

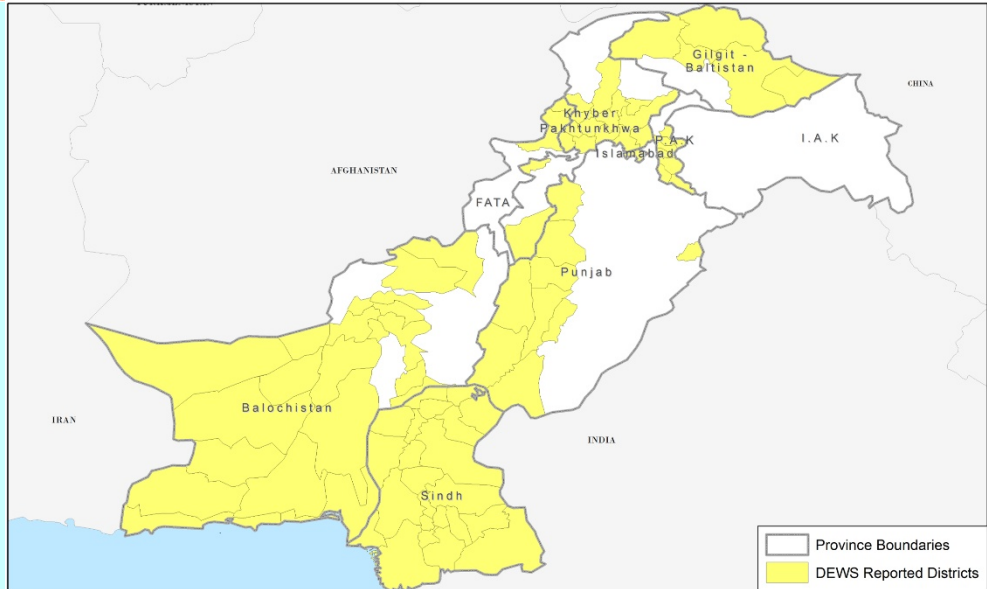


Highlights

Epidemiological week no. 3
(13 to 19 Jan 2013)

- **Measles:** 134 alerts investigated this week, responding to 22 outbreaks involving 661 measles cases and 26 deaths in 48 districts. Vitamin-A was provided to cases and district health teams took action to improve vaccination in affected areas.
- **81 districts** and 2435 health facilities have reported to DEWS this week 3, compared with 80 districts with 2190 health facilities shared weekly data in week 2, 2013 to the Disease Early Warning System (DEWS).
- **839,157** patients' consultations were reported in week 3, 2013 compared to **802,888** consultations reported in week 2, 2013.
- Altogether **168** alerts were investigated and response were provided to **28** outbreaks.

Figure-1: 81 districts reported to DEWS in week 3, 2013



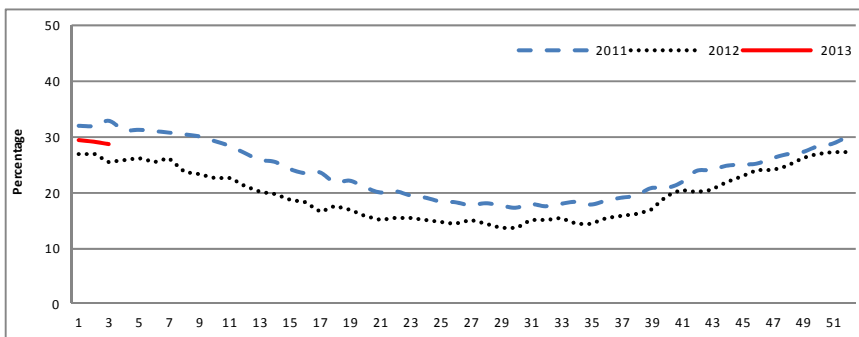
Priority diseases under surveillance in DEWS

- 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 3, 2013 (29 Dec 2012 to 19 Jan 2013)

Disease	# of Cases	Percentage
Acute diarrhoea	146,711	6%
Bloody diarrhoea	7,147	0.5%
ARI	689,149	29%
S. Malaria	108,847	5%
Skin Diseases	91,477	4%
Unexplained fever	78,053	3%
Total (All consultations)	2,376,286	

Figure-2: Weekly trend of Acute Respiratory Infection (ARI) in Pakistan; Week-1, 2011 to week-3, 2013.



Major health events reported during the Epi-week - 3 (13 - 19 Jan 2013)

Disease	# of Cases	Percentage
Acute diarrhoea	50,507	6%
Bloody diarrhoea	2,453	<0.5%
ARI	240,764	29%
S. Malaria	37,126	4%
Skin Diseases	31,542	4%
Unexplained fever	27,492	3%
Total (All consultations)	839,157	

- 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 (3/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
15-Jan	Leishmaniasis	Balochistan	Killa Saifullah	Muslim Bagh, town area, Tehsil Muslim Bagh	1	9	0	5	Alert for Cutaneous Leishmaniasis, 15 cases were reported and investigated. Health session conducted and treatment as per WHO protocol was given at Leishmaniasis centre established at THQ hospital.
18-Jan	Leishmaniasis	Balochistan	Lasbela	Winder, UC Winder, Tehsil Sonmiani	0	4	1	2	Alert for 7 cases of Cutaneous Leishmaniasis reported. All the cases observe no travel history. No more cases found during active search. Treatment was provided up to WHO protocol. Information shared with DHO.
15-Jan	Malaria	Balochistan	Harnai	Ghurmai, UC Harnai urban, Tehsil Harnai	0	6	0	5	Alert for suspected Malaria was received. Slide positivity rate was 54.5%. Total 11 slides were tested and 6 were positive. Out of those 1 PF and 5 PV positive. Cases were from the same location. Merlin (INGO) is functional in the district and support malarial activities. Medicine were already available there with investigation facilities. Matter was discussed with the Merlin focal person and DHO, district Harnai. Patients are under treatment.
15-Jan	Malaria	Balochistan	Harnai	Zardaloo, UC Khost, Tehsil Shahrig	0	10	0	8	Alert for suspected Malaria received. 18 slides tested, out of which 9 verified positive with 50% of SPR. Out of those 3 PF, 4 PV and 2 MP positive. Investigation was completed. Cases were from one location. Medicines were already available in nearest HF. Merlin is functional in the district and support malarial activity. DHO and Merlin Focal person was informed.
17-Jan	Measles	Balochistan	Nasirabad	Ghot Mir Hazoor Bakhsh Jatak	3	0	2	0	Alert for Measles 5 cases were reported including one death. Cases were provided treatment as per scenario along with vit-A. Neighboring 5 Goths were searched for more cases but not found any. DHO was coordinated and mop-up activity is going on.
19-Jan	Measles	Balochistan	Nasirabad	Ghot Abdul Wahid Lango, UC Manjhoti-1	3	0	4	0	Alert for Measles received by DSV. Area was visited and found 7 cases along with one death. Patients were presented with complication of Measles. Vit A given to all the patients. Information shared with EPI and DHO. Mop-up activity is continue.
19-Jan	Measles	Balochistan	Nasirabad	Ghot Sona Khan Bugti, UC Manjhoti-2	3	0	6	0	Alert for Measles reported by community. Investigation was done on time and appropriate response given. 9 cases were reported with 3 deaths. None of the case was routinely immunized. Vit A given to patients. 2nd dose given to parents to be given on second day. EPI Coordinator and DHO informed and mop-up activity has started.
17-Jan	Measles	FATA	Mohmand Agency	Village Babi Khel, Halimzai, Tehsil Ghalanai, Mohmand Agency	1	2	5	2	Alert for Measles, WHO DEWS team responded to the alert and visited AHQ. After a meeting with CMO AHQ, a response team comprising of DEWS team and an EPI team from AHQ went for the response. 9 more suspected Measles cases were identified on active surveillance in the area. The team also enquired about the death but no clue relating the death from Measles could be found. Two blood samples were collected. Vitamin A drops were provided to all the cases and WHO team also provided medicine to the patients for symptomatic treatment. Agency Surgeon and FSMO informed about the outbreak. Mass measles vaccination done in which 300 children were vaccinated.
17-Jan	Diphtheria	CT	Islamabad	PIMS (G 11/2)	0	1	0	0	DD PIMS reported 1 Diphtheria case, confirmed by NIH. Health education with preventive measures was conducted to contacts and were advised prophylactic antibiotics, 2 samples collected were from contacts.
14-Jan	Leishmaniasis	Khyber Pakhtunkhwa	Mardan	Village Kandao, Sorai khowa, UC Kharki, Tehsil Takht Bhai	3	4	5	6	Alert for Cutaneous Leishmaniasis was reported from UC Baizo Kharki. During active surveillance 17 more clinical cases were identified in the area and surrounding. Required doses of Inj Glucantime were placed in nearby health facility for all registered cases. FPCH 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 areas. EDO Health and focal person was informed.
16-Jan	Measles	Khyber Pakhtunkhwa	Haripur	Village Sikandarapur	13	9	18	6	Alert for suspected Measles case was reported from village Sikandarapur, gave vitamin A. Field investigation found 8/26 children unvaccinated for measles 2 vaccine and 4 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. EDO Health was informed about the cases
14-Jan	Measles	Punjab	D. G. Khan	Alishah wala uc Chorratta	2	1	2	0	Alert for suspected Measles case reported and four other cases found during active surveillance, RRT and SO DEWS examined the children who have history of fever rash (maculopapular) cough and Coryza. Serum specimen of two children sent to NIH for detection of measles specific Ig M. Children given vitamin A doses. 10 out of 12 children of 9 month to 12 year of age have three doses of Penta with BCG scars whereas measles vaccination is zero in all the children examined. There is reported one death in the house of index case after remaining ill for one week with fever, cough, coryza, conjunctivitis and rash. Out reach Measles vaccination is not done in their area according to parents. 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 their children against all the EPI diseases. Measles vaccination is planned by DSV of the district on the advise of EDO.
15-Jan	Measles	Punjab	D. G. Khan	Sayar wala uc Paigan	4	0	1	0	Alert for suspected measles case reported from DHQ and on active surveillance five new cases and one death due to suspected measles detected. Blood serum specimen of two children sent to NIH for detection of measles specific Ig M. Children given vitamin A doses. 16 children of 9 month to 12 year of age checked in the locality 14 have routine vaccination doses of Penta but only 3 have measles vaccination one dose in all the children examined. There is reported one death in the neighboring house of index case after remaining ill for one week with fever, cough Coryza, conjunctivitis and rash. Advised importance of isolation of the cases from healthy children to halt the spread of disease. Health session conducted for highlighting importance of vaccination of the children against all the EPI diseases. Measles vaccination is planned by the DSV.
13-Jan	Measles	Punjab	Lahore	Allama Iqbal Town	5	2	1	1	Alert for Measles, 6 cases were reported from Children Hospital, Jinnah Hospital and Sheikh Zayed Hospital Teaching units. The suspects has been given 1st dose of vitamin A at these hospitals while vaccinator and LHS were advised to deliver 2nd dose on 2nd day. During active surveillance 3 more cases were found. 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 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 along with Measles. Blood sample of the suspected case was drawn and throat swab was taken and sent to NIH for Measles detection. Health education to mothers in the community was conducted with the help of LHW. 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

Cont'd current week's (3/2013) Outbreaks:

Date	Disease	Province	District	Area	<5M	>5M	<5F	>5F	Action Taken
13-Jan	Measles	Punjab	Lahore	Ravi Town	8	0	3	2	Alert for 10 Measles cases were reported from Mayo, Children, Yaki Gate Hospitals. The suspects has been given 1st dose of vitamin A at hospitals while vaccinator and LHS were advised to deliver 2nd dose on 2nd day. During active surveillance 3 more cases were found. EPI center established in the Government Hospital Shah dara Hospital nearest Health Facility supervised by DDOH,LHW and Vaccinator completed the List of Children for Mass Measles campaign. Religious and community leaders were motivated for EPI Coverage up to 100%. 40 children were checked for routine EPI coverage where 9 children were found to have missed second dose of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area along with Measles. Blood sample of the suspected case was drawn and throat swabs were taken and send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHW. 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.
14-Jan	Measles	Punjab	Lahore	Shalimar Town	6	2	0	1	Alert for 7 Measles cases were reported from Mayo, Children, Yaki Gate, and Sir Ganga Ram Hospitals. The suspects has been given 1st dose of vitamin A at these hospitals while vaccinator and LHS were advised to deliver 2nd dose on 2nd day. Active surveillance done and 2 more cases were found. Blood sample of the suspected case was drawn and throat swab was taken and sent to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHW. 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
14-Jan	Measles	Punjab	Lahore	Nishter Town	4	0	3	0	Alert for 6 Measles cases were reported from Children hospital Lahore, given 1st dose of vitamin A at Mayo hospital while vaccinator and LHS were advised to deliver 2nd dose on 2n day. During active surveillance 1 more case was found. 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.
15-Jan	Measles	Punjab	Lahore	Aziz Bhatti Town	2	1	3	0	Alert for 5 suspected Measles cases reported from different localities of Aziz Bhatti Town. The suspects has been given 1st dose of vitamin A at Children hospital, Ghurki Hospital and Sir Ganga Ram Hospital while vaccinator and LHS were advised to deliver 2nd dose on 2nd day. During active surveillance 1 case was found. 20 children were checked for routine EPI coverage where 7 children were found to have missed second doze of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area. Blood sample of the suspected case was drawn and send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHS.
15-Jan	Measles	Punjab	Lahore	Cantonment Town	3	0	4	0	Alert for 4 suspected Measles cases reported from different localities of Cantonment town. The suspects has been given 1st dose of vitamin A at Children hospital and Lahore General Hospital while vaccinator and LHS were advised to deliver 2nd dose on 2nd day. During active surveillance 3 more cases were found. 20 children were checked for routine EPI coverage where 6 children were found to have missed second doze of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area along with Measles. Blood sample of the suspected case was drawn and throat swabs were taken and send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHS.
16-Jan	Measles	Punjab	Lahore	Data Ganj Bakhsh Town	4	0	3	0	Alert for 4 suspected Measles cases reported from Data Ganj Bakhsh Town. The suspects has been given 1st dose of vitamin A at Children hospital, Mayo and Sir Ganga Ran Hospital while vaccinator and LHS were requested to deliver 2nd dose on 2nd day. During active surveillance 3 more cases were found. 22 children were checked for routine EPI coverage where 8 children were found to have missed second doze of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area along with Measles. Blood sample of the suspected case was drawn and throat swab was taken and send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHS.
17-Jan	Measles	Punjab	Lahore	Gulberg Town	2	0	5	0	Alert for 5 suspected cases of Measles were reported from Goldberg Town. The suspects has been given 1st dose of vitamin A at Children hospital, Ittefaq and Lahore general Hospital while vaccinator and LHS were requested to give 2nd dose on 2nd day. During active surveillance 2 more cases were found. 30 children were checked for routine EPI coverage where 12 children were found to have missed second doze of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the arealong with Measles. Blood sample of the suspected case was drawn and throat swab was taken and send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHS.
18-Jan	Measles	Punjab	Lahore	Wahga Town	2	1	3	0	Alert for 3 suspected Measles cases reported from Wahga Town. Given 1st dose of vitamin A and LHS were requested to give 2nd dose on 2nd day. 24 children were checked for routine EPI coverage where 8 children were found to have missed second doze of Measles. Vaccinator was requested to ensure 100% EPI vaccination in the area along with Measles. Blood sample of the suspected case was drawn send to NIH for Measles specific IgM detection. Health education to mothers in community was conducted with the help of LHS.
14-Jan	Measles	Punjab	Muzaffargarh	Basti Beema, Moza Noor Kubra, UC Bhutta Pur, Muzaffargarh	1	3	2	3	Alert for suspected Measles case was given 1st dose of vitamin-A while 2nd was handed over to mother for administration on next day. Neighboring 10 house holds were visited where 8 more similar cases were found and referred to BHU Bhutta Pur/DHQ. During active surveillance, among 15 children of age 9 months – 5 years, 11 were having BCG scar & 5 had received single dose of Measles vaccine. While, among 13 children among age group 5-15 years, 9 had BCG scar & parents also couldn't clearly remind administration of Measles vaccine. Vaccinator was advised by DOH to ensure 100% coverage of all due defaulters & to administer Measles vaccine to all children of age 7 months to 15 years in the area within this week. Blood sample of the suspected case was collected and send to NIH.
14-Jan	Measles	Punjab	Rahim Yar Khan	Basti Rasool Bux, Taranda Mohd Panah, Tehsil Liaqatpur	2	3	4	0	Alert for suspected Measles case reported from RHCTM Panah. 5 cases were reported by RHC Taranda Muhammad Panah suffering from fever, cough, Coryza along with maculopapular rash. On active surveillance 4 more cases were identified from 2 nearby villages. Blood sample was collected and sent for confirmation. 1 dose of Vitamin A was given on the spot to all cases while 2nd dose was provided to the parents to be administered on next day. Concerned vaccinator had started a mass vaccination campaign in the area and 3 nearby locations had already been vaccinated. SO and DOH planned an immediate sweep vaccination activity in 11 UCs of tehsil Liaqatpur with EPI staff. A Health education session was conducted with community about prevention from measles. List of identified missed cases shared with vaccinator.
17-Jan	Measles	Punjab	Rahim Yar Khan	THQ Sadiqabad Sadiqabad City	2	1	2	0	Alert for 4 suspected Measles cases reported from THQ. A blood sample was collected and sent for confirmation. 1st dose of Vitamin A was given on the spot while 2nd dose was provided to the parents to be administered on next day. Health education session was conducted with community about prevention from measles. DOH in consultation with SO-DEWS planned and ordered a comprehensive sweep vaccination activity in 13 UCs of Sadiqabad Tehsil especially those UCs bordering Sindh province by providing additional resources to EPI teams.

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

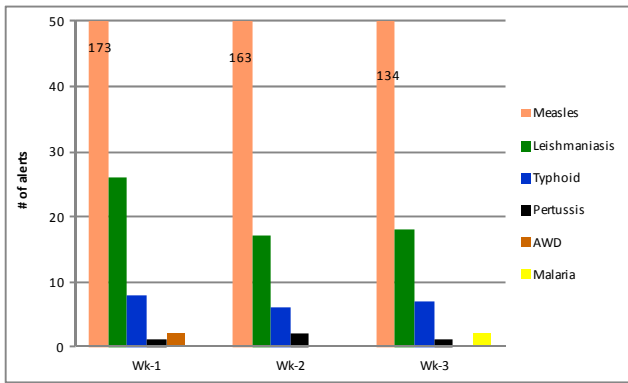
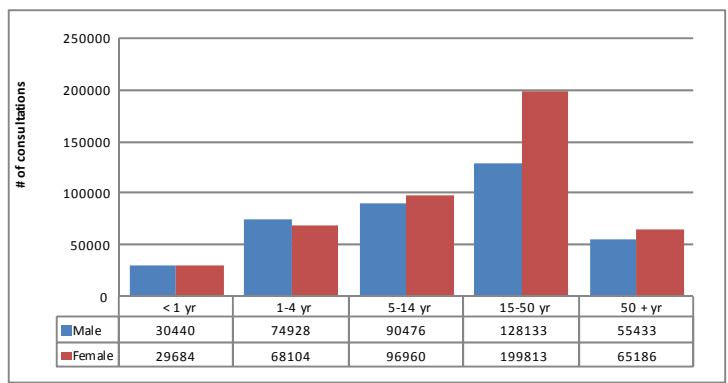


Figure-4: Number of consultations by age and gender, week 3, 2013



Province Khyber Pakhtunkhwa:

490 health facilities from 16 districts of Khyber Pakhtunkhwa sent reports to DEWS with a total of 132,291 patients consultations reported in week 3, 2013. Total 45 alerts were received and appropriate measures were taken. Altogether 37 alerts for Measles; 5 for Leishmaniasis; while 1 each for NNT, Pertussis and H1N1. ARI trend showing decreasing as compared with last week.

Figure-5: Trend of ARI, province Khyber Pakhtunkhwa

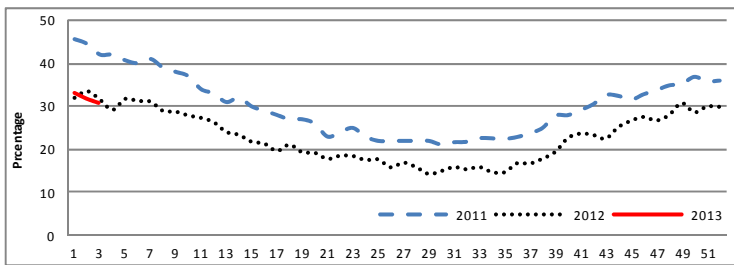
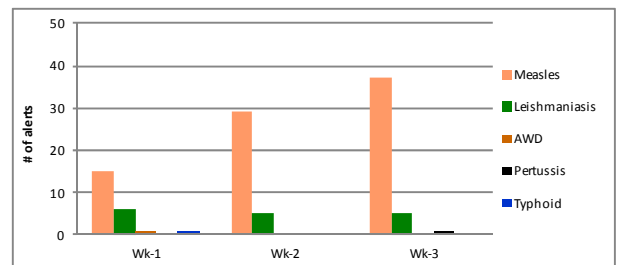


Figure-6: Number of alerts received and responded wk 1 to wk 3, 2013



Province Sindh:

955 health facilities from 23 districts in Sindh province reported to DEWS with a total of 412,171 patients consultations in week 3, 2013. Total 2 alerts for Measles were received and appropriate measures were taken. ARI trend showing stability as compared with last week.

Figure-7: Trend of trend of ARI, province Sindh

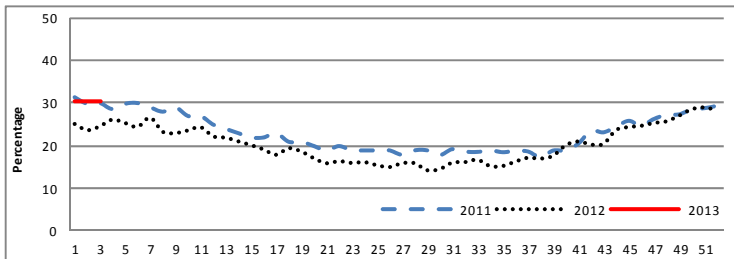
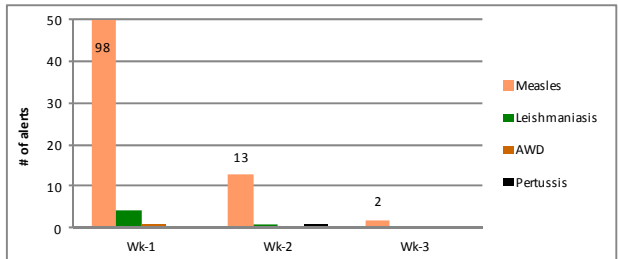


Figure-8: Number of alerts received and responded wk 1 to wk 3, 2013



Province Punjab:

433 health facilities from 9 districts in province Punjab reported to DEWS with a total of 193,261 patients consultations in week 3, 2013. Total 46 alerts were received and appropriate measures were taken. Altogether 38 for Measles; 7 for Typhoid; and 1 for Leishmaniasis. ARI trend showing decrease as compared with last week.

Figure-9: Trend of ARI, province Punjab

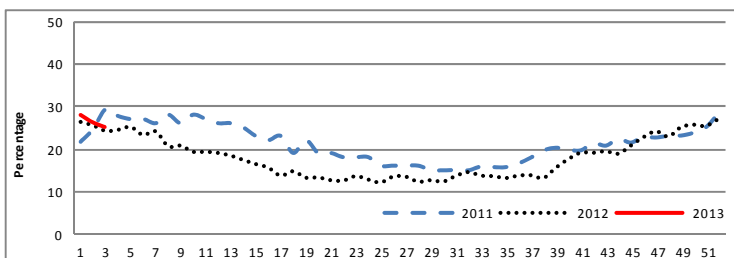
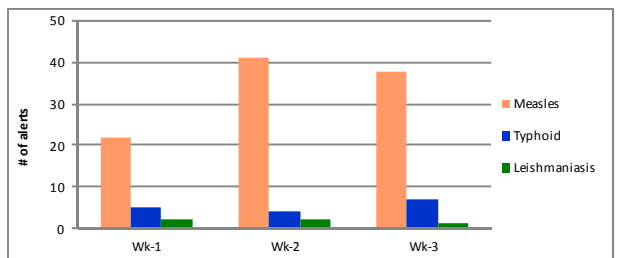


Figure-10: Number of alerts received and responded wk 1 to wk 3, 2013



Province Balochistan:

401 health facilities from 20 districts in province Balochistan reported to DEWS with a total of 64,954 patients consultations in week 3, 2013. Total 56 alerts reported and appropriate measures were taken in week 3, 2013. Altogether 45 alerts were for Measles; 9 for Leishmaniasis; while 2 for Suspected Malaria. ARI trend showing stability as compared with last week.

Figure-11: Trend of ARI, province Balochistan

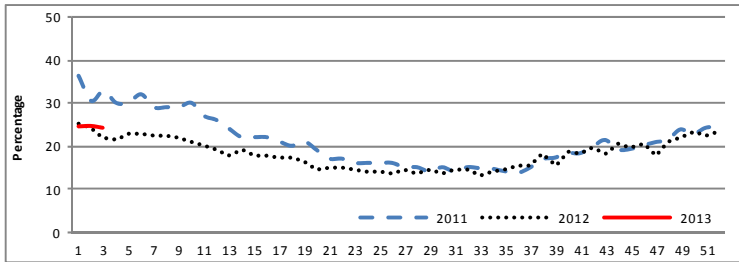
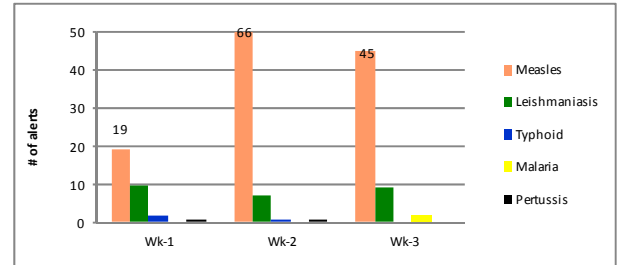


Figure-12: Number of alerts received and responded wk 1 to wk 3, 2013



Province Gilgit Baltistan:

28 health facilities from 5 districts in Gilgit Baltistan reported to DEWS with a total of 10,260 patients consultations in week 3, 2013. One Measles alert was reported in week 3, 2012. ARI showing a minor decrease as compared with last week.

Figure-13: Trend of ARI, province Gilgit Baltistan

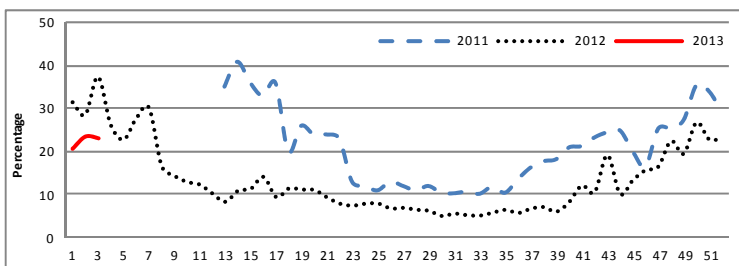
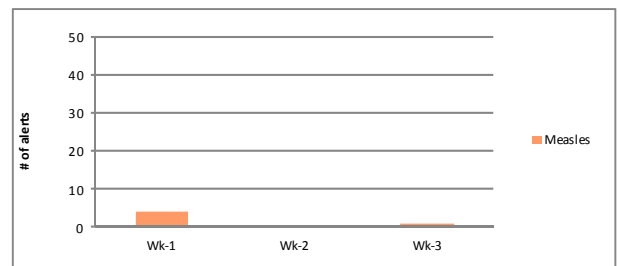


Figure-14: Number of alerts received and responded wk 1 to wk 3, 2013



FATA:

54 health facilities from 3 agencies in FATA reported to DEWS with a total of 11,744 patients consultations in week 3, 2013. 9 alerts, 5 for Measles; while 2 each for NNT and Leishmaniasis were reported in week 3, 2012 and appropriate measures were taken. ARI showing minor increase as compared with last week.

Figure-15: Trend of ARI, FATA

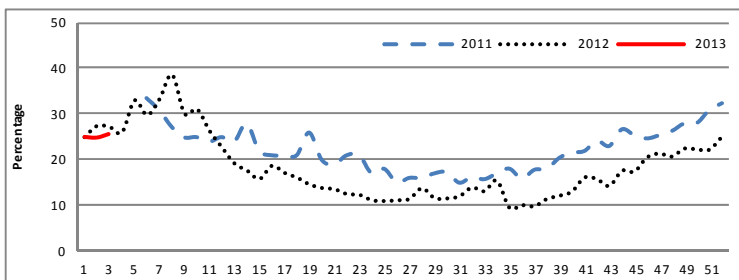
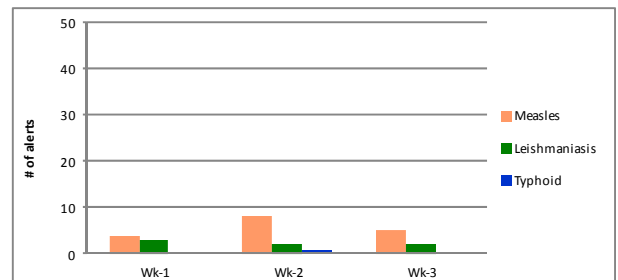


Figure-16: Number of alerts received and responded wk 1 to wk 3, 2013



State of Azad Jammu and Kashmir:

56 health facilities from 4 districts in AJ&K reported to DEWS with a total of 9,720 patients consultations in week 3, 2013. 7 alerts, 6 for Measles; while 1 for Leishmaniasis were received and appropriate measures were taken. ARI trend showing increase as compared with last week.

Figure-17: Trend of ARI, AJ&K

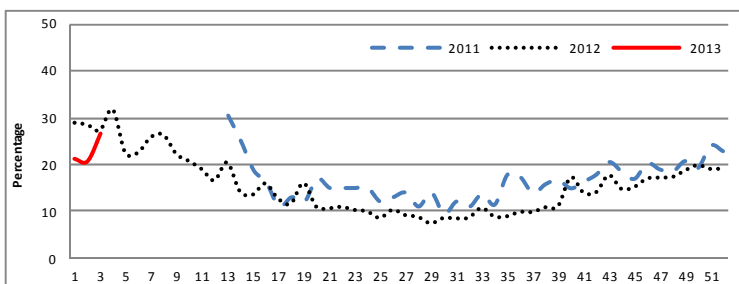


Figure-18: Number of alerts received and responded wk 1 to wk 3, 2013

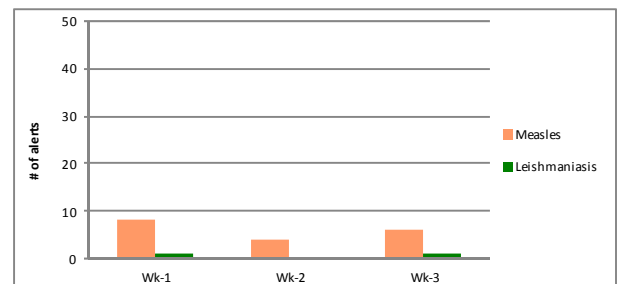


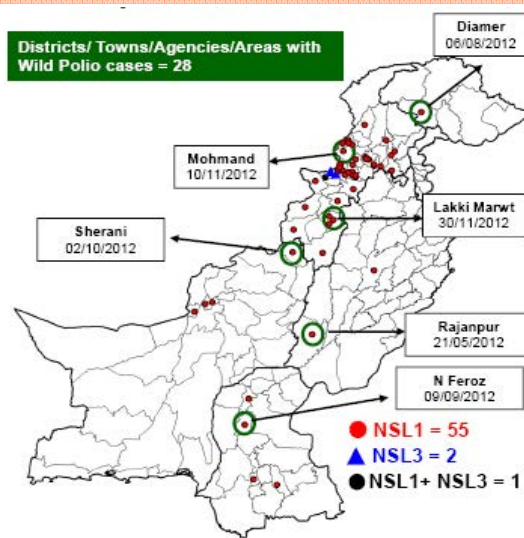
Table-1: Number of alerts and outbreaks reported and investigated with appropriate response

Disease	2012		Current week 2013 (week - 3)		2013 (Total up till week - 3)	
	A	O	A	O	A	O
Acute watery diarrhoea	635	171	0	0	2	1
Acute jaundice syndrome	113	22	0	0	3	0
Bloody diarrhoea	146	11	0	0	0	0
CCHF	68	41	0	0	1	0
Dengue fever	175	29	0	0	0	0
Diphtheria	60	16	2	1	2	1
Measles	5873	790	134	22	470	86
Pertussis	366	147	1	0	4	1
NNT + tetanus	560	0	3	0	10	0
Malaria	136	68	2	2	2	2
Leishmaniasis	899	78	18	3	61	8
Others	1528	58	8	0	29	0
Total	10559	1431	168	28	584	99

Distribution of Wild Polio Virus cases Pakistan 2011 and 2012

- As of 19 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	-	-	-

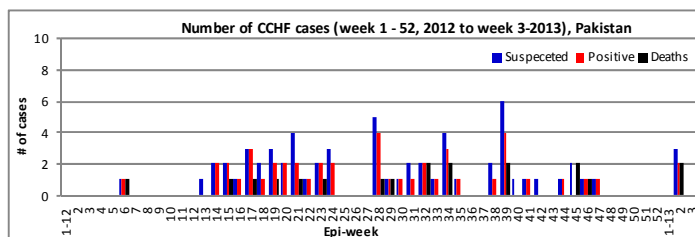


Follow up of CCHF

CCHF:

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 3, 2013, no new suspected CCHF cases were reported from Balochistan. In 2012, a total of 61 suspected cases have been reported throughout the country with 42 confirmed to date and 17 deaths; (CFR is 40.48%). 24 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 (postei) 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 3 (19 Jan 2013).

Province	2012 (Week 1 - 52)				2013 (Up till week 3)			
	# of Alerts	# of Outbreaks	# of Cases	# of Deaths	# of Alerts	# of Outbreaks	# of Cases	# of Deaths
AJ&K	163	6	265	0	18	3	52	0
Balochistan	446	118	1810	30	131	24	462	31
FATA	211	31	559	13	19	4	71	0
Gilgit Baltistan	37	1	50	0	5	0	16	0
ICT	27	2	63	0	5	2	21	1
Khyber Pakhtunkhwa	1988	108	3539	38	83	9	232	3
Punjab	807	38	1318	16	105	26	302	5
Sindh	2177	484	7219	213	114	21	1239	63
Total	5856	788	14823	310	480	89	2395	103

Alerts and outbreaks, week 3, 2013

