



Highlights

*Epidemiological week no. 14
(31 Mar to 6 Apr, 2013)*

- Measles:** This week a total of 33 alerts investigated, responding and monitoring to 1 outbreak. 99 measles cases from 16 districts, while 7 deaths reported from 2 districts. Vitamin-A drops provided to all the suspects and district health teams took action to improve vaccination in affected areas.
- 71 districts** and 1952 health facilities have reported to DEWS this week 14, compared with 77 districts with 2257 health facilities shared weekly data in week 13, 2013 to the Disease Early Warning System (DEWS).
- 644,950** patients' consultations were reported in week 14, 2013 compared to **883,280** consultations reported in week 13, 2013.
- Altogether **46** alerts were investigated and response were provided to **1** outbreak.

Figure-1: 71 districts reported to DEWS in week 14, 2013



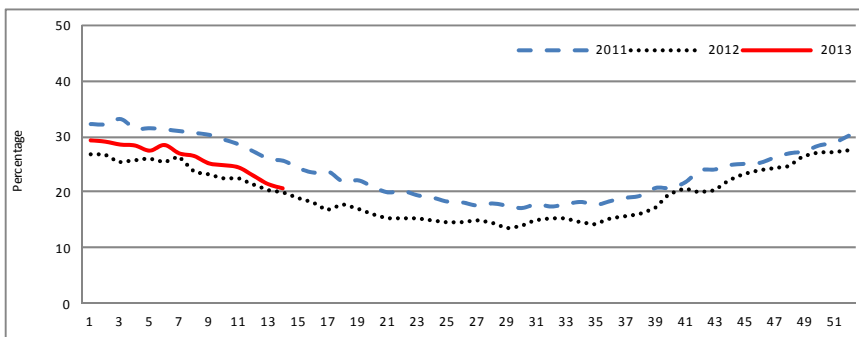
Priority diseases under surveillance in DEWS

- 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 14, 2013 (29 Dec 2012 to 6 Apr 2013)

Disease	# of Cases	Percentage
ARI	3,100,081	26%
Bloody diarrhoea	32,286	<0.5%
Acute diarrhoea	790,728	7%
S. Malaria	556,128	5%
Skin Diseases	446,435	4%
Unexplained fever	391,415	3%
Total (All consultations)	11,896,793	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-14, 2013.



Major health events reported during the Epi-week - 14 (31 Mar to 6 Apr 2013)

Disease	# of Cases	Percentage
ARI	134,280	21%
Bloody diarrhoea	1,462	<0.5%
Acute diarrhoea	53,277	8%
S. Malaria	27,650	4%
Skin Diseases	23,451	4%
Unexplained fever	22,236	3%
Total (All consultations)	644,950	

- 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.

Outbreaks (Wk 13-14/2013):

Date	Disease	Province	District	Area	<SM	>SM	<SF	>SF	Action Taken
3-Apr	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Alam Khan, Kalu Khan, UC Mian Essa, Takht Bhai, Mardan	1	0	1	1	Alert for Cutaneous Leishmaniasis reported from UC Mian Essa. During active surveillance 2 more clinical cases were identified in the area and surroundings. Required doses of Inj-Glucantime were placed in nearby health facility for all registered cases. FPHC Mardan, Relief Intl., PPHI and RBM focal person were informed and requested for vector control interventions in the area and surroundings. On the job training of health staff was conducted for Intralesional administration of Inj-Glucantime. Information was shared with EDO Health and focal person.
5-Apr	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village & UC Kohi Bermol, Tehsil Katlang, Mardan	1	2	2	1	Alert for Cutaneous Leishmaniasis reported from UC Kohi Bermol. During active surveillance 5 more clinical cases were identified in the area and surroundings. Required doses of Inj-Glucantime were placed in nearby health facility for all the registered cases. FPHC Mardan, Relief Intl., PPHI were requested for vector control interventions in the area and surroundings. On the job training of health staff was conducted for Intralesional administration of Inj-Glucantime. Information was shared with EDO Health and focal person.
1-Apr	Measles	Punjab	Bhakkar	Chunni Shumali, UC Gadola, Tehsil Bhakkar.	0	1	1	0	As a part of ongoing Measles outbreak in UC Gadola, Tehsil Bhakkar, 2 more suspected cases of Measles were reported from Chunni Shumali. Both the suspects were found unvaccinated. On active surveillance no more cases were found. Given single dose of Vitamin-A and second dose was ensured after 24 hours. Community was provided awareness through health education session for highlighting importance of vaccination of their children against all the EPI diseases. General hygiene and isolation measures were demonstrated to the community. Information shared with EDO(H).
2-Apr	Measles	Punjab	Bhakkar	Thala Shreen, UC Panjgrain, Tehsil Darya Khan.	1	0	0	0	In continuation of Measles outbreak in UC Panjgrain, Tehsil Darya Khan. 1 more suspected Measles case was reported from Thala Shreen of UC Panjgrain. On active surveillance no more cases were found. Given single dose of Vitamin A and second dose ensured after 24 hours. Community was provided awareness through health education session for highlighting importance of vaccination of their children against all the EPI diseases. General hygiene and isolation measures were demonstrated to the community. Information shared with EDO(H).
2-5 Apr	Measles	Punjab	Lahore	Aziz Bhatti Town; Cantonment, W2, C1, W; Wagha town.	7	3	5	2	Alert for 17 suspected Measles cases reported from Children and Services hospital. The suspects were given 1st dose of vitamin-A, while vaccinator and LHS were requested to ensure 2nd dose, the next day. During active surveillance no more cases were found. 215 children were checked for routine EPI coverage where 25 children were found to have missed second dose of Measles. 8 blood samples and Throat swabs were taken and sent to NIH. Health education session conducted in the community with the help of LHS. Information shared with EDO(H) and Director EPI.
1-Apr	Measles	Punjab	Rahim Yar Khan	Rasool Pur, Tehsil Sadiqabad	2	4	3	4	Alert was received for Measles along with 4 recent deaths in a local nomadic population. On investigation it was found that 4 children were expired due to complications of measles while 9 more children were found suffering from measles with fever and Maculopapular rash. Two patients had developed complication of severe pneumonia and were referred immediately to Sheikh Zayed Hospital, Rahim Yar Khan. One of the two referred cases, aged 30 months expired on reaching Sheikh Zayed Hospital, Rahim Yar Khan. All the cases had not received any dose of measles vaccine. One dose of Vitamin-A was administered on the spot to all the suspects while 2nd dose was ensured after 24 hours. 4 blood samples were collected and sent to NIH. DoH ordered to conduct an immediate mop up vaccination of all the children less than 10 years of age in the population. Health education session was conducted in the community about signs and symptoms of measles, prevention of Measles spread and importance of vaccination. LHWs in UC Rasool Pur and UC Jamal Din Wali were mobilized to conduct health education sessions on importance of immunization and to report any further cases immediately.
2-Apr	Measles	Punjab	Rahim Yar Khan	UC 31 B, 36 G, City Rahim Yar Khan	0	0	2	0	As a part of ongoing measles outbreak in Rahim Yar Khan City. 2 more female cases aged 8 and 24 months were reported suffering from fever, maculopapular rash, cough and Coryza. Both the suspects were found unvaccinated. 1st dose of Vitamin-A was given on the spot while 2nd dose was ensured after 24 hours. Health education session was conducted in community about prevention from measles.

Figure-3: Number of alerts received and responded, week 11 - 14, 2013

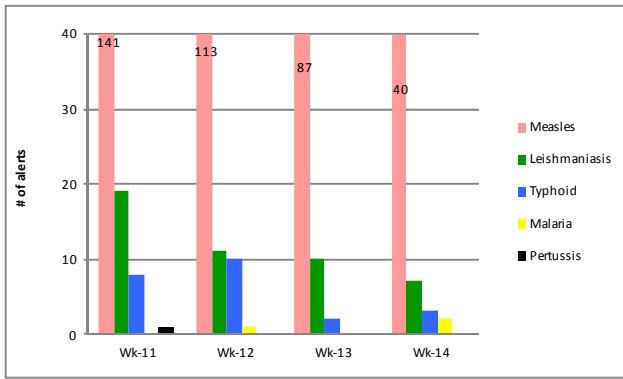
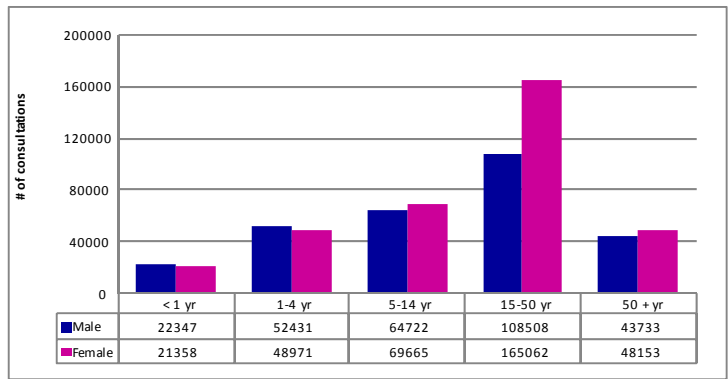


Figure-4: Number of consultations by age and gender, week 14, 2013



Province Khyber Pakhtunkhwa:

234 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 61,077 patients consultations reported in week 14, 2013. 1 Measles alert was received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

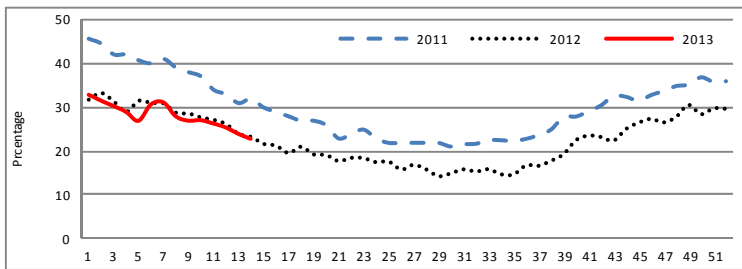
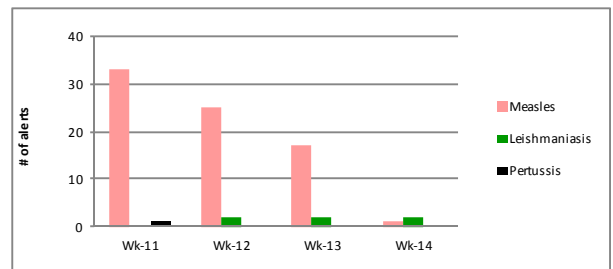


Figure-6: Number of alerts received and responded week 11 to 14, 2013



Province Sindh:

795 health facilities from 22 districts in Sindh province reported to DEWS with a total of 251,192 patients consultations in week 14, 2013. 3 alerts for NNT were received and appropriate measures were taken. ARI trend showing a minor increase as compared with last week.

Figure-7: Trend of ARI, province Sindh

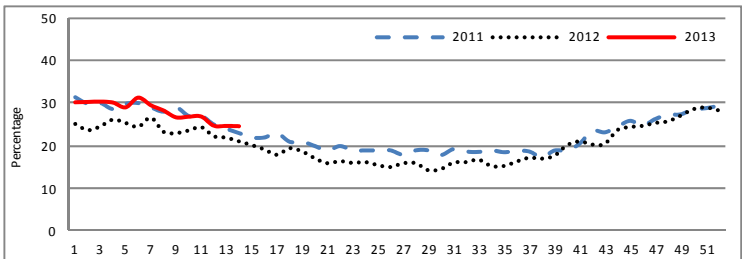
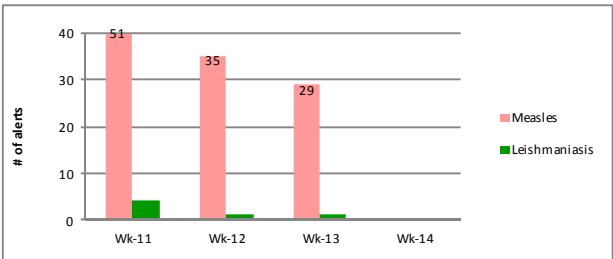


Figure-8: Number of alerts received and responded, week 11 to 14, 2013



Province Punjab:

488 health facilities from 9 districts in province Punjab reported to DEWS with a total of 260,012 patients consultations in week 14, 2013. Total 24 alerts were received and appropriate measures were taken. Altogether 21 alerts were for Measles; while 1 each for Diphtheria, Leishmaniasis and Typhoid. ARI trend showing decrease as compared with last week.

Figure-9: Trend of ARI, province Punjab

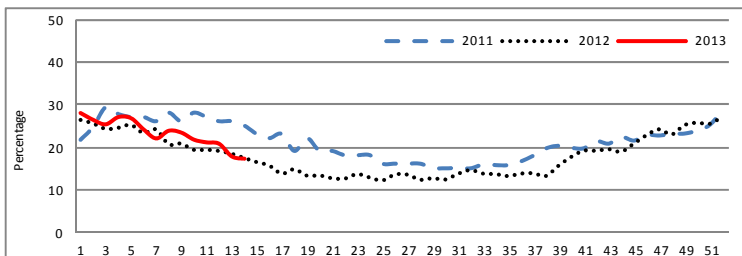
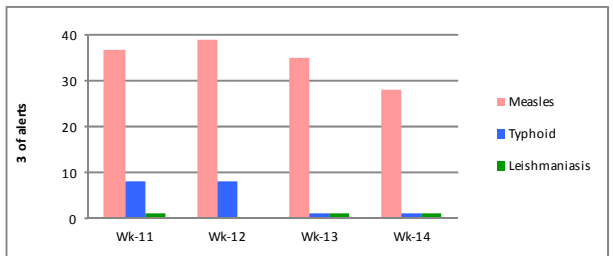


Figure-10: Number of alerts received and responded, week 11 to 14, 2013



Province Balochistan:

272 health facilities from 15 districts in province Balochistan reported to DEWS with a total of 35,691 patients consultations in week 14, 2013. Total 11 alerts reported and appropriate measures were taken in week 14, 2013. Altogether 4 alerts were for Measles; 3 for Leishmaniasis; while 2 each for Malaria and Typhoid. ARI trend showing minor increase as compared with last week.

Figure-11: Trend of ARI, province Balochistan

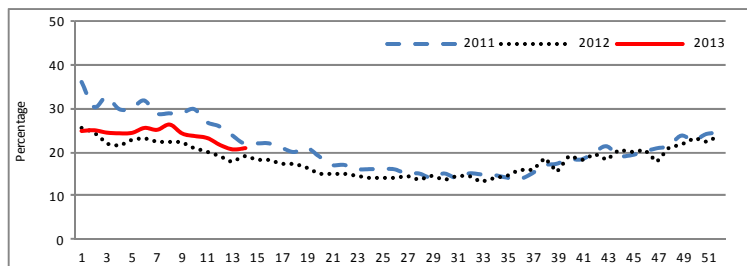
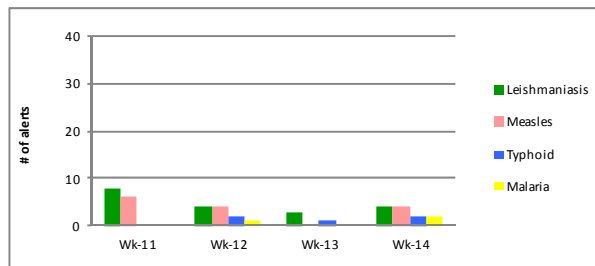


Figure-12: Number of alerts received and responded, week 11 to 14, 2013



Province Gilgit Baltistan:

29 health facilities from 4 districts in Gilgit Baltistan reported to DEWS with a total of 5,373 patients consultations in week 14, 2013. No alerts for any disease was reported in last 5 weeks (Wk 10 to 14), 2012. ARI showing a minor increase as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

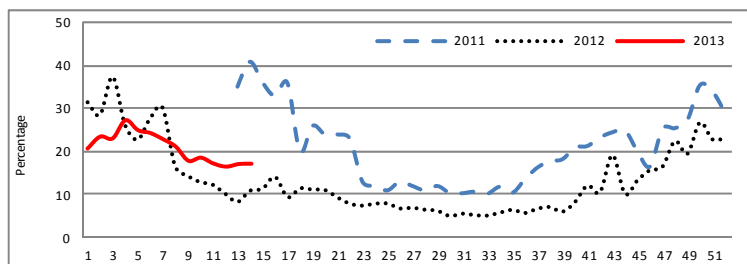
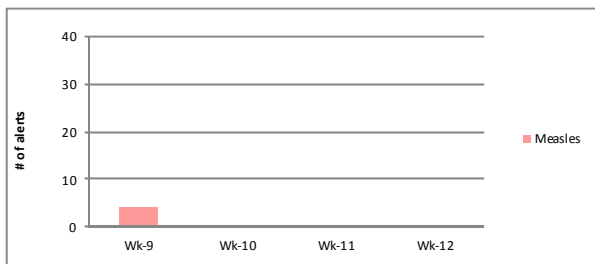


Figure-14: Number of alerts received and responded, week 11 to 14, 2013



FATA:

21 health facilities from 1 agency in FATA reported to DEWS with a total of 6,139 patients consultations in week 14, 2013. No alerts for any disease were reported in week 14, 2013. ARI showing decrease as compared with last week.

Figure-15: Trend of ARI, FATA

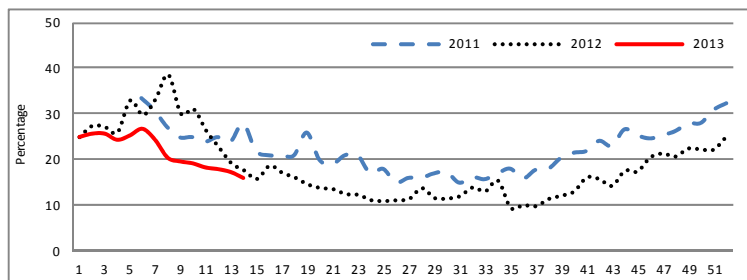
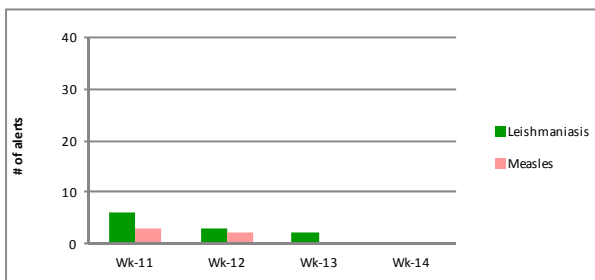


Figure-16: Number of alerts received and responded, week 11 to 14, 2013



State of Azad Jammu and Kashmir:

99 health facilities from 9 districts in AJ&K reported to DEWS with a total of 20,154 patients consultations in week 14, 2013. 4 alerts for Measles were reported in week 14, 2013. ARI trend showing decrease as compared with last week.

Figure-17: Trend of ARI, AJ&K

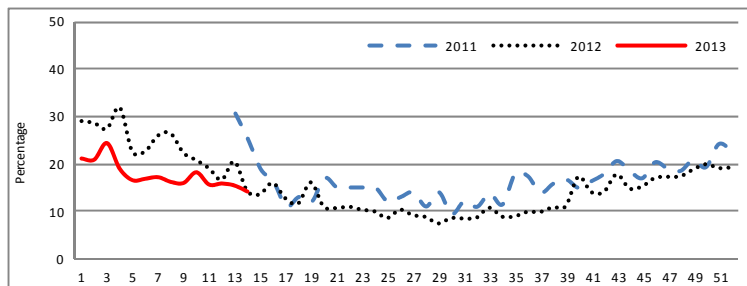


Figure-18: Number of alerts received and responded, week 11 to 14, 2013

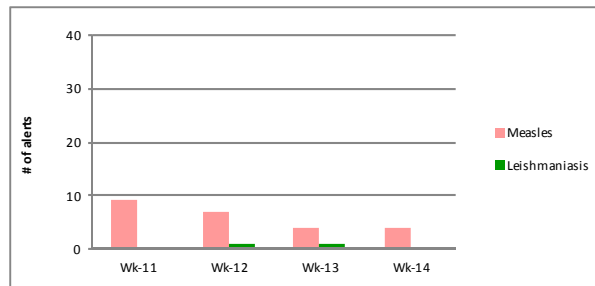
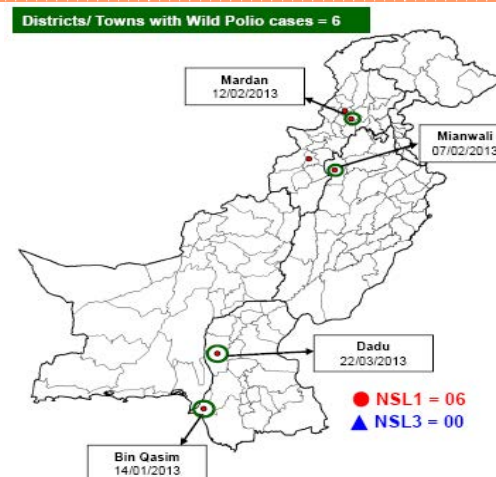


Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 14, 2013		2013 (Total up till week - 14)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	0	0	9	1
Acute jaundice syndrome	113	22	0	0	9	3
Bloody diarrhoea	146	11	0	0	6	1
CCHF	68	41	0	0	5	1
Dengue fever	175	29	0	0	1	0
Diphtheria	60	16	1	0	14	1
Measles	5922	812	33	1	1581	207
Pertussis	366	147	0	0	18	4
NNT + tetanus	560	0	3	0	94	0
Malaria	136	68	2	0	6	2
Leishmaniasis	900	78	4	0	272	36
Others	1529	58	3	0	142	3
Total	10610	1453	46	1	2157	259

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 14, 2013, one new wild polio case (type-1) was reported from Sindh province (district Dadu). This brings the total number of polio cases as well as the infected districts/towns in the country for the year 2013 to 6 (compared to 16 cases from the 10 districts/towns/agencies during the same time period last year).



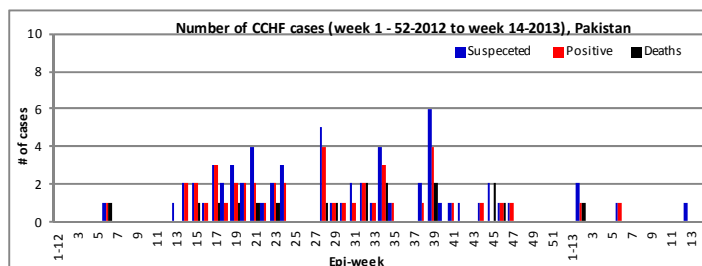
Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	1	-	-
Sindh	4	-	-	2	-	-
Khyber Pakhtunkhwa	27	-	-	3	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	6	-	-

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 14, 2013, no new suspected CCHF case reported from any district. The total number of CCHF cases were 4 for the year 2013.

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 reduces 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 14 (6 April 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 14)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	128	8	291	1
Balochistan	447	119	1816	31	413	64	2717	51
FATA	211	31	559	13	123	26	984	10
Gilgit Baltistan	40	1	54	0	14	0	26	0
ICT	27	2	63	0	23	5	86	1
Khyber Pakhtunkhwa	1989	108	3542	38	577	74	1570	26
Punjab	809	40	1329	16	656	55	8345	31
Sindh	2234	505	7353	212	223	27	3166	144
Total	5922	812	14984	310	2157	259	17185	264

