



Highlights

*Epidemiological week no. 20
(12 to 18 May 2013)*

- Measles:** This week a total of 75 alerts investigated. 407 measles cases were reporting from 23 districts. Vitamin-A drops provided to all the suspects and district health teams took action to improve vaccination in affected areas.
- 69 districts** and 1906 health facilities have reported to DEWS this week 20, compared with 64 districts with 1758 health facilities shared weekly data in week 19, 2013 to the Disease Early Warning System (DEWS).
- 716,549** patients' consultations were reported in week 20, 2013 compared to **609,441** consultations reported in week 19, 2013.
- Altogether **102** alerts were investigated and response were provided to **3** outbreaks.

Figure-1: 69 districts reported to DEWS in week 20, 2013



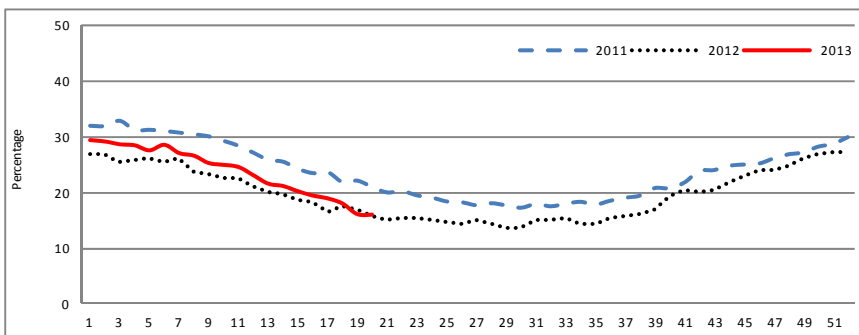
Priority diseases under surveillance in DEWS

- 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 20, 2013 (29 Dec 2012 to 18 May 2013)

Disease	# of Cases	Percentage
ARI	3,859,164	24%
Bloody diarrhoea	43,492	<0.5%
Acute diarrhoea	1,156,758	7%
S. Malaria	732,884	5%
Skin Diseases	600,292	4%
Unexplained fever	518,351	3%
Total (All consultations)	16,046,773	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-20, 2013.



Major health events reported during the Epi-week - 20 (12 - 18 May 2013)

Disease	# of Cases	Percentage
ARI	115,126	16%
Bloody diarrhoea	1,932	<0.5%
Acute diarrhoea	62,041	9%
S. Malaria	30,057	4%
Skin Diseases	25,865	4%
Unexplained fever	18,241	3%
Total (All consultations)	716,549	

- 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-20/2013):

Date	Disease	Province	District	Area	<SM	>SM	<SF	>SF	Action Taken
14-May	Measles	Punjab	Lahore	Nishter Town	15	5	8	4	In continuation of Measles outbreak in Lahore, 32 new suspected Measles cases with 1 death were reported from Nishter Town. This makes a total of 319 cases from Nishter town area. During active surveillance 6 more suspected cases were found. All the suspected cases have been given 1st dose of Vitamin-A, while vaccinators and LHWs were requested to ensure 2nd dose on next day. Mass vaccination campaign arranged in the nearest Health facility and a total of 176 children were vaccinated. 2 blood samples from suspected cases were taken and sent to NIH. Health education sessions conducted in community with the help of LHWs, Religious and Community Leaders. Information shared with EDO(H) and Focal Person EPI.
15-May	Measles	Punjab	Lahore	Data Ganj Bakhsh Town	13	5	9	7	In continuation of Measles outbreak in Dataganj Bakhsh Town, Lahore, 34 new suspected Measles cases with 1 death were reported. During active surveillance 10 more suspected cases were found. 40 house holds on all sides were checked. All the suspected cases have been given 1st dose of Vitamin-A and vaccinator and LHW were requested to ensure 2nd dose on next day. Mass vaccination campaign arranged in the nearest health facility in the area and with the help of community and religious leaders. A total of 189 children were vaccinated. 2 blood samples taken and sent to NIH. Health education session conducted in the community. Information shared with EDO(H) and Focal Person EPI.
16-May	Measles	Punjab	Lahore	Gulberg Town	13	6	21	3	Continued outbreak, 43 new suspected Measles cases were reported from Gulberg Town, Lahore. During active surveillance 11 more suspected Measles cases were found in the area. A total of 100 children were checked for routine EPI coverage. All the suspected cases have been given 1st dose of Vitamin-A, while vaccinator and LHW were requested to ensure 2nd dose after 24 hours. Mass vaccination campaign arranged in the nearest Health facility in the area and a total of 231 children were vaccinated. Blood samples from 2 suspected cases were taken and sent to NIH. Health education session conducted in the community. Information shared with EDO(H) and Focal person EPI.
16-May	Measles	Punjab	Lahore	Samanabad town	5	3	10	0	In continuation of Measles outbreak in Samanabad town, Lahore, 18 new suspected Measles cases with 1 death have been reported. During active surveillance 7 more cases were found. All the suspected cases have been given 1st dose of Vitamin-A at the hospital, while vaccinator and LHW were requested to ensure 2nd dose on next day. Mass vaccination campaign arranged in the nearest health facility and a total of 161 children were vaccinated. 5 blood samples were taken and sent to NIH. Health education session conducted in the community. Information shared with EDO-H and Focal person EPI.
18-May	AWD	Sindh	Sanghar	Village Loung Menganhar, UC Pir Khor, taluka Sanghar	3	23	4	14	Alert for AWD reported in local media. During field investigation in village Loung Menganhar, district Sanghar, a total of 44 AWD cases with 1 death due to severe dehydration were found. Hand pump is the source drinking water. 5 stool and 4 water samples were taken and sent for Laboratory testing. Aqua tabs, PURE Sachets, ORS were distributed in the community, while Zinc tabs were provided by Hospital. Health education session conducted regarding health and hygiene, use of PURE sachet, ORS and importance of using boiled water for drinking. Information shared with DHO office.
17-May	AWD	Sindh	Thar-parkar	Village Ibrahim Samoon, UC Bhitaro, taluka Diplo	3	1	5	5	Alert for 3 cases of AWD were reported from village Ibrahim Samoon, Taluka Diplo, Tharparkar. Cases were referred to DHQ hospital, Mithi. During field visit a total of 12 cases and 2 deaths were reported. 5 stool samples were collected and sent for Laboratory testing. Hand pump and open Dug well was the source of drinking water. Health education session conducted regarding health and hygiene and use of boiled water for drinking. Aqua tabs, PURE Sachet, Antiseptic soaps and ORS were distributed in community. Information shared with DHO office.

Figure-3: Number of alerts received and responded, week 17 - 20, 2013

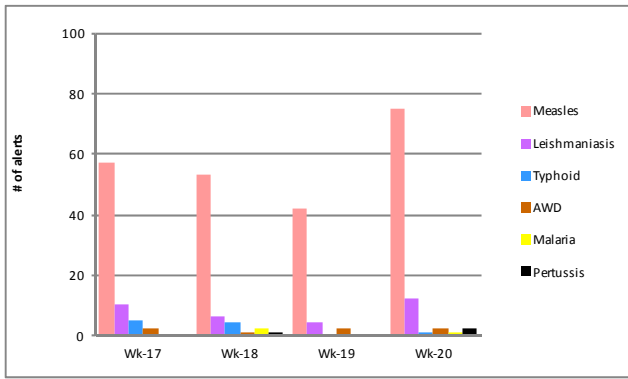
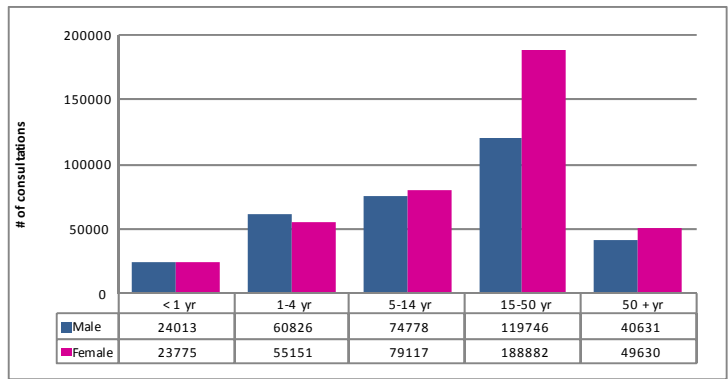


Figure-4: Number of consultations by age and gender, week 20, 2013



Province Khyber Pakhtunkhwa:

267 health facilities from 10 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 77,568 patients consultations reported in week 20, 2013. 37 alerts, 35 were for Measles, while 1 each for Leishmaniasis and NNT were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

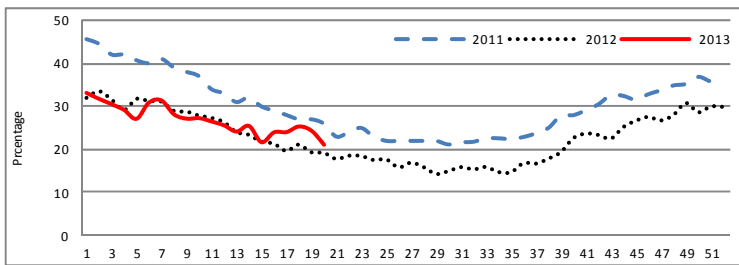
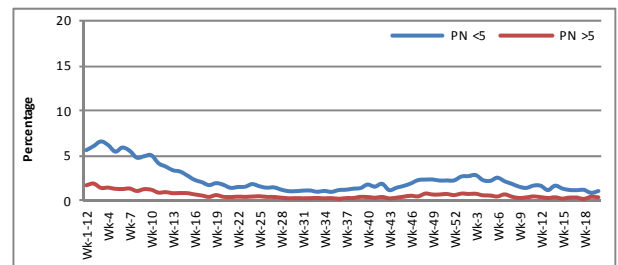


Figure-6: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 2013



Province Sindh:

844 health facilities from 23 districts in Sindh province reported to DEWS with a total of 308,392 patient consultations in week 20, 2013. 8 alerts, 3 were for NNT; while 2 each for AWD and Leishmaniasis; and 1 for Naegleria Meningitis were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-7: Trend of ARI, province Sindh

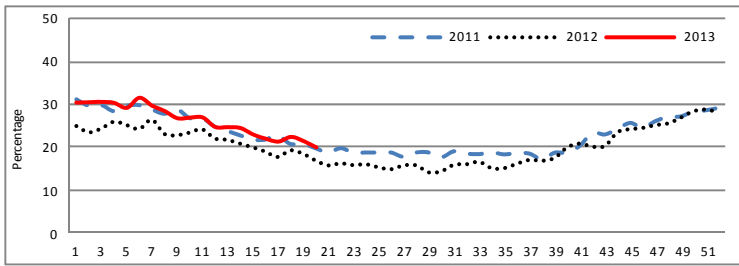
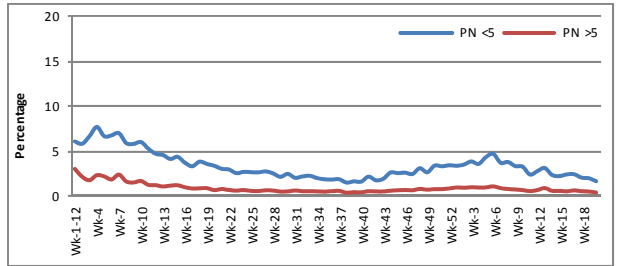


Figure-8: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 2013



Province Punjab:

410 health facilities from 9 districts in province Punjab reported to DEWS with a total of 264,677 patients consultations in week 20, 2013. Total 29 alerts were received and appropriate measures were taken. Altogether 27 alerts were for Measles; while 1 each for Diphtheria and Leishmaniasis. ARI trend showing decrease as compared with last week.

Figure-9: Trend of ARI, province Punjab

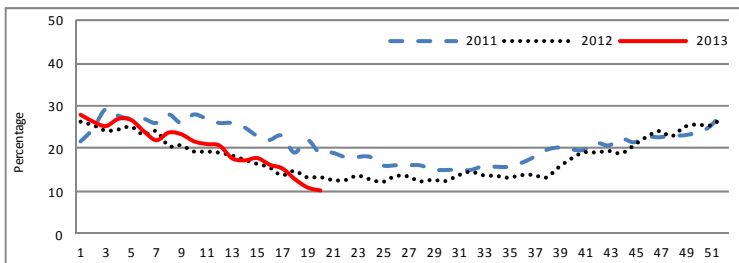
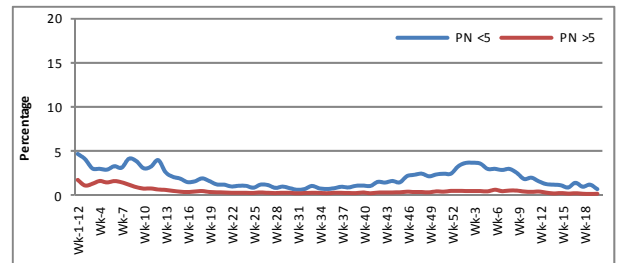


Figure-10: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 2013



Province Balochistan:

245 health facilities from 12 districts in province Balochistan reported to DEWS with a total of 31,667 patients consultations in week 20, 2013. Total 10 alerts reported and appropriate measures were taken in week 20, 2013. Altogether 5 alerts for Leishmaniasis; while 1 each for CCHF, Malaria, Measles, Pertussis and Typhoid. ARI trend showing decrease as compared with last week.

Figure-11: Trend of ARI, province Balochistan

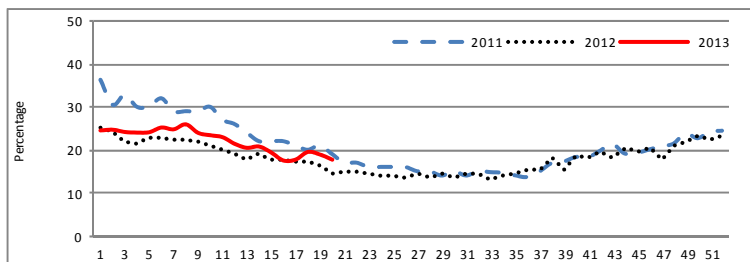
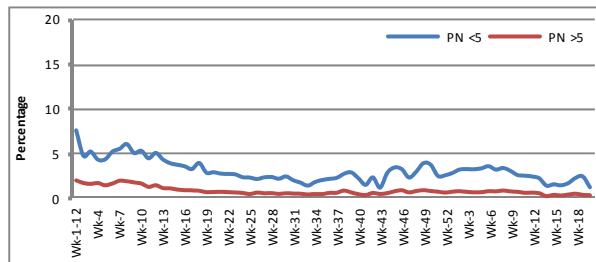


Figure-12: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 20, 2013



Province Gilgit Baltistan:

14 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 1,988 patients consultations in week 20, 2013. No alerts for any disease was reported in week 20, 2013. ARI showing increase as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

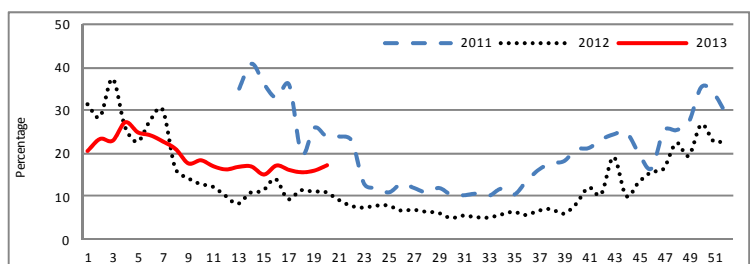
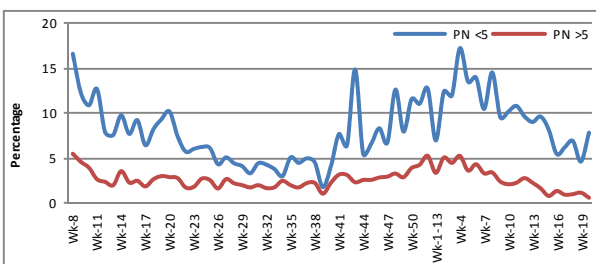


Figure-14: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 20, 2013



FATA:

20 health facilities from 1 agency in FATA reported to DEWS with a total of 4,016 patients consultations in week 20, 2013. 4 alerts, 1 each for Leishmaniasis; Measles; NNT and Pertussis were reported in week 20, 2013 and appropriate measures were taken. ARI showing increase as compared with last week.

Figure-15: Trend of ARI, FATA

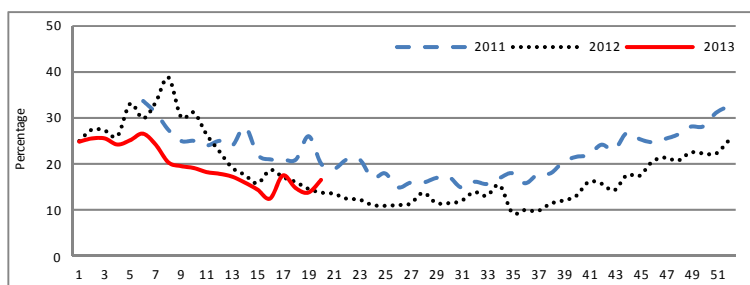
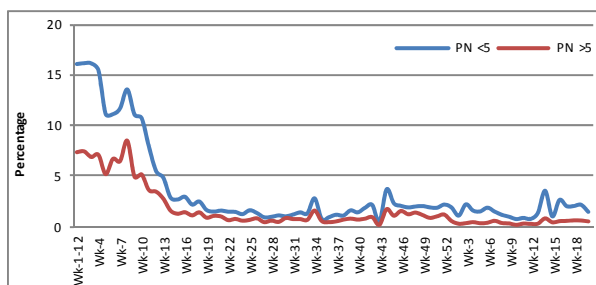


Figure-16: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 20, 2013



State of Azad Jammu and Kashmir:

91 health facilities from 8 districts in AJ&K reported to DEWS with a total of 23,226 patients consultations in week 20, 2013. 9 alerts were received in week 20, 2013 and appropriate measures were taken. Altogether 7 alerts were for Measles; while 2 for Leishmaniasis. ARI trend showing increase as compared with last week.

Figure-17: Trend of ARI, AJ&K

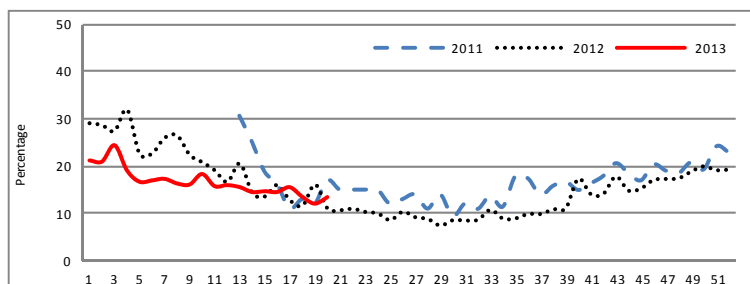


Figure-18: Weekly trend of Pneumonia <5 and >5 years, week 1, 2012 to 20, 2013

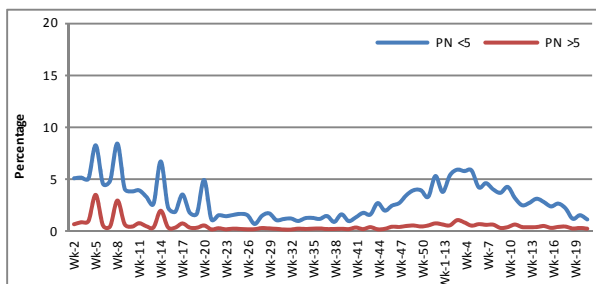
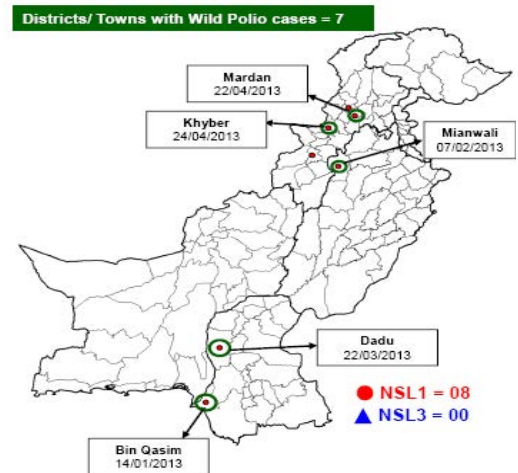


Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 20, 2013		2013 (Total up till week - 20)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	2	2	17	4
Acute jaundice syndrome	113	22	0	0	9	3
Bloody diarrhoea	146	11	0	0	11	1
CCHF	68	41	2	1	13	3
Dengue fever	175	29	0	0	2	0
Diphtheria	60	16	1	0	15	1
Measles	5922	812	75	0	1886	221
Pertussis	366	147	2	0	25	4
NNT + tetanus	560	0	5	0	114	0
Malaria	136	68	1	0	9	2
Cutaneous Leishmaniasis	900	78	12	0	322	38
Others	1529	58	2	0	181	3
Total	10610	1453	102	3	2604	280

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 20, 2013, no new polio case was reported from any district in the country. Till now total number of cases in 2013 is 8 (compared to 17 during the same time period last year) from 7 districts/towns/agency (compared to 10 during the same time period last year).

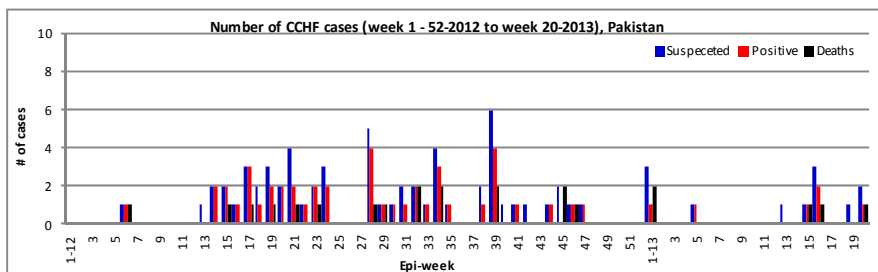


Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	1	-	-
Sindh	4	-	-	2	-	-
Khyber Pakhtunkhwa	27	-	-	4	-	-
FATA	17	2	1	1	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	8	-	-

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. 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.

In week 20, 2013, two new suspected CCHF cases reported 1 from district Quetta, Balochistan (Lab result awaited). The suspected case is 18 years old male found no contact history with animals, admitted at Fatima Jinnah Chest Hospital, Quetta. Platelets count was 22000 at the time of admitting in the hospital and now improving. While the 2nd cases reported from Karachi, Province Sindh, a 38 year old male resident of district Pishin, Balochistan running a hotel in Karachi, found clear contact history with animals, taking care in home, Platelets count was 14000 at the time of admitting in the hospital but could not survive and expired on 13 May, 2013. The total 13 CCHF cases have been reported in 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 situation of CCHF cases in 2012-13.

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. There is ongoing trade of animals and animal skins with movement intra Pakistan and between neighboring countries (Afghanistan and Iran).

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 20 (18 May 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 20)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	145	7	288	1
Balochistan	447	119	1816	31	276	47	1125	45
FATA	211	31	559	13	58	12	178	3
Gilgit Baltistan	40	1	54	0	14	0	26	0
ICT	27	2	63	0	33	2	114	1
Khyber Pakhtunkhwa	1989	108	3542	38	563	68	1299	19
Punjab	809	40	1329	16	677	59	5087	53
Sindh	2234	505	7353	212	120	26	3220	144
Total	5922	812	14984	310	1886	221	11337	266

