



Highlights

*Epidemiological week no. 5
(27 Jan to 2 Feb 2013)*

- **Measles:** 112 alerts investigated this week, responding and monitoring to 17 outbreaks. 712 measles cases in 58 districts and 25 deaths reported from 14 districts this week. Vitamin-A drops provided to cases and district health teams took action to improve vaccination in affected areas.
- **82 districts** and 2407 health facilities have reported to DEWS this week 5, compared with 80 districts with 2406 health facilities shared weekly data in week 4, 2013 to the Disease Early Warning System (DEWS).
- **836,730** patients' consultations were reported in week 5, 2013 compared to **754,642** consultations reported in week 4, 2013.
- Altogether **152** alerts were investigated and response were provided to **21** outbreaks.

Figure-1: 82 districts reported to DEWS in week 5, 2013



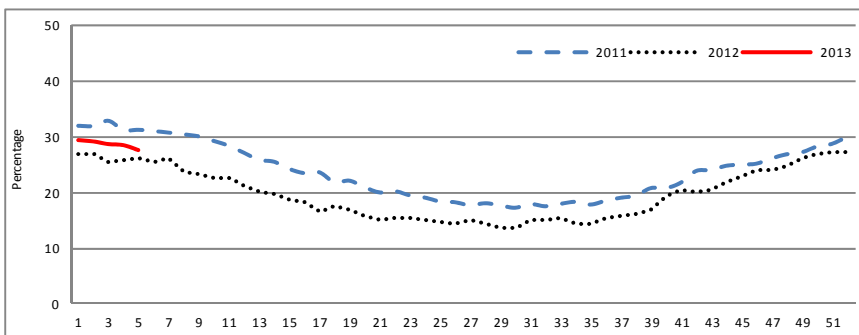
Priority diseases under surveillance in DEWS

- 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 5, 2013 (29 Dec 2012 to 2 Feb 2013)

Disease	# of Cases	Percentage
ARI	1,136,504	6%
Bloody diarrhoea	12,123	0.5%
Acute diarrhoea	241,257	29%
S. Malaria	180,121	5%
Skin Diseases	151,622	4%
Unexplained fever	133,464	3%
Total (All consultations)	3,982,420	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-5, 2013.



Major health events reported during the Epi-week - 5 (27 Jan to 2 Feb 2013)

Disease	# of Cases	Percentage
ARI	229,975	6%
Bloody diarrhoea	2,421	<0.5%
Acute diarrhoea	48,075	27%
S. Malaria	37,407	4%
Skin Diseases	31,613	4%
Unexplained fever	26,920	3%
Total (All consultations)	836,730	

- 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 (5/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
29-Jan	Leishmaniasis	Balochistan	Lasbela	Heezal bad, UC Beroot, Tehsil HUB	1	3	0	1	Alert for 5 cases of Cutaneous Leishmaniasis reported from Jam Ghulam Qadir Hospital. During investigation only one patient had travel history to Bela town. Injection Glucantime was advised according to WHO guide line.
2-Feb	Leishmaniasis	Balochistan	Quetta	Village new Pashtoonabad (BHU New Pash-toonabad)	0	0	0	0	Alert for 12 suspected cases of Cutaneous Leishmaniasis reported in different interval with typical lesions. No other cases found during active search. Cases had lesions on different parts of body . Inj Glucantime was provided to health facility in-charge to treat all cases. Information was shared with PPHI team and DHO.
29-Jan	Measles	Balochistan	Gwadar	Rahsinibazar, UC Jewani, Tehsil Jewani	6	3	4	9	Alert for 17 suspected Measles cases reported from RHC Jewani and 5 more cases from DHQ Hospital where all belong to Jiwani. During field investigations cases were administered Vit-A. Health education was given to community. All information shared with DHO.
31-Jan	Measles	Balochistan	Kharan	DHQ Kharan, Wapda colony	1	2	1	2	Alert for 6 cases of Measles were investigated. Cases had typical appearance of suspected measles. Vitamin A was given to all the patients and were isolated from other healthy children. 10 houses were surveyed but no more cases were found. On the house hold survey 51 children were checked for measles vaccine and 39 were vaccinated.
29-Jan	Leishmaniasis	FATA	Mohmand Agency	Village Khazina, Tehsil Mamad Gat	2	4	1	0	Alert for suspected case of Cutaneous Leishmaniasis from BHU Mamad Gat, DEWS team visited the BHU. Detailed history was taken from the attendant of the patient and examination was done, the child had the lesion on his left cheek for about five months. During field investigation of village Khazina, 6 more cases were found. Agency Surgeon and FATA Leishmaniasis control program have been informed about the situation.
1-Feb	Measles	FATA	Khyber Agency	Village Noor Rahman killi, UC Godard, Tehsil Jamrud	1	3	2	0	Alert for suspected measles case was reported from CH Jamrud. On active surveillance 5 more cases were found in the affected area. Vitamin A was given to the suspected cases. Blood sample was taken and sent to NIH. Health education was imparted. Mass measles vaccination of 498 children was done. Report was shared with Agency surgeon and FSMO.
31-Jan	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Alam Khan, Jauor, Sajam & Kalu Khan, UC Mian Essa, Takht Bhai, Mardan	1	2	2	3	Alert for Cutaneous Leishmaniasis reported from UC Mian Essa. Active surveillance was conducted and 8 more clinical case identified in the area and surrounding. Required doses of Inj Glucantime were placed in nearby health facility for all registered cases. FPHC Mardan, Relief Intl, PPHI were requested for vector control interventions in the area and surrounding. On the job training of health staff was conducted for Intralesional administration of Inj Glucantime. RBM focal person was informed and requested for vector control measures in the areas. EDO Health and focal person informed.
28-Jan	Measles	Khyber Pakhtunkhwa	Haripur	Village Magree, UC Pind Hashim Khan	2	1	1	2	Alert for 3 suspected measles cases were reported from village Magree, during investigation gave vitamin A to the patients. Field investigation found 7/23 children unvaccinated for measles 2 vaccine and 14 children missing for measles 1 vaccine. On active case finding 3 more cases were identified with active measles. Missed children sent to nearest health facility for measles vaccination. EDO Health was informed.
29-Jan	Measles	Khyber Pakhtunkhwa	Haripur	Village Laqab, UC Bait Gali	5	0	1	1	Alert for 4 suspected measles cases were reported from village Laqab, gave vitamin A. Field investigation revealed that all the children were unvaccinated for measles. On active case finding 3 more cases were identified with active measles. Outreach activity was carried out in the area. EDO Health was informed. EPI technician was appointed in the area for improvement of routine immunization.
30-Jan	Measles	Khyber Pakhtunkhwa	Haripur	Havelian city, Abbottabad	1	0	2	0	Alert for 3 suspected measles cases were reported from Havelian city taking the total number of cases more than 5 in past 1 month, cases were given vitamin A. Outbreak was declared in the area and EDO Health was informed about the cases. Outreach activity is planned subject to availability of vaccine.
31-Jan	Measles	Khyber Pakhtunkhwa	Haripur	Village Panian	1	1	2	1	Alert for 1 suspected measles case was reported from village Panian, vitamin A given to the patient. Field investigation revealed 5/13 children unvaccinated for measles 2 vaccine and 3 children missing for measles 1 vaccine. On active case finding 4 more cases were identified with active measles. Missed children were sent to nearest health facility for measles vaccination. EDO Health informed.

Current week's (5/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
1-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Kharella, Abbottabad	11	5	8	3	Alert for 4 suspected measles cases were admitted to WCH Abbottabad from Kharella, gave vitamin A. On active case finding, 23 more cases were identified with active measles. Outbreak was declared whereas Measles mop up campaign had already been conducted in the area in December. EDO Health was informed about the new cases.
2-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Mandian, Abbottabad	2	1	2	2	Alert for 7 suspected measles cases were reported by WCH Abbottabad from Mandian, gave vitamin A. Outbreak declared in the area and field investigations and vaccination assessments are being carried out in the area. EDO Health was informed about the new cases.
29-Jan	Measles	Khyber Pakhtunkhwa	Kohat	Village Kamal Khel, BHU Kamal Khel, Tehsil Kohat	4	0	2	0	Alert for 6 suspected Measles cases were reported from village Kamal Khel. During visit 6 cases were found in 6 different households. Team collected the blood sample from all the cases and sent to NIH for confirmation, None of the children were found vaccinated including the contacts for any vaccine preventable disease. Hygiene session along with knowledge sharing regarding disease transmission with the mothers and the families living in the households. EDO-H informed, a plan has been made to conduct a Measles campaign in the village.
30-Jan	Measles	Khyber Pakhtunkhwa	Lower Dir	Village Kamar Taal, UC Khall & Tehsil Timergara, Dir Lower.	0	3	1	1	Alert for 1 suspected Measles case reported from MSF measles ward DHQ Hospital Dir Lower. The case was from village Kamar Taal, UC Khall. WHO team investigated the case and blood sample collected and sent to NIH. The suspected Measles case with symptoms of ARI, AD and mouth ulcer was admitted in MSF ward DHQ Hospital Lower Dir. No BCG Scar and missed Measles vaccination 5 cases reported in the locality. Health education session was conducted with the family and Vit.A drops given to the suspected measles cases.
29-Jan	Measles	Khyber Pakhtunkhwa	Mardan	Muliyanu Kalay, Fathma Road, UC Charbanda, Tehsil Mardan	1	0	4	0	A suspected Measles alert was reported from Children OPD of DHQ Hospital Mardan. The child had received only BCG dose and was unimmunized for measles. On active surveillance in the area and surrounding two more clinical cases were identified in the family and surrounding with 2 recovered cases. All children of less than 5 years were sent to nearby HF for vaccination. EPI team was informed and requested for outreach immunization in the area. Health education session was conducted with the family members and community, LHW's working in the area was involved. EDO-H, Focal person and EPI Coordinator were informed.
28-Jan	Measles	Khyber Pakhtunkhwa	Shangla	Village Alami banda, UC Martung, Tehsil Puran	4	0	2	1	Alert for Measles cases reported from Village Alami banda, UC Martung, Tehsil Puran . A team of vaccinators of EPI sent to the area. On Active surveillance 23 suspected measles cases and three deaths reported from the area. All antigen mop done in Village Alami banda, UC Martung, Tehsil Puran. EDO-H informed.
29-Jan	Measles	Khyber Pakhtunkhwa	Swat	village kabal, Near Hospital, UC Barabakhel Tehsil kabal	2	1	0	2	Alert for measles reported from SGTH, belongs to village kabal, Near Hospital, UC Barabakhel Tehsil kabal. Detailed history was taken from the patient, vitamin A drops were provided and blood sample collected and sent to NIH. During active surveillance in the area four more cases were found. In order to check the coverage of routine vaccination in the area, 11 children were examined, only 4 had BCG scars. Health education session was conducted with the community regarding the importance of routine immunization. EDO Health and Coordinator EPI were informed.
1-Feb	Measles	Khyber Pakhtunkhwa	Swat	village kokrai, near BHU, UC Islampur, Tehsil Babozai	1	0	1	3	Alert for measles from SGTH. Detailed history was taken from the patient, vitamin A drops provided and blood sample collected. In order to check the coverage of routine vaccination in the area, 15 children were examined, only 6 had BCG scars. Health education session was conducted with the community regarding the importance of routine immunization. EDO Health and Coordinator EPI were informed and requested for further vaccination in the area.
1-Feb	Measles	Khyber Pakhtunkhwa	Upper Dir	village Barsir Mitrorra, UC Akhagram, Tehsil Wari, Dir Upper	3	2	0	0	Alert for 1 suspected Measles case reported from village Barsir Mitrorra, UC Akhagram. WHO team investigated the case, blood sample collected and sent to NIH. 5 suspected cases were found in the area, no BCG scar, and 5 out of 5 children were found missing Measles vaccination. Health education session was conducted with the family and Vit.A drops were given to the suspected measles cases.
31-Jan	Measles	Punjab	Rahim Yar Khan	Mud Darbari, Rahim Yar Khan City	0	1	3	1	Alert for 3 suspected cases of measles were reported by SZH. 2 more cases were found on active surveillance. 1 case had received no dose of measles vaccine. 5 blood samples were collected and sent to NIH for confirmation. 1 dose of Vitamin A was given on the spot to all patients while one more dose was provided to the parents to be administered on next day. A Health Education session was conducted with community about prevention from measles. A comprehensive mop up activity planned by EDOH.

Figure-3: Number of alerts received and responded, week 2 - 5, 2013

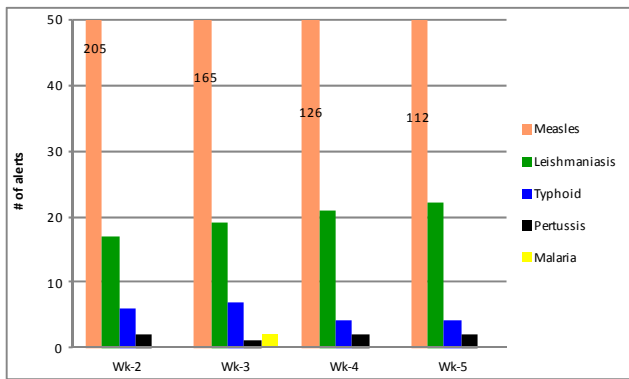
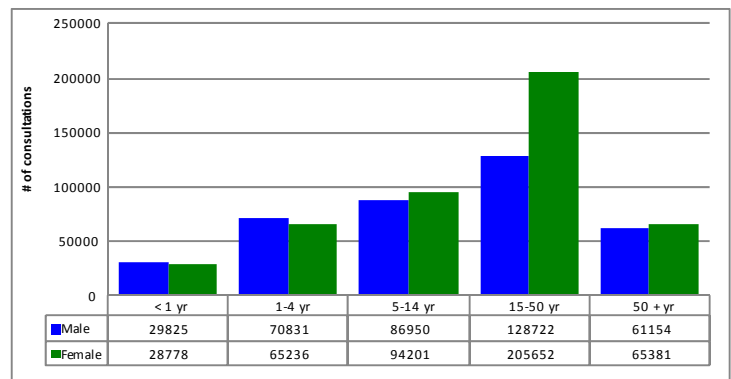


Figure-4: Number of consultations by age and gender, week 5, 2013



Province Khyber Pakhtunkhwa:

423 health facilities from 14 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 124,728 patients consultations reported in week 5, 2013. Total 28 alerts were received and appropriate measures were taken. Altogether 18 alerts for Measles; 7 for Leishmaniasis; 2 for Typhoid; while 1 for Bloody diarrhoea. ARI trend showing decreasing as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

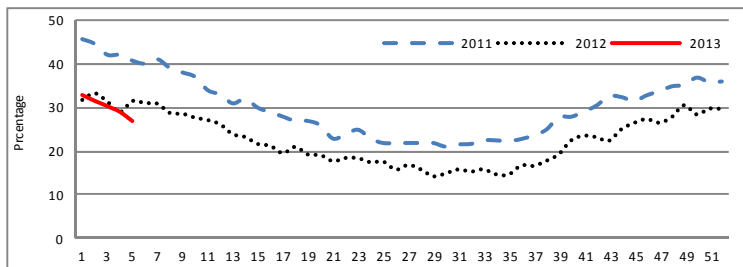
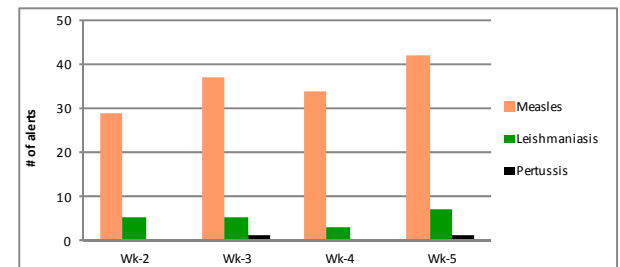


Figure-6: Number of alerts received and responded wk 2 to wk 5, 2013



Province Sindh:

956 health facilities from 23 districts in Sindh province reported to DEWS with a total of 406,828 patients consultations in week 5, 2013. Total 10 alerts were received and appropriate measures were taken. Altogether 5 alerts were for NNT; 3 for Leishmaniasis; while 1 each for Diphtheria and Pertussis. ARI trend showing minor decreasing as compared with last week.

Figure-7: Trend of ARI, province Sindh

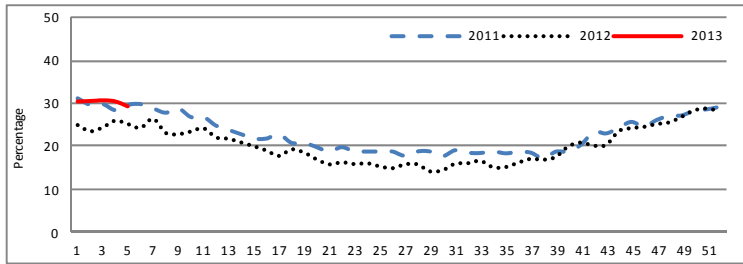
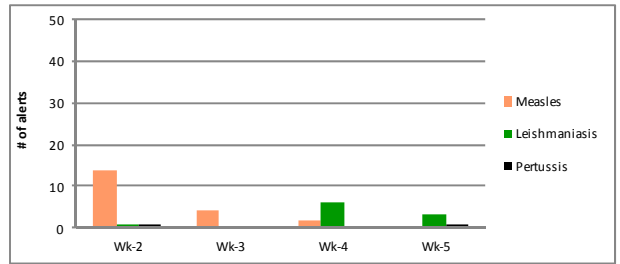


Figure-8: Number of alerts received and responded wk 2 to wk 5, 2013



Province Punjab:

458 health facilities from 9 districts in province Punjab reported to DEWS with a total of 194,661 patients consultations in week 5, 2013. Total 40 alerts were received and appropriate measures were taken. Altogether 35 for Measles; 2 each for Leishmaniasis and Typhoid; while 1 for Bloody diarrhoea. ARI trend showing Stability as compared with last week.

Figure-9: Trend of ARI, province Punjab

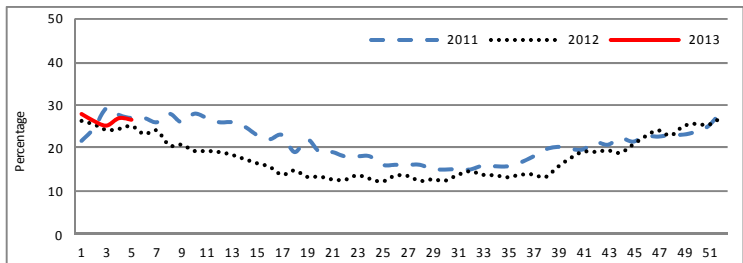
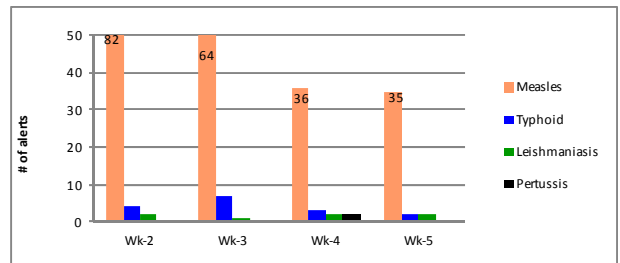


Figure-10: Number of alerts received and responded wk 2 to wk 5, 2013



Province Balochistan:

390 health facilities from 19 districts in province Balochistan reported to DEWS with a total of 61,723 patients consultations in week 5, 2013. Total 28 alerts reported and appropriate measures were taken in week 5, 2013. Altogether 18 alerts were for Measles; 7 for Leishmaniasis; 2 for Typhoid; while 1 for Bloody diarrhoea. ARI trend showing stability as compared with last week.

Figure-11: Trend of ARI, province Balochistan

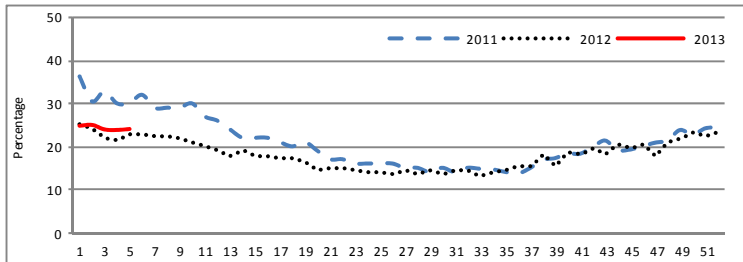
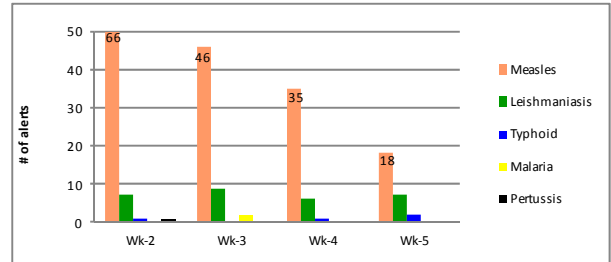


Figure-12: Number of alerts received and responded wk 2 to wk 5, 2013



Province Gilgit Baltistan:

45 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 16,814 patients consultations in week 5, 2013. No alert was reported in week 5, 2012. ARI showing decrease as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

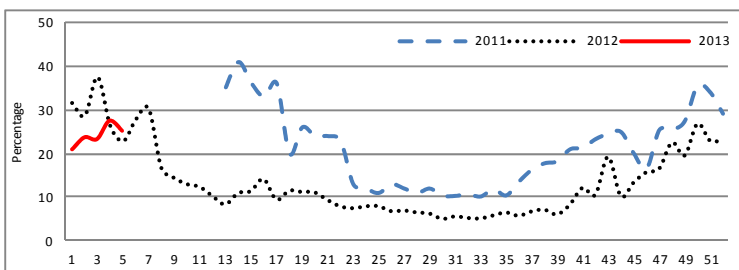
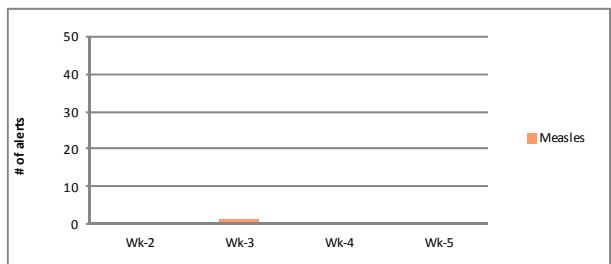


Figure-14: Number of alerts received and responded wk 2 to wk 5, 2013



FATA:

53 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,107 patients consultations in week 5, 2013. 9 alerts, 6 for Measles; while 3 for Leishmaniasis were reported in week 5, 2012 and appropriate measures were taken. ARI showing minor increase as compared with last week.

Figure-15: Trend of ARI, FATA

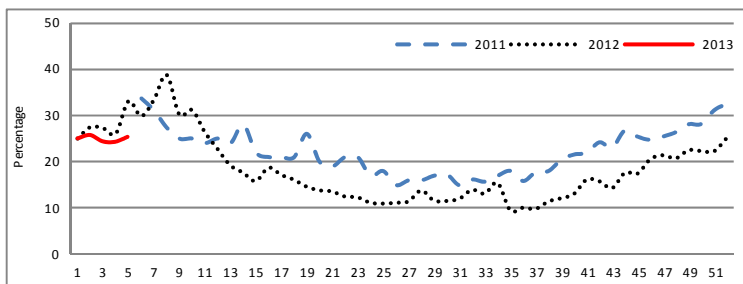
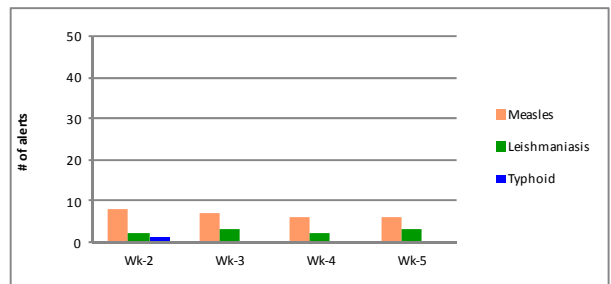


Figure-16: Number of alerts received and responded wk 2 to wk 5, 2013



State of Azad Jammu and Kashmir:

70 health facilities from 8 districts in AJ&K reported to DEWS with a total of 18,321 patients consultations in week 5, 2013. 10 alerts for Measles were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-17: Trend of ARI, AJ&K

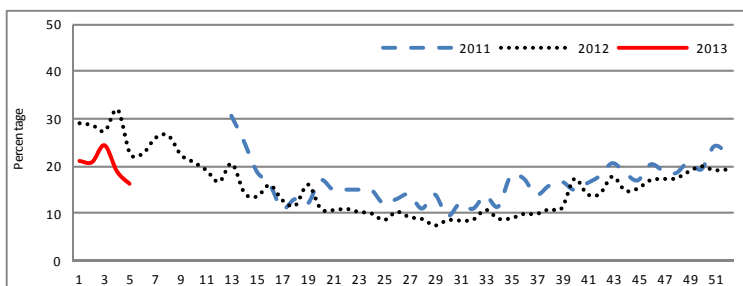


Figure-18: Number of alerts received and responded wk 2 to wk 5, 2013

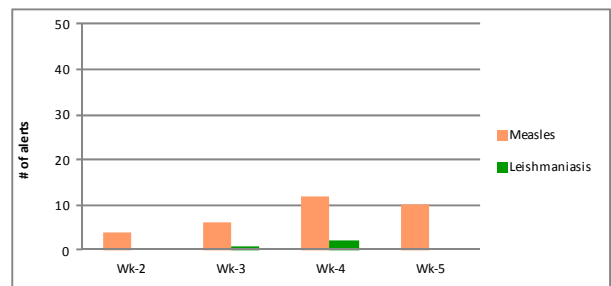
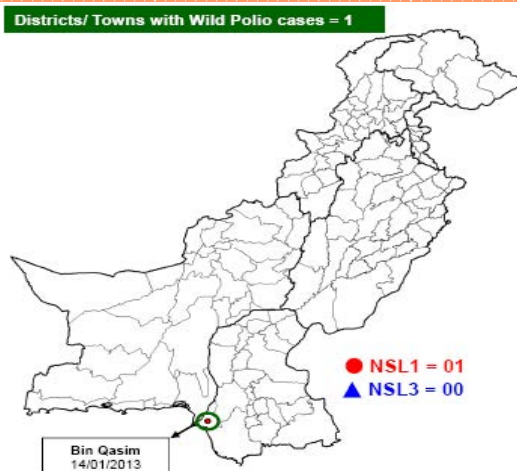


Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 2013 (week - 5)		2013 (Total up till week - 5)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	0	0	2	1
Acute jaundice syndrome	113	22	0	0	4	0
Bloody diarrhoea	146	11	2	0	4	0
CCHF	68	41	0	0	2	0
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	2	0	7	1
Measles	5921	811	112	17	779	125
Pertussis	366	147	2	0	8	1
NNT + tetanus	560	0	6	0	19	0
Malaria	136	68	0	0	2	2
Leishmaniasis	900	78	22	4	104	16
Others	1529	58	6	0	37	1
Total	10609	1452	152	21	968	152

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- As of 2 February 2013, Pakistan has reported one new type-1 wild polio case from Bin Qasim town, Karachi, Sindh. This is the first wild polio case for the year 2013. 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).

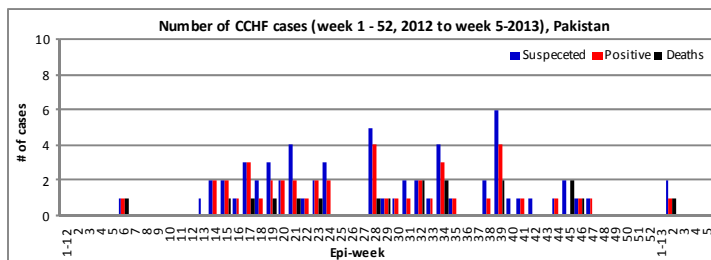


Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	-	-	-
Sindh	4	-	-	1	-	-
Khyber Pakhtunkhwa	27	-	-	-	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	1	-	-

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 5, 2013, no new CCHF case reported from the country. In the previous weeks, 2 cases of which one was lab confirmed have been reported. A 40 year old female patient admitted at the Fatima Jinnah hospital isolation ward in Quetta as a suspected case of CCHF. Laboratory results confirmed the case positive for CCHF. The epidemiological investigation revealed that brother of the case with history of Fever and bleeding from mouth and nose, in critical condition was brought to Quetta from neighboring country. The patient expired 30 minutes after arrival at a private clinic in Quetta. The confirmed patient was taking care of the suspected expired case at home for a day and accompanied him to the hospital next morning. Few days later she developed signs and symptoms and was later confirmed positive for CCHF. The first case was having clear history of animal contact (slaughtered a sheep). Furthermore there was one more suspected CCHF case (a close contact family member of the first case) expired in Afghanistan also. All the three cases have 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 (postli) 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 4 (26 Jan 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 5)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	38	4	90	0
Balochistan	446	118	1810	31	187	34	814	39
FATA	211	31	559	13	31	6	106	1
Gilgit Baltistan	40	1	54	0	2	0	12	0
ICT	27	2	63	0	7	2	35	1
Khyber Pakhtunkhwa	1989	108	3542	38	159	25	440	12
Punjab	809	40	1329	16	246	30	787	8
Sindh	2234	505	7353	212	109	24	1786	93
Total	5921	811	14978	310	779	125	4070	154

