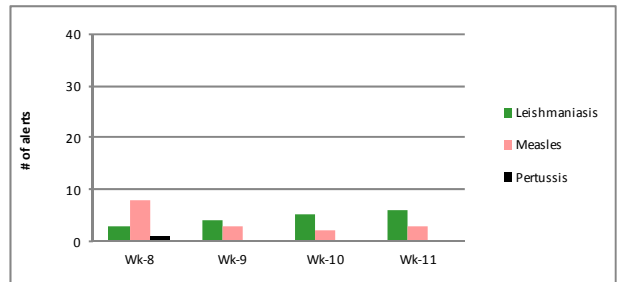


Figure-16: Number of alerts received and responded, week 8 to 11, 2013



State of Azad Jammu and Kashmir:

71 health facilities from 7 districts in AJ&K reported to DEWS with a total of 14,856 patients consultations in week 11, 2013. No alerts for any disease were received in week 11, 2013. ARI trend showing decrease as compared with last week.

Figure-17: Trend of ARI, AJ&K

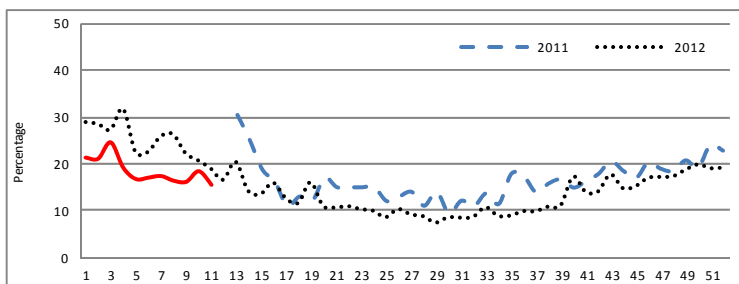


Figure-18: Number of alerts received and responded, week 8 to 11, 2013

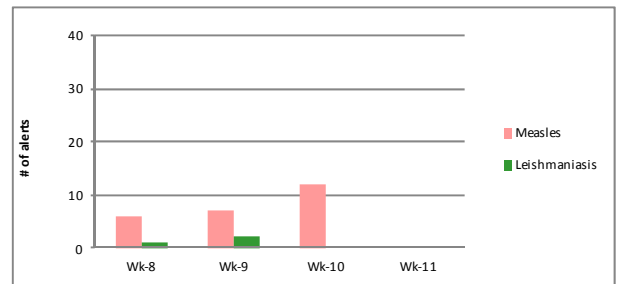


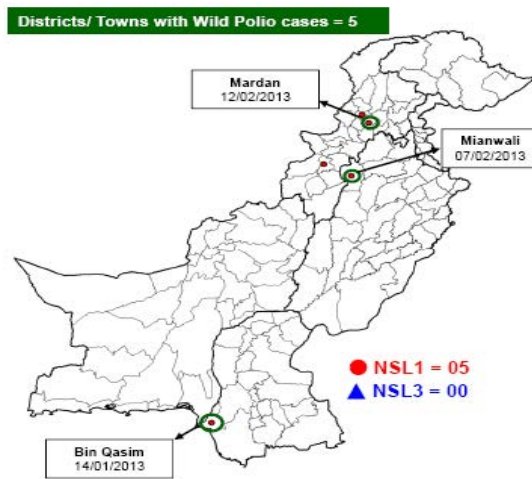
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 10, 2013		2013 (Total up till week - 10)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	1	0	7	1
Acute jaundice syndrome	113	22	0	0	8	3
Bloody diarrhoea	146	11	0	0	6	1
CCHF	68	41	0	0	2	1
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	0	0	12	1
Measles	5922	812	55	7	1411	197
Pertussis	366	147	0	0	17	4
NNT + tetanus	560	0	14	0	80	0
Malaria	136	68	0	0	3	2
Leishmaniasis	900	78	17	1	246	34
Others	1529	58	15	1	108	2
Total	10610	1453	102	9	1900	246

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 11, 2013, no new polio case was reported in the country. An the total number of polio cases and infected districts in the country remain 5. The total number of wild polio cases country wide for the year 2012 remains 58 (55 type-1, 2 type-3 & 1 mixture type-1 & 3) from 28 districts/tribal agencies (compared to 60 in 2011).

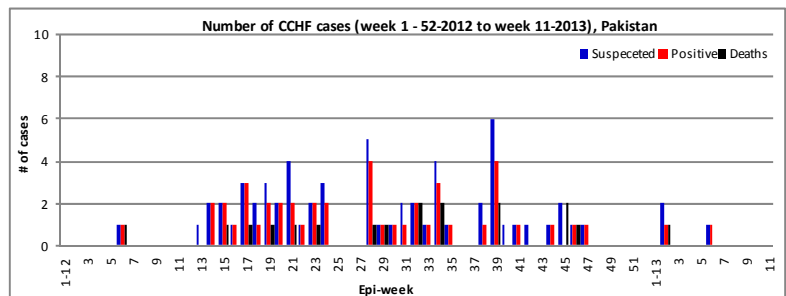
Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	1	-	-
Sindh	4	-	-	1	-	-
Khyber Pakhtunkhwa	27	-	-	3	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	5	-	-



Follow up of 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.

In week 11, 2013, no new CCHF case reported from any district. The total number of CCHF cases remains 3 for the year 2013. The last case reported in this year was in week 6, 2013, A 26 year old female patient admitted at the PIMS hospital in Islamabad as a suspected case of CCHF. Laboratory results confirmed the case positive for CCHF. The epidemiological investigation revealed history of Fever with rash later on developed gum bleeding and brought to PIMS hospital. Currently the patient is stable with all vital signs within the normal range and discharged from hospital. The case have no epidemiological link.



In 2012, a total of 61 suspected cases have been reported throughout the country with 41 cases confirmed to date and in total 17 deaths; of which 13 deaths (CFR is 31.7%) are reported of the lab confirmed cases and 4 deaths are reported as suspected CCHF cases. 23 confirmed cases have been reported from Balochistan; 7 from Sindh; 6 from Khyber Pakhtunkhwa and 5 from Punjab. Chart at right illustrates current situation of CCHF cases in 2012.

Approximately all the cases had contact history with animal trading/handling, tick bite, contact with patient, tannery worker, butcher/animals slaughtering, a traditional practice of wearing fresh animal skin (posti) to treatment ailment. These animals and their skins had continuous movement Intra Pakistan and between neighboring countries (Afghanistan and Iran).

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.

Focus on: Measles

Measles is a highly contagious viral disease, which affects mostly children. It is transmitted via droplets from the nose, mouth or throat of infected persons. Initial symptoms, which usually appear 10–12 days after infection, include high fever, runny nose, bloodshot eyes, and tiny white spots on the inside of the mouth. Several days later, a rash develops, starting on the face and upper neck and gradually spreading downwards. There is no specific treatment for measles and most people recover within 2–3 weeks. However, particularly in mal-nourished children and people with reduced immunity, measles can cause serious complications, including blindness, encephalitis, severe diarrhoea, ear infection and pneumonia.

Measles is a killer childhood disease but preventable through immunization. One in 15 people have complications with measles, and one in 1,000 will die of it, but two doses of measles vaccine will protect people against the disease. WHO has set the target for measles elimination for 2015 which would require that more than 95% of the world children are covered by two doses of measles vaccine.

Proper case management during outbreaks:

It is imperative that during outbreak situations proper case management is ensured in order to minimize measles related deaths and measles related complications. The treatment of measles patients with Vitamin A will dramatically reduce their risk of deaths. Two doses of Vitamin A will be given to all identified cases (active and old) during house-to-house investigation, unless it was already received as part of the treatment in the health facility. One dose to be given by the health worker on the day of investigation and the 2nd dose provide to the parents advising to give on next day. The therapy will be given regardless of previous vitamin A prophylaxis. If the investigation team observes complications, the patient should be referred to the nearest health facility for specific treatment of these complications.

Measles Prevention:

Routine measles vaccination for children; combined with mass immunization campaigns in countries with high case and death rates, is key public health strategy to reduce global measles mortality rates. The measles vaccine has been in use for over 40 years. It is safe, effective and inexpensive. It costs less than one US dollar to immunize a child against measles. Measles vaccine is provided by the Pakistan EPI programme to children at 9 months and 15 months. Children who are vaccinated against measles before 9 months of age must receive a 2nd measles vaccination at 9 months age ensuring a gap of one month between both vaccinations. Moreover, any child who received measles vaccine should also receive OPV.

Priority should be placed to immunize children 6 months to 5 years old during outbreaks, regardless of vaccination status or history of disease. Auto destructible syringes and safety boxes are recommended and safe disposal of used sharps and safety of injection during immunization should be ensured. Let's remind all our neighbors, friends and colleagues to be sure that their children are immunized against measles.

Table at the bottom summarizes the situation of measles in year 2012; and illustrates the alerts and outbreaks in 2013 up till week 11 (16 March 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 11)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	88	6	184	0
Balochistan	447	119	1816	31	258	45	1075	45
FATA	211	31	559	13	52	11	165	2
Gilgit Baltistan	40	1	54	0	11	0	22	0
ICT	27	2	63	0	15	2	56	1
Khyber Pakhtunkhwa	1989	108	3542	38	417	64	1049	19
Punjab	809	40	1329	16	459	45	2649	16
Sindh	2234	505	7353	212	111	24	2830	129
Total	5922	812	14984	310	1411	197	8030	212

Alerts and outbreaks, week 11, 2013

