

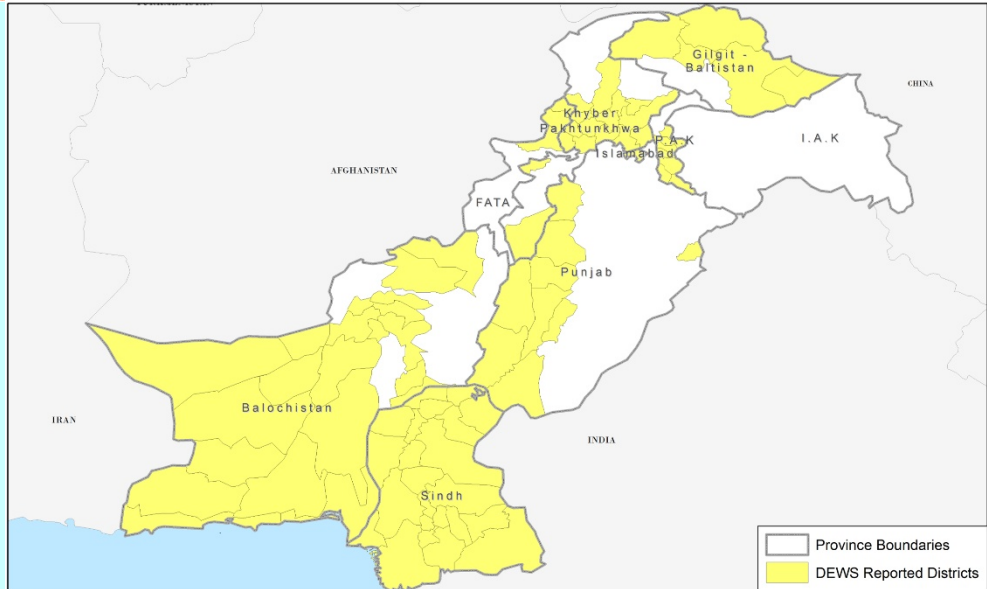


Highlights

*Epidemiological week no. 4
(20 to 26 Jan 2013)*

- **Measles:** 122 alerts investigated this week, responding to 15 outbreaks involving 743 measles cases and 25 deaths in 53 districts. Vitamin-A was provided to cases and district health teams took action to improve vaccination in affected areas.
- **80 districts** and 2406 health facilities have reported to DEWS this week 4, compared with 81 districts with 2435 health facilities shared weekly data in week 3, 2013 to the Disease Early Warning System (DEWS).
- **736,041** patients' consultations were reported in week 4, 2013 compared to **849,066** consultations reported in week 3, 2013.
- Altogether **159** alerts were investigated and response were provided to **19** outbreaks.

Figure-1: 80 districts reported to DEWS in week 4, 2013



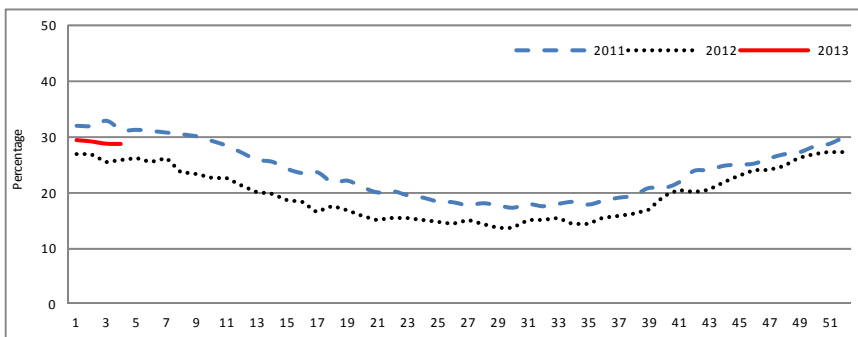
Priority diseases under surveillance in DEWS

- 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 4, 2013 (29 Dec 2012 to 26 Jan 2013)

Disease	# of Cases	Percentage
Acute diarrhoea	192,436	6%
Bloody diarrhoea	9,660	0.5%
ARI	901,751	29%
S. Malaria	142,452	5%
Skin Diseases	119,575	4%
Unexplained fever	105,424	3%
Total (All consultations)	3,123,506	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-4, 2013.



Major health events reported during the Epi-week - 4 (20 - 26 Jan 2013)

Disease	# of Cases	Percentage
Acute diarrhoea	44,774	6%
Bloody diarrhoea	2,458	<0.5%
ARI	210,231	29%
S. Malaria	33,077	4%
Skin Diseases	27,707	4%
Unexplained fever	26,913	4%
Total (All consultations)	736,041	

- 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 (4/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
22-Jan	Measles	AJK	Poonch	Vill Sahab UC Rehara Tehsil Rawalakot	1	1	0	3	Suspected Measles reported from BHU Rehara. Upon investigation with DOH team 4 more cases were found. Only one case was found unvaccinated against measles. Vit-A was given to active case and contacts. Situation was discussed with DOH and vaccination was arranged for the area and 44 children < 15 yrs of age from the village were vaccinated. Health education session was conducted in community.
23-Jan	Leishmaniasis	Balochistan	Lasbela	Bela Town, UC Bela, Tehsil Bela	3	2	1	1	Alert for 7 cases of Cutaneous Leishmaniasis reported. Cases had no travelling history. During investigation cases were found with multiple lesions, mostly on foot. No healing observed with antibiotic. Cases were treated with Glucantime injection.
23-Jan	Measles	Balochistan	Gwadar	Kalimat, Tehsil, Pasni	0	2	2	3	Alert for 7 suspected Measles cases were reported. Patients presented with typical sign and symptoms. No more case was found during active search. Health education was given to community. Two patient were immunized against measles. Information shared with DHO.
25-Jan	Measles	Balochistan	Kech	Kolaho, UC Nazarabad, Tehsil Tump	0	3	2	0	Alert for 5 suspected Measles cases were reported. One case was under vaccination age while other cases had received first dose. Vit-A first dose was given to all the suspected cases. During field investigation no more cases were found. All information was shared with DHO. The area was immunized during campaign.
21-Jan	Measles	Balochistan	Nasirabad	Ghot Mir Jamil Mengal, UC Bedar	7	0	10	1	Alert for suspected Measles was reported with 2 deaths. During field visit 16 cases were found with complication of measles. Vit-A given to children and families were sensitized. Cases were not routinely immunized. 2 cases with severe condition were referred to DHQ Hospital. Community was sensitized regarding immunization importance.
23-Jan	Measles	Balochistan	Nasirabad	Ghot Sanjar Khan Jamali, UC Quba Sher Khan Beroon area.	2	0	6	0	Alert for suspected Measles was received, 8 cases reported with one death. Area was visited along with vaccination team and vaccinated 29 children from ages 9ms - 5years. During active surveillance no more cases were found, community sensitization was carried out.
23-Jan	Leishmaniasis	FATA	Khyber Agency	Village Sam baba, UC Janbaz, Tehsil Bara	3	6	5	10	Alert for Cutaneous Leishmaniasis cases were reported from BHU Janbaz killi . A total of 24 cases were identified. Their LD tests were done in CH Jamrud Laboratory which were found positive. Bed nets were provided to all the patients . Health education was imparted, Injection Glucantime was provided by WHO. Report was shared with Agency surgeon and PPHI and Leishmaniasis focal person FATA.
24-Jan	Measles	FATA	Mohmand Agency	Village Sultan Khel, Tehsil Halimzai	1	1	5	1	Alert for suspected Measles from BHU Sultan Khel was reported. During active surveillance 8 suspected measles cases were found. The vaccination status of fifteen children in the area was assessed and only three children presented with BCG scars , the rest of the children were found unvaccinated. Vitamin A and medicine were provided for symptomatic treatment. Outreach vaccination was done in the area in which 200 children were vaccinated.
21-Jan	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Piralai & alam Khan, UC Qasim, Tehsil Takht Bhai	2	3	3	5	Alert for Cutaneous Leishmaniasis was reported from UC Qasim. On active surveillance 12 more case were identified in the area . Inj Glucantime were placed in nearby health facility for all registered cases. FPHC Mardan, Relief Int, PPHI were requested for vector control interventions in the areas and surrounding. On the job training for health staff conducted . RBM focal person was informed and requested for vector control measures in the area. EDO Health and focal person was informed.
23-Jan	Measles	Khyber Pakhtunkhwa	Battagram	Village Swargai, UC Kanai Tehsil Allai, District Batagram	0	5	2	0	Alert for suspected Measles, case was reported from Paediatric Ward, DHQ Hospital Battagram. Vit-A was given to the child on admission. There was no BCG scar observed. SO visited the ward and found two more children with Measles from the same area. SO visited the area along with EPI Technician responsible for the area. 5 more suspected cases of Measles were found and a total of 135 children of < 5 years were examined. Immunization status of the children was very poor. EPI Technicain vaccinated 96 children for Measles, 18 for BCG, 12 for Penta 1, 7 for Penta 2 and 5 for Penta 3. The report was shared with DHO Battagram and Senior Manager Health Battagram.

Current week's (4/2013) Outbreaks:

Date	Disease	Province	District	Area	<SM	>SM	<SF	>SF	Action Taken
23-Jan	Measles	Khyber Pakhtunkhwa	Shangla	Village Chagarzu banda, UC martung	3	0	1	1	Alert for suspected Measles was reported from UC Martung. The area is snow bound, a team of DoH and EPI Shangla was sent to the area. Active surveillance and vaccination were done in the area. 3 deaths and two cases were reported from the area. Outbreak was declared. Children under five years were vaccinated. 2 blood samples collected from the active cases and sent to NIH.
22-Jan	Measles	Khyber Pakhtunkhwa	Swat	village Asharban Jahanabad, UC Talegram, Tehsil Charbagh	2	2	2	1	During routine visit to SGTH, found suspected case of Measles belongs to UC Talegram, Tehsil Charbagh. Detailed history was taken from the patient, vitamin A given and blood sample collected. During active surveillance found six more measles cases. Outbreak was declared. Routine vaccination analyzed in the area, 15 children were examined, only 5 of them had BCG scars. Health education session was conducted regarding the importance of routine immunization in the community.
23-Jan	H1N1	Punjab	Rawalpindi	Holy Family (Rawalpindi/Bagh AJK)	0	0	0	2	Alert was reported from Holy Family Hospital, Rawalpindi. Upon Field investigation found 2 deaths were reported from MICU Holy Family due to Atypical Pneumonia. One deceased was found positive for H1N1.
21-Jan	Measles	Punjab	Bhakkar	Colony # 1, 5 Marla Scheme near Noorani Masjid, UC Daggar Qureshi, Tehsil Darya Khan.	2	1	1	1	Alert for 3 suspected cases of measles were reported. On active surveillance no more cases were found. Vaccination status of the locality was 75 %. Blood sample was collected and sent to NIH. Vitamin A given and second dose was ensured after 24 hours. Community awareness through health education session regarding importance of immunization. General hygiene and isolation measures were demonstrated to the community. EDO(H) informed.
24-Jan	Measles	Punjab	Lahore	Samnabad town	6	1	1	1	Alert for suspected cases of Measles reported, cases were reported from Children Hospital and Mayo hospital, Sheikh Zayed and Sir Ganga Ram hospital Teaching units. Vitamin A given and ensured the 2nd dose on next day. EPI center Established in the Government Hospital Shah Pur and Niaz Baig nearest Health Facility supervised by DDOH, LHW and Vaccinator completed the List of Children for Mass Measles vaccination campaign. Religious and community leaders were motivated for EPI coverage up to 100%. 100 children were checked for routine EPI coverage where 20 children were found to have missed second dose of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area with Measles. Blood sample of the suspected case was drawn and Throat swab was taken and sent to NIH. Health education conducted in the community. Focal Person EPI at DG Health and EDO (H) was informed, Measles surveillance cell is established at EDO office and daily report generation is started along with DEWS Team Lahore. The area would be visited on daily basis by response Team.
22-Jan	Measles	Punjab	Rajapur	Basti Lakha, UC Jahan pur, tehsil Rajapur	6	0	1	0	Alert for suspected measles was reported. On active surveillance 4 more cases of suspected measles were found in the same area with contact history to the index case. 2 more cases of suspected measles were reported by the community people during Measles alert investigation in UC Jahan pur. SO DEWS visited Chak Lakha along with EHA Rajapur team on same day for verification and response. EDOH, DSC and DDHO Rajapur and MO BHU Jahan pur were informed. Vaccination status of the locality was checked, out of 40 children only 19 had completed vaccination schedule. Blood samples from 2 of the cases were drawn and sent to NIH. The cases and contacts were given Vitamin A first dose. One child had developed post measles respiratory complication, he was immediately referred to DHQ Hospital ARI center for further management. Health education imparted regarding importance of immunization. EDOH, DSC and DDHO Rajapur were requested for Mop-up measles vaccination campaign in whole of UC Jahan pur and ensure provision of Vitamin-A second dose to all the cases and contacts.
23-Jan	Measles	Punjab	Rajapur	BHU Hazrat wala, UC Peer Bakhsh Sharqi, Tehsil Rajapur	1	0	4	0	Alert for suspected measles were reported from BHU Hazrat wala. The cases were of various ages and were residing inside BHU residential quarters. On active surveillance 3 more cases of measles were found who had recovered of their symptoms about 5 days ago. 2 of the cases were fully vaccinated while 3 cases found unvaccinated. Vaccination status of the locality was checked. Out of 14 children 10 had completed vaccination schedule. Blood samples were drawn from 4 cases and sent to NIH. The cases and their immediate contacts were given first dose of Vitamin-A. Community health education session for the importance of vaccination of their children against all the EPI diseases. General hygiene and isolation measures were demonstrated to the community. Information shared with EDOH and DSC for further action.
24-Jan	Measles	Sindh	Khairpur	Village Hafiz Haroon Chandio, UC Fakirabad, Taluka Kot Diji	1	3	2	4	Alert for suspected Measles was reported. During field investigation total 10 cases were found and investigated. Vaccination status was very poor in the village. Health education was imparted. Vitamin (A) was given. Five blood samples were collected and sent to NIH. Informed DHO, THO & TSV taluka Kotdeji.
26-Jan	Measles	Sindh	Naushahro feroze	Kandiario city UC and taluka Kandiario	0	0	3	2	Alert for suspected case of Measles was reported. During active surveillance 4 more cases were found. All the cases were found unvaccinated for Measles. Vitamin (A) first dose was given, and provide second dose for after 24 hours. Health education was imparted. Vaccination status of 14 children were assessed. BCG=(5), Measles-1=(0), Measles-2=(0). Information was shared with DHMT.

Figure-3: Number of alerts received and responded, week 1 - 4, 2013

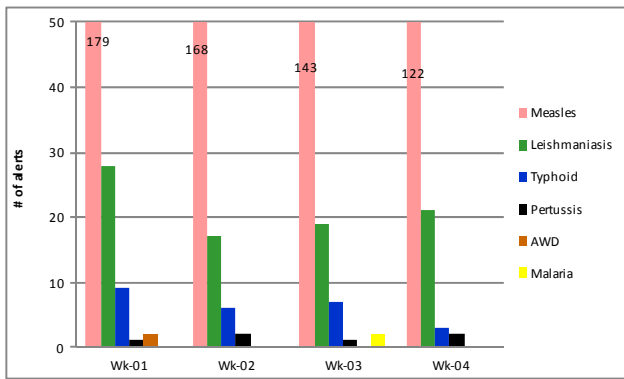
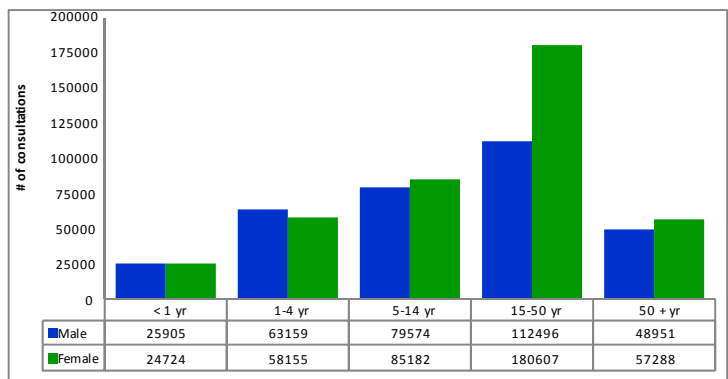


Figure-4: Number of consultations by age and gender, week 4, 2013



Province Khyber Pakhtunkhwa:

462 health facilities from 15 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 124,458 patients consultations reported in week 4, 2013. Total 42 alerts were received and appropriate measures were taken. Altogether 35 alerts for Measles; 3 for Leishmaniasis; 2 for Diphtheria; while 1 each for Bloody diarrhoea and Scabies. ARI trend showing decreasing as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

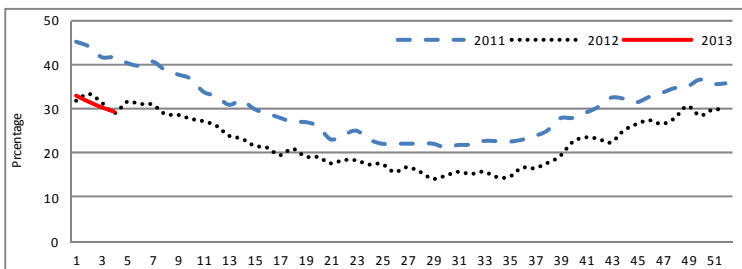
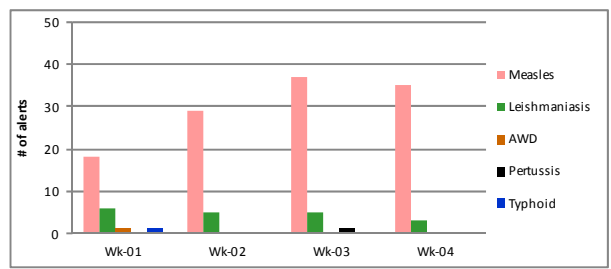


Figure-6: Number of alerts received and responded wk 1 to wk 4, 2013



Province Sindh:

950 health facilities from 23 districts in Sindh province reported to DEWS with a total of 330,154 patients consultations in week 4, 2013. Total 10 alerts were received and appropriate measures were taken. Altogether 6 alerts were for Leishmaniasis; 2 for Measles; while 1 each for AJS and NNT. ARI trend showing stability as compared with last week.

Figure-7: Trend of ARI, province Sindh

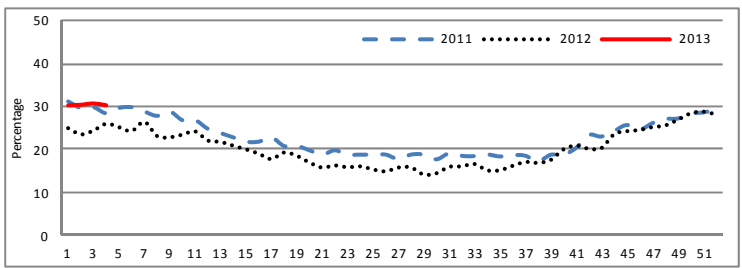
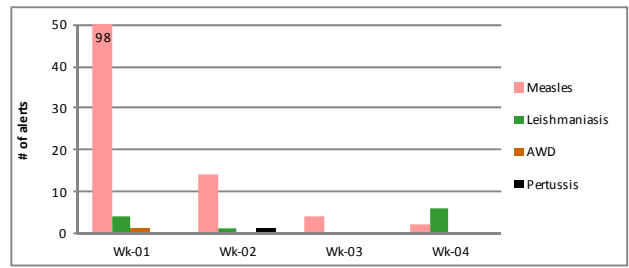


Figure-8: Number of alerts received and responded wk 1 to wk 4, 2013



Province Punjab:

427 health facilities from 9 districts in province Punjab reported to DEWS with a total of 182,583 patients consultations in week 4, 2013. Total 40 alerts were received and appropriate measures were taken. Altogether 31 for Measles; 2 each for Leishmaniasis; Pertussis and Typhoid; while 1 each for Bloody diarrhoea, H1N1 and Diphtheria. ARI trend showing increase as compared with last week.

Figure-9: Trend of ARI, province Punjab

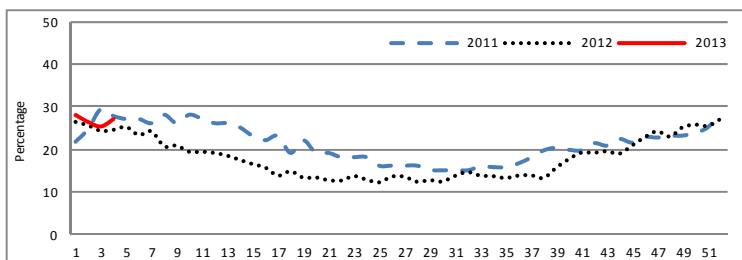
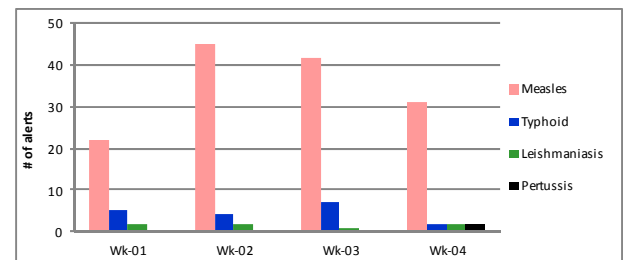


Figure-10: Number of alerts received and responded wk 1 to wk 4, 2013



Province Balochistan:

403 health facilities from 19 districts in province Balochistan reported to DEWS with a total of 61,672 patients consultations in week 4, 2013. Total 44 alerts reported and appropriate measures were taken in week 4, 2013. Altogether 35 alerts were for Measles; 6 for Leishmaniasis; 2 for NNT; while 1 for Typhoid. ARI trend showing minor decreasing as compared with last week.

Figure-11: Trend of ARI, province Balochistan

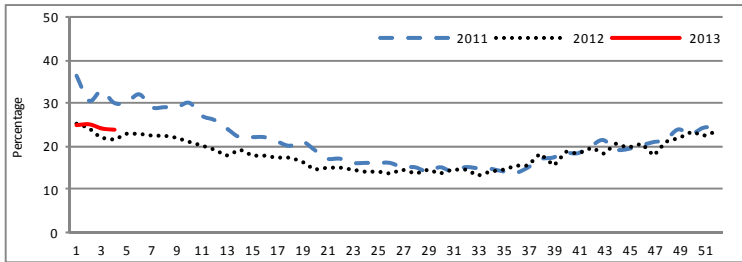
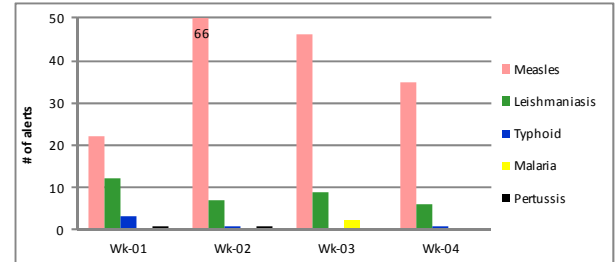


Figure-12: Number of alerts received and responded wk 1 to wk 4, 2013



Province Gilgit Baltistan:

37 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 10,385 patients consultations in week 4, 2013. No alert was reported in week 4, 2012. ARI showing increase as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

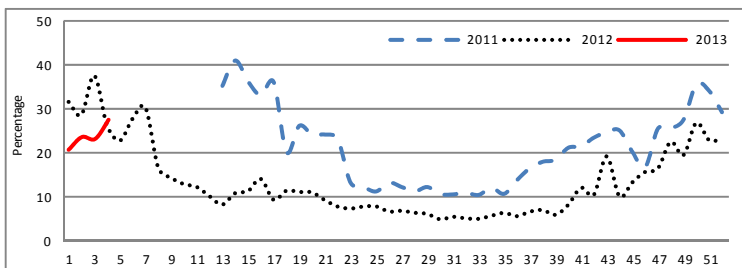
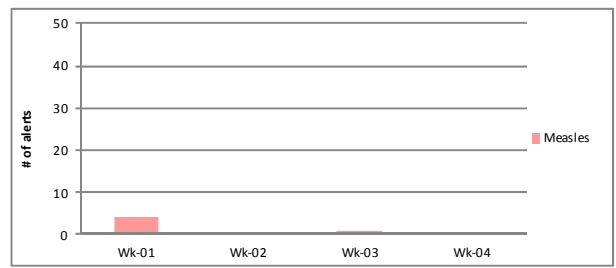


Figure-14: Number of alerts received and responded wk 1 to wk 4, 2013



FATA:

55 health facilities from 3 agencies in FATA reported to DEWS with a total of 12,512 patients consultations in week 4, 2013. 8 alerts, 6 for Measles; while 2 each for Leishmaniasis were reported in week 4, 2012 and appropriate measures were taken. ARI showing minor decrease as compared with last week.

Figure-15: Trend of ARI, FATA

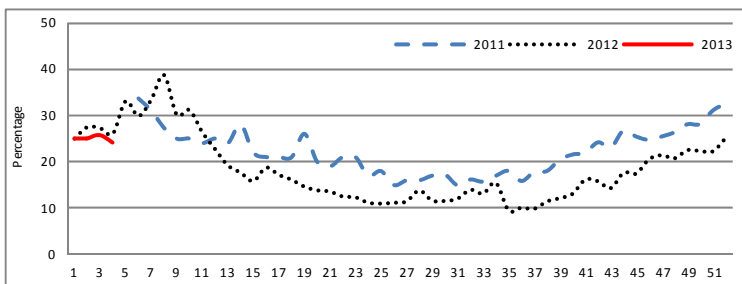
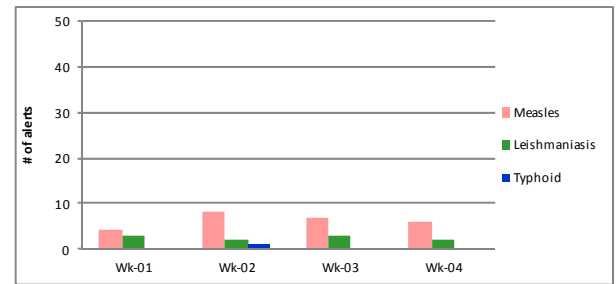


Figure-16: Number of alerts received and responded wk 1 to wk 4, 2013



State of Azad Jammu and Kashmir:

57 health facilities from 5 districts in AJ&K reported to DEWS with a total of 9,856 patients consultations in week 4, 2013. 14 alerts, 12 for Measles; while 2 for Leishmaniasis were received and appropriate measures were taken. ARI trend showing decrease as compared with last week.

Figure-17: Trend of ARI, AJ&K

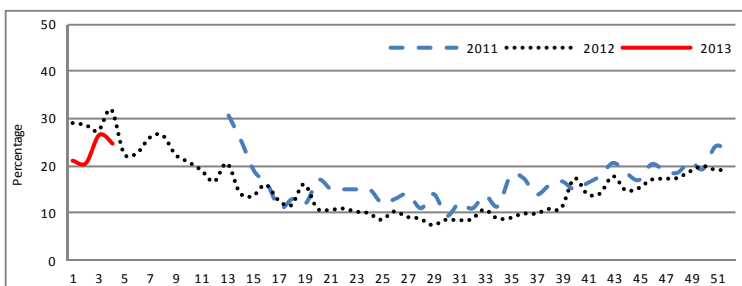


Figure-18: Number of alerts received and responded wk 1 to wk 4, 2013

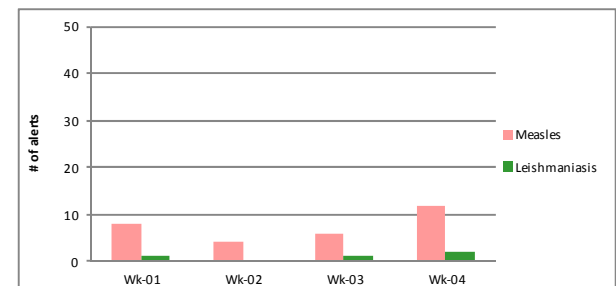


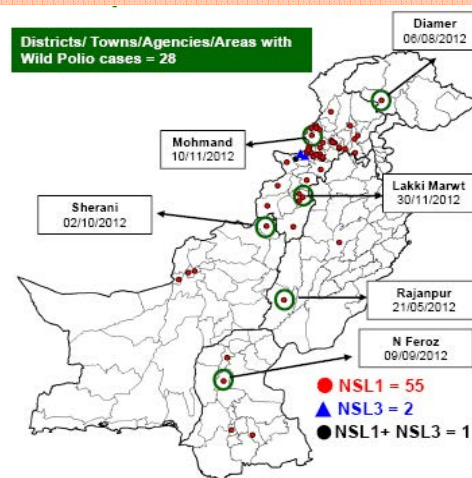
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 2013 (week - 4)		2013 (Total up till week - 4)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	0	0	2	1
Acute jaundice syndrome	113	22	1	0	4	0
Bloody diarrhoea	146	11	2	0	2	0
CCHF	68	41	0	0	1	0
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	3	0	5	1
Measles	5873	790	122	15	612	110
Pertussis	366	147	2	0	6	1
NNT + tetanus	560	0	3	0	13	0
Malaria	136	68	0	0	2	2
Leishmaniasis	899	78	21	3	85	12
Others	1528	58	5	1	35	1
Total	10559	1431	159	19	767	128

Distribution of Wild Polio Virus cases Pakistan 2012 and 2013

- As of 26 January 2013, Pakistan has reported no new cases from any district. In year 2012, a total of 58 polio cases including 55 type-1; 2 type-3; and 1 mixture type-1 and 3 cases from 28 districts/tribal agencies .

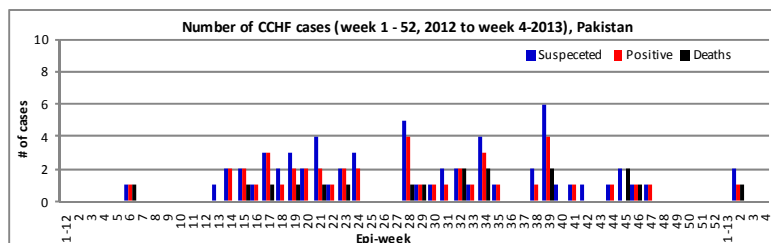
Province	2012			2013		
	P1	P3	P1+P3	P1	P3	P1+P3
Punjab	2	-	-	-	-	-
Sindh	4	-	-	-	-	-
Khyber Pakhtunkhwa	27	-	-	-	-	-
FATA	17	2	1	-	-	-
Balochistan	4	-	-	-	-	-
AJ&K	-	-	-	-	-	-
Gilgit-Baltistan	1	-	-	-	-	-
Islamabad	-	-	-	-	-	-
Total	55	2	1	-	-	-



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 4, 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 (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 4 (26 Jan 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 4)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	163	6	265	0	30	4	79	0
Balochistan	446	118	1810	30	169	32	673	38
FATA	211	31	559	13	25	5	90	1
Gilgit Baltistan	37	1	50	0	5	0	16	0
ICT	27	2	63	0	6	2	30	1
Khyber Pakhtunkhwa	1988	108	3539	38	119	12	298	6
Punjab	807	38	1318	16	140	31	474	6
Sindh	2177	484	7219	213	118	24	1536	79
Total	5856	788	14823	310	612	110	3196	131

Alerts and outbreaks, week 4, 2013

