

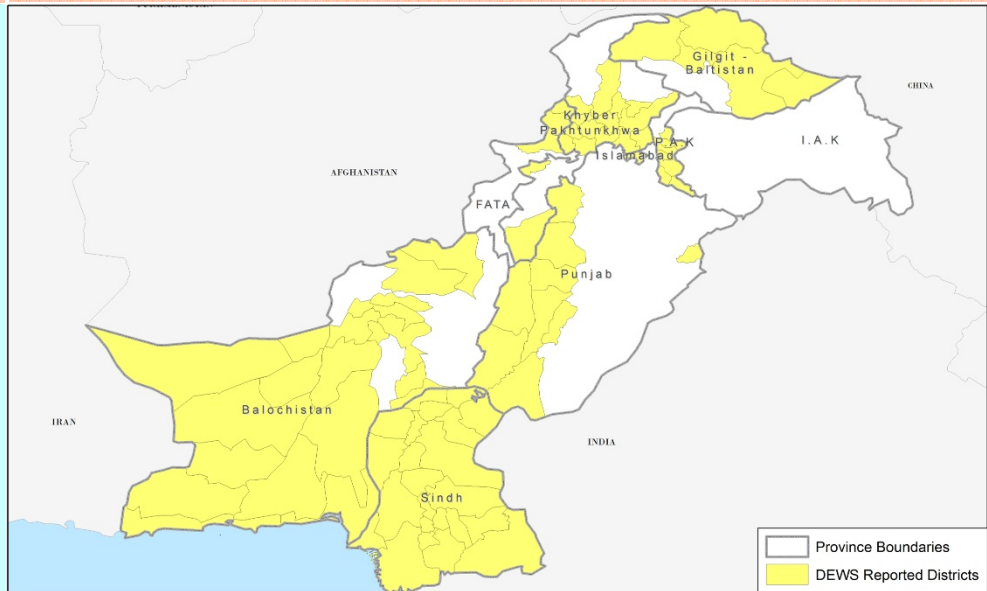


Highlights

Epidemiological week no. 6
(3 to 9 Feb 2013)

- Measles:** 139 alerts investigated this week, responding and monitoring to 15 outbreaks. 718 measles cases in 53 districts and 14 deaths reported from 6 districts this week. Vitamin-A drops provided to cases and district health teams took action to improve vaccination in affected areas.
- 80 districts** and 2481 health facilities have reported to DEWS this week 6, compared with 82 districts with 2407 health facilities shared weekly data in week 5, 2013 to the Disease Early Warning System (DEWS).
- 765,839** patients' consultations were reported in week 6, 2013 compared to **868,430** consultations reported in week 5, 2013.
- Altogether **190** alerts were investigated and response were provided to **20** outbreaks.

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



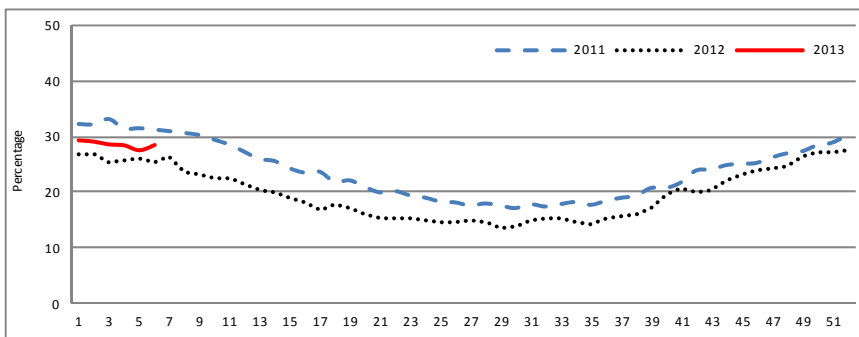
Priority diseases under surveillance in DEWS

- 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 6, 2013 (29 Dec 2012 to 9 Feb 2013)

Disease	# of Cases	Percentage
ARI	1,364,696	29%
Bloody diarrhoea	14,945	<0.5%
Acute diarrhoea	291,660	6%
S. Malaria	220,546	5%
Skin Diseases	183,098	4%
Unexplained fever	160,901	3%
Total (All consultations)	4,786,757	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-6, 2013.



Major health events reported during the Epi-week - 6 (3 to 9 Feb 2013)

Disease	# of Cases	Percentage
ARI	217,780	28%
Bloody diarrhoea	2,555	<0.5%
Acute diarrhoea	48,372	6%
S. Malaria	38,386	5%
Skin Diseases	29,856	4%
Unexplained fever	25,955	3%
Total (All consultations)	765,839	

- 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 (6/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
8-Feb	Measles	Balochistan	Lasbela	Gadani, UC Gadani, Tehsil Gadani	4	0	1	1	Alert for 6 cases of measles reported from Tehsil Gadani. During active surveillance no more cases found. Vit-A and symptomatic treatment was given to all the Patients. Health and hygiene session conducted. 1 blood sample collected and sent to NIH. All information shared with DHO .
6-Feb	Measles	Balochistan	Nasirabad	Ghot Nouroz Khan, UC Jhudair South	1	0	6	1	Alert for 2 measles cases were reported from Ghot Nouroz Khan. During investigation 6 more cases found in the community with one death due to measles complication. Vit-A and supportive treatment was provided to all the patients. Measles campaign is started in the district.
6-Feb	Measles	Balochistan	Nasirabad	Ghot Sardar Changaiz Khan Sasoli	3	0	4	0	Alert for 7 measles cases were reported. All the cases were provided Vit-A. Guardians were advised to vaccinate their children from nearby health facilities. DSV was requested for Mop up activity.
6-Feb	Pertussis	Balochistan	Chagai	Killi Fateh Mohammad Jandi Khama, UC Padag	0	6	1	9	Alert for 16 probable Pertussis cases, during investigation no more cases were found. Community was sensitized for routine immunization. Health education sessions were conducted. All information shared with district health team for improving routine immunization.
4-Feb	Measles	FATA	Khyber Agency	Village Arabi Masjid Pakora khwar, UC Bar Qambar, Tehsil Bara	2	2	2	0	Alert for suspected measles cases were reported from BHU Janbaz Killi. During active surveillance a total of 6 suspected measles cases were Found. Vitamin-A given to all the suspected measles cases. Health education was imparted. Mass measles vaccination of 45 children was done in the affected area. Information shared with Agency Surgeon, PPHI and FSMO.
9-Feb	AJS	ICT	Islamabad	EIC NIH (Kanatti Bhimbertrar)	1	1	1	3	Alert for 6 suspected cases of AJS reported, where all patients were found fully immunized. During field investigation no more cases were found. 2 blood samples were collected and both found positive for Hepatitis-A, 1 water sample also collected. Information was shared with District health authorities.
6-Feb	CCHF	ICT	Islamabad	PIMS	0	0	0	1	Alert for 1 case of CCHF was reported from PIMS Hospital, Islamabad. The patient present with history of fever and rash later developed gum bleeding. Currently the patient is stable. Health education was given. Sample sent to NIH was found positive for CCHF.
7-Feb	AJS	Khyber Pakhtunkhwa	Haripur	Village Kot Najibullah, Haripur	0	3	0	2	Alert for 5 suspected cases of AVH were reported from village Kot Najibullah. Epidemiological and Environmental assessments were carried out. Field investigation found possible source as contaminated water supply. No more cases were identified on active case finding. Health and hygiene sessions were conducted for affected families. LHV of the area was requested to report cases with suspected signs and symptoms of AVH and especially refer pregnant ladies with AVH to the nearest health facility. EDO Health was informed about the cases.
4-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Supply Bazar, Abbottabad	3	1	2	0	Alert for 6 suspected measles cases were reported from Abbotabad Supply Bazar, gave vitamin A. Field investigation and vaccination assessments are being carried out in the area. EDO Health was informed about the cases.
8-Feb	Measles	Khyber Pakhtunkhwa	Haripur	Dheenda Chawk, Haripur city	2	1	2	1	Alert for 6 suspected measles cases were reported from Dheenda chowk, Haripur. Gave vitamin A and field investigation revealed 23/48 children unvaccinated for measles 2 vaccine and 12 children missing for measles 1 vaccine. On active case finding no more cases were identified with active measles. Missed children sent to nearest health facility for vaccination. Outreach vaccination is planned in the area. EDO Health was informed.

Current week's (6/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
7-Feb	Measles	Khyber Pakhtunkhwa	Lower Dir	Village Dedan-pura, UC Maidan, Tehsil LalQilla, Dir Lower	1	2	1	1	Alert for suspected Measles cases reported from DHQ Hospital Dir Lower, the cases were from village Dedanpura, UC Maidan. WHO team investigated the case, detailed history taken from the patient and blood sample was collected and sent to NIH. Suspected case 40 years old female developed fever followed by rash. Health education session was conducted with the family and Vit.A drops given to the measles cases and contacts.
7-Feb	Measles	Khyber Pakhtunkhwa	Lower Dir	Village Sadbar, UC Sadbar Kallay, Tehsil Munda, Dir Lower	2	0	2	1	Alert for suspected Measles cases reported from DHQ Hospital Dir Lower, the cases were from village Sadbar, UC Sadbar Kallay. WHO team investigated the case detailed history was taken from the patient and blood samples were collected and sent to NIH. Suspected case 8 years old female developed fever followed by rash. Health education session was conducted with the family and Vit.A drops given to the measles cases and contacts.
8-Feb	Measles	Khyber Pakhtunkhwa	Lower Dir	Village Zawal Baba, Tehsil Timergara, Dir Lower	0	3	3	5	Alert for 2 suspected Measles cases reported from DHQ Hospital Dir Lower, the cases were from village Zawal Baba, UC Balambat. WHO team investigated the case detailed history was taken from the patients and blood samples were collected and sent to NIH. No BCG Scar and 10 out of 10 children missed Measles vaccination. Health education session was conducted with the family and Vit.A drops given to measles cases and contacts.
6-Feb	Measles	Khyber Pakhtunkhwa	Mardan	Village Pandery Balla, UC Bakhshali, Tehsil Mardan	2	1	1	2	Alert for suspected Measles cases was reported from MMC Hospital Mardan. Patient admitted at Isolation Unit with severe Pneumonia and Diarrhea, found fully vaccinated (verbal history), 2 more cases from same family were also admitted in the children Isolation unit with measles complications. Vitamin A Capsule were given, blood sample was collected. In response epidemiological assessment was carried out in the area and surroundings, 2 more clinical cases were identified in same family and few recovered cases in the neighbors, most of the children were found partially vaccinated and unimmunized for measles vaccination. all children of less than 5 years were sent to near by 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.
7-Feb	Measles	Khyber Pakhtunkhwa	Mardan	Village Sher Poor, UC Mohabat Abad, Tehsil Mardan	2	1	1	2	Alert for suspected Measles reported from Children Unit of MMC Hospital Mardan. Patient was admitted at Isolation Unit with severe Pneumonia and found unvaccinated. Vitamin-A capsule was given, blood sample was collected and sent to NIH. Epidemiological assessment was carried out in the area and surroundings, 5 more clinical cases were identified in same family and neighbors, most of the children were found unimmunized for routine vaccination. All children of under 5 years were sent to near by health facility 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.
5-Feb	Measles	Khyber Pakhtunkhwa	Swat	Village and UC Bashigram, Seraay, chail Madyan, Tehsil Behrain	2	0	4	1	Alert for suspected measles from village Bashigram, Swat. Detailed history was taken from the patients, vitamin-A drops provided and blood sample collected. WHO DEWS team along with team of DoH went to the area, during active surveillance found 6 more suspected cases. 25 children were examined, only 5 of them had BCG scars. Health education session conducted in the community regarding the importance of routine immunization. EDO Health and Coordinator EPI were informed.
6-Feb	Measles	Khyber Pakhtunkhwa	Swat	Village & UC Amankot, Near Mazoob Baba Tehsil Babozai	6	0	2	0	Alert for suspected measles from village Amankot, Near Mazoob Baba Tehsil Babozai. Detailed history was taken from the patient, vitamin-A drops provided and blood sample collected. WHO DEWS team along with team of DoH went to the area, during active surveillance 7 more cases were found. 13 children were examined, only 4 of them had BCG scars. Health education session was conducted in the community regarding the importance of routine immunization. EDO Health and coordinator EPI were informed.
8-Feb	Measles	Khyber Pakhtunkhwa	Swat	Village Sobidar Swegalai, UC koz Abakhel, Tehsil Kabal	1	1	2	1	Alert for measles reported from village Sobidar Swegalai, Swat. Detailed history was taken from the patient, vitamin-A drops provided and blood sample collected. WHO DEWS team along with team of DoH went to the area, during active surveillance four more cases were found. 15 children were examined, only 6 of them had BCG scars. Health education session was conducted in the community regarding the importance of routine immunization. EDO Health and Coordinator EPI were informed.
6-Feb	Leishmaniasis	Punjab	Rahim Yar Khan	Basti Khan Mohammad, UC Badli Sharif	0	10	0	0	Alert for 2 cases of Cutaneous Leishmaniasis reported from SZ Hospital. During active surveillance 8 more cases were identified. All the patients were provided with 5 doses of injection Glucantime each and were referred to RHC Zahir pir for treatment. The patients were also advised to cover the wound with polyfax cream. Permethrin fogging and IRS activity has been conducted in the area.
6-Feb	Measles	Punjab	D. G. Khan	Bajarwala UC Yaroo Khosa	2	0	2	1	Alert for 1 case of measles reported from DHQ hospital. On active surveillance four more cases found in the community with similar symptoms. Collected blood specimen of two cases and sent to NIH. Eight out of ten children of 9 months to 15 years age group around the house of index case have three doses of Penta with BCG scars. Advised importance of isolation of the cases from healthy children to halt the spread of disease. Provided awareness through health session for highlighting importance of vaccination of children against all the EPI diseases. Mop up vaccination started in the community.

Figure-3: Number of alerts received and responded, week 3 - 6, 2013

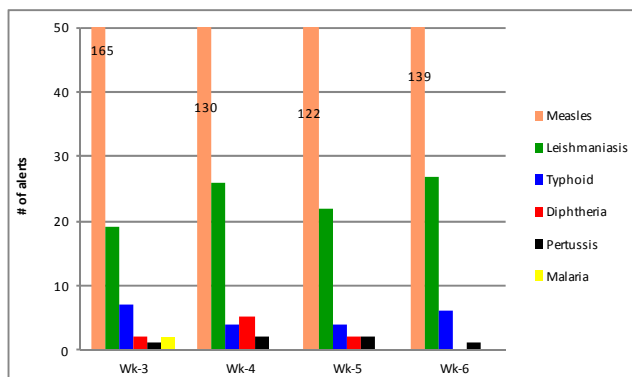
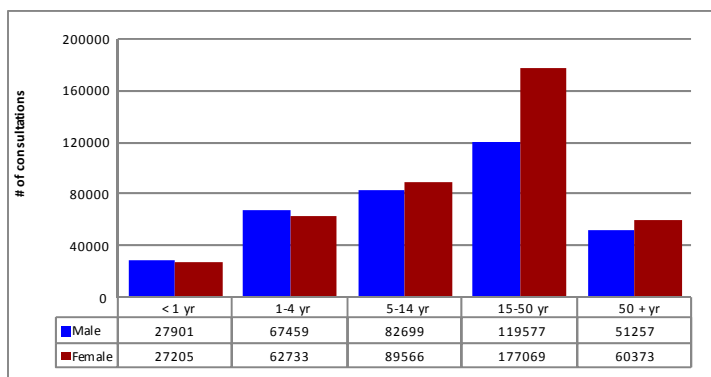


Figure-4: Number of consultations by age and gender, week 6, 2013



Province Khyber Pakhtunkhwa:

435 health facilities from 14 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 81,282 patients consultations reported in week 6, 2013. Total 66 alerts were received and appropriate measures were taken. Altogether 58 alerts for Measles; 5 for Leishmaniasis; while 1 each for As, H1N1 and NNT. ARI trend showing increase as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

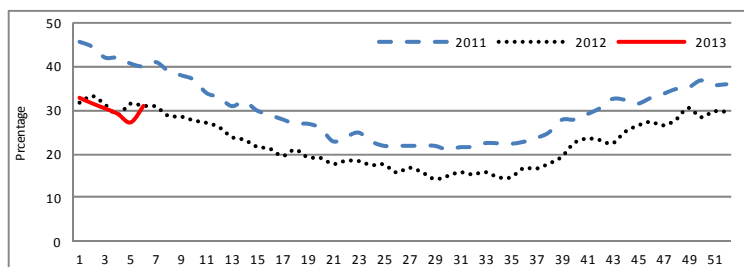
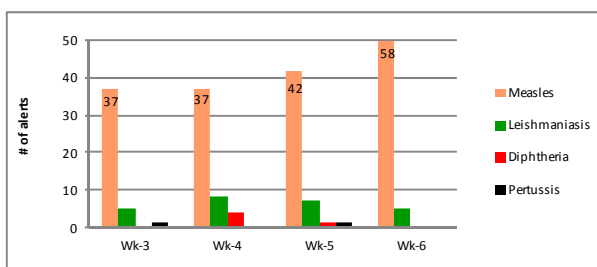


Figure-6: Number of alerts received and responded week 3 to 6, 2013



Province Sindh:

981 health facilities from 23 districts in Sindh province reported to DEWS with a total of 377,938 patients consultations in week 6, 2013. Total 17 alerts were received and appropriate measures were taken. Altogether 9 alerts were for Leishmaniasis; 6 for NNT; while 2 for Measles. ARI trend showing increase as compared with last week.

Figure-7: Trend of ARI, province Sindh

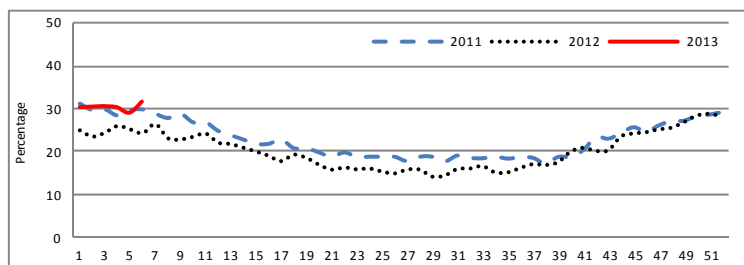
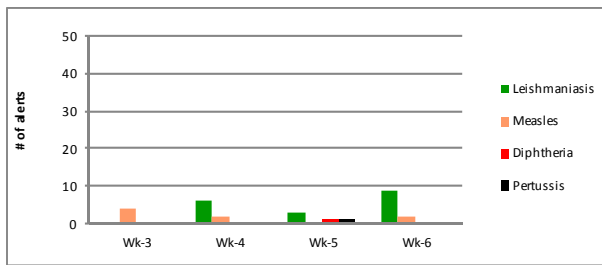


Figure-8: Number of alerts received and responded, week 3 to 6, 2013



Province Punjab:

474 health facilities from 9 districts in province Punjab reported to DEWS with a total of 202,724 patients consultations in week 6, 2013. Total 53 alerts were received and appropriate measures were taken. Altogether 44 for Measles; 4 for Leishmaniasis; 3 for Typhoid; while 1 each for Acute diarrhoea and Scabies. ARI trend showing decreasing as compared with last week.

Figure-9: Trend of ARI, province Punjab

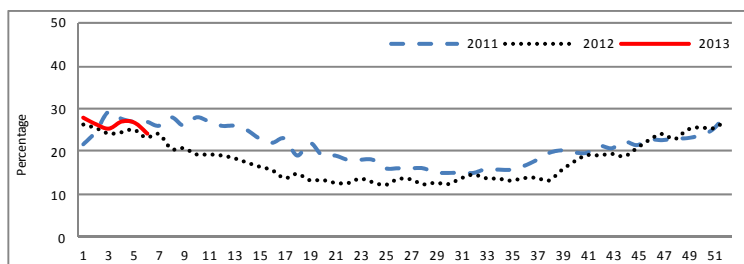
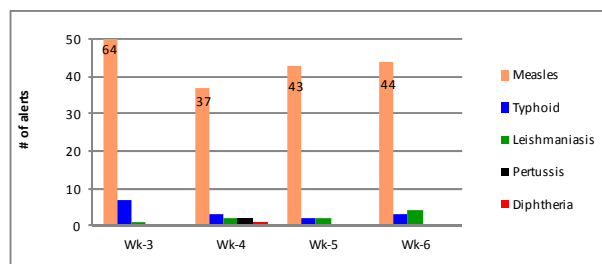


Figure-10: Number of alerts received and responded, week 3 to 6, 2013



Province Balochistan:

383 health facilities from 17 districts in province Balochistan reported to DEWS with a total of 55,733 patients consultations in week 6, 2013. Total 31 alerts reported and appropriate measures were taken in week 6, 2013. Altogether 18 alerts were for Measles; 7 for Leishmaniasis; 3 for Typhoid; while 1 each for AJS, Pertussis and Scabies. ARI trend showing minor increase as compared with last week.

Figure-11: Trend of ARI, province Balochistan

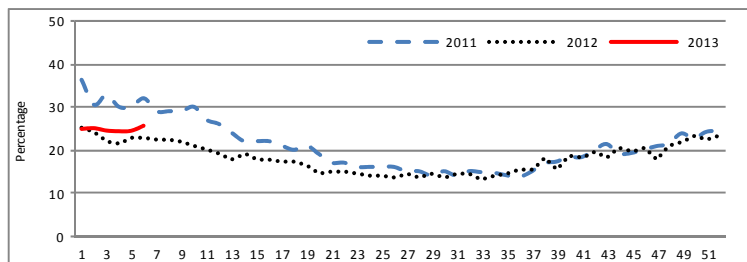
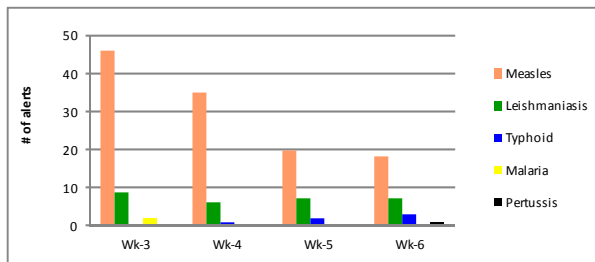


Figure-12: Number of alerts received and responded, week 3 to 6, 2013



Province Gilgit Baltistan:

50 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 18,373 patients consultations in week 6, 2013. No alert was reported in week 6, 2012. ARI showing minor decrease as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

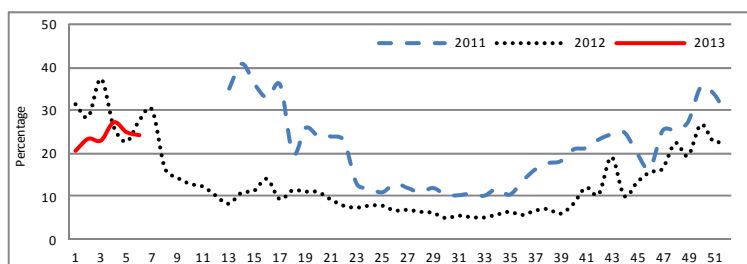
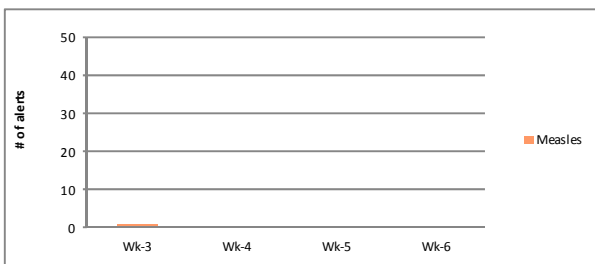


Figure-14: Number of alerts received and responded, week 3 to 6, 2013



FATA:

52 health facilities from 3 agencies in FATA reported to DEWS with a total of 8,405 patients consultations in week 6, 2013. 7 alerts, 3 for Measles; while 2 each for Leishmaniasis and NNT were reported in week 6, 2012 and appropriate measures were taken. ARI showing increase as compared with last week.

Figure-15: Trend of ARI, FATA

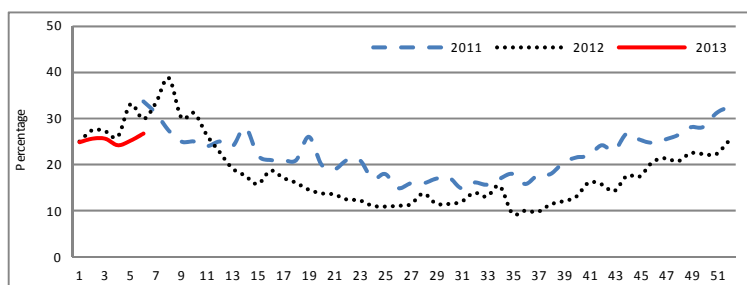
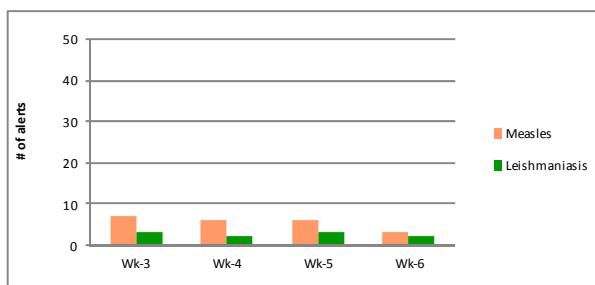


Figure-16: Number of alerts received and responded, week 3 to 6, 2013



State of Azad Jammu and Kashmir:

89 health facilities from 8 districts in AJ&K reported to DEWS with a total of 17,349 patients consultations in week 6, 2013. 13 alerts for Measles were received and appropriate measures were taken. ARI trend showing minor increase as compared with last week.

Figure-17: Trend of ARI, AJ&K

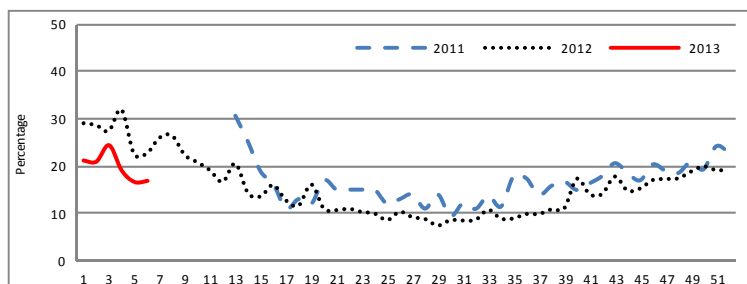


Figure-18: Number of alerts received and responded, week 3 to 6, 2013

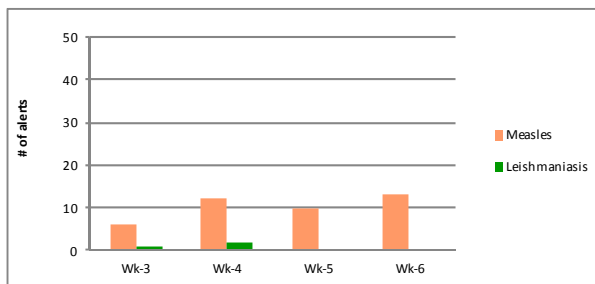


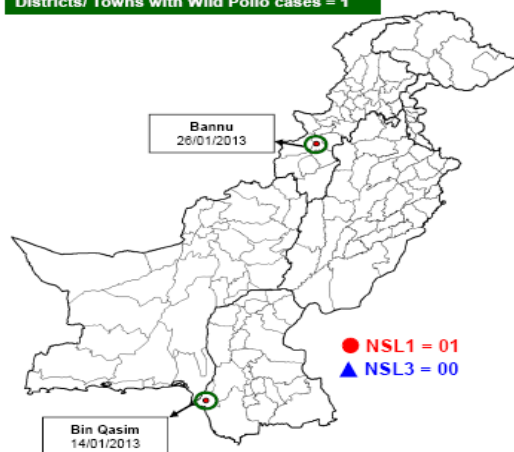
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 2013 (week - 6)		2013 (Total up till week - 6)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	0	0	2	1
Acute jaundice syndrome	113	22	3	2	7	2
Bloody diarrhoea	146	11	0	0	4	0
CCHF	68	41	1	1	3	1
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	0	0	9	1
Measles	5922	812	139	15	932	141
Pertussis	366	147	1	1	9	2
NNT + tetanus	560	0	9	0	28	0
Malaria	136	68	0	0	2	2
Leishmaniasis	900	78	27	1	136	17
Others	1529	58	10	0	47	1
Total	10610	1453	190	20	1179	168

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- In week 6, 2013, one new type-1 wild polio case was reported from Khyber Pakhtunkhwa (district Bannu), bringing the total number of polio cases to 2 for the year 2013. This is the 2nd 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).

Districts/Towns with Wild Polio cases = 1

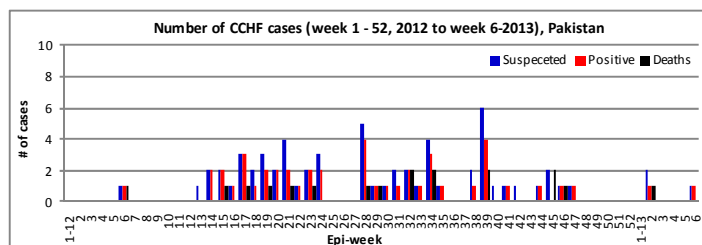


Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	-	-	-
Sindh	4	-	-	1	-	-
Khyber Pakhtunkhwa	27	-	-	1	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	2	-	-

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 6, 2013, 1 new CCHF case reported from ICT, bringing the total number of CCHF cases to 3 for the year 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 with in the normal range. The case have no epidemiological link.



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

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

Any contact of a CCHF patient should monitor his/her temperature for 14 days and see a doctor if fever develops. The anti viral medicine Ribavirin has been effective in saving lives of patients who report early to the health facility.

Focus on: Measles

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

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

Proper case management during outbreaks:

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

Measles Prevention:

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

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

Table at the bottom summarizes the situation of measles in year 2012; and illustrates the alerts and outbreaks in 2013 up till week 6 (9 Feb 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 6)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	165	6	268	0	51	4	112	0
Balochistan	447	119	1816	31	207	37	910	42
FATA	211	31	559	13	34	7	115	1
Gilgit Baltistan	40	1	54	0	2		12	0
ICT	27	2	63	0	8	2	39	1
Khyber Pakhtunkhwa	1989	108	3542	38	220	35	587	15
Punjab	809	40	1329	16	299	32	1093	14
Sindh	2234	505	7353	212	111	24	1987	96
Total	5922	812	14984	310	932	141	4855	169

Alerts and outbreaks, week 6, 2013

