

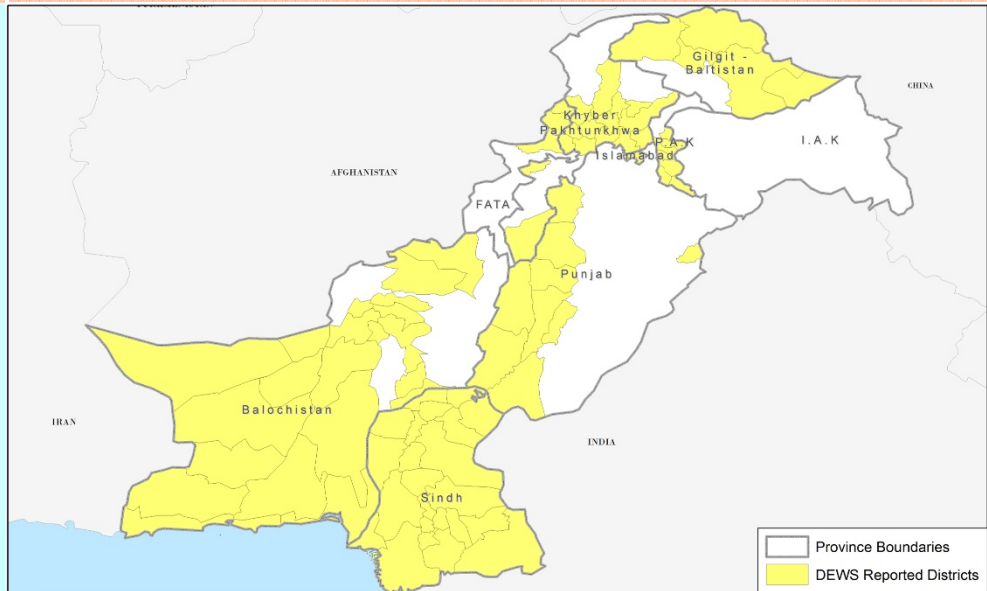


Highlights

*Epidemiological week no. 7
(10 to 16 Feb 2013)*

- **Measles:** 132 alerts investigated this week, responding and monitoring to 12 outbreaks. 285 measles cases in 30 districts, while 1 death reported from 1 district this week. Vitamin-A drops provided to cases and district health teams took action to improve vaccination in affected areas.
- **87 districts** and 2563 health facilities have reported to DEWS this week 7, compared with 80 districts with 2481 health facilities shared weekly data in week 6, 2013 to the Disease Early Warning System (DEWS).
- **976,785** patients' consultations were reported in week 7, 2013 compared to **765,839** consultations reported in week 6, 2013.
- Altogether **184** alerts were investigated and response were provided to **21** outbreaks.

Figure-1: 80 districts reported to DEWS in week 6, 2013



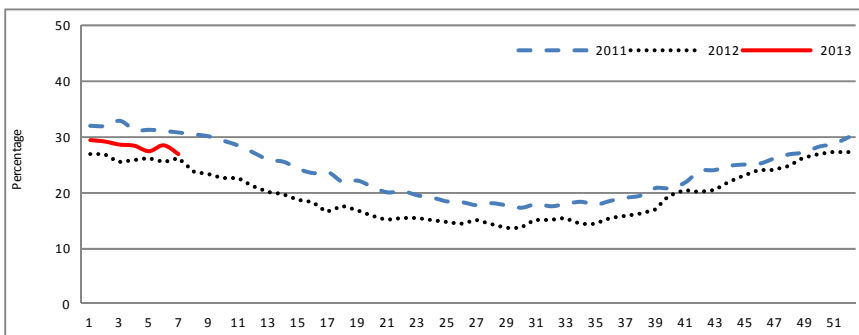
Priority diseases under surveillance in DEWS

- 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 7, 2013 (29 Dec 2012 to 16 Feb 2013)

Disease	# of Cases	Percentage
ARI	1,632,305	28%
Bloody diarrhoea	17,765	<0.5%
Acute diarrhoea	349,141	6%
S. Malaria	266,632	5%
Skin Diseases	219,757	4%
Unexplained fever	192,795	3%
Total (All consultations)	5,777,594	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-7, 2013.



Major health events reported during the Epi-week - 7 (10 to 16 Feb 2013)

Disease	# of Cases	Percentage
ARI	263,738	27%
Bloody diarrhoea	2,775	<0.5%
Acute diarrhoea	56,560	6%
S. Malaria	45,063	5%
Skin Diseases	36,272	4%
Unexplained fever	30,896	3%
Total (All consultations)	976,785	

- 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 (7/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
13-Feb	Bloody diarrhoea	AJK	Poonch	vill Kothiyan Narar UC Thorar Tehsil rawalakot	3	4	3	8	Alert for suspected cases of bloody diarrhoea was reported from Village Kothiyan Narar, UC Thorar, district Poonch. during active surveillance 18 suspected cases of BD found, the affected families sharing same drinking water source which found contaminated. IEC material distributed and health education session was conducted in the community. Rectal swab sample was taken and sent to NIH.
11-Feb	Leishmaniasis	Balochistan	Lasbela	Winder, UC Winder, Tehsil Sonmiani	1	5	2	3	Alert for 9 suspected cases of Cutaneous Leishmaniasis reported. 2 more cases found during active search. All patients had no travel history. Injection Glucantime was provided. Information shared with DHO.
12-Feb	Leishmaniasis	Balochistan	Lasbela	Bela, UC Bela, Tehsil Bela	1	3	4	1	Alert for 9 suspected Cutaneous Leishmaniasis cases were reported from Civil Hospital. All the cases did not had travel history. Injection Glucantime was provided. Information shared with DHO.
14-Feb	Measles	Balochistan	Chagai	Killi Billov, UC Sad-der	0	1	1	3	Alert for 5 suspected Measles cases reported. During investigation all cases were provided Vitamin-A. 10 houses were surveyed but no more Measles cases were found. On the house hold survey 32 children were checked for measles vaccine 30 of them vaccinated and 2 were found unvaccinated. Information shared with EPI representative and DHO.
11-Feb	Leishmaniasis	FATA	Khyber Agency	UC Janbaz, Tehsil Bara	13	15	16	20	Suspected Cutaneous Leishmaniasis cases were reported from BHU Janbaz killi. On active surveillance a total of 64 suspected CL cases were detected which were then confirmed by LD bodies test. LLINs Bed nets were given to them from CH Jamrud. Injection Glucantime were provided. Information was shared with Agency Surgeon and PPHI.
12-Feb	Leishmaniasis	FATA	Khyber Agency	Village Goray, UC Kala khel, Tehsil Bara	0	1	1	4	Alert for suspected Cutaneous Leishmaniasis cases were reported from BHU Kala Khel. On active surveillance a total of 6 suspected CL cases were found. Health education was given and Injection Glucantime was provided. Information was shared with Agency Surgeon and PPHI.
12-Feb	Leishmaniasis	FATA	Khyber Agency	Village Shah Kas, UC Shah Kas, Tehsil Jamrud	0	3	1	3	Alert for suspected Cutaneous Leishmaniasis cases were reported from CH Jamrud. On active surveillance a total of 7 cases were detected. LLINs bed nets were provided from CH Jamrud. Injection Glucantime were provided and information was shared with Agency Surgeon.
15-Feb	Leishmaniasis	FATA	Khyber Agency	Village Bacha Gul killi, UC Mian Morcha, Tehsil Mulagori	0	2	3	2	Alert for suspected Cutaneous Leishmaniasis cases were reported from BHU Mian Morcha. During active surveillance 7 suspected Leishmaniasis cases were found. Health education was imparted and, Injection Glucantime was provided to the BHU. Information shared with Agency surgeon and PPHI.
12-Feb	Leishmaniasis	FATA	Mohmand Agency	Village Atta, Tehsil Khwezai	0	2	1	2	Alert for Cutaneous Leishmaniasis reported from tehsil Khwezai. During active surveillance 5 suspected Cutaneous Leishmaniasis cases were found and referred to AHQ Ghalani for treatment. Information shared with agency Surgeon and FATA Leishmaniasis Control Program.
14-Feb	Measles	FATA	Khyber Agency	Village Haji Zahir shah, UC Janbaz, Tehsil Bara	1	1	3	0	Alert for suspected Measles cases were reported from BHU Janbaz killi. On active surveillance a total of 5 suspected measles cases were detected. Vitamin-A was given to suspected measles cases. Health education was imparted. Mass measles vaccination of 55 children was done. Information shared with Agency surgeon, PPHI and FSMO.
15-Feb	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Kandao, Sorai khowa, UC Kharki, Tehsil Takht Bhai	3	3	3	5	Alert of Cutaneous Leishmaniasis was reported from UC Baizo Kharki. During active surveillance 13 more clinical cases were identified. Required doses of Inj Glucantime were placed in the health facility for all registered cases. Doh and health partners (FPHC Mardan, Relief Int, PPHI) were requested for vector control interventions in the areas and surrounding. On 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 area. Information shared with EDO Health.

Current week's (8/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
11-Feb	Measles	Khyber Pakhtunkhwa	D. I. Khan	Zafar Abad Colony, UC Lachra	4	0	1	0	Alert for suspected Measles cases from Shakai town and Zafarabad colony were reported from BHU Zafarabad. On active surveillance, 3 more suspected Measles cases were found. Two doses of Vit-A were ensured to all cases by WHO. EPI conducted vaccination session at BHU Zafarabad for children below 13 years of age from three mohallas/areas of Zafarabad colony and Muneezabad. 80 children were vaccinated for Measles by EPI team.
11-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Ghazi city , Haripur	1	0	1	0	Alert for 2 suspected Measles cases were reported from Ghazi city, gave vitamin-A. During active surveillance 8/24 children were found unvaccinated for Measles 2 vaccine and 4 children were found unvaccinated for Measles 1 vaccine. Health education was imparted in the community. EDO Health informed and Mop up campaign is planned.
13-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Mirpur Kalan, Abbottabad	2	1	1	1	Alert for 5 suspected measles cases were reported by WCH Abbottabad from Mirpur Kalan. Vitamin-A was provided. Field investigation and vaccination assessments are being carried out in the area by DoH team. Information shared with EDO Health.
12-Feb	Measles	Khyber Pakhtunkhwa	Mardan	Chakaru Pull, UC Gulibagh, Tehsil Mardan	1	1	2	1	Alert for suspected Measles reported from MMC Hospital, Mardan. Vitamin-A given to the cases, blood sample was collected and sent to NIH. In response epidemiological assessment was carried out in the area and surrounding and 3 more clinical cases were identified in same family and few recovered cases in the neighbors. All children of less than 5 years were sent to near by health facility for vaccination. EPI team was informed and requested for outreach vaccination in the area. Health education session conducted in the community with the help of LHWs. Information shared with EDO-H and EPI Coordinator.
16-Feb	Measles	Khyber Pakhtunkhwa	Swat	Village Ghurati, UC & Tehsil Barikot	2	2	0	1	Alert for suspected Measles case from SGTH, the cases belongs to village Sobidar Swegalai, UC koz Abakhel. Vitamin-A drops provided, while blood sample taken and sent to NIH. During active surveillance 4 more suspected Measles cases were found. In order to check the coverage of routine vaccination in the area, 15 children were examined, only 6 of them had BCG scars. Health education session was conducted with the community regarding the importance of routine immunization. Information shared with EDO Health and Coordinator EPI.
15-Feb	Measles	Punjab	Bhakkar	UC Punjgirain, Tehsil Darya Khan.	0	3	2	0	Alert for 4 suspected Measles cases reported from 3 different locations of UC Punjgirain. 2 cases were found fully vaccinated, while 1 was found unvaccinated. Suspects were 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. Awareness session conducted in the community about importance of isolation of the suspected cases from healthy children to halt the spread of disease. Information shared with EDO-H.
13-Feb	Measles	Punjab	Lahore	Gulberg Town uc 97, uc 127, uc 30, uc 95	6	3	7	6	Alert for 15 suspected Measles cases of has been reported from different hospitals in Lahore. The suspects have been given 1st dose of vitamin A at the teaching Hospital while vaccinator and LHW were requested to deliver 2nd dose on next day. During active surveillance 7 more cases were found and 45 children were checked for routine EPI coverage where 14 children were found to have missed second dose of Measles. Blood sample of the 5 suspected cases was drawn and throat swabs were taken and sent to NIH. Mass Vaccination campaign arranged in the nearest health facility in the area and a total of 140 children were vaccinated. Health education sessions conducted in the community with the help of LHW, religious and community Leaders.
14-Feb	Measles	Punjab	Lahore	Aziz Bhatti Town uc 57,uc 48,uc 60	1	3	0	4	Alert for 5 suspected Measles cases were reported from Children and Services hospital. All the suspects were given 1st dose of vitamin-A at the hospital while vaccinator and LHS were requested to give 2nd dose to next day. During active surveillance 3 more cases were found. 25 children were checked for routine EPI coverage. Vaccinator was requested to ensure 100% EPI vaccination in the area within this week along with Measles. Blood sample of the suspected case was drawn and throat swabs were taken and sent to NIH. Health education in the community was conducted with the help of LHS. Information shared with EDO(H) and Director EPI.
14-Feb	Measles	Punjab	Lahore	Saman abad town uc 87,uc 89,uc 90,uc 100, uc 109,uc 111, uc 115	18	3	11	9	Alert for 30 suspected cases were reported from different hospitals in Lahore. The suspects were given 1st dose of vitamin-A while vaccinator and LHW were requested to deliver 2nd dose to next day. During active surveillance 11 more cases were found, while 50 children were checked for routine EPI coverage where 14 children were found to have missed second dose of Measles. Mass Vaccination campaign was arranged in the nearest health facility of the affected areas and a total of 345 children were vaccinated. Vaccinator was requested to ensure 100% EPI vaccination. Blood samples from the suspected cases was drawn and throat swabs were taken and sent to NIH. Health education session in the community was conducted with the help of LHW, religious and community Leaders.
15-Feb	Measles	Punjab	Lahore	Wahga Town uc 62, uc 42,uc 51,	6	1	5	0	Alert for 8 suspected cases were reported from different hospitals in Lahore, given 1st dose of vitamin-A while vaccinator and LHW were requested to ensure 2nd dose on next day. During active surveillance 4 more suspected Measles cases were found and 50 children were checked for routine EPI coverage where 17 children were found to have missed second dose of Measles. Blood sample of the suspected cases were drawn and Throat swabs were taken and sent to NIH. Health education session conducted in the community with the help of LHW, religious and community Leaders.

Figure-3: Number of alerts received and responded, week 4 - 7, 2013

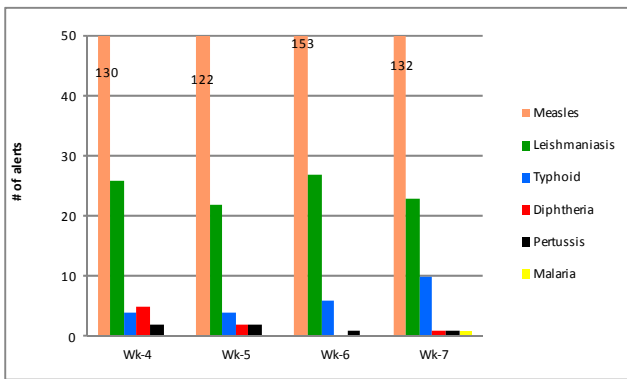
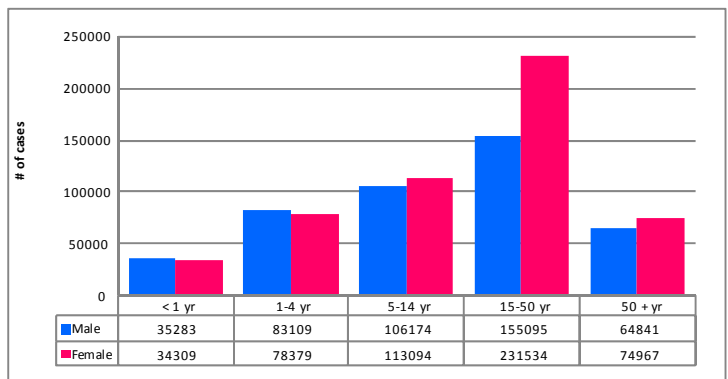


Figure-4: Number of consultations by age and gender, week 7, 2013



Province Khyber Pakhtunkhwa:

475 health facilities from 17 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 116,780 patients consultations reported in week 7, 2013. Total 58 alerts were received and appropriate measures were taken. Altogether 47 alerts for Measles; 4 for Leishmaniasis; 2 for NNT; while 1 each for AWD, Diphtheria, H1N1, Meningitis and Pertussis. ARI trend showing increase as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

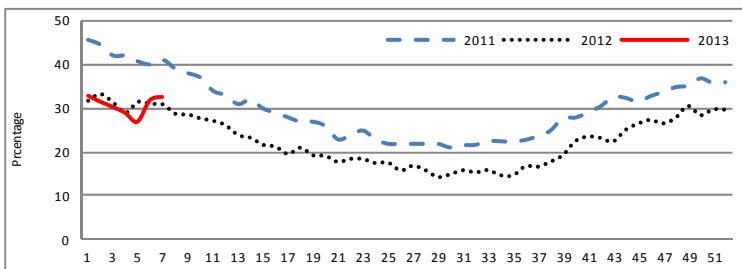
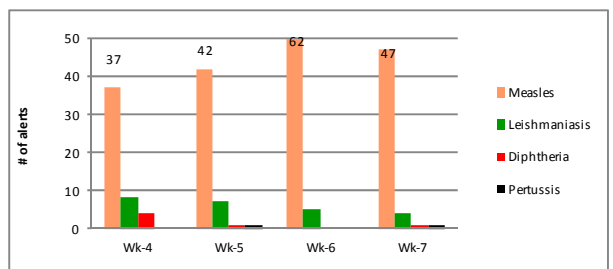


Figure-6: Number of alerts received and responded week 4 to 7, 2013



Province Sindh:

997 health facilities from 23 districts in Sindh province reported to DEWS with a total of 479,446 patients consultations in week 7, 2013. Total 10 alerts were received and appropriate measures were taken. Altogether 6 alerts were for Leishmaniasis; 3 for NNT; while 1 for Typhoid. ARI trend showing decrease as compared with last week.

Figure-7: Trend of ARI, province Sindh

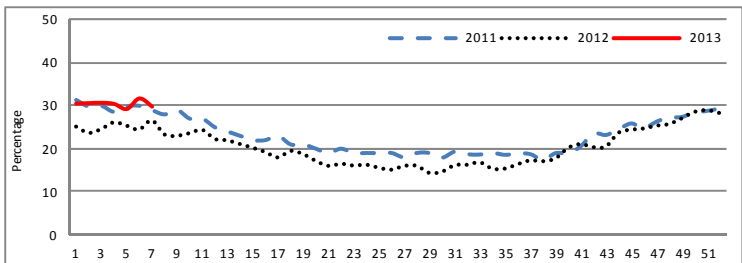
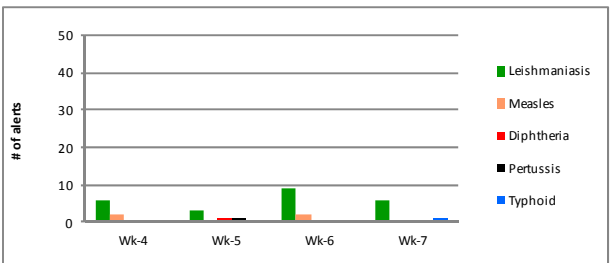


Figure-8: Number of alerts received and responded, week 4 to 7, 2013



Province Punjab:

490 health facilities from 9 districts in province Punjab reported to DEWS with a total of 257,717 patients consultations in week 7, 2013. Total 59 alerts were received and appropriate measures were taken. Altogether 52 for Measles; 6 for Typhoid; while 1 for ARI. ARI trend showing decreasing as compared with last week.

Figure-9: Trend of ARI, province Punjab

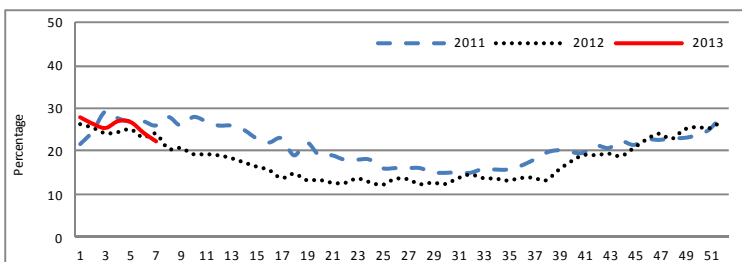
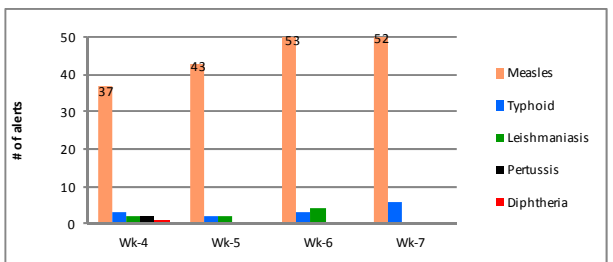


Figure-10: Number of alerts received and responded, week 4 to 7, 2013



Province Balochistan:

383 health facilities from 20 districts in province Balochistan reported to DEWS with a total of 58,803 patients consultations in week 7, 2013. Total 32 alerts reported and appropriate measures were taken in week 7, 2013. Altogether 17 alerts were for Measles; 6 for Leishmaniasis; 4 for ARI; 2 for Typhoid; while 1 each for AD, Malaria and NNT. ARI trend showing stability as compared with last week.

Figure-11: Trend of ARI, province Balochistan

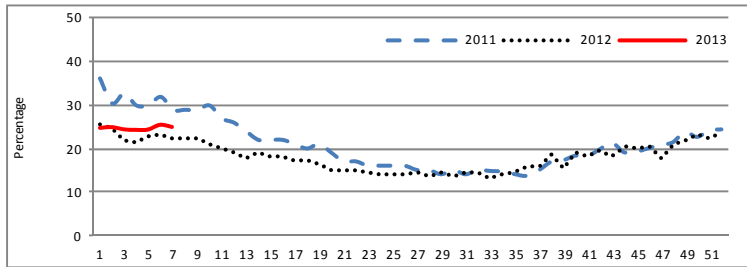
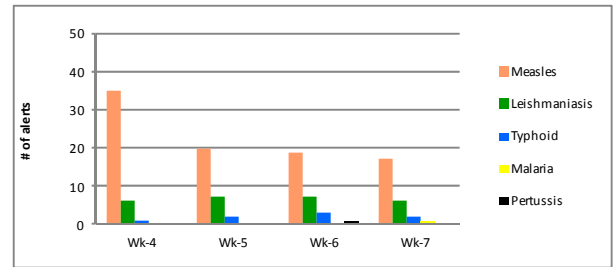


Figure-12: Number of alerts received and responded, week 4 to 7, 2013



Province Gilgit Baltistan:

51 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 21,101 patients consultations in week 7, 2013. 2 alerts for Measles were reported in week 7, 2012. ARI showing minor decrease as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

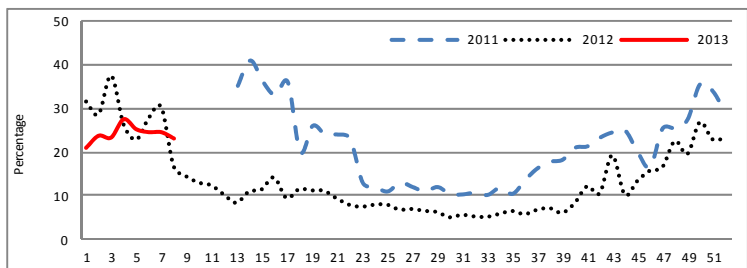
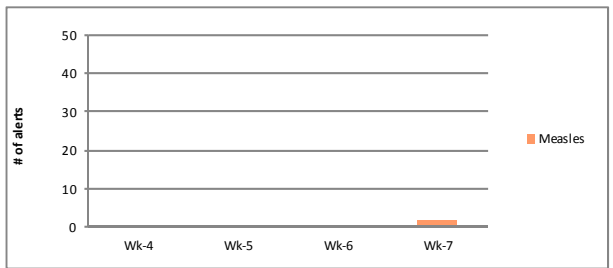


Figure-14: Number of alerts received and responded, week 4 to 7, 2013



FATA:

51 health facilities from 3 agencies in FATA reported to DEWS with a total of 13,182 patients consultations in week 7, 2013. 10 alerts, 7 for Leishmaniasis; 2 for Measles, while 1 for Typhoid were reported in week 7, 2012 and appropriate measures were taken. ARI showing decrease as compared with last week.

Figure-15: Trend of ARI, FATA

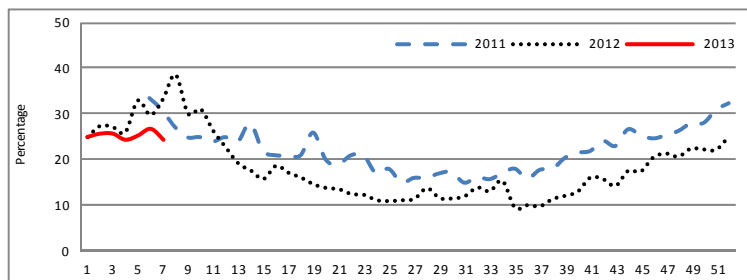
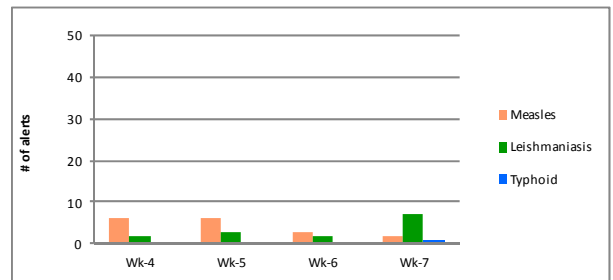


Figure-16: Number of alerts received and responded, week 4 to 7, 2013



State of Azad Jammu and Kashmir:

104 health facilities from 9 districts in AJ&K reported to DEWS with a total of 24,565 patients consultations in week 7, 2013. 13 alerts, 12 for Measles and 1 for Bloody diarrhoea were received and appropriate measures were taken. ARI trend showing minor increase as compared with last week.

Figure-17: Trend of ARI, AJ&K

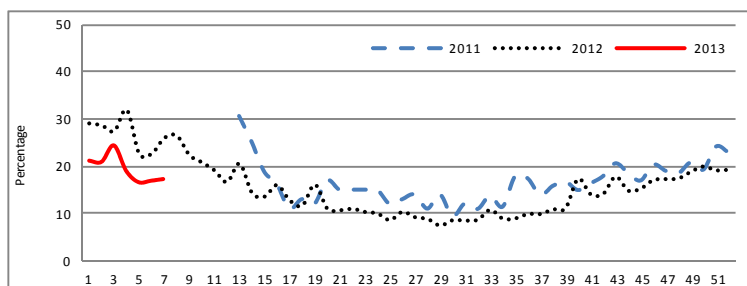


Figure-18: Number of alerts received and responded, week 4 to 7, 2013

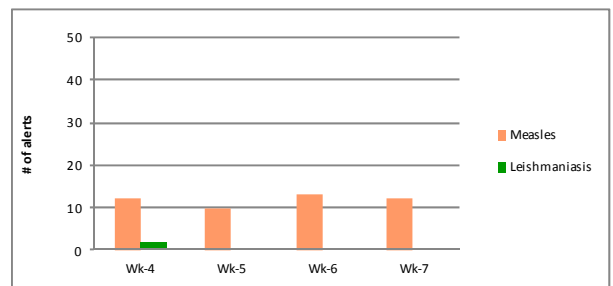


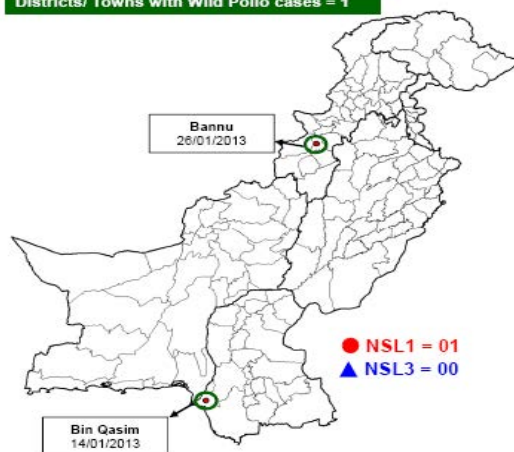
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 7, 2013		2013 (Total up till week - 7)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	1	0	3	1
Acute jaundice syndrome	113	22	0	0	7	2
Bloody diarrhoea	146	11	1	1	5	1
CCHF	68	41	0	0	3	1
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	1	0	10	1
Measles	5922	812	132	12	1097	158
Pertussis	366	147	1	0	10	2
NNT + tetanus	560	0	6	0	34	0
Malaria	136	68	1	0	3	2
Leishmaniasis	900	78	23	8	162	25
Others	1529	58	18	0	74	1
Total	10610	1453	184	21	1408	194

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 7, 2013, no new wild polio case was reported from any district. The total number of polio cases for year 2013 remains 2 type-1, while, 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).

Districts/Towns with Wild Polio cases = 1

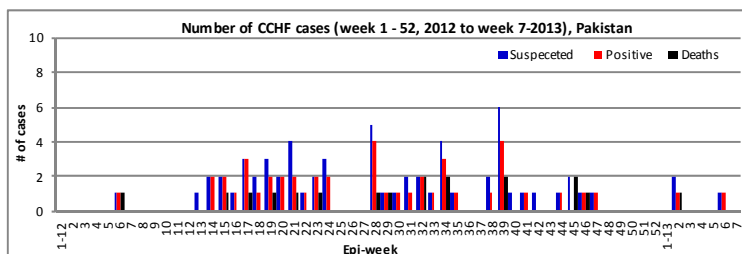


Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	-	-	-
Sindh	4	-	-	1	-	-
Khyber Pakhtunkhwa	27	-	-	1	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	2	-	-

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 7, 2013, no new CCHF case reported from any district. The total number of CCHF cases remains 3 for the year 2013. 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 has 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 6 (9 Feb 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 7)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	65	4	131	0
Balochistan	447	119	1816	31	225	38	969	42
FATA	211	31	559	13	36	8	122	1
Gilgit Baltistan	40	1	54	0	7	0	19	0
ICT	27	2	63	0	8	2	39	1
Khyber Pakhtunkhwa	1989	108	3542	38	272	40	689	16
Punjab	809	40	1329	16	362	39	1540	15
Sindh	2234	505	7353	212	122	27	2220	102
Total	5922	812	14984	310	1097	158	5729	177

Alerts and outbreaks, week 7, 2013

